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ALBERT E. UTTON MEMORIAL WATER LECTURE

PRIOR APPROPRIATION LAW AND FUTURE WATER ALLOCATION: PRESERVING WATER FOR FUTURE GENERATIONS

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A MEMORY OF AL UTTON, PERSUASION THROUGH CIVILITY AND HUMOR

Thank you Tom for that introduction. It is indeed an honor to be here today to give the Utton Memorial Lecture. Before going into the substance of my talk, I want to say something about Al Utton and what he did for water law in New Mexico and all around the country and the world. He was a man who lived a commitment to a principle that I share: the principle that approaching people with fundamental honesty and civility under all circumstances, in the end, will yield positive results. An example of this comes to mind. Al once put together groups of experts in Belagio, Italy, to discuss transboundary water issues. The groups came from all over the world. Their goal was to have a discussion about optimal resolution of international and interstate water conflicts.

At the opening session some participants from regions involved in a tacit cold war with one another refused to speak. Rather than yield to this behavior, he simply observed, "I understand the dissonance, but we can work through this." It was an amazing phenomenon to see Al charm people into resolution of heated issues. I also observed him use these skills as chairman of the New Mexico Interstate Stream Commission and as Dean of the law school where he was a fellow colleague of mine. He wrote prolifically on a number of topics and always within the text of a conflict discussion he signaled a way out with a compromise making both sides better off.

We must have spent five minutes, maybe 10, maybe 15, looking for the green flash and then Al says, "there it was!"

I remember in Belagio at that conference he turned to me as we walked into a room of angry faces and said "looks like this might be a hard audience." There was a Palestinian water lawyer, an Israeli water lawyer, and a Russian. They had already had heated arguments and were not speaking. The sun was going down, and we were scheduled to begin our opening session. Bad feelings filled the room. Suddenly Al said "see that sunset over there?" They all looked. "Just before the sun sinks into the ocean there is a moment of green, a green flash. You've got to look for it." All turned to look. These enemies were all looking for the green flash. Al suggested he had heard it was caused by the weather. This led to a discussion of the weather in a border part of Russia where the rivers were facing drought. The representative from Israel looked unconvinced. We must have spent five minutes, maybe 10, maybe 15, looking for the green flash and then Al says, "there it was!" They all said, "I didn't see it." And Al said, "I did," and I said, "I saw it." The topic turned slowly to the Jordon River and the death of the Black Sea and a number of topics that were very important to these people, all of which happened to be on the agenda for the meeting. I don't believe there was a green flash in the sky, it was a flash of affective brilliance that defused borders and brought people together in a way few will ever duplicate today.

It was really a loss for me when Al passed away. There was something the other day that I found that refreshed my recollection as to his incredible sense of humor. He did funny things, but not always so funny if you were the recipient. Because he was known around the world he would get a lot of different material on water law. The humor was that he would often like to "share." One day when I arrived at my office at the law school, I looked on my desk and there were five, big, 5-inch thick notebooks. On them was a note written in Al's large handwriting. He said "Chuck, I know in your work with the World Bank, this should prove very useful to you." And on the caption of the notebooks it said: The Water Law of China. I thought this is incredible; this is great. Then, when I opened the first volume and looked, it was all in Chinese.

Another example of Al's humor was his behavior on airplanes. He would get on an airplane, turn to the flight magazine and make gifts to people of all the free offers from those planes. He would sign you up for free information on obscure acupuncture correspondence courses or information on strange get rich schemes. He would fill out the postcards with something like your name and the law school address. I once received three huge magazines on cosmetics and youth potions addressed to Charles Dinglemars, Professor Shyster Emeritus of lawyering. That was his sense of humor. That humor, that respect for others and his gift of charm made him a man I and many of you in the audience will miss today and continue to miss in the future.

THE PRIOR APPROPRIATION DOCTRINE, ITS BENEFICIARIES AND THE NEED FOR CHANGE

The topic, prior appropriation, requires a little bit of definition. Most of you understand the basic definition, but we sometimes lose track of which members of society benefit the most from this doctrine. The prior appropriation doctrine of water law is of course that the first person to place water to beneficial use has the better right to use of that water. It exists in virtually all Western State constitutions. The principle is that if you beneficially use the resource, then you are entitled to have a better right in times of drought than someone else, that right being determined by the date you first applied the water to beneficial use.

Who are the beneficiaries of that doctrine? The beneficiaries in the Western United States can be loosely described as follows. Our economist friend will like this functional definition; the beneficiaries are the hardy risk-taking individuals who invest capital first by diverting the water and creating wealth. They are rewarded for their investment by being allowed the privilege of receiving the most water in times of shortage. There is, in effect, a bargain struck between those expending their capital to develop that resource and produce things and the state. For expenditure of their capital and producing wealth, these individual water right owners are given the best right in times of shortage.

There are other beneficiaries. The courts throughout the nation recognize that Congress or mere aboriginal presence can offer benefit under that doctrine. Native American tribes are provided a priority date. Their quid pro quo for receiving an early priority date is not the actual use of the water but their mere presence of holders of an historical equity in the resource irrespective of use. If we think about it, if it were not for the prior appropriation doctrine establishing an early priority date, their aboriginal presence or the latter date of their treaty, or act of Congress creating a reservation, would be assigned a value of zero. The tribes would be forced to bargain in today's society for a share of the resource in a way that under values their special value to the overall culture of this nation. Thus, the prior appropriation doctrine is vital in preserving their special place in our society.

A third set of beneficiaries in New Mexico is the traditional Hispanic cultures of New Mexico, built around acequias. These are families whose use of water and physical presence predate the Treaty of Guadalupe Hidalgo and are the earliest documented non-Native American uses of water in this region. While the rights of land grant residents were dramatically watered down by the unfortunate Supreme Court cases interpreting the treaty of Guadalupe Hidalgo, the prior appropriative water rights of these groups survived those cases and give them a deserved special place as a function of their early use of the resource.

Finally, the most important characteristic of the water resource under the prior appropriation doctrine is that the rights can be transferred, sold or leased to others in times of shortage.

Finally, the most important characteristic of the water resource under the prior appropriation doctrine is that the rights can be transferred, sold, or leased to others in times of shortage. The beneficiaries of this characteristic are the entities that do not have sufficient water to survive a drought, but who can acquire rights from others in dry years and survive the weather extremes of our arid state. This ability to acquire rights from others through a market transaction is of course now loosely referred to as acquiring water rights in the water market.

Prior appropriation doctrine works best if water can move from one set of users to another while maintaining the same priority date. In this example, economists would tell you that both the buyer and seller are made better off when such a sale or transfer takes place. Under this system, people with early priority dates will get the benefit of the capital value of that water right and the property it represents. This benefit could come in the form of a cash exchange to a private individual, a government loan or grant to build a water system for an Indian tribe in exchange for a sharing of shortages, or a program of forbearance whereby individuals are paid to forbear from use of their priority date and leave water in the stream for wildlife purposes.

PRESSURES TOWARD THE POLITICAL ALLOCATION OF WATER

The prior appropriation doctrine has currently come under fire from a lot of individuals. Who would you expect those to be? It takes very little thought to surmise that the people challenging the doctrine would be the people who put the water rights to use most recently and have low priority dates or in the case of environmental groups seeking water for species, no priority date at all, or politicians who realize that the movement from a property based priority system to a politically allocated resource process would yield incredible political clout to the holder of that resource. As Robert Dahl wrote in his famous treaties "Who Governs," politics is the allocation of resource among alternative political ends, and in New Mexico the most precious of all resources is water.

...creative methods of voluntary adjustment of the right to use water in times of shortage are developing in many basins of New Mexico and this is a good thing.

Someone who has the low priority date or no priority date, will immediately conclude in times of drought, wait a minute, "this is a bad doctrine, this makes no sense, I should be able to – we need to allocate this resource politically. We need to look at society together as we reallocate it. What is this prior appropriation stuff? Why should the date you first used water be relevant? Society has changed."

It is easy to understand the frustrations of environmental groups who see other values in the resource, such as the needs of the riverine systems themselves. They voice very legitimate concerns. Likewise, and often more powerful on the political spectrum, you will find the major municipalities, urban interests, developers who need the resource to fuel the engines of capital promoted by growth.

New users balk at the notion that somebody with a lower value use in economic terms or making up a minority portion of the population should control this resource. So there is a lot of opposition, a vague and unlikely alliance between New West environmentalists and major developers seeking to quench the thirst of growing Western megalopolis demand in places like Denver, Colorado. While they may fight each other for the resource, they both share the common perception that it should be allocated politically. This of course raises the adage you have be careful what you wish for.

The opposition has grown so great, in the *High Country News*, in a book called *The Water Handbook* a very good personal friend of mine named Charles Wilkinson pronounces the doctrine as dead. He took it upon himself to write the obituary for the prior appropriation doctrine. It reads:

> "As has been so widely reported, Mr. Prior Appropriation passed away in January of 1991 at age 143. Prior was a grand man who led a grand life. By any standard he was one of the most influential people in the history of the American West. But sadly his day has passed."

Well that would be the view of the *High Country News*. It might be the view of those who believe they have the political clout to allocate the resource among subjective political ends, but I am happy to say this view does not really reflect the reality of today.

The prior appropriation doctrine is alive and well because people cannot come up with a better idea. Even if they don't agree with allocating water by priority, people don't want to let it go. Most people don't like the idea of relinquishing power completely to the "right thinking" government in Santa Fe who could reallocate it in the wisdom of philosopher kings.

CONTEMPORARY SUPPORT FOR THE PRIOR APPROPRIATION DOCTRINE

From what I can tell, the prior appropriation doctrine has a whole host of constituents who are supporting it today in spite of the fact it is under siege. The principles of prior appropriation are stronger than they have been for a long time because of the nature of the system of water allocation and because of the increase in scarcity. People are searching for efficient and fair ways to deal with shortage, and alternatives to rejection of this doctrine in favor of pure politics do not get far in the legislature in Santa Fe. However, creative methods of voluntary adjustment of the right to use water in times of shortage are developing in many basins of New Mexico and this is a good thing. The provisions for sharing of shortages in the San Juan Basin come to mind.

Em Hall is going to speak today on the origins of water law doctrine in New Mexico and how the doctrine varied historically by region within the State. And that will give us a very interesting discussion. The reason the prior appropriation doctrine has been so durable can be found in its evolution. Today's times are not the only times when businesses have clashed with farmers, when politics have pressed private property.

EVOLUTION OF THE DOCTRINE AND THE LESSONS APPLICABLE TO TODAY'S WORLD

From the 1800s to the 1850s, there was really very little need for water law in the Eastern or the Western United States. In the Eastern United States there was little need for water law because there was more of it than they needed. Population centers had ample water supply. The riparian doctrine of water law in the East borrowed its principles from the common law of England. The common law simply holds that if somebody is bothering your water source, you can stop them as a nuisance if their actions are interfering with your reasonable use of this common resource.

But the English common law never addressed in any sense the consequences of natural scarcity that exists in the West. Eastern streams did not dry up when a person upstream took all the water from a downstream user in an ephemeral stream leaving someone's cattle to die.

In the Western United States, there are a number of factors that led to the need for the development of this doctrine. We look at expanding populations in the new Western cities, but Western population expansion is as old as water scarcity in the West itself. It is interesting to look at the numbers on urbanization and how, from 1850 to 1900, the gold mining influences, the 49ers, that whole period of time from '49 to '72 and up to the Great Depression of 1886, populations more than quadrupled. During that period of time, the West changed dramatically. The small streams with erratic flows, which had previously been quite adequate, were now found to be very inadequate because during times of scarcity there wasn't enough to go around. There were federal proposals throughout the West at that time to encourage settlement. There were land programs that encouraged people if they could find a water source to homestead.

A combination of land development policy, which encouraged settlement and the actual needs of certainty for those who had invested their capital in what turned out to be a "dry farm" in June and July, or a place mine that needed water called out for a water law that would work. The answer was prior appropriation, it was not and is not perfect but it provided a method to adapt to shortage that was acceptable.

No one was going to invest in a mine or invest in agricultural development that used water or anything else in the West in the 1880s unless they had some real certainty for the people who were putting up the capital. The identical fights over the appropriateness of the doctrine appear in cases of the 1890s. No doubt, an obituary to the doctrine was written by a politician of the period hoping to move water to his constituents as a means of staying in office.

The answer was prior appropriation, it was not and is not perfect but it provided a method to adapt to shortage that was acceptable.

But, there was insufficient capital in many cases to take advantage of the hydrographs of the regions. The Reclamation Act of 1902 recognized that if you were going to harness Western rivers, you needed to have reservoirs. Erratic flows and huge variability required that if you were going to produce with water you needed to be able to store it and release it at a rate which would be useful during the irrigation season and you also needed to store it for flood protection.

The Reclamation Act of 1902 paid for and encouraged infrastructure; the Desert Lands Act of 1877 vested water rights in private individuals. Both encouraged development and rewarded people for coming out and using water resources of the West. These laws were bottomed in the notion that there was a separate set of water needs and water right needs in the West distinguishable from those in the Eastern United States.

There is no doubt that some of the choices of federal subsidies for projects with negative cost/benefit ratios and the absence of the knowledge of the effects of some of these reservoirs and projects were short sighted. But seen through the lens of the engineers of the time, those choices generated wealth for those seeking to better their lot and willing to farm to make their lives better. Making the desert green may have of course been a double entendre that at times resulted

in skewed results, but the effect on water law doctrine is unmistakable and the issues were not so different then from what they are today. The interesting part to me was how both the Eastern and Western systems flourished, and yet lawyers trained in the Riparian Doctrine almost never communicated with lawyers born and bred from the Prior Appropriation doctrine. At least from 1900 through 1930 a review of the legal literature yields virtually no articles comparing the doctrines.

THE UNIQUE NATURE OF THE DOCTRINE AND WHAT THE FUTURE MAY HOLD

So if my topic today is prior appropriation doctrine, where are we now and where are we going in the future, I thought it would be really useful to do some research and figure out why it is that the two separate doctrines going on at the same time in the United States evolved so separately and essentially failed to cross pollinate to yield changes in the doctrine.

No other law is so region based. You look at the law around the country; property law is essentially the same all over the United States. Personal property law is a little different among regions, but not really very different. Whether the property law is private or public sector, private lands or public lands in the West, the law is essentially the same, but water law from East to West is night and day and the twain never met historically.

So I began to look at the physical characteristics of the resource itself. What I have learned during my 30-year career (John Hernandez knows what I am talking about) is that water, the substance water, if you try to really understand it and for lawyers who have to teach water law in class and seek doctrinal clarity, water will drive you insane.

Water is both a public and a private resource. It comes in rates and amounts and qualities that vary; they are not constant so one constant set of rules is extremely difficult. When I say public/private resource, I mean that for the environmental group it is movement through space that generates a public value, but for the farmer who diverts it in acre-feet to grow crops, owning it is a very private act.

The simultaneous dual characteristic of the resource brings to mind an analogy to physics. I remember when I took physics; I was perplexed by attempts to define sunlight. What is sunlight? Is it a wave; that is one of its characteristics. Or is it a particle? It behaves like a wave and bends and adjusts through materials, but it can be measured in chunks or units. I told my professor it cannot be both, but he simply said yes it can. He pointed out for any scientific explanation to work, it had to be both because it needs both of those characteristics to perform its functions.

Water is the same as sunlight. It changes form; it provides benefits, and to be "water," it must be multiple things to multiple peoples. Water is a public good because we need it to be members of the public at large: it supports flora and fauna, it is part of a cycle that no one controls, it can be used in multiple ways, it can change form or substance. The fact it freezes from the top down is the basis for modern civilization; if it didn't do that we wouldn't have the civilization we have now. If water froze from the bottom up the Northern hemisphere would be a wasteland. Water in streams creates wonderful insulation; it is the best universal solvent. Yet it can be sold in bottles that I am embarrassed to say I bought this morning for too damn much money as the economists would say, but it was too far to walk to the Rio Grande from here in Las Cruces, and farmers are using it to grow pecans, which I will also pay too much for.

Water can be arranged in chunks as ice; it can be allocated for irrigation and when it comes back as return flows it can be used again, but if its leaches out too much salt, it creates pollution. But if you don't have return flows for others to use, you may reduce stream flow and further endanger species. It is indeed a puzzlement.

GOOD WATER LAWYERS ARE BI-POLAR

I have decided that in order to understand the resource water and to be a water lawyer like the ones I see in this audience, you have to be essentially bi-polar. Looking at my friends over the years, that's kind of who they are. They can stand this unending un-clarity. For those of us who have learned as academics to stop worrying and embrace cognitive dissonance we survive. But as populations expand and scarcity increases, considering that water is the most vital resource, there is an incredibly significant need to resolve the tension between those who want to let the market allocate the resource and those who would treat it as an exclusively political resource. How the gap between those two perspectives is going to be bridged

is incredibly significant for the future of society and, in my view, is the most important question.

THE MORE THINGS HAVE CHANGED, THE MORE THEY HAVE STAYED THE SAME

Now that I am part of a private practice I can afford law clerks. So I told my clerk to find the leading historical article on water law. I need to know something about the evolution of water law and how this debate was addressed in years past. He said, okay I found an article for you for Professor. I said, don't call me Professor, I'm a lawyer now; I reminded him that I had never lost a case in class. Of course, I lost a few since I left the law school, but in class I never lost a case.

The article he found is entitled "Fifty Years of Water Law." It can be found in the highly prestigious *Harvard Law Review*. See 50 Harvard L. Rev. 252 (1936). I said, how did I miss that article? I have read every article in the last fifty years. He pointed out that the date of the article was 1936. Hmmm, I said this might be interesting. Surely things were different then; surely the debate was more rational in 1936 before society became so fragmented and complex. The article is written by Samuel C. Wiel who is the author of treaties and a very famous author in the area of water law. The date, fifty years, celebrated the first fifty years of publication of the *Harvard Law Review* prior to 1936. The amazing thing is that his concerns and his perspective in 1936 as to what is and what needs to change could be written today. It was fascinating to read the article.

He talks about the *Lux v. Hagen* case made famous in California - a case where the biggest cattle baron in the country had flood water rights, and upstream they were trying to build an irrigation project and how even the Supreme Court was afraid of getting its ass shot off. But after 200 pages, finally gave up and said, we don't understand it and let both doctrines exist simultaneously in California. The debate there could have been the same debate that is ongoing in the middle Rio Grande over the needs of farmers and the needs of the endangered Rio Grande Silvery minnow. You have to be bi-polar to practice water law and learn to accept the perpetual tension created by the multiple characteristics of the resource.

But here is the part I found interesting. He says this: "In all events and just in uses that are now on hand, it [the transfer of water rights] seems to be getting more attention than additional development." He concluded that in 1936, from his perspective, the system is fully appropriated so it is the water transfer that is where the action is in terms of the law and moderating principles of prior appropriation with principles of reasonable use. He further notes, "The riparian doctrine seems to be outstripping use of rights by priority of appropriation in general esteem and will carry the day." So in 1936, Professor Wiel predicted that certainly the rule of reasonable use of riparian doctrine will take over and prior appropriation will disappear. That shows what bad predictors we law professors are. He did say something very entertaining about water lawyers that is certainly true today. He said this, "very evidently the 50 years of water law have been of divergence and conflict" (that's true). "Review of them [the leading cases] could easily be jargon often among different rulings of the same court." Hmm, courts contradict themselves in water law? Here comes a slap at me as a water law professor, which I resent but which is undoubtedly true of all of us in this field. He says, "the ancients express the mysticism of restraint or sprain by a spirit of water to whom a temple was erected. Modern water law practice is apt to express it by mystical devotion to linguistic charm." Water law as mystical devotion to linguistic charm, well maybe, but not completely. I like to hope there is some sound policy and adaptation of law to changing times.

He [Samuel C. Wiel] concluded that in 1936, from his perspective, the system is fully appropriated so it is the water transfer that is where the action is in terms of the law and moderating principles of prior appropriation with principles of reasonable use.

The next document I came across was one written by Joaquin Lopez, a good friend of mine who is one of the most famous water lawyers in Argentina. Although he wrote it in 1960, it was republished in the University of the Republic of Argentina Journal and entitled, "Adjusting to the New Water Law Areas of Conflict 1960 in Argentina." This is my translation so who knows what it really says. He states:

> "The constitution of Argentina contains two vital and conflicting provisions, the power to regulate and legislate regarding water for the good of the general welfare and the obligation to protect the private property rights of water for each user."

Sounds familiar, it seems that within the Argentine water law they were trying to regulate and allocate the resource because of changing politics at the same time they were calling out for protection of the private property rights under the Argentine constitution. It's the same debate that Professor Wiel discussed in 1936, the same debate that came up during the hearings on the Reclamation Act. And it is the same argument that was raised in the United States Supreme Court as recently as last year.

TWO FOOLISH ACADEMICS TRY TO PREDICT THE FUTURE OF THE WATER MARKET IN THE 1970'S

In 1977, two very foolhardy people, three actually, set out to analyze water markets in New Mexico to determine whether they actually existed, whether water was a private commodity traded in the market place, and if it was what its price might be in the future. The book is called *Forecasting Future Market Values of Water Rights in New Mexico*, by Brown, Khoshakhlagh, and DuMars.

We said, "We're smart people; we can go out, we can analyze prices, we can tell you right now, in 1977, what a water right is going to cost in 1990 using economic projections, and we can predict after evaluating the circumstance and make some wise observations." Before I get to the quote from what we concluded, let me tell you what our observations were back then.

The actual prices: in 1975 a water right in the Rio Grande Valley sold for $502 per acre-foot. Okay, that's the bottom line. We then got together and said suppose you ran through every damn escalator you can think of, suppose you then fudged a little and don't want to be embarrassed by undervaluing the escalation of prices for the resource: what would we come up with for predictions in 1990 for the value of an acre-foot consumptive use of water? Oh hell, let's go with it as wild as it gets; let's go with $1,100 an acre-foot. $2,250 an acre-foot. $2,500 if you really speculate. $3,200 was tops. Boy was that insanely high we thought and embarrassed and when it came out. Some people laughed and said that makes no sense, there is nothing in the literature which suggests that is true professor.

Well what do I know? The last transaction I dealt with in the Rio Grande, the people showed up at closing, they had sold it for $6,500, demanded $2,000 more, and the person wrote a check immediately for $8,500 an acre-foot consumptive use. Water rights are now selling for $10,000 an acre-foot.

But a rapid price increase tells you it is thriving in the market place as a commodity, but it does not necessarily tell you whether society at large is getting the value from this complex resource that it should. Lee Brown and I had a basic concern then; I talked to him the other day, and our concern was that not all the values reflected in water are a function of its true market price in terms of what it would bring if you sell it. The key is to ensure those values are protected in the market place, but not allow complete displacement of the market through rigid political intervention.

Water markets in New Mexico face the inevitable unclarity required to accommodate non-economic values in water; there is also a kind of frightening, lack of information as to policy as to transferability and the extent of the commodity itself. Policies can simply appear. What was once thought to be a characteristic of the right can suddenly be modified by policy without public input. This is not a good thing. If you don't have good market information you cannot value the resource properly for public or private purposes. We concluded the following in 1977:

> "the overriding need with the region (the Albuquerque region) is for increased flexibility as water consumption as it inexorably approaches its physical limits. It is easier to take steps now to begin the slow evolution towards this increased flexibility than it will be to wait until a rigid humanly constructed barrier is breached."

By rigid humanly constructed barrier, we meant artificial, politically motivated actions, in effect the social engineering of a resource, because they are so unpredictable that individuals cannot make wise choices how to acquire or conserve the resource.

THE GOVERNOR'S WATER LAW STUDY COMMITTEE RECOMMENDS CREATION OF A GROUND WATER RESERVE FOR FUTURE GENERATIONS

In 1986 Governor Anaya, noting that virtually all of the water in New Mexico was nearing full appropriation and that other states coveted the resource, created the Water Law Study Committee to evaluate and answer four questions: How much water is there? If there is not enough, what are we going to do about it? And what is the interstate demand for that resource? To what degree can we assure that we have that resource stay in the state of New Mexico? We found in that study, and I think it is quite accurate, that there are large amounts of unappropriated ground water in New Mexico that are currently unavailable by existing criteria, appropriation criteria. We calculated the amount with the help of the State Engineer's Office. There remained 80 million acre-feet unappropriated of potable ground water, much of it in the southwestern part of the state, much of it near planned growth areas in Mexico and some of it near Tucson.

We also correctly found that these water resources are vital for the future of New Mexico. Pure market solutions might not work to preserve those resources for New Mexico's future. We were very concerned then and we suggested, and I still can suggest, in my view, with respect to that part of the resource, it is vital to come up with some method of strategic ground water reserve to evaluate those resources, calculate our future needs and get a real handle on that. One of my suggestions was to really focus on that unappropriated ground water, admit it is there, not deny it is there for political reasons or otherwise, and make sure that it is available for future New Mexicans. But that is really not a prior appropriation issue per se, it is a water planning issue. We concluded that the public nature of the resource meant that we should declare the conservation of that water in storage a beneficial use within the meaning of the prior appropriation doctrine and that it should remain forever for New Mexicans.

The Water Law Study Committee consisted of Robert B. Anderson (Robert O. Anderson's son), Gerald Thomas from New Mexico State, Les Davis of the CS Ranch, Carol Christiano and myself. Tom Bahr was involved; Al Utton was involved, along with a number of others who were very, very useful.

What we were concerned about were the effects on the water market that was inexorably moving toward expansion where price reflects scarcity in agriculture and where agriculture cannot compete. And the loss of agriculture to New Mexico would be devastating culturally and economically in many sectors. I now must confess my bias, my background. I grew up on a ranch. That's what I know; that's what I've done all my life. But the reality is, of course, that there is a water market that will evolve, needs to evolve, and there needs to be clarity in that market, and those water users who cannot compete must adapt and adjust. But a state consisting only of condo dwellers importing water to gravel backyards was not then and is not now my dream for New Mexico.

One of my suggestions was to really focus on that unappropriated ground water, admit it is there, not deny it is there for political reasons or otherwise, and make sure that it is available for future New Mexicans.

What the Committee concluded then in 1986 was that agriculture may not be able to compete with municipalities and other industries for water from a strictly economic viewpoint yet the long-term interests of the state may best be served by sustaining the healthy agricultural industry in selected areas. Because the state values its best agricultural land, its unique cultures, and other fundamental resources such as the bosques and wildlife, the state may have to acquire water rights in the market place to keep them, that is to say hold them in trust to ensure that it is possible to sustain agriculture. This water trust coupled with various kinds of research and support could sustain this special culture. I am happy to say that now in the legislature years later precisely these kinds of water trusts are being created for multiple purposes.

We also included on the cover of our report the following: "let it not be said in one or more decades hence that the present society knowing the foreseeable conditions neglected to confront them in all possible ways." That was the challenge of New Mexico in 1986. That is the challenge today.

POSITIVE NEW DEVELOPMENTS BODE WELL FOR THE FUTURE

A number of things have happened since that study - some good, some not so good. I think one of the best things that has happened is that the Interstate Stream Commission has evolved into a responsible representative political body. Our study recommended that the Interstate Stream Commission, which is a representative body throughout the state, move forward and play a leadership role in promoting and developing water policy.

That leadership has stepped forward. Under new leadership it has sponsored legislation, which I think is really helpful with the idea of acquiring water, supporting rural infrastructure, enforcing interstate compacts, and serving as a source of useful information.

The other thing that has happened is that the legislature passed the legislation recommending support of regional water planning. Regional water planning has done a lot of really useful things for us and it has involved the education level of individuals who are out there working in water, but there is something that is occurring now that I think addresses the future of the prior appropriation doctrine.

The purest prior appropriation doctrine has never really existed much in New Mexico in the middle and lower Rio Grande valleys, and in some ways this has been a good thing.

We are not really in that bad of shape. The purest prior appropriation doctrine has never really existed much in New Mexico in the middle and lower Rio Grande valleys, and in some ways this has been a good thing. Certainly the Native Americans are entitled to enforce priorities, but conservancy districts and irrigation districts buffer the effect of that doctrine by requiring a sharing of shortages.

For example, if you have a group of 10,000 farmers, each of whom has a different priority date, and you're trying to enforce priorities down to the minute as to who diverted first, it is not going to work. So what has happened in the middle and lower Rio Grande valleys and has happened in most Western states, there have developed local institutions that have banned together. They were created as political subdivisions with elected boards to allow at the grassroots level a method to allocate water in times of drought by sharing shortages. In the Middle Rio Grande Conservancy District, for example, when there is a short year, everybody shares shortages. If the Board is unfair, it gets voted out of office. This local control can be critical.

THE CHALLENGE WILL BE TO STRIKE A BALANCE BETWEEN PURE ECONOMIC ALLOCATION AND SELF INTERESTED POLITICAL MANIPULATION OF THE RESOURCE

There is a principle that I have witnessed everywhere I have worked, and I have worked in quite a few different places. That principle is the more scarce the resource, the greater the tendency to take it out of private hands and to place it at the mercy of raw political power. It is the nature of things; it is the nature of politics. I remember interviewing once the head of the National Water Commission in Mexico. Article 17 of the Constitution allocates all of the resources as a political good. They allocate it to the regions based upon their alliances with the various political parties. In the interview, he said to me something that I will not forget. He said, "El poder debe ser absoluto." He said, "The power of my job must be absolute." To obtain the power to allocate water to wield it pursuant to one's own political instincts is natural, but is dangerous. Yet, as I said earlier, there is a critical tension. Back to my sun metaphor, there is a tension on the one hand, between the desire to let the economy allocate the resource by price and forcing other users to react to the scarcity by adjusting to the marketplace by conserving. And, there is the political desire to subsidize, to control the price, by mandated alteration of the cropping patterns. There is a desire to have that "poder que es absoluto."

Now in New Mexico, we are facing those tensions in this state more and more every year. The test will be to regulate the market but not manage it to the point of political manipulation. You have the Office of the State Engineer; that Office faces an incredible challenge. I can say from my own personal experience that the local offices of the State Engineer that I deal with are wonderful organizations at the grassroots level that do their best to help people cooperate. Yet at the top government levels, impatience with the water markets can bring about mandated changes based upon

politics of value judgments beyond those of requiring conservation and the dissemination of information.

The economist who preceded me in this lecture insists that there is a tremendous amount of disposable income in today's society more than ever in history. If the prior appropriation doctrine is to work, though, we have to let the institutions, the users, the consumers, those people with all that money make the rational choices he talks about. He argued that an educated society buys products that promote and protect the environment, that using the least water preserves the most wetlands. I sincerely hope he is right. If we in fact have all of this disposable income out there, and if there's the ability to buy smart water - water obtained through conservation, and if we can grow the specialty crops without excessive pollution, and if conservation can pay, and I think it can, then the people who use the resource make the choice that blends the public and private values of the resource.

WATER RESOURCE AVAILABILITY, ITS VALUE IN PRODUCTION AND IN SUPPORT OF THE ENVIRONMENT MUST BE MADE COMPLETELY TRANSPARENT IN EVERY FORUM

The prior appropriation doctrine is not going away. Anglos, Hispanics, Native Americans, acequias, and the conservancy and irrigation districts with their early priority water rights are not going to give up those rights. They cannot be taken because someone filed a lawsuit saying that the Rio Grande silvery minnow should get the water in times of scarcity rather than farmers. Society will not tolerate that result. The system is going to stay in place. But society will also not tolerate a life space without farms, without wetlands, and without a diverse habitat for its people and its creatures.

The first thing every economist will tell you is that you need good market information. You need to know about the resource. Where can you go today to find out anything about the value of water rights in New Mexico? Bill Turner knows, and he isn't telling. There is no place to get the information about the value of the good. There is no place to go. There is no common source of information about this commodity.

In contrast, there is a great deal of information on the environmental side. They are terrific, and they do a great job. While their view of the data may be skewed from some perspectives, they are there. They know the resource they want to protect; they are protecting it, and it is vital that they do so. They will tell you how much water the silvery minnow needs, what is going to happen, and the consequences of not protecting it. But on the market private sector side, from the production value of water, there is no common place to find out the value of water in production, its overall supply and how to obtain it. This must improve for the system to function in the future.

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Not only is the absence of good information a serious problem for good water policy, another thing that the prior appropriation doctrine of water markets cannot stand is policy surprises. If there is to be a change in the policy about whether you can use ground water to offset water rights in certain communities and other wells, it needs to be a public process where everybody goes. If rules for conservation change, the changes must be made public through a public process. The problem is one of scale. If the prior appropriation doctrine is to work, the development of process will be vital. The system works well within a small acequia where everybody knows everybody, and you know if they are not digging out their part of the ditch or are using too much water.

When you have 10,000 farmers or you have the City of Albuquerque paying a lot for San Juan-Chama water, and you have a decision made by a court that will affect investments already made, then without full public process, by the recognition of new rights in water not heretofore understood, the result can be chaos. We need to do it better than this.

The third thing we need to do is we need to take a real close look at the way in which we clarify the

commodity itself through the adjudication process. Thank goodness Judge Valentine is chairing a committee of brave souls appointed by the New Mexico Supreme Court trying to move the adjudication process into warp speed and clarify the ad-judications rules to see if we cannot expedite that process.

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There are some really exciting things going on there. It is going to take a lot of resources from the legislature to make it work. But if we can work to get those rules clarified, and we can speed up the adjudication process to make it work even better, I think the prior appropriation doctrine will work. It must work.

My prediction is that water for the future will be a much better understood resource; I'd say that we need to start now, immediately, to produce more transparency as to the value of water, not just economics, but also aesthetics. This is what the environmentalists do.

We need to illustrate the value of agriculture better, the value of production, if we want it to remain in agriculture. Finally, we need to try to reduce conflict from yelling and litigation to just talking and educating. I look around this group and think you cannot find a nicer group of people, with a few exceptions, who mean well. The water bar of lawyers is a wonderful group of people to be around. Those who work in this region are wonderful to be around - bipolar so they can stand to work with this complex resource, but wonderful people.

CONCLUSION

And if we can get everyone looking for Al Utton's little spot of green at sunset, and all get on the same page, and make available in every forum the information about the water resource, the markets, the water law, and the steps for rational reallocation, I believe we have a tremendous future under the prior appropriation doctrine.

Thank you.