

Interview with Phil Mutz

Intro: This is Monday, August 7th, 2006; I'm Bonnie Leverton doing the interview for the Colorado River Water Users Association. Bill Leverton is the photographer and we would like for you to introduce yourself.

A. My name is Philip Mutz. I live in Santa Fe, New Mexico.

Q. When and where were you born?

A. I was born in Trinidad, Colorado but I didn't stay there very long. It was a matter of convenience at the time. I was raised in Northern New Mexico on a ranch near Eagle Nest.

Q. Tell me a little bit about your education, where you went.

A. I went to high school of course in that area and I graduated from the University of New Mexico with a Bachelor's of Science in Civil Engineering.

Q. Was that what your first goal was to be in engineering?

A. Not necessarily but that's where I wound up.

Q. What was your first goal?

A. I think I wanted to be a cowboy being raised on a ranch.

Q. So that was actually your first job then was ranching?

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A. Oh yeah.

Q. Once you had your degree, then what?

A. Then I served two years in the United States Army included a North East tour of duty, World War II.

Q. Your first job with civil engineering, were you involved in water issues?

A. Yes. I went to work for the Bureau of Reclamation in late 1946 in Albuquerque, New Mexico.

Q. What did you do?

A. Involved in hydrology, worked for Water Resource Investigations.

Q. Which kind of involved what? What were you doing?

A. Primarily on the Rio Grande, we were doing studies for what is now known as the Middle Rio Grande Project which involved rehabilitation of Rio Grande together with some reservoirs, Abacute for example.

Q. Back then when you first started, what were the water issues of the day? What were people really concerned about?

A. Well at that time it was two things mainly with the Rio Grande. One was flood control because the works that the Rio Grande Conservancy District had put in, in the thirties were deteriorated and the channels could not handle potential run off. Together with trying to improve efficiency in water transport through the Middle Rio Grande Valley to provide water to Elephant Butte Reservoir. New Mexico has a compact obligation to deliver water to Elephant Butte Dam and the channel had become deteriorated so badly that it needed rehab. Those studies that we were doing at that time led to authorization of the Middle Rio Grande Project. It's a Federal project.

Q. What were some of the challenges that you faced doing those things? You said there was some deterioration of some of the infrastructures and stuff like that. What were some of the challenges that your studies brought out and had to be addressed?

A. The main thing that our studies brought out were that needed "x" amount of channel capacity to safely pass the potential flooding and we looked at that with both storage and increased channel capacity by constructing levies.

Q. Over the years and since then and since your involvement with other water projects and stuff like that has your thoughts about what the big issues are in New Mexico changed much?

A. Well of course the issues change with the time. Of course, time goes on and the need for water in different sectors changes for example. Of course, people need water to drink. Agriculture, New Mexico is an agricultural state still is to a great extent. Big challenge was how to provide water for the growing population especially in the Middle Rio Grande.

Q. I know that a lot of the Southwest is just really growing and everything; does everybody have plenty of water?

A. No. No. Not by a long ways. The Colorado River of course is the one that has been looked at a lot in the recent two decades to provide plenty of water for Southern California and Clark County, Nevada as well as Arizona. Those are the areas that are looking very closely at their water supplies.

Q. What about New Mexico? Does it depend on the Colorado?

A. Oh yes. New Mexico depends on the Colorado to supply water not only in the San Juan Basin, but also the Rio Grande Basin. We have an export called the San Juan Chama Project which exports about a hundred thousand acre feet of water a year from the San Juan into the Rio Grande. In the cities of Albuquerque, Santa Fe, Los Alamos, Espanola, Los Lunas and several other small communities have contracts for San Juan Chama Project water and they're using it, not all of it, but they're using it.

Q. Back to the Colorado River allocations to Clark County and Los Angeles and things like that, my understanding is that the Colorado River unless it runs really high and wet every year, it's pretty well overdrawn in terms of how much water there is and much water is allocated. Is that going to be a problem?

A. It is a problem. The Colorado River Compact of 1922 allocated the Colorado River to two basins: the upper basin and the lower basin. It did not allocate water to each of the states. Subsequently, the United States entered into a treaty with Mexico to provide water to Mexico out of the river and that was contemplated that that could happen in the Colorado River Compact. And subsequently, the

upper basin, and they're five upper basin states, Arizona only receives a small portion because not much of Arizona is in the upper basin. Utah, Wyoming, Colorado and New Mexico split up the river amongst them and the Colorado River Compact provides the upper basin shall deliver at Lee's Ferry a certain quantity of water over each ten consecutive year periods. And what's left is divided amongst the upper basin states under the Upper Basin Compact. New Mexico gets eleven and a quarter percent of what's left.

Q. Something that was set up in 1922, I don't think anybody foresaw how big the Southwest was going to get?

A. Particularly, Clark County, Nevada. Seriously, to date nobody's been real, real short of Colorado River water in part due largely to the fact that the upper basin is not yet fully developed. New Mexico is the only state in the upper basin that's approaching full development. Well, I shouldn't say that. Arizona is using essentially all of its water but they only get fifty thousand a year. But New Mexico is approaching using all of its share but Colorado, Utah, and Wyoming are not using all of theirs. But, water flows down hill.

Q. So what happens when they can and do use their full share?

A. Lower basin has got to tighten it up.

Q. We ask that question to a lot of people and we get a lot of different answers and I think the best answer we had was from some guy who said when that happens, it's going to be the water version of the third World War.

The Southwest and certainly including New Mexico and everything has been involved in a pretty severe drought these past few years and everything else, I know there are water storage areas and stuff like that but eventually aren't those going to have to go into the reserves . . .

A. The drought 2004 severely depleted much of our storage. One of our large reservoirs is Elephant Butte Reservoir and it was severely depleted. Recharged a little in '05 and now in '06, it's going down again.

Q. What are you going to do if the drought keeps going? Where are they going to get the water?

A. One of the places of course to get water is from agriculture to provide drinking water. There is still a lot of agriculture left in this state. Of course, the "quest" is the word I want to use, for water includes water rights. All of New Mexico's water supply has been allocated to various people or various entities. So there's not any left for allocation. There is some contract water available from agencies that do have storage reservoirs, mainly the Federal Government and the State of New Mexico has one itself that's available. It's scattered. The water is located where the people aren't.

Q. If Colorado is not using all of its water, can New Mexico and other states buy their water?

A. No. There's no inter-state marketing going on. That is something that the states have stayed away from. That is a no-brainer as far as the states are concerned. But, water flows down hill so if Colorado is not using it, it runs down and the states downstream get to use it. They have no right to it, but it's a permanent

right and they get to use it if it's there and that's what California, Nevada, and Arizona have been getting by on for a number of years.

Q. What happened? They told California to find other resources?

A. Yeah, California back at the start of the '90's, California was using way over its allocation and the other states said you got to cut back and California has. They've cut it back to their Colorado River allocation by using other supplies but Clark County, Nevada has very few supplies. They're the ones really under the gun to get water in and they've been looking at bringing water in from North of Clark County and of course, some of those people in Nevada think they might want this some day too. So they got a little problem out there.

Q. I don't see the Southwest stopping it's growth unless they have too.

A. Never know.

Q. Where else does New Mexico get water besides the Colorado River?

A. Rio Grande is the next largest . . . well, the Rio Grande is New Mexico's largest source of water and then the San Juan. We also have a Canadian River Basin which originates actually a little bit of it in the Colorado, just over the border, but mostly in New Mexico. The Pecos River and the Gila River, we use very little out of the Gila River system but the Pecos River system is a large system but it all originates in New Mexico. And all of New Mexico's interstate streams are under compacts or Supreme Court decrees which apportion the water out to the parties.

Q. That goes back to my other question, if you are in a really severe drought that goes on for twenty-five, thirty years and everything else, there's no other place for you get water right?

A. That's right.

Q. So everybody dies?

A. No, not all. I think probably there's plenty of water available to the populous but the farms aren't going to have much to do. They may get pretty brown.

Q. So where did you go from the Bureau of Reclamation?

A. I went from the Bureau of Reclamation to the State of Colorado for two years and then I came to New Mexico in 1956.

Q. What did you do in Colorado?

A. Same type of work, water resources development, administration.

Q. When you came back to New Mexico, what were you doing?

A. Same thing.

Q. Is that when you joined the Interstate Stream Commission?

A. I went to work for Interstate Stream Commission.

Q. Tell me about that. What is that?

A. The Interstate Stream Commission is a commission established by statute. It has nine members, eight of whom is appointed by the governor. The State Engineer is the ninth member and secretary to the commission. The eight members are from different sectors of the state; one from Roswell, one from Carlsbad, one from Las Cruces, Albuquerque, Silver City or Deming, and then Northern New Mexico.

Q. So you were appointed by the governor?

A. No. I'm a staff person. Those are . . . the commission set by statute sets the policy. I was staff.

Q. What were your main concerns?

A. My main concerns? Of course when I came to work here, I wasn't involved in making large policy decisions. I was just a pencil pusher.

Q. What does the Interstate Stream Commission do? What is their mandate?

A. The mandate is to protect and conserve and develop the water supplies in New Mexico.

Q. At what point did you get to be more than a pencil pusher?

A. I was appointed, not by the governor, but I rose to the position of Interstate Stream Engineer. I can't remember when it was, 1980 I think and I served in that position. I served a short term as State Engineer upon the death of the incumbent State Engineer at that time. I developed a medical condition which I didn't know how I was going to wind up. I had a crucial retirement date coming up. So before I let them go to work on me, I retired. Turned out fine, so I came back to work on contract.

Q. What did you do when you first got here? What was your job?

A. I was doing studies to determine the development . . . they started on the San Juan as well as on the Gila River. These studies involved taking the records of water supply and determine how it could best be developed to provide a stable firm supply to potential development for example, San Juan Chama Project, Navajo Reservoir, Navajo Indian Irrigation Project, Animas-La Plata Project. Those are Colorado River Projects and then of course, there are a lot of other projects in other parts of the state; Ute-Hammond Reservoir on the Canadian, Brantley Dam and Reservoir on the Pecos; and done a lot of work on the Gila. The Gila has yet to be developed. The Gila was already appropriated downstream in Arizona and we had to get a right to use a little bit of it. So we wound up in the Supreme Court of the United States and a big lawsuit which was started by Arizona in Arizona v. California in 1957, I believe is when it was started, and we wound up in it as far as our Gila River interests were concerned.

Q. So that's when you wanted the use of some of it but not all of it?

A. Yes.

Q. What were some of the specific challenges that the state was facing when you first started with the Stream Commission?

A. One of the primary ones was how to develop the San Juan River and of course the Navajo Indian Community. It is a large entity in the San Juan Basin. The Navajo Nation I should say. They were looking to develop a water supply, primarily an irrigation water supply to provide jobs for the Navajos. And then in the mid-1950's, suddenly they decide to development coal in the San Juan Basin or looking to develop coal. So they needed water to do that. That was one of the primary things we looked at is how to develop San Juan River. And at that time, the San Juan Chama Project had been looked at for years and years but there was competition between the San Juan Chama Project and the demands for the water in the San Juan Basin. The governor at that time, Ed Mechem, who was a great man in my estimation, said one can't go without the other. So they went together.

Q. With all the challenges and everything, did it delay progress as far as developing?

A. Delayed progress to the extent that you had to get projects that people would support and develop projects that people would support. We'd have to go back to the drawing Boards sometimes, maybe not start all over, but to at least tweak it.

Q. When you're talking development, are you talking like reservoirs and storage areas?

A. Yes, like the San Juan Chama Project, how big do you want to build it? Do you want to build it for two hundred thousand or for one hundred thousand? Navajo Reservoir, how big do you want to build it? And the Navajo Indian Irrigation Project, how big do you want to develop it? So you tweak these things until you have projects that people would support. And of course, New Mexico didn't have the money to develop it; you were looking for Federal dollars.

Q. And did you find them?

A. Yes.

Q. Where did you find them?

A. United States Congress.

Q. When you were tweaking these projects, where was your opposition? Where were your problems? What did you have to overcome?

A. As I indicated, competition for water. The people in the Rio Grande Basin wanted as much water as they could get out of the San Juan River Basin. And the people in the San Juan River Basin, including the potential industry; the Navajo Indians, the Jicarilla Apache Indians, and the other people in that area, of course didn't want to let it go. They wanted to keep the water for the development of the San Juan River Basin and that was a compromise. A compromise to develop the San Juan Chama Project to about one hundred thousand acre feet and the Navajo Indian Irrigation Project to a hundred and ten thousand acres, along with Leeman water available for municipal and industrial development. And the Navajo's recognized this, much of the coal reserves are

on the Navajo Indian Reservation and they recognized potential development for the industry as well as for farming.

Q. What about environmentalists?

A. At that time the environmental movement was not near as involved as it has become since that time. We had some environmental concerns of course, but nothing like it had been since then.

Q. At one point, I think the Navajo's actually said we own all of the San Juan River so we want all of the water. How was that finally settled?

A. Well, the Navajos of course said time and time the river is all ours. But we are in negotiations with the Navajos . . . in the mid-90's, maybe it's later than that, and we finally reached a settlement with the Navajos in 2004, late 2004, which set up which project and how much water the Navajo's would get out of the river.

Q. So is it settled or is it on-gong?

A. It's in Congress. It has to be approved by Congress. Legislation has not yet been introduced but it's being prepared. That's the next step, is to get it authorized by Congress.

Q. What were some of the things that you were involved in that you consider successes?

A. That development that we were discussing on the San Juan River, as well as other areas that we've worked on; the Gila River, Ute Dam and Reservoir on the Canadian River, and many other things, the Rio Grande Project.

Q. Why are you happy about those?

A. I thought they turned out pretty good and the development that we've been working on was developed. Projects were built.

Q. But you had to have some frustrations in there too.

A. A few.

Q. Want to talk about any of them?

A. Not necessarily. One of the things, we got involved in several big lawsuits as I indicated earlier. One of the charges to the Interstate Stream Commission is to protect New Mexico's water supplies. Of course the suit I mentioned Arizona v. California; we were impeded in that one. We either started or somebody took us on and we had to defend ourselves. So there were several major lawsuits involving waters of Rio Grande, the Colorado, and the Canadian.

Q. All these other people we've talked to one of their major frustrations was that people opposed to this, seem to be opposed to it just to be opposed and really didn't see the big picture. They didn't see the value, the benefit. Does that have some . . .

A. Of course everybody likes to keep their own backyard nice and green and have something out there that they don't have to worry about having to shut the faucet off. To that extent, people I think were protecting their own interests. There are always a few people around that just don't like progress. They don't like development at all. They would oppose things for that reason. Most of them had a reason to be out there voicing opposition.

Q. Who did you find to be your greatest allies when you were working on these things?

A. The local people that would be affected by a project, maybe I should say benefited by the projects were of course the greatest allies.

Q. How about like congress? Did you have certain people, like let's go to this person, they'll help us?

A. In Congress . . . you had Congress of course; other states get involved in all these things. When you go to Congress because of these interstate streams, like on the Colorado River, you get involved with six other states. You run into all sorts of people in these other states that are concerned. They want to keep the water whether it's theirs or not because it's available to them. It's a lot cheaper. It's doesn't cost as much money to keep what you got going as it does to develop new stuff, Southern California is a prime example. They had foresight when they went to the Colorado River; they put in a big pipe and took more than their allocation for many, many years. Once they got started using it, they didn't want to let it go.

Q. But did New Mexico have any strong allies in Congress? Any powerful allies like Arizona had Carl Hayden? But did New Mexico have any power allies?

A. Well with Clinton Anderson in Congress, he could've off set Carl Hayden but of course New Mexico had allies from other states. I don't want to mention who they were but we had allies.

Q. Did you have specific opponents?

A. Oh yes lots of opponents. California, for example, they wanted to keep as much water flowing down the Colorado River as they could and when we came up with San Juan Chama and Navajo Project, which would take several hundred thousand acre feet out of the river, well that got their attention. They fought hard in Congress.

Q. Once they were told to stop taking more then your allocation, they did find alternate solutions right or are finding alternate solutions?

A. They are, right, but that didn't happen for forty, fifty years or later.

Q. What are forty or fifty years if we're really good friends right?

A. Well, people change.

Q. Discuss the San Juan Chama Project, how it works, what it's supposed to do?

A. San Juan Chama Project involves diversions from three streams that are tributaries to the San Juan River in Southern Colorado. It transports a lot the water via canals and tunnels through the Continental Divide into a tributary of the Chama River called Willow Creek and a reservoir called Heron Reservoir is constructed on Willow Creek to regulate the water that comes from the diversions. There's no storage on the west side of the divide so it's just a direct diversion. It's a snow melt diversion when the snow melts and you get lots of water in the tunnel. Then the rest of the year you don't get a lot in the winter time, nothing.

Q. Do you see a time when storage will be put there?

A. New Mexico with what's on the books right now will use all of its Colorado River allocation from the San Juan River and there will be no opportunity for additional storage for San Juan Chama, unless some of those other projects are retired. Subsequently, not everything is developed yet. The Animas-La Plata is still being constructed. Navajo Indian Irrigation is still being constructed but the last project to be developed is what's called the Navajo Gallup Project, which will provide domestic and municipal water supplies to the Navajo Nation and also to the city of Gallup. That will use up all of our allocation.

Q. What about the Animas-La Plata? What will that accomplish if it ever gets completed?

A. It will accomplish providing storage for, and a limited amount of storage, for Animas River flows, regulation for municipal supplies in Southern Colorado and in the San Juan Basin in New Mexico.

- Q. My understanding is that actually from what it started to be to what it may end up be has been cut quite a bit.
- A. Oh yes. That project was another one that we looked at in the '50's, late '50's. It involved a much larger diversion, larger storage, and irrigation water supplies.
- Q. Are you for this project, are you against it?
- A. Oh no, we need storage on the Animas River. It could use more but we couldn't get there.
- Q. Do you think it's going to be very difficult now and in the future to get past environmental concerns and other concerns to build . . . talk about that a little bit.
- A. Of course the Endangered Species Act that act . . . well I don't want to call it a trump card but it's almost a trump card. You have to provide water for the declared endangered species. We have those on all of our streams and the San Juan of course is under that same restriction. We have in place the San Juan Recovery Implementation Program. Its goals are to conserve the endangered species and at the same time, proceed to develop water supplies. It's been pretty successful so far. It has caused delays in some development but it really hasn't stopped any development to date. We may be approaching a point where we can't develop any more of the water supplies of the river and still provide water for the endangered fish species.
- Q. All these delays have got to be costing everybody a lot more money than they would've cost?

A. I don't want to say a lot more but of course some more. Just the pure studies involved in it are costing a hell of a lot of money. It's really a lot of money. Another example of expenditures for environmental purposes are the Glen Canyon Adaptive Management Program which involves studies of the environmental issues in the Grand Canyon, Marble Canyons below, and Glen Canyon Dam. They've spent millions of dollars on that.

Q. And not seeing a whole lot of success I understand?

A. That's right.

Q. When you talk about water issues in New Mexico and all the states that are involved with Colorado River water, it's like a complex thing but does the average person understand that just because you can turn on your faucet today and get water that it doesn't mean it's always going to be there or is it always going to be there?

A. I suppose my answer to that would be the people that are in charge of Water Resource and Develop Administration that is one of their main charges is to see that those faucets keep running. The average person probably doesn't pay a whole lot of attention to it. They turn on the faucet.

Q. Should they pay a lot of attention to it?

A. They need, of course, to be aware of what's going on but at the same time, you have to have some trust in the people who are in charge. That's my view.

- Q. Any big failures, not necessarily yours, but big failures as far as water issues are concerned? Like I really wished this would've gone through or I wish I really followed through on this.
- A. Well, I suppose some of the failures . . . whenever you get in court; you're really at the mercy of people that are not really involved in water resource development. Although some of the smartest people that I've ever run into are lawyers, judges, but at the same time, they split up things based on the equities of it. They don't always see the same equity that I would propose.
- Q. I think you're a lot closely involved with water issues then opposed to just the courts and stuff like that, it would be like things we need to get this through.
- A. Yeah that's why we try to stay out of court. To some extent, we've been pretty successful but it seems like it was more large scale litigation. I remember years ago. I hope people got wiser or at least got more compromising and I think they have. The last ten years on the Colorado River I think it brought that pretty well to a fore. There have been some real contentious issues involved in that and there's been some litigation on it but it didn't get the whole basin involved.
- Q. But you still didn't answer the question; do you have a major disappointment? Something that really disappointed you in water issues over your career?
- A. Oh I think it's been a great ride. I haven't run into any great disappointments. At the time, it seemed like there was some small issues that were disappointing. I haven't run into real big ones.

Q. Could you go ahead and kind of describe your career in Interstate Streams Commission and kind of what you did, just an overview chronology of what your career was?

A. Mainly it's been involved in water resource development, management, and administration of the streams systems. Under these interstate compacts, you have to manage your stream systems so you don't overextend yourself and use more water than you're entitled to. Examples of this occurred in Rio Grande and we got sued over it. Those are problems that you have to be aware of constantly being involved in this work. Environmental concerns have been a major factor in the last ten or fifteen years. Of course, you have to be very contentious about how you develop your water supplies and your relations with those communities.

Q. Any interesting characters over the years?

A. Oh yes, lots of them.

Q. Give me an example if you could.

A. Oh a couple of interesting characters, one comes to mind. A gentleman by the name of Raymond Hill, he was a consulting engineer out of Los Angeles, California, and he had done a lot of work all over the world. He was advisor to Texas on the Rio Grande Compact Commission. He had done some work for Colorado. I'd been involved with him for many years. He was a smart man but he was also a character.

Q. What made him a character? What did he do?

A. He could strut sitting down.

Q. Some of the characters though they're very effective in what they do, right?

A. Oh yes, he was very effective. When he worked on something, he worked . . . he knew what was there. I don't know if I would call him a character too much but my boss for many, many years Steve Reynolds is a very smart man. I don't know if he was particularly a character but he was very stern, down to business.

Q. Was he related to Harold Reynolds?

A. No.

Q. In your career, were you involved in a lot of the negotiating or meeting with the other states?

A. Oh yes.

Q. So you kind of had to become a negotiator?

A. Yes.

Q. What were some of the changes in yourself that you had . . .

A. Changes in myself? I don't know if these were particular changes in myself but to keep your mouth shut and listen.

Q. I would think that when you first go in you're just yeah this is how we should do it. I can see it clearly and everything else but once you're in there and you're putting a few years under your belt, the way they do things seem to be a little bit more complex.

A. I suppose that's true.

Q. Let's talk a little bit more about the Indian rights stuff. Has that been a problem? Oh, I know what I was going to ask you about Indian rights. You were saying that people aren't really involved in water marketing but the Indians; they can lease some of their water right?

A. Well, it depends. In the settlements, it has been very carefully looked at. The Indians can lease water but to date, they haven't been able to lease water out of state.

Q. I know along the Colorado in Arizona, the Creighton Indians lease a lot of that water to agriculture.

A. Oh yes and they're leasing water in New Mexico right now. The Jicarillas are leasing water. They have a San Juan Chama allocation. They're leasing some of that. They can do that. So far it hasn't gone interstate just intrastate.

Q. Do you see that happening ever?

A. Well a lot of people would like for it to happen but the people that I've been involved with in the states, the other states, are very jealously trying to keep what water is available to them for use in their own state. That's one of the things that New Mexico has been very stern about.

Q. Would that be a case for the other states for like the lower basin states, if the upper basin states have a lot of water and the lower basin wants to buy it and everything else and you've got a lot of water, isn't that financially good to sell it or would that be bad?

A. No.

Q. They can't do it. The water that is unused comes down from the upper basin to the lower basin and the lower basin uses it because it's there. It's my understanding is that the upper basin can't charge for it just because they can't use it.

A. That's right but it's allocated by compact including what you don't use. They have a right to use it so long as you don't need it. One thought is well why pay for it when it flows down and we get it for nothing. Of course, there is no permanent right to that. To get a permanent right or a right for a certain period of time, you'd have to lease it. That issue has been right up on the table several times and we, as well as other states, have resisted it.

Q. Tell me specifically why?

- A. Because that water supply has been allocated to you and there's not anymore available to be allocated. So why do you want to let it go somewhere else for money? Water is worth more than money.
- Q. Do you turn around then and do something to make sure that all that water . . .
- A. Sure.
- Q. . . . that is stays here.
- A. That's why you race to do the development, put it to use so somebody else can't lay any claim to it.
- Q. Have there been any huge surprises as far as water issues that concern New Mexico or has it all been pretty much by the book?
- A. Oh we've got to change the book, I think. The Endangered Species Act, though not a surprise, has been a very tough issue to contend with.
- Q. Any solutions in the future that you see or is it going to be a matter . . .
- A. Working it out and trying to collimate issues and of course, the courts . . . I was there, Congress passed it and the courts enforce it. There's a lot of frustration with trying to provide water and the Rio Grande is a prime example. The Silvery Minnow which existed in the river for years seems like with not a lot of water and now, they suddenly got thirsty.

Q. And that's why you really don't see a lot of water storage projects being in the future.

A. That plus most of the projects have been at least all the ones that are financially feasible have been developed or are in the process of being developed. As far as New Mexico's concerned, there's just not a lot of other stuff out there as far as regulating the supplies to our concern. There is potential of course for development of saline water resources by desalting, desalination. And of course, conservation is on the minds of a lot of people but it's not the fantasy for solving the problem. Desalination could provide some additional supplies.

Q. Will there be other ways also going out there and reusing a lot of water that has been used?

A. We're doing it right now.

Q. Turn it around into drinking water?

A. Yes, you can do that of course but right now we're using and reusing and reusing. We just got a cascade of straws in the river for example all these cities they return their effluent to the river system. So it's used and reused right now.

Q. Do you think that as far as the Southwest is concerned is it in trouble water wise or is it like we'll just keep on paying attention to it we're just going to be just fine?

A. The Southwest has been in trouble for a lot of years that I remember and I don't see it ceasing, especially with the population growth. There's no easy solution to it. They're just going to have to try to do with what they've got. Figure it out.

Q. One thing that people keep or that we hear when we're doing other shows and everything else is well why don't they just solve the evaporation problem with the Colorado River, there's lots of water there.

A. Yeah but if you don't have the reservoirs, you don't regulate the flow so you can't put it to use. If you didn't have sixty million acre feet of storage on the Colorado River then it would run down in the Gulf of California. A lot of the water you can regulate. So far nobody's figured out how to try and keep water from evaporating in the atmosphere from a lake surface or a river surface for that matter.

Q. I think it was Stuart Udall that told us that he doesn't ever see a huge dam projects and stuff like that on the Colorado ever again. Do you agree?

A. Oh yes, I agree unless of course, and this is maybe centuries down the line, the existing large reservoirs primarily Mead and Lake Powell with the capacities depleted due to sedimentation, you might have to replace them. And there are replacement sites. But that would be a great big fight.

Q. They want to tear down Glen Canyon Dam?

A. Those people don't realize what Glen Canyon does.

Q. If they tear it down, it's not going to return to the Glen Canyon that was there before they put the dam in. And another thing, they don't care what it does.

A. That's right. Exactly.

Q. Does New Mexico get a fair share as far as like water because I know in '22 when it was allocated and everything else, they got a little over eleven percent and New Mexico is a lot bigger than it was then. Of course, other states are too. Does New Mexico get a fair shake? Is it okay in rural areas and stuff like that?

A. I don't know what you mean by a fair shake but we have to live with what the law says. As far as that's concerned, we'll try to do that I'm sure. Some of the other people that look at that allocation, I'll look at how much New Mexico produces in the San Juan and then compare it to what the allocation is and they're miles apart. New Mexico doesn't produce very much water.

Q. But California doesn't reproduce any water in the Colorado.

A. No. No and they got the biggest chunk of it. That's true.

Q. What do you anticipate for the state's future challenges with water issues?

A. The environmental issues are going to have to be dealt with and I don't know how all that's going to last. So long as that Endangered Species Act is there and so long as certain people intend on getting various species declared endangered that's a big issue. Redistributing water now used for agriculture to other uses is going to be a problem. We got water for a lot of people but you've got a lot of brown ground out there and to some extent that's an environmental issue too.

We don't produce a lot of food and forage but we do produce quite a bit. That sector would be affected if you do a lot of conversion. We can handle an awful lot of people with water being used for agriculture.

Q. Any advice for the people operating New Mexico's water issues today?

A. Advice for them? They need to have enough money to hire people; they need to keep what we got and also to develop any additional supplies that might be out there for example, desalination. To me, that is the one potential for getting a new water supply. It needs to be looked at carefully both waters that are semi-saline; I don't think that's a good term, and ocean water. We have a lot of water in New Mexico too salty to use but it's not ocean water.

Q. Anything that I didn't ask you that you thought I would and you think needs to be brought out?

A. Well, one other thing I think that the people involved need to work hard at is cooperating with the other people involved with in the development, particularly amongst states and as well as states in the Federal Government and the water users. You need to get people involved and work at it and work on trying to cooperate with them of course.

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