

STRAIGHT TALK: Voices of Experience from the New Mexico Office of the State Engineer



Moderated by: Senator Tom Udall (see Senator Udall's Opening Remarks on page 31)

Panel Members: John Hernandez, Eluid Martinez, Tom Turney, and John D'Antonio

John Hernandez was involved with and at the Office of the State Engineer (OSE) for almost all of the 50 plus years of his engineering career, joining the OSE a few months before Steve Reynolds became the State Engineer. He had a major hand in developing the State's Water Quality Act and the Water Quality Control Commission. In 1984-85, John worked at the OSE overseeing the case involving the City of El Paso well-permits in New Mexico. From 1990 to 1994, he worked on a three-day-a-week NMSU contract to help solve the problem of water deliveries to Texas on the Pecos River. In 1995 John worked under State Engineer Tom Turney on the Taos water plan.

John, NMSU Professor Emeritus, received a BS in civil engineering from UNM, an MS in sanitary engineering from Purdue University, an MS in environmental engineering from Harvard University, and a PhD in 1965 in water resources also from Harvard. He began his career with NMSU as an associate professor in 1965. In 1981, President Reagan named John deputy administrator of the Environmental Protection Agency. Also that year, he retired as a captain from the Navy Civil Engineering Corps Reserve. Two years later, John became the EPA's acting administrator. In 1984, he returned to NMSU after a brief post with the U.S. Department of Energy. John received many awards throughout his career including the prestigious Donald C. Roush Excellence in Teaching Award from New Mexico State University in 1990, and the Civil Engineering building at NMSU is now named Hernandez Hall in his honor. John is an honorary member of the oldest national engineering society in the U.S., the American Society of Civil Engineering, or ASCE.

Eluid Martinez served as the Commission for the Bureau of Reclamation from 1995 to 2001. He was nominated by President Clinton and confirmed unanimously by the U.S. Senate. A distinguished engineer with extensive experience in water resource planning and flood protection programs, Martinez served in the New Mexico Office of the State Engineer for 23 years, working as the State Engineer and the Secretary of the New Mexico Interstate Council on Water Policy, among

other positions. He was the first Hispanic American to serve as commissioner in Reclamation's 90+ year history, and is a native of Rio Arriba County, New Mexico. Martinez received an undergraduate degree in engineering at New Mexico State University and is a licensed Professional Engineer and Land Surveyor. He currently is with Water Resources Management Consultants LLC in Santa Fe, NM.

Tom Turney P.E. was New Mexico State Engineer from April 1995 to February 2003, responsible for the measurement, apportionment, and distribution of the waters of the State of New Mexico. During his tenure, among other accomplishments, he oversaw development of administrative guidelines for water management within the state and developed the process to begin to deny or approve protested water right applications, which had been backlogged for nearly three decades. Currently, Tom is a consulting engineer on water rights, water administration and policy, and water supply within New Mexico. He earned bachelor's and master's degrees from New Mexico State University in civil engineering and is a registered Professional Engineer in New Mexico.

John D'Antonio is a registered professional engineer in New Mexico and Colorado, former New Mexico State Engineer, and became the Deputy District Engineer for the U.S. Army Corps of Engineers Albuquerque District in November 2011. He has experience in hydraulic design, acequia rehabilitation, water resource management, water policy development and project management for both civil works and military construction projects. Before he was appointed by Governor Bill Richardson to the state's chief water post, John served as the Cabinet Secretary of the New Mexico Environment Department. He served as the Director of the Water Resource Allocation Program for the Office of the State Engineer from 2001 to 2002 and as the District 1 Supervisor in Albuquerque from 1998 to 2001.

John previously worked for 15 years with the U.S. Army Corps of Engineers as a hydraulic design engineer and was the project manager for Cannon Air Force Base and for the Acequia Rehabilitation Program. A native New Mexican, D'Antonio received a bachelor's degree in civil engineering from the University of New Mexico in 1979. He was a member of the Governor's Blue Ribbon Task Force on Water Issues from 1998 to 2011. During his nine year tenure as State Engineer, John was Secretary of the Interstate Stream Commission, Chairman of the Water Trust Board; Governor's Water Infrastructure Investment Team; and the Governor's Drought Task Force. He also served as the New Mexico Commissioner to the Rio Grande, Costilla, and Upper Colorado River Compacts.

[The following conference panel discussion was transcribed and edited for these proceedings. If you would like to listen to the original webcast, please go to the NM WRRRI website at: <http://wrrri.nmsu.edu>, click on the 57th Annual New Mexico Water Conference – August 28, 2012 and click on "Webcast."]

Senator Udall: This is one of the most exciting panels that I think we are going to hear today. While sitting in Washington doing a bit of planning for this conference, I thought we should have a panel with former engineers and call it "Straight Talk: Voices of Experience from the New Mexico Office of the State Engineer." I really believe that these guys have the ability to give us the straight talk on water in New Mexico. Before I start, I want to thank our current State Engineer, Scott Verhines, for his remarks during lunch. He is a dedicated public servant with a tough job.

I personally wanted to get this group of former State Engineers together so we could hear lessons from the past that we can apply to the future. Let me make some brief introductions and then we'll begin the discussion. First, on my left, is John Hernandez, who spent almost 50 years in and out of the Office of the State Engineer under several administrations. He is professor emeritus here at New Mexico State University and is a tremendous resource for our conference. Next to him is Eluid Martinez, who was State Engineer from 1991 to 1994, and who also served as Commissioner of the Bureau of Reclamation from 1995 to 2001 as its first Hispanic Commissioner in its history and is also a graduate of New Mexico State University and a

consulting professional engineer. Next to him is Tom Turney who served as State Engineer from 1995 to 2003 and was a leader on water management issues. He, too, is an NMSU graduate and consulting professional engineer on water issues. And lastly, John D'Antonio is our most recent past State Engineer serving from 2003 to 2011 and is currently the Deputy District Engineer for the U.S. Army Corps of Engineers in the Albuquerque District. Welcome everyone.

To add a little diversity to our panel, John Hernandez received his engineering degree from UNM, so it's not exclusively a New Mexico State University panel. I want to thank all of you for traveling here from Santa Fe and Albuquerque to participate. My goal is to stop talking and facilitate a great discussion. As former Engineers, you are able to come to this conference and be truth tellers. As State Attorney General, I became very familiar with the process of being appointed by the New Mexico Senate, and once you are appointed, you can only be removed for "cause." Appointees, like the State Engineer, should be independent and these guys are independent. They are going to tell us the truth about water. We'll let them start by commenting on anything that they have heard today.

John Hernandez: I like the title of this panel—straight talk on difficult decisions. I'm going to talk principally about one concerning the Pecos River, which I'll talk about in a bit.

Eluid Martinez: I want to take a few moments to acknowledge Dr. John Hernandez. If it weren't for the fact that Bruce King was elected governor in 1994 instead of Frank Bond, John would have been State Engineer instead of me. He has taught former State Engineers and advised them and I have a certificate here making him an honorary State Engineer for the purposes of this discussion. I think the State of New Mexico owes John a lot. Thank you, John.

Let me leave you with some starting thoughts. New Mexico water rights administration cannot be compared to water rights administration in other western states because New Mexico is unique in its problems and its water uses. When I was State Engineer, I recall attending a meeting with other western engineers and one of the state engineers, I believe from Montana or Wyoming, told me he was quite proud of the fact that the earliest water priority in his state was from the late 1880s. I looked at him and said, "Is that early?" In New Mexico, inhabitants were using water prior to 1000 and by the 1700s, some of the rivers were fully appropriated. We are dealing with a completely different kind of use—by Indian tribes, Hispanic acequias, and Bureau of Reclamation projects. When Colorado and other states say they have taken care of their adjudications, they have been adjudicating Reclamation projects, but they have not dealt with many Indian water issues and surely not some Hispanic acequia issues. New Mexico issues are completely different than other western states. Another recollection I have from my days as Commission of Reclamation was visiting Hoover Dam. The Dam's staff took great pride in showing me the generators at Hoover Dam. They showed me the penstock pipes that come into the generators and they were approximately 15 feet in diameter and flowing full of water. You could probably put all of New Mexico's water flowing in its rivers into one or two of those pipes. But the other interesting thing was that when I went up to Grand Coulee Dam, they showed me their generators and reminded me of the penstocks at Hoover Dam that were 15 feet in diameter and the spillway

tunnels that you could drive a semi-truck through—and those tunnels were the size of the penstocks into *their* generators. When you talk about the Columbia River, all the water in New Mexico I administered over ten years could probably flow through one of those penstocks in a few seconds. I'm not saying they don't have their water issues on the Columbia River or on the Colorado River. But what we have in New Mexico is unique in terms of how it administers water. When somebody says that experience in Australia should teach us something about New Mexico, it might, but it might not.

Tom Turney: Thank you, Senator, for organizing this conference on water scarcity, which is a very important subject. We saw a graph earlier this morning that included the last couple thousand years of precipitation. Figure 1 is basically the same graphic the Senator showed earlier this morning; this one was developed by the Office of the State Engineer. It shows average precipitation over the last 2100 years. The graph was prepared from research on trees near the Bandara ice cage near Grants. The startling thing to me about this graph, and I studied it for years, is that if you look to the years prior to the 1950s, it shows that there were a whole lot worse conditions that have occurred in the past. History tells us that drought is going to happen again and what we are experiencing now will probably continue and it may get worse before it gets better. This kind of conference is totally appropriate as there are hard decisions that are going to have to be made in the future. This graph speaks to the necessity for establishing policies, whether they concern conjunctive management, priority of use, or issues of that nature.

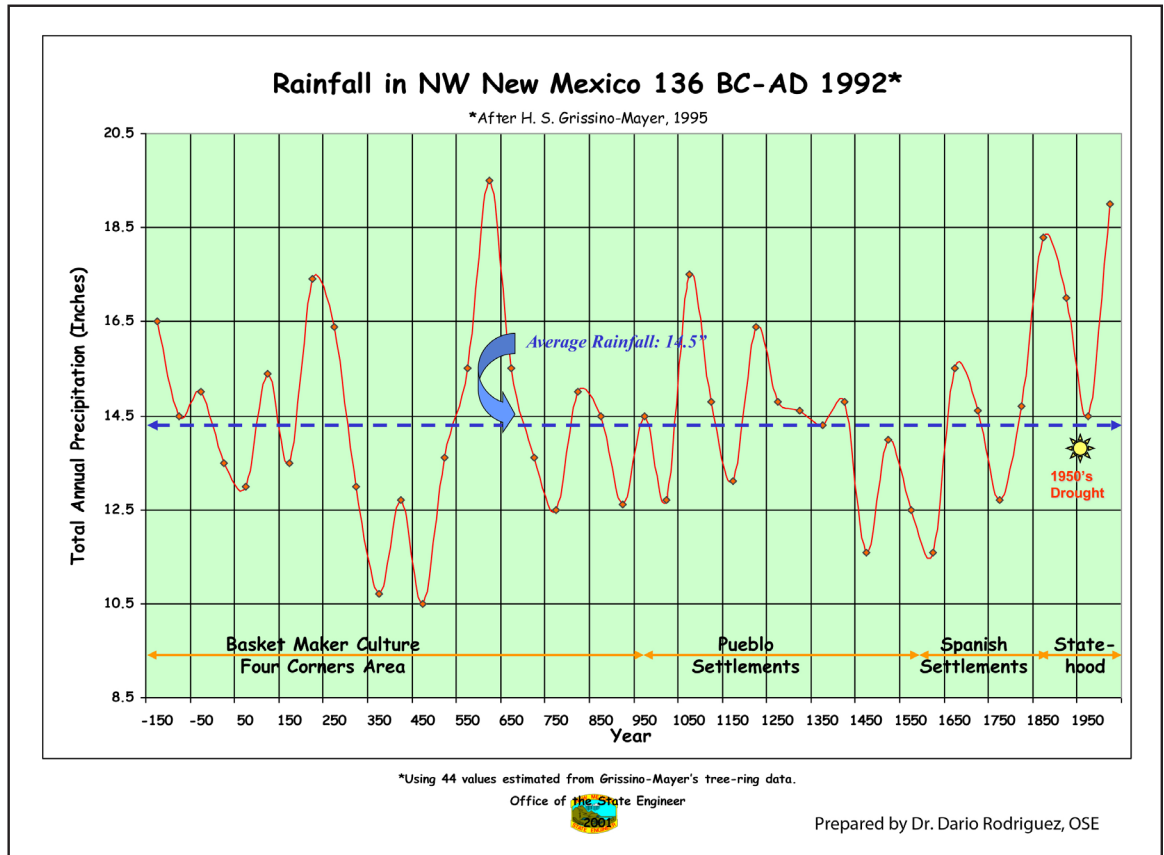


Figure 1. Rainfall in NW New Mexico, 136 BC-AD 1992

John D’Antonio: Good afternoon everybody. It’s great being here back at the annual water conference. What’s so great about New Mexico and about water is that although it can be polarizing the times, it’s also rewarding when we can sit here in a group like this to discuss the issues. I see many people in the audience with whom I’ve dealt: water managers, mayors, city councilors, technical people, former staff and colleagues at the Corps, from in and out of state. The water community is here sitting in this room and no matter the differences that we’ve had over the years, the contentiousness that we’ve had, I still can consider it somewhat of a family. I want to thank Senator Udall for laying some of the groundwork on what I inherited when I became State Engineer. It is really about people—we have two million people in the State of New Mexico and we have very diverse water uses. We are the poster child of water use within the United States. Beside the acequias and the historical water use by 22 Native American tribal entities, we have rural folks all over the state, growing municipalities, environmental groups, and on and on and on. We have various power and energy folks coming to New Mexico now. We have every single water user, interest groups, and stakeholder groups that any other state has and more. What I would like to impart at this point is that it is a tough job being State Engineer. I think we all know what current State Engineer Scott Verhines is going to be going through in the next few years. It also is about people and working together for collaborative solutions. We can’t get anywhere unless we collaborate.

Senator Udall: One of the big issues that I hear about from people like you in the audience and when I do Townhall Meetings around New Mexico, is that people are concerned about the pressures on the Rio Grande. I know we have a number of other rivers in the state, but let’s stick with the Rio Grande as an example. Some people say we are inevitably going to keep growing New Mexico; we are two million now, we are going to be four million soon, and we will continue to grow beyond that. So the pressures on the Rio Grande are going to be enormous as well as on our other rivers. It was pointed out to me that given the current drought, if we didn’t have water stored in the reservoirs in northern New Mexico, and if we didn’t have the water from the San Juan-Chama Project, the Rio Grande would be dry right now. That is a pretty shocking situation, but that is where we would be. How do we address this? Do we ask ourselves whether we are going to have unfettered growth? Where are we going to get the water from? Are we going to go out and raid agriculture? We’ve heard many of our speakers talk about acequias and agriculture and how they are a vital part of New Mexico. So where are we going to get that water and how are we going to get it? John D’Antonio says we need to cooperate and work with each other. But what are the changes that need to be made?

John Hernandez: Years ago, I sat in on an Intel Corp. hearing on water that required the State Engineer Eluid Martinez to make a tough decision. The question concerned whether Intel’s water use was in the public interest.

Eluid Martinez: I have the distinction of being tagged as one of New Mexico’s last water buffalo State Engineers. The old State Engineers who were called water buffaloes were principally engineers whose main activity was developing water infrastructure. There has been some controversy since then that Reclamation and state water officials/buffaloes dammed every river in the West and dammed the environment. It is interesting how things turn 360° and now we are wondering if it were not for those reservoirs, where would we be? At any rate, earlier State Engineers—and New Mexico was

fortunate to have had one State Engineer for 35 years, Steve Reynolds—were principally involved in making sure that New Mexico was able to exercise all the waters that have been apportioned to New Mexico through its compacts. Conservation of water meant using every drop that you could put to beneficial use. Then things started to change: the public perception of the use of water for environmental purposes and the concern about growth and how water supplies would meet new demand. I recall the first meeting of this group that I attended as a student at New Mexico State University over 40 years ago. And the last time I addressed this group was as Commissioner for the Bureau of Reclamation. The issues discussed 40 years ago or 13 years ago are the same issues sitting before us today. How do we meet increasing water demand with limited resources? I subscribe to the old buffalo theory that you have water, but you do not have enough water to meet all existing demands and all future demands. Former State Engineer Steve Reynolds used to say that if you had a reduction of 10 to 15 percent of agricultural demand, you would double the amount of water available for nonagricultural or municipal uses. The problem is that in New Mexico, as well as throughout the United States, we are attempting to meet existing demand as well as additional demand. I think that is where the hard decisions are to be made: in times of shortages, where does the water flow? Some states have priority of water use. In other words, in times of water shortages, by statute, municipal and domestic uses take first precedence. New Mexico does not have this under its water law. All beneficial uses share equally. The point I try to make is that we are in a water-short era and will continue to be in water-short situations as long as we try to meet existing demand as well as future demand. You cannot accomplish both objectives.

Tom Turney: What Eluid says is very true. There is not enough water to meet all existing demands and all future demands. In the future, there will have to be administrative changes. The decisions the State Engineer makes are unpopular a lot of times. Everyone who sits up here knows that—you make a decision and 50 percent of the people like it and 50 percent of the people hate it. Some get on the phone and even threaten you physically because you decided a certain way. The State Engineer has some really tough decisions ahead. Concerning the concept of priority of water use in New Mexico, I have noticed that people will argue in court that every use of water—whether industrial, municipal, agricultural, Indian use—everybody wants to have the number one priority and the maximum amount of water they can get. That is just the way the system works. I think it is a terrible mistake to try to change today's priority system or to change the priority of some special user/special interest group. I do not think that will be any better than what we have now. There will be controversies over the priority system no matter what you have. When the New Mexico Constitution was formed—and John Hernandez's grandfather actually sat in on this meeting—it created the priority in time clause and I think it ought to be given a chance to work and we are lucky that we have it. The State Engineer is going to face some very hard decisions ahead on the usage of water. It is easy to say that if we take a lot of water from agriculture, we can double the population of the state. I do not think it is that easy. I personally think it would be a terrible mistake if we do away with the state's historical heritage of agricultural use of water and steps need to be taken to protect New Mexico's roots.

John D'Antonio: The big question is: Where is the visionary leadership? Where is the next San Juan-Chama Project? If it weren't for the visionary

leadership 40 and 50 years ago, we would not have that transmountain water coming into Albuquerque and Santa Fe today, or the drinking water project, or the Buckman direct diversion. Those projects had their beginnings decades ago and the really good thing about those projects is that they are from a renewable source of supply. That has taken pressure off our groundwater. I heard this morning discussion about the Ute Pipeline Project and how that may not be a good idea. That project has been fully vetted; it provides a renewable source of supply. The investment was made in the 1960s to build Ute Reservoir. That reservoir can bring a pipeline of water down to New Mexico's eastern communities. Similarly with the Gila project. The Gila is coined as the last free-flowing river within the state of New Mexico, although it is not really. The point being that we certainly need more water in the State of New Mexico. A comment was made that we don't need that water in New Mexico; we can let it flow down to Arizona. That is not the visionary leadership we need for New Mexico. We need more water. I want to point out the leadership at the Interstate Stream Commission and the leadership of Commissioner Jim Dunlap who has been very courageous over the last few years. A lot of work has been done under his leadership and Director Estevan Lopez. They have been talking about new supplies of water. How do we get new water infrastructure built within the state? How do we augment supplies to the state? We need to look for the next San Juan-Chama Project for the State of New Mexico. It is about having that visionary leadership. We cannot do it alone; we'll partner with local entities, other states, and certainly our federal counterparts and that is where the Bureau of Reclamation comes in. Reclamation is a great partner as is the Corps of Engineers.

Senator Udall: There seems to be some sympathy on the panel for the idea that you do not necessarily deal with population growth by raiding agriculture or acequias. But what can folks do to protect our agriculture? As former State Engineers and advisors to the State Engineer, what would you tell them they should be doing in order to try to protect rural areas, acequias, and agriculture? Is this something that is decided within the Office of the State Engineer or is there something that can be done outside?

John D'Antonio: Certainly the State Engineer is the arbiter of all applications that come forward. There is no new water in the State of New Mexico. You must file an application if you are going to request a change in place or purpose of use. We are fully appropriated in just about every basin. There are a few areas where we can consider new appropriations but very few. Four million acre-feet of water is diverted every year in New Mexico. In round numbers, three million acre-feet or 75 to 78 percent is used by agriculture. We could look at taking out a bit from agricultural to fund that growth, but where is that water and how do we do it? Growth in New Mexico is occurring in the Rio Grande corridor. Half the state's population, about two million people, lives from Cochiti down to Las Cruces. There is high demand there and not enough farmland within the Middle Rio Grande Conservancy District and elsewhere to execute change in place and purpose of use permits to allow for consumptive use of water for the growing cities and municipalities. So where do we get the water? It is through conservation, reuse, or new supplies, which could be brackish water, deep groundwater sources, desalination, or actually going into old water transfers. That has been tested a couple of times. During my tenure, an application for a Fort Sumner pipeline was denied because it was too speculative. Another was filed from the San Augustine Plains. You are going to see those types of applications

continue. The economic engine for the State of New Mexico is the Middle Rio Grande and that is where the jobs are going to be. That is where we need additional water resources. Hopefully at some point, we will have that balance. We must have agriculture, we must maintain an agricultural community that allows us in drought years to make short-term transfers out to augment other supplies. But the water needs to stay in agriculture to a certain extent although a small part could be transferred out for permanent use.

Tom Turney: I'm glad John brought up water conservation. It is important and will continue to be very important for cities, municipalities, and water associations to practice conserving water to decrease their demand. The Middle Rio Grande Conservancy District has dramatically increased their efficiency. I think they have cut their diversions close to 50 percent in the last few years. This transfer of water from ag to municipal and industrial (M&I) will continue. The State Engineer could create a mechanism for moving water from agriculture to M&I purposes on a short-term basis. The transfers could be done for just a few months, which is not the way transfers happen now. Currently you come in and take the water rights from the agricultural land and dry up that land. Some new transfer mechanism could be created that is different from what has been done historically. Another example of the demand on agricultural uses is a situation occurring right here between the city of Las Cruces and the Jornada. There is a small separate underground water basin that is not connected to the Rio Grande. It exists as an isolated little basin. There are proposals to develop a community of several hundred thousand people on this underground water supply that we know won't last forever. Purely from a planning perspective, it is a terrible mistake as eventually those communities will run out of water. Meanwhile, they'll look over here and see all the water that is being used for agricultural purposes. It is going to be very hard to tell 100,000 or 200,000 people, "Sorry, you are going to have to leave." But they will get their way. I think the legislature will be persuaded to encourage a water transfer. But for now, you cannot have a policy that will dramatically impact agriculture the future.

Eluid Martinez: Let me pick up where Tom was headed. The current transfer process is so cumbersome that if a city begins a request to transfer water for municipal purposes on a short-term basis, the city could disappear before the Supreme Court enters a decision as to whether your permit will be approved or not. It needs to be advertised, it is subject to protest, subject to District Court appeal, and so on. What that does is to force municipalities or water users to look and acquire water rights long-term so that they are in a position to be able to use the water when they need it without having to go through a transfer process that might not get them water. So perhaps legislation could be put in place that allows transfers in times of drought from ag to M&I purposes short-term and quickly. That way a farmer, instead of farming in a particular year, would provide his water to others short-term. That accomplishes two objectives: municipalities get some short-term water and the farmer continues to farm while leasing his water short-term.

The State Engineer has been viewed in the last 10 to 15 years by some groups as being the last avenue of hope to prevent growth or to use water as a tool to prevent certain activities. To go back to the Intel application that John Hernandez mentioned earlier, Intel Corporation wanted to expand their business and protesters' biggest objection was not water issues but growth issues. The protesters asked the State Engineer to use his authority over

water to manage growth. My order in that decision, which was not appealed to the District Court and therefore there is no precedence, took the position that the role of the State Engineer should not supplant the role of the local planning and zoning officials. If the State in New Mexico had gone out and recruited business to New Mexico and the local county had zoned property or had provided bonding authorities, and the local planning commission had done their zoning, I did not believe that it was the place of the State Engineer through a water issue to say that growth was not a good thing. I think that goes with what Paula Garcia was saying this morning. There is not enough case law or State Engineer decisions on the issue of public welfare, but I will subscribe to you that there is the beginning there.

John D'Antonio: When I became State Engineer, the legislature recognized that the adjudication process was slow, drought and water challenges were imminent, and we could not wait for full adjudications. They directed us to put in an expedited transfer process, promulgate rules and regulations, and do what was necessary to actively manage our water resources. From 2003 to 2011, we diligently went on that path. We established 17 basins within the state, we put in project management plans for all those basins, and we put meters in place as best we could. When I left the office, we had in excess of 90 percent of meters in place and 100 percent of water masters out in the field. We promulgated a general set of rules and regulations that went through a legal barrage of challenges. We have been trying to do what is necessary. You cannot manage water if you do not measure it. Once you measure it, you have to put things in place and follow through. From my perspective, I got the hand-off from Tom Turney and Eluid Martinez who started this process. I needed to get water management into the next century to do managing and expedited transfers as Eluid mentioned. That is one way I think we were on the cutting edge with respect to other states within the West as we were trying to put the process into place. A couple Supreme Court cases are still pending with one of them on active water resource management and that has challenged our ability to continue. Good or bad, there are checks and balances. It seems like whenever there is any change to the status quo, it gets challenged and the legal community tends to muddy it up just because they can. I wanted to add that it has not been for a lack of trying.

Senator Udall: An important point has been made on this question a couple of times. As Eluid said, the Office of the State Engineer should not be the place where the position is taken that growth is not a good thing. I think the question people wonder about when you ask about growth is where do we make that decision? It seems to me that short-term water transfers allow communities to have that discussion on growth. In a democracy, if you're going to make choices on growth and where the water for that growth will come from, it should be the community as a whole that takes part in the discussion. I think short-term water transfers would allow a city or a village to have that discussion themselves. People in those communities can come in and say that their water rights are being taken away and the full community can have that discussion. They can discuss whether they want to go with conservation, or with additional infrastructure, or where they want to head. That is a very worthy discussion to have. It should not be put on the State Engineer. It should be a decision made by the whole community.

John Hernandez: I am going to talk about a hard decision made around 1991-92. I was working for Eluid and he asked me to help him solve the issue on the Pecos River. We were faced with a Supreme Court decree that said we

had to deliver water to Texas on the Pecos. Steve Reynolds always said, “The Supreme Court is not always right, but they are always supreme.” We were faced with two hard decisions. One was to call priority: that means you cut off all junior water rights. On the Pecos, we would have had to cut it off to 1932 water rights in order to come up with about 18,000 acre-feet of water for delivery in Texas. I went around southern New Mexico asking what people thought about declaring priorities and cutting off these guys. I found amongst the bankers, farmers, and others that they did not want that to happen because they would go bankrupt and the banks would go under. The other alternative was that we look for state funding to buy rights from some of the water users in the basin because about 18,000 acre-feet of water would have a marked effect on the flow on the Pecos. It was not hard to sell that idea to the governor. King was the governor at that time and we asked him if he knew he was going to be faced with a Supreme Court decree and faced with contempt of court if he did not somehow manage to send the water down to Texas on the Pecos. He looked around and said, “Waterman, are we talking about one term or two terms of office?” I told him we were talking about two terms, but this was a serious problem. He opted for the buyout plan. It was a hard decision and it was made.

Eluid Martinez: If you listened carefully this morning, there was discussion about the priority system. But whenever this issue has come to a head, it has evolved into an acquisition program. Commissioner Connor said this morning that Reclamation is buying water and retiring water to meet needs. A priority enforcement system in New Mexico—unlike Colorado, which is different—as I visualize it, would cause chaos. My advice is that it is a good hammer but it is a hammer that does not work. We need to make sure that we never force a priority call in the State of New Mexico because it will cause economic chaos. The alternative will cost money, but I understand the federal government has a lot of money for water projects. Congress and the administration found close to three quarters of a trillion dollars to keep some Wall Street bankers from going under. I am sure that \$50 billion, which is a drop in the bucket, could be found to assist the western states with their water problems.

Senator Udall: I would like to give each of you a couple of minutes for your final thoughts. We are fortunate to still have Commission Connor and State Engineer Verhines in the audience. Any final thoughts and advice in terms of where we go from here?

John Hernandez: When I left the State Engineers office to come to NMSU, Tom Turney was State Engineer and I remember one of his staff members coming to me and giving me this bottle of water. The label reads: *New Mexico's share of the Pecos River water as decreed in Texas vs. New Mexico, No 65; entrusted to John Hernandez—in case of a shortfall, drive to the stateline and deliver this to Texas.*

Eluid Martinez: I tend to not give advice to State Engineers because having walked in those footsteps, they need to their own job. I would leave it at this: I have been in the water business for 40 years, both at the state and national level, and while the past has taught us experiences and has set criteria for how things should be done, do not depend too much in the past. Look to the future and look out-of-the-box because decisions in the past were made on past information. If you have new information, new ways of addressing problems, look to address problems using the new status and not the past.

John Hernandez and I come from the past and we can share our experience, but it is the future where our problems will be solved.

Tom Turney: My advice is to keep the lines of communication open. Do not move immediately into court. The court route takes a long, long time and you may not like the outcome. Keep discussions alive among all the water users. Everybody has their own particular demand whether it is endangered species, municipal and industrial use, and so on. I think better solutions come out of dialogue and discussion. Going through the court system is sometimes necessary, but it should be the last resort.

John D'Antonio: I think we might have heard a bit of revisionary history this morning and afternoon on a couple of items. But one of the things that I think is so very important is to recognize good data and how imperative it is. We need good science and good data. A lot of smart folks are out there; the state can get involved in a lot of collaborative efforts with the federal agencies. We can look to NASA, NOAA, USGS, NRCS and they are all involved with water in some form. One of the things I am going to try to do is to take some of what I learned while working for the state and participate a bit more in the WestFAST program, which is a western federal action support team that works with the Western States Water Council and the Western Governors Association on western water issues. If we are going to get anywhere in water, we are at the point where we need regional solutions. We need big and regional answers to a lot of our problems. We tend to look too small sometimes at what the answer might be. We need to be able to leverage federal and state monies, and we've had some projects with severance tax monies going to the Water Trust Board and through the Finance Authority to get projects built. We need to better leverage that money and bring in federal programs as many of these projects are too large to build on their own. We need to collectively base decisions and solutions on good sound scientific data information and on a collaborative approach. I think New Mexico is getting there. The knowledge in this room is tremendous. Thanks to all of you for your patience and listening to us ramble up here. It has been a pleasure.

Senator Udall: Thank you panelists.

I want to take a minute to thank the members of my staff and staff here at New Mexico State University who have worked very hard on this conference. My staff, Elizabeth Driggers and Marco Grijalva have helped. We had a former staff member, Xochitl Torres-Small who started the early organizing of this conference. The University of New Mexico Law School stole her away from me. My two policy people out of Washington D.C., Drew Wallace and Jeanette Lukens are here and there many others who contributed including Dave, Beverly, Sarah, Bianca and Marisa—thank you for all of your work. Let's give one last round of applause for the Straight Talk former State Engineers and advisors.