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Central Arizona Project
ORAL HISTORY INTERVIEW
Frank Welsh
June 22, 2006

I

Today is Thursday, June 22, 2006 and we are here at the SRP Studios in Phoenix to do an oral history interview for the Central Arizona Project. I'm Pam Stevenson and I'll be doing the interview. The videographer is Bill Stevenson. Now, I would like to have you introduce yourself.

My name is Frank Welsh.

I'd like to start with a little background. When and where were you born?

I was born in 1934 in Philadelphia, Pennsylvania. I grew up with a family of five siblings in lower middle class family. My dad worked for the telephone company. My brother went to parochial schools all my life and my brother went to Villanova and became a civil engineer. When I got out of the army and having the GI Bill; I then decided to become a civil engineer.

When were you in the military?

I was in the military between 1954 and 1955 as somebody name Kennedy would say, and I was sent to Korea but it was in between the two wars. When I got out, I went to Villanova and worked for the Forest Service for the first summer. The second summer I was up in Washington State where I fell in love with the west.

How did you end up in Washington State?

I had a summer job while I was in college surveying in the national forest in the Gifford Pinchot National Forest. In fact, this was before Mount St. Helens blew its top. Since we were from way back east, we were allowed to stay another week in the summer and we drove a five hundred gallon truck full of water around the base of Mount St. Helens looking for forest fires, which was kind of neat. It's the most beautiful mountain next to Fujiyama which is when I was in Korea, I was also in Japan and that's a fantastic mountain as well.

So that was your first experience with the west?

Yes, definitely. I flew in the army and they flew me to Seattle and that's when I first saw Rainier. Of course, I got the big "K" which meant Korea so I wasn't happy about that.

That was the first time I saw the west and of course the problem with Washington State is that you could be standing there, it was so overgrown with vegetation and monster trees that you knew there was an elk. You could hear the elk breathing twenty feet away and you couldn't see him. When I graduated from Villanova University, I came out to Arizona and it was like a park. I mean there were large ponderosa pines and it was fifty feet to the next tree. We let the baby trees grow up and we fought the forest fires and the whole nine yards.

Back up a little bit, what made you decide to go to Villanova and what was the thing about becoming a civil engineer and what were you going to do with your life?

I don't think I had any real plans on what to do with my life. I started out in pre-med prior to going into to the army. I realized that my dad couldn't put my brother and myself through college, so I went into the army and got the GI Bill. When I got out, I had to decide what to do and I thought about civil engineering. That's the only thing I knew because my brother was an engineer and it would allow me to be outdoors and it was scientific. And when I went to Villanova the first year in pre-med and in the second year I was trying to decide what to do, and they said, "Why don't you just take liberal arts?" And I said, "Well okay can I take chemistry?" "Oh no, you can't take chemistry; you've already had a science." I said, "What's the sense of going to college if you can't take science?" So that's when I quit and went into the army, came back, and got my degree in civil engineering.

So what was your first job after you graduated?

I was Smokey the Bear in Arizona in the Coconino National Forest. It was open ponderosa pine forest and there were deer, antelope, and elk all over the place as well as eagles nesting in the trees. It was just something else.

What was your job? Who did you work for?

I worked for the Coconino National Forest as an engineer mostly surveying. I would locate roads through the national forests which I don't think I would do again. I think we have too many of them but that's another story. After the winter, sometime in May, my dad died and I thought it was my duty to go back east because I had two teenage sisters. I went back east and spent several years back there and returned in 1967, and I got a job with the City of Tempe.

So at that time had you made a decision that you wanted to come back to Arizona?

Yes, it was just temporary to go back east because I was planning on going to Arizona. In fact, I was working for a company called Stuckfull Clay Products Institute and it was bricks and tile. You could build twenty story buildings out of nothing but brick; you know that was the structure of it. After I decided to leave, I would go call the architects and say isn't brick beautiful and the architects would say yeah but engineers don't know how to design it. So I'd go to the engineers and show them how to design it. When I finally decided to return to the west, Dow Chemical flew their chief architect and chief sales person out here and the job I took with Tempe was five thousand dollars less a year. And when Dow Chemical came out, they offered me a fortune to go back east and

represent them on the whole east coast with this new mortar they had. So I had to decide whether to stay in Arizona and I finally decided well I could go back east and come out to Arizona on vacation every couple of weeks then I said that's silly let's just stay here and I did.

What was it that you liked about Arizona?

The main thing I liked about Arizona is you can go through the desert and to the top of a mountain in about two hours. You can pick your own climate, and there is plenty of open space. Arizona was just wonderful. When you're a kid from the suburbs of Philadelphia you don't see this. The closest is South Jersey and that's as hot as Arizona but humid. This was paradise and I was like a kid in a candy shop.

And what year was that that you came out here permanently?

In 1967 and I worked for the City of Tempe for about a year.

What did you do?

Well that's what got me into the Central Arizona Project. In 1968 I decided to Go to law school.

What made you decide to go to law school?

I was involved in politics with the Young Republicans with Jon Kyl. They nominated him to be Chairman of the State Young Republicans way back then. It's an interesting battle, another story. Tom Pappas, you've heard of the Pappas School, he was another one. A whole bunch of people were in that group. I figured well let's go to law school and see what makes this society tick. I knew I wanted an advanced degree but I didn't want to get that specialized in engineering so I ended up going to law school. After finishing law school I had a couple months of the GI Bill left so I went back to ASU and studied water resources. I then went back to the City of Tempe as a law clerk. So while I was in law school I was working for the city as a law clerk. Dave Murrecle was the City Attorney and he asked me to look into Tempe's water rights. And I had been working here as an engineer prior to that, and did an irrigation study and so forth and so on for the city. I found out that Tempe had fantastic water rights and that there was no reason for them to sign up for the CAP. So I submitted my draft report to the city attorney and I said here's what I found and expect will be the result of it. I asked him where do you want me to go from here, and I wouldn't give this to anybody else because it's opposing the CAP. He passed it out to every council member and everybody in the city. One of the council people went ballistic and said to turn those reports back in because people aren't supposed to know this. As a result, I published something in the Young Republican's newspaper and said when it goes to print that's when I resign. So I resigned from the city because I knew I'd be fired. Incidentally backing up, when I worked for the Corp of Engineers back in Philadelphia in 1964, I almost had to resign because I was getting involved in politics for Barry Goldwater. I was one of the Goldwater supporters you see and I worked the government. Seems to me I quit back then because of that political nexus there. I left the City of Tempe and by then I had found out that . . . somehow I got a book. And the thing that surprised me, let's see if

you can get this on camera, there were a couple of University of Arizona Agriculture Economists including Professor William E. Martin who wrote a book on water supplies and something like that in the desert. Anyway, they pointed out that almost all of our water was consumed by agri-business and returned almost nothing to the economy. Today the number is about eighty percent and the other number is one percent. It contributes one percent to the economy. So I started looking into this, but in the mean time I worked for a private consulting engineer firm in Phoenix. And started kicking these things around with people I knew and pretty soon in 1971 we set up "Citizens Concerned about the Project" (CCAP). We're going to take a look at it and in 1973 we decided to go public and we questioned the CAP. We said we were looking in to it and I guess it was about a year later that we came out and opposed it as a waste of tax dollars and unnecessary spending. The group CCAP consisted of a democratic and republican state senator. We had engineers, lawyers, republicans, democrats, teachers, architects and in total it was about twenty people.

Do you remember who some of those people were?

Yes, our treasurer was Jim Sell a CPA who subsequently has worked with Corporation Commission and has straightened out a couple of rather nefarious corporations. Gail Dunnable was our attorney and is still a good friend of mine. Bob Hungerford, Senator Hungerford, Senator Manuel Pena, Bob Croft, the architect was with Taliesin and I can't think of his name right now. That's just a few and I think Jim Sell of that group was the most notable because I.R.S. challenged us one time and said we're fining you thousands of dollars for not doing your report. And we found out that it was a report that we weren't supposed to do. We had another report come at us and it was politically motivated. We have no doubt because we said okay send our files to Phoenix so we can look at them and all of the sudden that issue was dropped. And we don't know who it was.

So you were like an official non-profit organization is that why the I.R.S. was looking into the company?

We tried to get a C3 status which would be tax exempt contributions. Our chairperson was Dave Campbell and he was a fantastic person. He worked for a school in Tempe named Cook Christian Training School in Tempe. He was quite an artist and in my book, you will see all kinds of cartoons by him.

That you were a non-profit organization?

Yes, so in that coloring book, which was cartoons, it said something about Congress and that was enough to loose the C3 status. Subsequently, they changed the law so you could get involved twenty percent in politics and so forth. So we were stuck with making almost nothing from contributions. This was a David and Goliath battle that we had very definitely.

Were you doing this full time or did you have another job at the time?

I was doing some consulting engineering for an old time engineer that I had known. When the state water engineer found out that I was involved with this or that, he would

try to pull this or that contract from me and I would always go through someone else. I didn't make much money during this time.

Why did you feel so strongly that you had to put all this time and effort into opposing the CAP?

I guess it was my duty, and my Catholic parochial school training and political philosophy that we were wasting money on an unnecessary project that wasn't needed. Then later on as I got more into it, the Audubon Society pointed out that there were Bald Eagles there and of course we had tubers and we had get into Orme Dam later on. So we officially opposed the CAP and said we don't need the water. I guess one of my biggest contributions at that point was to point out that we had enough water and my calculations showed like fifteen million people. I was shocked when I came to Arizona and I was convinced there was a water shortage and everybody knew it. When I did the calculations for Salt River Project, I found out that we had enough water in the Salt River Project for seven million people in this valley. That's New York City, we don't want that here. In addition to that underground there's enough water for three hundred years and that's only down fifteen hundred feet. We know that there's groundwater lower than that in places in Arizona. We don't know where the bottom of this is generally. There are places where we haven't bottomed out yet. In some areas, we go down five thousand feet looking for oil and things like that. We've still found water not in the valley here that I know of.

People have talked about groundwater pumping in the east valley and down in the Tucson area was already showing subsidence in the soil because they're pumping so much water, pumping it all out.

We didn't pump it all out and we're not floating on the water. Now there will be some cases of the collapsing of soil when you take it out depending on the soil. Well, let me see, you can see right here for instance. If you pump the water right, you're going to get a bending either way and then you may get a crack here on the surface. And by the way, you notice how there is two separate basins here. When I worked for the City of Tempe, I proposed that we keep that old bridge and use it as a boardwalk and build a dam right here. This is only ten feet below ground, the Tempe Bridge, build a lake there and this is back in the 1960's I guess. So we'd have a lake there with the bridge across the lake and we'd have like a boardwalk and little things like shops on the side and the whole nine yards. But they blew up the bridge or got rid of the bridge after I left the City of Tempe. We were going to do great things with that bridge. Anyway, in spite of all that water, I couldn't say we didn't have a water shortage because the problem isn't the resource, it's the rules. So as you can see all that water from our dams is tied into the boundaries of the Salt River Project. You're not allowed to consume Salt River Project water outside the boundaries. So now we had to take on the Salt River Project. What they do is send water outside the boundaries of the project and the city, like Glendale or Paradise Valley, has to pump groundwater out from under them and give it back to the Salt River Project. So you could borrow the water but you can't consume it. You see that was the rule. I wish we had kept it within the boundaries of the Salt River Project and we'd have a city here instead of a sprawl, but that's another story. So we had to take on the Salt River Project and that wasn't an easy thing to do because we were taking on agri-business (Salt River Project). We're taking on the whole political

establishment of Arizona and fortunately around this time, the Audubon Society and the Sierra Club of course but primarily the Audubon, got involved in the Orme Dam battle. Now Orme is the worst part of the CAP.

You were involved after the CAP was authorized?

Yes.

Now they were trying to get it funded and all that. That is when you got involved.

Every year they were getting it budgeted and as I can recall, I went back to Washington about every year to do some lobbying. And I can recall going into Congressman Udall's office, I said to his aide, "Why don't we use our CAP water along the Colorado River where there's lots of irrigated land? Why bring it in here if its major purpose is agri-business." And he yelled into Udall and Udall says, "That's a great idea but it's too late to stop it" and that was in 1971 maybe, 1972 and the CAP wasn't completed until somewhere in the 1980's. We could've stopped it anytime and we're talking billions of dollars of course. Orme Dam was really the real kicker. And there was a point in time where I knew that we were going to kill Orme Dam and I didn't want to kill it too soon because I wanted to get to the whole CAP. That was my goal, Orme Dam was the grabber.

When did Orme Dam become an issue?

I would say Orme Dam was an issue from the time we started on the CAP in 1973 and in 1974 we officially opposed it. For the next year or two, we started giving out literature. I don't remember when the Audubon Society came in or the public hearing on the Impact Statement down in Symphony Hall there, Phoenix Civic Plaza. We had hundreds of people down there. We had people tubing in the fountains.

Do you remember when that was?

July 16, 1976. I think that they realized that we were getting a lot of people out and they held it in July figuring most people would leave the valley. And I mean to tell you that we overran them. And I can recall, Bill Stevens, the youngest legislature ever in the State of Arizona at the time, he was obviously all for representing the water people and I'm in the auditorium, he comes up to me and starts talking to me. And I thought, "Bill what are you talking to me for because, you know, I'm on the other side?" And he looked around the auditorium and says, "Frank, I'd be afraid of not talking to you in this crowd." And that was such an interesting hearing because the day before we found out from the Arizona State Geologist Office that Orme Dam was heavily faulted. There were faults all over the place and there was a break for lunch and we were lucky to get our guys in their speaking at the right time. And at the lunch break, everybody left. And our guys went up and they took this thin red tape and they put it over the model of the dam that was in the front of the room. And when everybody came back from lunch, our speaker, one of our guys got up and said, "This dam is so heavily faulted, it's a danger to the valley." Oh man, did that make headlines, and that was the toughest thing of all was trying to get coverage. How do you keep these things going? And so we would bring up economics one time and then pollution of the water and so forth and so on. And that's

about where we really tied in with the Audubon Society and of course, that was the bald eagles. And at the time, there were seven nesting pair of bald eagles in the entire seven states southwest. And three of those nesting pairs would've been wiped out by Orme Dam. So we used that and then Carolina Butler, she was the one who talked to the Indians and I think they didn't realize that they could do anything. And she said "You can do it. If you don't want the dam, stop it." And so they voted against it, eventually. This went on for years and we were talking about now.

I was just thinking that initially and maybe you weren't involved at that point but you mentioned the Sierra Club at one point. The Sierra Club I hear was very instrumental in stopping building another dam, Marble Canyon, but you weren't involved at that point?

No, I was probably in law school at the time. I was in law school in my third year, and I must have been involved with Orme Dam because in my third year I was taking environmental law. Gail Dunnable was the Assistant Dean at the law school and my law professor that joined us. And I remember saying, "Can I make a presentation to the class on Orme Dam?" And he says, "I can't take a whole half hour out of class. I'll give you a minute or two in the beginning of each class." So I stood up at the beginning of each class and gave a different issue. We did file a lawsuit and it had to do with they were going to put the siphon under the Salt River heading south, coming around the north part of the valley and coming down across right around Granite Reef Dam, just downstream of that. And if they put that siphon in that would have obviated some of the alternatives on the other side like Lake Pleasant for instance. And so we sued and said you got to finish the impact statement and all this kind of stuff before you can do all these things. They never did decide that case by the way. As far as I know, it's still in court. What good is going to court, if you don't get to decide in a reasonable time?

Getting back to the Orme Dam issue when you first got involved with that, was it pretty much a firm belief that there was going to be an Orme Dam?

There never was not an Orme Dam except that it was named Maxwell Dam in the beginning.

Wasn't it called Cliff Dam?

Oh no that's another dam that came after Orme it was an alternative. That's an interesting story, but Orme . . . well let's say CAP itself should've been called the Sacred Arizona Project and the initials would have been much better S-A-P from an economics standpoint. And so everybody assumed that we needed it and of course, Orme Dam was needed. So the first thing we did with Orme Dam was show that we had plenty of water that the water was being strictly used for agriculture. So agriculture returned to the economy, how much water were they using. The next thing as I say, we pointed out that we had enough water for fifteen million I calculated but for some reason the State Water Engineer, Wes Steiner, my good "friend", came out and said, "Yes, we have enough water for ten million people." Wow! I'll take that. If we cannibalize agriculture that was the rest of the quote saying we had to get the farmers and the banks of course. Loans to the farmers, that's the way the whole thing works I found out finally. I was finding out what made politics tick and that's what I learned in law school. I also learned in law school that the problem was the rules not the resource. So that's

something else I learned. You can always change the law but you can't change the resource. The thing is that if people don't know or don't care, then they too will do what they want. That's the crying shame of it all, the whole system. No one every challenged Orme Dam that I knew of. There were four dams in the CAP. The environmentalists were challenging primarily the one that was in New Mexico, Hooker Dam I think it was. They were challenging that because it would back fire into the first wilderness area, the Gila Wilderness Area, which would've set an awful precedent. The other dam was down at along the San Pedro. And that would have; believe it or not, the San Pedro is the gem of the birdie world. That's the only not dammed River left in Arizona. That dam would have evaporated all the water that came into it based upon the records. So there would be no water flowing in the San Pedro downstream of that dam. How stupid! And then there was the Buttes Dam that would be on the Gila River, way upstream. There's another dam upstream of that, the Coolidge Dam. And that is the one where the Indians got kind of shafted, you know. They said they would build the dam for the Indians and they ended up primarily for agri-business. And then there was Orme Dam and Orme was the worst dam. As I used to say, there's something in Orme to offend almost everybody and there was. I mean you had the ten thousand interties a day. These are kids, right. They're enjoying, they're recreating, better then having gangs on the street. But that wasn't as justified as building a lake and flooding these areas because we'd get boats. Well, do an economic analysis on how much a tube costs and how much time a kid spends out there and compare that with the boats. These aren't kids; these are people who are working. Young working people even today and then you have the pollution brought about by the salty CAP water stored behind Orme Dam and polluting the Verde and Salt River. The Verde River, I have clippings from the Arizona Republic (Republican at the time), that said, "Sweet Verde waters finally flowing through the iron veins to Phoenix". They screen Verde River. It's like two hundred and fifty parts per million salts. The Salt River, expertly named, is six hundred and fifty parts per million. CAP is seven hundred and fifty parts per million. So we're polluting our best water supply and in my engineering mind, the best water should go to the cities. Charge them more for higher quality water and save that water for us.

You were talking in 1976 was this major hearing was that the turning point for the opposition for the dam?

I would say that's when the other side realized that they were in trouble. We had passed out some literature over here, whole bunches of literature at that point. We had this all tubing on the Salt and Verde will stop and we had some of Dave's drawings. And then of course when we took on the Salt River Project they increased their electrical rates by twenty-five percent. As a result of this battle and it wasn't just us, Salt River Project added four at-large directors to their Board of Directors. So that was helpful, although they're still running the show. And then we had these "All you ever wanted to know about the CAP but were afraid to ask" and "Water Mythology and the CAP". And this was full of information that probably bored people and we were asking people to contribute. We started with one dollar and we said membership was two dollars for students, five dollars general or volunteer work. That's the way we ran our show and we had hundreds of people. We had a file like you wouldn't believe of people who were volunteering, giving out literature, and giving talks. We had a slide show put together. We'd go give talks to all these different organizations. We won't get into how many organizations that opposed CAP or Orme Dam in this case.

How did it proceed from that point on?

Well we showed that we didn't need the water for people or for agri-business. So we didn't need Orme's water. And we pretty well stopped Orme Dam at that point. Then the floods came in 1978 and 1980, and we needed Orme Dam for flood control. Okay, so now we have a new battle. So we did some analysis and we got into the Rio Salado at this point that our major cry was we needed more bridges not more dams. The problem with the flood was you couldn't get across the Salt River. And of course, the Salt River Project sent people back from Holly Acres to go back to DC and paid for their trip back to lobby in favor of Orme Dam because they were flooded even though not that many before, the County Flood Control Engineer had said, "We shouldn't allow them to build in the flood plain" but they did. And they were flooded. And what we said is we don't want Rio Salado for developers. By building Orme Dam you reduce the flood plain that's what they wanted. They wanted a fifty thousand cfs flood plain. Basically, they wanted this narrow flood plain for their Rio Salado and they could develop all this in here (referring to a drawing). That looks like free real estate, okay. Well, we said no we don't want that. We want a playground for people, a Rio Salado playground for people. This should be open space and this is what we have today. Unfortunately, we ended up with something like this instead of something like that (again referring to drawings). Because they didn't, as we'll find out later, we stopped Orme Dam but they raised Roosevelt Dam which wasn't necessary by the way and then we get into dam safety. That's one of the more interesting stories. So this is the problem with Orme Dam for floods is you have the two Verde River dams which are small dams and if you get a high peak flood coming down and these dams are full, you're going to have flooding in the valley. Up here you have a monster Roosevelt Lake, which stops most of the floods, but it could create problems down here. And during this whole battle this lower dam named Stewart Mountain Dam, we said hey that's a dangerous dam. We found some stuff showing that the dam could fail. Oh no way, the other side said. Bruce Babbitt, Governor, came out and said be prepared to evacuate Phoenix. Stewart Mountain Dam might go in this flood. Wow! We were caught lying again.

That timing of that hundred year flood was pretty good for your campaign wasn't it?

No. We had stopped Orme Dam at that point and we were into the CAP. If you look back on it, yes in the sense that it brought Orme Dam up again. And that permitted us to attack the whole CAP. In my opinion, my goal as a rebel rousing, Republican and duty bound person was to use Orme Dam to get public attention to the CAP and our water to education the public. And my real goal was to get to the group that was building these stupid projects called the Bureau of Reclamation, spelled with a "w" "Wreclamation". We have a slide like that. It shows a power line and a power tower and somebody had put a "w" in front of Reclamation which I thought was great. So that was my goal and we ended up, we cut the Bureau of Reclamation pretty much in half and they haven't built a big dam since.

Well part of all that happened during Jimmy Carter's administration didn't it?

Jimmy Carter withdrew Orme Dam and the CAP took a look at it. The benefit cost ratio for the CAP was something like thirty cents on a dollar when they analyzed it. You're supposed to be 1 to 1, a dollar on a dollar, just too even think about justifying it

but it was a political issue. And as you know, Jimmy Carter got creamed because of pulling the water projects. He did what was right but he didn't do what was politically wise.

Isn't that kind of ironic though as you said as a Republican here, you're fighting the project and here comes this Democrat on your side?

They're both good people and I had gone back every year to lobby, and I didn't necessarily lobby congress because I knew that was futile. You go to these hearings on these projects and I mean that's just "performa". You can go in there and say, "Oh, the sky's gonna fall" and they would say, "Oh yeah, so what. We've got backing for this project, let's build it." I would lobby the groups that were in DC who could lobby against these projects. And in fact, Brent Blackwelder at the time was a . . . now he's with . . . he's a leader of a very big environmental group back there and all these different people that I would meet. Anyway, Brent Blackwelder and some of these other people went with Carter when he became president and that's how we got some of these projects in there, in the "Hit List". So we're right on top of the "Hit List" because of having gone back and lobbying. The Fort McDowell Tribe, we had John Williams. He was something else. He was an old time Indian. He'd spend his time under a beautiful mesquite tree out on the Fort McDowell Reservation. He sat, right beside the Verde, he said, "If they want me to move, they'll have to do it with a silver bullet and then get rid of my body" or something like that. And he went back with his granddaughter, Kimberly who was an adorable young lady. And they would testify before congress and he would always use this silver bullet thing you know. You need a silver bullet to get me. We had Bob Whitzeman who was the chairman and later on the conservation chair for it. Or the two, maybe Carolina Butler would go back once and awhile with him. And we had other people who would go back and lobby our congressman and that were a useless task. Although we did get Sam Steiger but Sam wouldn't come out against it. Congressman Conlan was very wise. He said, "Look, I can't vote against the CAP, but I can vote against all public works projects" which is what he did. So he wasn't being hurt just for being seen as a conservative Republican. It's somewhat like Congressman Flake does sometimes, same concept. Don't take on the local project, only take on the whole pork.

If you could think of opponents to Orme Dam and I've always heard that they were radical hoodlums?

Hoodlums?

Liberals?

Liberals, right.

But yet you call yourself a conservative Republican?

Let me tell you, I was Barry Goldwater all the way. I can recall when I went back to Philadelphia after my dad died, I would go down to New Jersey shore and we would party. We'd get a house, seven guys, and the next house, seven girls, for the summer, you know. I had a cowboy hat and somebody stole it off my head at the first party and everybody stomped on it and when I got it back, I just took the front of hat and flipped

up like this and put a Goldwater Miller button in the middle of it. And I would go around the largest hotel in the cocktail lounge or where everybody was partying and everybody would say, "Well what did Barry really say this time Frank" and I would tell them what Barry really said. After the election, I can't tell you how many of those people said, "We voted for Goldwater thanks to you, Frank, you were right." Obviously not enough people did so I was definitely a conservative Republican. I liked the outdoors. I liked the environment but I wouldn't say I was an environmentalist at the time. I'm much more of an environmentalist now for sure.

Goldwater supported the Central Arizona Project right?

Goldwater I don't think he supported but he said that he wished there was a better way of doing it or he thought of better ways of doing it. But he never got into what I'm talking about changing the rules which is all we had to do; all, that's a lot. No in fact, Goldwater later on became more mellow and one of the projects that I'm involved in now which is Haunted Canyon out at the Superstition Wilderness where a Canadian mining company is about to go in and de-water one of our few perennial streams right near Superior coming out of the Superstition Wilderness. A year long stream, a mile long, ninety percent canopy cover, it was unbelievable. And this mining company goes in and for five dollars an acre they get our public land and they can mine it and pollute our water or worse yet, they de-water the stream. That's what they're going to do. So that's my latest project. So I mean, my major goal in fighting these projects has always been economics and more and more of the environment because it is so stupid what we're doing. Since the CAP, I've been involved in mining, grazing, and all these foolish uses of our public lands which are not justified in my opinion. Why should we have cows which are back east, riparian animals, grazing our public lands and polluting them and destroying them? That's foolish. Seven inches of rain a year and we got a cow out there. Come on.

Let's get back to Orme Dam.

Okay.

When did you finally defeat Orme Dam? How did that come about?

Like I say, I knew at a point that we had stopped Orme Dam. I really can't say when it was. We got some feedback from people on the inside that Orme Dam, was, you know, pretty well done for. The Indians, some people give the Indians credit because they had a parade that went into Phoenix but prior to that, the State Water Engineer had already I believe he made a statement that Orme Dam was dead. So it was after the fact. So it was a typical politician thing, you know. He jumps in front of the parade and says this is where it's going. So when we stopped it, we stopped Orme Dam but then Safety of Dams came up. And I don't know if you know about the Safety of Dams angle, but what they were saying was many of the dams in this country were unsafe and Congress passed a law saying let's make them safe. So having stopped Orme Dam that was one approach, and I mean to build Orme Dam, but the problem was if any of these dams would fail, then Orme Dam could fail. Now the price of Orme Dam was going up like a billion dollars. So then the question is what do we do with these dams? Well, under Safety of Dams, they took the maximum probable flood, or as I call it the Noah Flood,

now these are bureaucrats. You have to realize that I worked with Corp of Engineers and I turned down seven flood control projects in a row because they were not economically justified. But the bureaucrats in some of these agencies, they're going to build something because they get more money if they build things. In other words if I had four engineers under me, I get a certain GS rating. If I have five, I get a bigger project. I get a GS10 instead of a nine, so they want to build Orme Dam. So we pretty well killed Orme Dam because of the Indians and the eagles, the intertubers, the cost, the pollution, you name it. Now we have this Safety of Dams thing. Well Congress said if you make the dams and they said that Congress' law pretty much stated that if you make the dams safe then your benefit cost ratio would be one to one. So it would be justified just by making the dam safe. So they used that to raise Roosevelt. They said okay we can justify anything we want now. So they raised Roosevelt twice as high as it needed to be, the Safety of Dams. But the most important thing they did, they took this maximum probable flood, which I call the Noah Flood. And it was like several times the size of the previous standard project flood, which would have been like a two hundred and fifty year flood, just using numbers and people get bored with numbers I know and I had to be careful of that of course. So anyway, it was obvious that they were going to raise Roosevelt and we were pretty well worn down by this time. We didn't want to have to fight Roosevelt too. Our groups were getting very tired of these battles. Then they said we can make the Verde River safe building Cliff Dam. So Cliff Dam would be built right here between Bartlett and Horseshoe Dams. Horseshoe is a dirt dam. So they would build this monster Cliff Dam and they would flood out that one, breach the dam and just flood it out. We don't have to worry about that anymore and this big dam would protect Bartlett. So then that wouldn't be over the top so that was their point. Well we pointed out that this dam could be protected with additional spillway protection. Spillway as you may not know is like the drain in the bathtub. When it gets so high instead of overflowing the bathtub or the dam in this case, it would run through the drain on the top there and you would have your protection. So we said all you have to do is build a few spillways over here and we gave other alternatives like . . . my brother was involved in this, we had lunch in DC one time. He was vice president of a big engineering company back east. We sat there and had lunch and worked on these dams. He said look let's try this and oh yeah that's good. And meanwhile, I suggested these fuseplug spillways which is you build spillways that hold water but when it gets to a certain elevation it fails and it becomes a secondary spillway. So instead of the whole dam going, the secondary spillway and the Bureau of Reclamation has the temerity to say, "We don't build them." I said, "The Corp of Engineers builds them, why can't you guys?" We ended up even making it more interesting. Right where Horseshoe Dam was, remember they're eagles nesting here and here, alright. All of the sudden an eagle nest appeared right where Horseshoe Dam or where Cliff Dam was supposed to be built. Here's a pair of eagles nesting right at the dam site and this really set things off. Making a long story short, we sued and I came back from DC and I showed them the alternatives that they had not considered in the Environmental Impact Statement, which it is required to look at all reasonable alternatives, and the alternatives that they didn't look at were making the existing dam safe which would've justified one to one benefit cost ratio then they couldn't justify Cliff Dam. They capitulated on the lawsuit and they didn't build Cliff Dam. So we ended up getting Roosevelt raised. They did some work on Stewart Mountain and our dams our safe from another flood theoretically now.

What about the Waddell Dam?

Well, that was Waddell Dam over here was for storage that Orme Dam was supposed to provide.

What was that called?

Plan 6 included originally Cliff Dam and storing the water over here and Roosevelt too, raising Roosevelt. So we stopped this, made the existing dams safe, and they stored the water over here.

In Waddell?

Right and the reason we had gone with that siphon suit, the siphon would take the CAP water under the Salt River at this point. There were dam sites over here and that could've been used instead of Waddell Dam, instead of Lake Pleasant. It would've been as good as site just as a cursory look at it but they hadn't considered it in the Impact Statement. So that's why we sued. We said you can't be building this siphon which sets the erection, ties in the direction of the canal until you consider reasonable alternatives back here. They might have moved this line down here or up or something like that if that makes sense. So that was part of it. Then of course the Rio Salado now that Orme Dam was stopped, we would have a larger Rio Salado. But by raising Roosevelt, it was kind of like a middle Rio Salado which is what we have now. So we could've had a much bigger Rio Salado if we had not raised Roosevelt or not raised it as much. They raised it sixty feet I believe. They could only justify, in my opinion, thirty feet but that's another story. Meanwhile, we're over here and here's the CAP bringing water into Arizona. Here's the dams that were stopped, the Charleston Dam down in the San Pedro; and the Coolidge Dam, that's the existing dam, the Coolidge Dam, that was the one that was supposedly built for the Indians; the Buttes Dam site on the Gila River and of course Orme Dam. So you can they were stopped. Also there was a connection down from Tucson all the way down to Sierra Vista basically and that was part of the CAP also which was stopped. So meanwhile you're using tremendous energy to pump this water over the mountains, unbelievable amounts of energy. It's coming through the Navajo Power Plant which is polluting the Grand Canyon. Meanwhile, California is taking this water and using it in Los Angeles and San Diego. Then California is talking about their bringing water down into the California aqueduct to the same place over here in the Owens's Valley. So it's a real round about game. Now the worst part about the CAP probably, and I pointed this out in a news conference, was when we signed up for the CAP they put us on the bottom of the priorities for Colorado River water. So if there's a drought, California gets their 4.4. If there is only 4.4, that's it. We get nothing and we signed that away when we authorized the CAP. That was one reason I said why we should not build the CAP, we should try to reverse this whole thing. Meanwhile, there is another plan which is called the North American Water and Power Alliance because there obviously isn't enough water here for everybody, right. So we have to get more water for what? Agri-business? Which we can grow anywhere. We have a new one now which some large engineering firm in California came up with Ralph M. Parsons called the NAWPA, the North American Water and Power Alliance.

When did that one come up?

That came up in 1974 and that was pushed by . . . who was that radical presidential candidate? I can't think of his name. He was pushing this during his campaign and that would bring water from basically Alaska, down here into the Rocky Mountain trench through Canada, Montana, and Idaho. We have such dams down here in Arizona as Oak Creek Reservoir. How would that grab you? We'd have a forest fire there today. How about that? So this is the ultimate plan. Now you can see where my motivation is to stop stupidity like this by educating the public that we don't need the water and showing what agri-business returns. When you look at the crops we're growing, cotton, most of it went to China at the time. We send a dollars worth of cotton to China and we get back a five dollar shirt. That doesn't help our balance payments at all. So we're growing all this cotton and alfalfa. The highest water consuming crops you could imagine. This is silly in a desert. Same with cattle grazing in the desert, I got that one in too.

Going back you talked about all these alternatives, when did you really know Orme Dam was dead? There wasn't going to be Orme Dam and there wasn't going to be Cliff Dam.

They were two different issues Orme Dam was dead and the flood came in 1980, somewhere in the 1981 range I was sure it was dead when we got the story across that we needed more bridges not more dams. That mollified the public if you will. We didn't need the dam. I would've liked it to stay in longer. I don't know when it was actually stopped. Let's see, I went to Ireland in 1982 so it had been stopped by then I guess. So it was 1980 right after the floods, soon after the flood when we pointed out about the bridges and the other things that were not considered the other alternatives to Orme Dam. They came through with Plan 6.

Plan 6 was when?

Plan 6 was originally consistent with Cliff Dam. So that was now another battle. That was kind of a tougher battle and that dealt with dam safety because as I said the Teton Dam failure had occurred and that's when we found out that the Bureau of Reclamation didn't know as much as they thought they did. I've talked to private engineers who wouldn't work with the Bureau of Reclamation because they thought they knew everything, including my brother. By the way, we had some well known engineers' question the CAP but they couldn't come out publicly because when you think about it, every engineer works for the government directly or indirectly. If you're building streets, if you're building dams, anything at all it's politically very tricky. One of the first ones that I talked with, and he's dead now John Carolla, Carolla Engineering is one of the biggest engineering firms around or has been, and he told me he hasn't seen anything so stupid as the CAP and he actually gave me some of his drawings. George Barr down in Tucson who was a member of the CAWCD was one of our directors when we founded this thing and he is a well known engineer down in Tucson. I've talked to other engineers that were working primarily for the government and they said that they really admired what I was doing but they had a family and a home and all this stuff and they have to keep working and couldn't come out and challenge these things. They said, "Thank God you're doing it because you're a bachelor." That was fine. That's the way the system works. There's no way that those who know the most can come out and

honestly question what's happening because they're being paid to look at these things. Nobody in the City of Phoenix Engineering is going to tell you that there's no water shortage because the guys who know about water their jobs are depending on there being a water shortage. Look at the Department of Water Resources, when I first got into this in 1970 I guess it was, 1971, I don't think there were twenty, thirty people in the Department of Water Resources. Now you've got hundreds all depending upon water shortage. Its bureaucracy building upon itself and I guess I'm still a conservative based upon what I am saying here, a conservative, Republican, environmentalist how does that sound.

Interesting conversation.

Yes it is, very definitely.

When did you sort of decide, it sounds like basically like you gave up your civil engineering career to fight this. Did you make a decision or did it just happen?

It was a philosophical decision and at one point I realized as an engineer that you're making money. When I worked for the Corp of Engineers in Philadelphia, I had three or four checks in my desk drawer. I'd say I guess it's time to go cash them. It wasn't a question of money and then one day I said, you know what I do is more important than how much money I make. So I felt that this was something that I should do and I got a philosophical change if you will. And then once it was all over, I felt somebody has to point out what happened. Maybe someone can learn from it so I wrote a book.

When did you write your book?

It was 1985 that it was copyrighted and forward by Stuart Udall because I was so conservative and we needed environmentalists. And what bugged me about the book is that the editors put a picture of a bald eagle in there. Also, I wanted to talk about that we went to Yosemite? Most people don't know but there's a second Yosemite and it was flooded by a dam, Hetch-Hetchy Dam. I wanted to put that in the book that, that dam is more valuable for recreation then it is for the water supply of San Francisco because there are other alternatives for water supply. And my publisher said no way, that's ridiculous. Three years later the Secretary of the Interior came out and suggested that, that we get rid of the dam. And now we're taking down dams which is very interesting for salmon and so forth. So we're starting to turn things around.

I heard after Cliff Dam was defeated that there never would be anymore big dams built?

Yes, by the Bureau of Reclamation in this country, probably not by anybody. Well what do you call the Corp of Engineer ladies? They're nothing but "dams" let's face it. And look, they're still failing. You can't fool with Mother Nature. We ought to live with Mother Nature. Live in the flood plain, but don't live where you could have dangerous events occur and kill people. You can park cars and have recreation and farms there. Don't put buildings there and have people die same with New Orleans. The biggest thing in New Orleans is, just as with the flood plain here, they destroyed the marshes that were the biggest protection for New Orleans. It wasn't the dykes, but the marshes that will grow

out into the ocean and reduce the floods from a five to a three as they did in this case and they weren't even able to do that much.

Getting back to Arizona, weren't you largely responsible for changing that direction of the building of dams?

I sure would like to think so; at least I had a part in it. There were people throughout the country who were involved with these things. I would go back to DC and we would meet with, and it was the environmentalists, because they were the people who cared. Our people didn't care. The environmentalists had a reason to care. The only other group of people that cared was the taxpayer groups, like Sun City Taxpayers. We had them opposed. So my major purpose was to educate the public about these things so we wouldn't be building these things forever. How much I did, I don't know. I know afterwards, Althea Hart of the New Times made a comment that the people who stopped Orme Dam and I guess it was myself, Doc Whitzeman, Carolina Butler, and then she went into Jimmy Sell and Gail Dunnable and a little summary of each one. It was a nice article. And our goal was basically to get rid of Reclamation because it was no longer needed. It was a bureaucracy looking for something to do and that's dangerous. Now when I talk about the people who we educated and who opposed these dams, in the book there's a list of some of the organizations that the Democratic Party has on their communicable counsel. I walked in one day to a meeting of the Communicable Counsel and this guy was there at the water fountain and I said, "Could I get a drink" and he said, "Sure". And I looked over and said, "Thank you Bishop." I didn't recognize him. Libertarian Party, Catholic Diosis of Phoenix, Community of Fort McDowell, a local union, Friends Committee Meeting of Phoenix and Tempe, Friends of the Earth, Brent Blackwelder founded that group back in DC. Inter Travel Counsel's of Arizona and New Mexico, Maricopa Audubon, National Audubon, National Indian and Lutheran, National Wildlife, Phoenix Gray Panthers, Presbyterian of the Grand Canyon, Salt River/Pima Indian Communities, Sierra Club, Tempe Democrats and Valley Republicans and that's a pretty good group.

That's a pretty diverse group.

Very diverse group, that is what I aim for and I never believe in opposing a project unless I have alternatives to it. Even Paradise Parkway was the next thing, I came back from DC after we pretty well stopped Cliff Dam . . . and by the way, the Secretary of the Interior or whoever we met with said something along the lines that he had never seen a more diverse group opposing a dam. I came back and I found out that they were building the Paradise Freeway, which was Camelback. It's about where I lived.

Who were you fighting and who were the people supporting it the strongest that were your opponents?

Here's one I missed. This is one of my favorites if I can find it here. Where's the airplanes Barbara? Here it is. This I think is a fantastic cartoon which pretty well shows what we had been doing. This is the CAP Association, the Central Arizona Project Association, now this was a C3 organization even though they were politicking all over

the place, alright, but nobody was challenging them. We thought about it but we thought what's the sense in that. Meanwhile, they were coming up with all these alternatives. CAP is necessary to save Arizona's economy and we shot that down. Necessary to save agriculture, water shortage, cities need CAP. We just shot them all down. And it was groups like this the agri-business associations, alright, the bankers obviously, the powers that be, all the politicians, nobody was willing to challenge the question of this sacred project. That was our biggest problem. No one was willing to look at us with an open mind.

Even Sam Steiger? He challenged everything.

Yes, even Sam Steiger was unwilling. A little side bar on Sam Steiger, when he was running for governor he had a . . . downtown there was a Lions or one of those meetings and he was the speaker. And I walked in the door and he said, "Frank come here." He says, "I'm going to challenge the Colorado River allotment. Tell me all about the law of the river in two minutes." I said, "You've got to be kidding Sam." But he was shooting off the hip. Look who they had. John Rhodes was the major pusher of the CAP, Senator Fannin.

Moe Udall was a pretty strong . . .

Moe Udall finally opposed Orme Dam. We met with him several times. No, it was it Stu Udall that opposed it? He was Secretary of the Interior. I guess Moe, Moe did too as I recall. Even they couldn't do it publicly. Even Babbitt, Babbitt was asked about Cliff Dam and the eagles and he said, "Well, the eagles are nice but we need this dam." Even though we had provided information that we don't need this dam. It's easier not to go against the flow but if people don't start doing it, where are we going to go. Somebody has to challenge these things. It would be nice to get paid for doing it but you don't, let's face it. We need ombudsmen that understand. One of my biggest complaints is that lawyers make all the decisions on water. They're not engineers. That's a complex area and yet they make these decisions on water law. The water flowing in the river is different than the water underground. I mean they're connected but why are they different. So there's all kinds of challenges in here and if you don't challenge the thinking, you're never going to change things and make them right.

How did you make a living during that period of time?

I think the most I made in any one year was five thousand dollars. No, there's one year I made fifteen thousand dollars and added a room onto my small house. My major savior was the fact that I bought this little Irish bungalow at 16th Street and Camelback roughly and my mortgage was a hundred and thirty dollars a month. And with that I was able to survive. I was happy. I was free. I could do what I want. If anybody didn't agree with that I was doing, okay. It doesn't bother me. And I felt that I was doing what I should be doing. I don't think I would do it over again if I looked at it again.

You didn't know what you were getting into?

Yeah. Luckily I waited long enough to find the perfect woman and finally get married after God knows how long.

You mentioned that Stuart Udall wrote the introduction to your book. How did that come about?

I guess Gail Dunnable, the lawyer that I work with knew Stu and explained the whole thing to Stu and I met with Stu and that was how that came about.

That was when he still lived in Phoenix?

Yes as I recall. I think we met with him in New Mexico once too but I don't recall. This is 36 years ago we're talking about. My book was 1985, twenty years ago and the book has been out of print by the way.

When you wrote the book did you make a lot of money?

No. It sold more than I thought it would, I'll out it that way. Interesting about the book, I wrote the book because I wasn't sure if people didn't know or people didn't care. Unfortunately, my conclusion is that people don't know enough to care and don't care enough to know. People just go along and unless they have . . . that's why the environmentalists come in because they care. For instance, this power line that we're going to send our power to California, if the people knew that it is going to increase their Arizona power cost, they'd oppose it. The only ones opposing it now seem to be the environmentalists because it's going through the Kofa Game Reserve. So the environmentalists are great because they care and they get involved. Sun City Taxpayers and certain taxpayer groups, I wish I could say the same for my conservative Republican cohorts. I recall once Salmon, Congressman Salmon, I was there and all these flaming conservatives were yelling and screaming at one of his meetings of all his committeemen and all this kind of stuff. And they were ranting and raving about environmentalists and I said, "Excuse me, if we were to eliminate all the subsidies on agricultural, ranching, mining, (and I mentioned a couple others), we wouldn't have to worry about the environment. It wouldn't be destroyed. Why don't we eliminate federal subsidies?" Which I think is a conservative philosophy, isn't it? Oh man, everybody just quieted down. Nobody said a word and that was it. Why don't you stick to your guns and be honest about these things. I guess I'm a purest.

Do you still consider yourself a conservative Republican?

A conservative Republican environmentalist. I don't consider myself a Republican in today's administration. I don't consider today's administration as a Republican as I was raised as a Republican. I'm a Goldwater Republican as I said. I see the current administration preventing the states from making decisions. And yet, conservatives were states rights. I see the deficit ballooning out of site. Conservatives were against the deficit. I see them cutting taxes, starting wars, and helping the rich. So they're trying to make what we've fought for years to try and prevent all rich people aren't Republicans or all Republicans aren't rich people. They've turned it around. Now we

are. So if you're Republican, you can be rich because you get the tax breaks. Every place I look, they've gone against what I was involved with the Republican Party for many, many years. I've been precinct committeeman, precinct captain, wrote on writing campaigns for the corporation commission missed it by 172 votes statewide. It's too bad I never wanted to run for office. I wish we'd get some people in there who would. My theory on that is that you compromise as you get in there at the lower levels. You keep compromising and by the time you get up to the top, where you can really make these decisions but you've compromised so much to get to the top that you no longer have your ethics and philosophy anymore. And I think we've showed that to be true. So it's a shame and the people don't care. It's the biggest problem. Anyway, now I'm philosophizing.

Sure, it's fascinating. One person you kind of mentioned in passing and who's had a lot to do with water law in Arizona is Bruce Babbitt. Where do you stand with him? A lot of people say he had a lot to do with rewriting the groundwater code?

The groundwater code was rewritten thanks to Governor Babbitt because as he admits, he used the CAP as a sledgehammer to get the groundwater code in. And he worked with the Secretary of the Interior at the time. Was it Hodell or the one before him, former governor of Alaska? And he said if you guys don't straighten out that groundwater code, we're not giving the money for the CAP. And he and Babbitt worked that out together and then Babbitt came out and said we've got to get the groundwater code or we won't get the CAP. Well, the groundwater code isn't that great. In fact, we built a bigger bureaucracy on the groundwater code in this state. We're trading water here and there and that's for this and this is for that. My good God, I mean the simplest thing would be to just say we're going to sell water based upon its value or based upon its quality as we're talking about the Verde River. We can build pipelines to the Verde River and bring it all into the cities. Agricultural can use the salty Salt River water and grow many of the crops they're growing. We can have a ring, not just a Rio Salado coming through the valley, but a ring of agricultural around the valley. Keeping us cool as opposed to all this urban sprawl we have now. Another thing that I'm into by the way is the State Trust Lands. I organized their Coastal Two Conference on State Trust Lands over at ASU law school. Much of our sprawl is due to our selling of State Trust Lands and we're seeing it now. We're going to develop all the way down to Florence, Apache Junction; it's all going to be city now, that's all State Trust Land. And we, you and I, and all of use are going to pay for freeways so developers can buy this State Trust Lands for a song. It's ridiculous. And no one has ever considered not building it. I have written editorials to the Republic, they haven't got published. I've written them on this Pinto Creek other thing and never got published. It's like Orme Dam all over again. And when we first started, oh my God, no one covered us. We finally got enough organizations involved that they kind of had to cover us. And we had to rent Civic Plaza room down there for news conferences. We had three or four tiers of people with maybe six or eight in each row. These are the Indians, these are the taxpayers, and on and on. That was our news conference and it made the news, a lot of them didn't. And of course the other side thought we were getting unfair coverage and yet they ran the whole show.

Sounds like you were pretty smart media wise?

I became that way I'll put it that way because you had too and I learned a lot. I learned that you couldn't do this. I learned you don't call it a press conference; you call it a news conference because the news is beyond the press. Oh God, I learned so many things. I learned that you have to get notices out. You have to give them something to read. You have to pad them, feed them.

You have to give them pictures to look at.

Yes, definitely pictures or get some spot where they can get their cameras so it'll look good. It's not a question of truth. It's a question of PR basically, public relations. That's what I should've gotten into, marketing. That's the name of the game. And luckily now there's another person, Jerry Whitig, he was our marketing guy. He helped us mostly on the Orme Dam tubers thing you know. And one day he comes up with one of his guys working for him came up with the "Stop Orme Dam" t-shirt. Ever seen it? It's a bald eagle up to its neck in water and it says "Stop Orme Dam". It's in the Smithsonian Institute. And by the way, Orme Dam was the number one issue in Arizona in 1980. And so we did pretty good on it I'd say. But again, the major goal of Orme Dam was the CAP. That was my major goal. I failed in that in one sense. And another major goal was not to see these stupid dams being built when they're unjustified. I mean I was involved in justifying dams with the Corp of Engineers. We can do intelligent things but we don't. And it's not all economics, its environment should be considered equally I think.

Looking back, do you think we'd be better off without having built the CAP? A lot of people are happy and proud that it was built.

Well, we have enough water in this valley for seven million people and that's based upon the current rate.

There's not that many people here.

No, there's only five million in the state. Now in the State of Arizona, there's enough water for twenty some million people. I can give you the calculations; it's in the appendix of the book. And the best part about the Salt River Project is they're protecting our rivers and making sure they come down to the valley where they have the water rights. So the Salt River Project is one of our major environmental groups when you think about it that way. The people upstream Prescott, Chino Valley, would have depleted that totally if it wasn't for the Salt River Project. To me one of the best parts about Arizona is that the population is concentrated in Phoenix and Tucson and Mesa of course, the valley, and the rest of it is open space. Why do we want to sprawl out the beyond that? Why can't we have two story buildings instead of one story which is what we had when I moved out, but now we're getting into two stories? We're starting to do some infill but as far as water for people, there's no problem. You can actually, and they've done it in Colorado and its been improved at Mount Lemon, you can take water and fill a five hundred gallon drum of water and totally use recycled water within a house. It's done in remote subdivisions. It's a question of economics. So there's no such thing as a water shortage unless you're in the middle of a desert with an empty canteen. There's a brain shortage or a political shortage but no water shortage.

Now you mentioned about the decision that they gave California the first rights on the Colorado River water. Well if we didn't build the CAP, we wouldn't need it because we wouldn't have a way of getting it here.

We could've used the CAP water over by the Colorado River.

But they couldn't use all of it over there?

Sure they could. Now think about this according to water law, first in time, first in right. Who was here first? The Indians who should own all the water in Arizona, the Indians.

That's the way it's turning out right now. Did you ever think when you were fighting all of this that the Indians would end up with the water though?

It's in my book. I said the Indians . . . now if they were the Indians of old, when we first came to this valley, the Salt River Pimas, gave the crops that they grew to the early settlers. Then we went upstream, cut off their water, and said you poor dumb people. You know, get out of here. And the poor Indians starved to death practically because we built dams and cut off their water. The modern Indians today would sell us their water and they're doing it. I'm disappointed in a sense. I would've like to have had the Gila Tribe come through and use the Gila River to transport CAP water to the agricultural lands and restore the Gila River. Some of the elders of the tribe wanted to do that but you know, the Bureau of Reclamation is building it and you have to build a canal, concrete line the bottom of it. How do they think we get water recharge into the groundwater? You know we used to have swells of water under the canals and that's recharge from groundwater. Now they concrete line them. That's saving water? I don't know that's something I kind of wonder about. We have plenty of water for people if we plan intelligently. We don't need acres of lawns for instance. People who do that should pay through their nose for the water or use reused waste water. And by the way, the best thing we could do for this agriculture around the valley is plan it so we reuse the waste water. Think about it, waste water is chopped full of nutrients. Fertilizer savings use that on the farms around the valley. What do we do with alfalfa? We feed it to the cows. Cotton, one of our major crops, we don't have to worry about eating it. We don't eat much cotton you know. So we could do a wonderful valley here and it's all explained in the book, this is what thirty years ago we said something like that. Thirty years ago we started pointing this out but . . . as I mentioned, I've had engineers say to me they think what we're doing is great. They agree with us but they've got a family to feed and can't do anything about it. It's too bad.

Is there anything looking back that you would've done differently?

Yes, I worked for the fire service up in Coconino and I kind of wish I had fought the fire services trading of land in Sedona and Oak Creek for land in the forest. In other words, Sedona should have been a national park. Oak Creek should have been a national park. At the time, I was fighting Orme Dam. I wish I had fought the forest service. There was a plan once or a suggestion once that we should make it into a national monument and people said oh no if we do that, it will publicize it too much and too many people will come here. It just burned me that they would take an acre in Sedona and trade it for fifty acres in the middle of a national forest because all they cared about was trees.

That's the forest service, its trees and cattle. It's not recreation. Finally we're starting to get maybe recreation. So that was one thing that I wished that I had done differently. But back under the subject of what I did, I wish I could've worked with the Salt River Project better to keep the water within the Salt River Project boundaries, and there by stopping the CAP, would have concentrated our population within the boundaries of the Salt River Project which is the way the law really reads. And if we could've stopped them from transferring water outside and permitting the Paradise Valleys ad infinitum from north, east, south, and west. It would've been a wonderful valley and you could have agricultural surrounding it. So that is something that I would've liked to do better. Again, the Rio Salado but we tried to do our best with that. Well, we're getting a Rio Salado unfortunately their Rio Salado is let's bulldoze it all and plant grass and some trees. Now they're throwing in some desert. So they're wiping out desert so they can put in Disney desert in a lot of places, in some places. Hopefully, I know places in the Rio Salado that are pristine. I mean you still have rattlesnakes and desert iguanas and things like that running around and jackrabbits. I saw the latest plan. They're going to dig it up. You know what I mean, the last of the Mohicans, down to 24th Street and the Salt River. I used to go down there on a Sunday morning and it was like I was in church. It was so beautiful down there and now it's . . . scrape it all out and fill in some concrete. You know you just can't stop everything. When I was a kid, I remember going out in the lots and maybe catch a snake or something like that and everything that I enjoyed was destroyed and I became a civil engineer. I guess I went the other way. But it was good to be a civil engineer and understand the thinking and then more importantly getting the law and know what really could be done. I like to say that the engineering is my spear and the law is my shield so I can charge off into the donkey hoody world and try to stop these stupid projects.

Did you ever actually practice law?

No, the closest I came was in my last year of law school. I did this stuff for Tempe and it was for law school but it was a Tempe trial. I went for trial and I was the prosecutor. And it was a guy, drunken driving. Interestingly enough, his wife testified against him. And he said I only had three or four drinks in the bar and the wife said you had three drinks before you left the house. Before I got back to class, he was convicted. So that's my one victory. My mind is more of an engineering mind. Law is so much paperwork in the sense of rules and stuff like that. You do things because the rules say you do it. Engineering you do things because you want to do something purposeful or not do something purposeful, in my case a lot of times. There are a lot of good things we've done. I did jobs along the line, consulting. I was an expert witness for the Homebuilders Association believe it or not. It was the City of Scottsdale and they wanted to tax the people more or something like that. I've done consulting on different projects, generally I better believe in them or I really can't do them. One real good one was showing these sub-division lakes that they use for water skiing that they were more valuable than a cotton field, which is true. Another thing that people find hard to believe is golf courses are more valuable than farms for sure, better use of the water.

More valuable in what way?

Economically, return more taxes, more value to the city, and more value to the society.

It would use less water than the cotton fields, right?

Golf courses? No cottons about four feet, grass is more like six feet per . . .

Is that the kind of water golf courses are using recycled water?

Yes, that's something different because you can do the same for cotton now. Golf courses, you have areas that you don't have to water, like some of the desert golf courses. So you can get the return plus minimal use of water but for greens you have to water really good, you know, for putting and so forth. I think we've been very reasonable throughout the whole battle. I hated to see people on the other side, mostly the politicians; we learned never to take on a politician. That was one thing we learned. Never knock a politician. You may disagree with them but don't tear in to them let me put it that way. Don't take his name in vein.

Why is that?

You get more with a little sugar and honey then you can with vinegar. You say that's what he thinks and he's a smart man but

Even if you don't think he's a smart man!

That's true!

You've known a lot of them.

Oh God yes.

What do you see today as the water challenges facing Arizona today?

I haven't thought that out well enough at this point. I see the cities as getting the water. I think we're doing pretty good. I see us having problems with water quality more than quantity. As I say, I know what I'd like to see but at this point I'm more into saving the perennial streams than I am into the water of the city if you will. There's very few perennial streams left in Arizona and to see them destroyed by a foreign mining company really bugs me. And copper prices are going through the skies, so they'll be able to do it. So I don't know that I want to get into what should be. I'm concentrated in other areas grazing. I'm becoming more of an environmentalist than an engineer now and a lawyer.

What advice would you have for the people who are running the CAP today?

I gave them that advice many years ago. We can make more money selling the CAP water to California. And they would use it. Right now we are selling water to California through that power line. It's our water that's going to Palo Verde Nuclear Power Plant alright and it's going to California. So they're getting our water anyway. They're willing to pay hundreds of dollars an acre foot. A lot of our project water is delivered to the land for less than a penny a ton, a penny a ton. Dirt's cheaper and that's how we treat our water. I mean we should be concentrating on recreation for the people, not agri-

business per say. You can grow these crops anywhere. Maybe there are some pima cotton maybe or something that could be grown somewhat uniquely to this valley, but cotton Mississippi, Louisiana, all these places have grown cotton for years. Why do we have to . . . and we're putting these other places in the Midwest, other places in this country, out of business by using federally subsidized water, federally subsidized cows, I mean it's so ridiculous. Why are we favoring us? And we are the great independent State of Arizona, we don't depend on anybody. We're self sufficient. Oh yeah, get the federal government out of everything in Arizona and you still have a desert here. So it's hypocrisy from the word go. Yeah, I would like to see the Salt River Project getting those rivers going again and running these things for recreation and the forest service run things for recreation. I think we better get to our dinner.

When growing up when you were thinking about what you were going to be in a career, did you ever envision this for yourself?

No, I could have never planned what was or what is. To have worked for the government as an engineer and understand the bureaucracy, I worked the Corp of Engineers for three years. To have liked nature and biology and botany and stuff like that gave me, with the environmentalists, I could work with them. To have gone to law school and see how lawyers think, which is entirely different than the way engineers' think. It was hard for an engineer with a black and white mind to understand the gray of law, believe me very difficult. And I couldn't have asked for a better background to do what I did. It was just fantastic. I couldn't have planned it. Someone else is planning these things. I'm just here. It's not necessarily a religious statement, maybe spiritual or philosophical statement. That's just the way it ended up. And like I say, we stopped Orme Dam and three other dams. We didn't kill the whole CAP and the Bureau of Reclamation is still there. Hopefully others will be around to do something about these guys. I know there are. I know some good people here in this valley that really do great things.

Now that the CAP is built, do you still want to stop the flow of water through it?

Well, I'd like to see it used intelligently like I mentioned since the Gila River is getting so much water. Why not restore the Gila River would be one thing. We're building a Rio Salado. I like to see that done from a more natural and recreational standpoint. It has many advantages we can use such as when joggers close down our streets on a Sunday morning, for the five thousand what have you, send them down to Rio Salado. That's a great place for them. So it would save us all this kind of stuff. I would like to see us using our State Trust Lands intelligently not just concrete them over.

That's going to mean changing the laws on State Trust Land?

We don't have to sell any State Trust Lands because it's not required. Nevada sold all of theirs years ago, they have none left. Other states have really messed things up. I think we're messing up our State Lands. We've got eight, nine million acres of State Trust Land. I mean this can be a benefit for our future. Why sell it. It's like one percent or something like that, a minuet percent, of the school budget that they're getting out of this thing and this land for our kids when they grow up. Let them decide to do with it when they've seen the way we've screwed things up here. Maybe they'll come out with

a different idea. That's what I'd like to see done with our water and our land, and our land and our water are all interconnected.

You were talking about kids, what advice do you have for young people today that are trying to decide what to do with their lives and choose a career? What advice do you give them?

Well, not having any kids of my own, I would say whatever way your interests lie is where you should go. In my case, reading about nature made me a great reader and writer I guess. That's probably the most important thing that I got out of this whole thing is to think outside the box and don't think because it's always been done this way, that it's right. Challenge the system because you live in a great country for crying out loud, the best there is. The best there ever was. It's not in good times right now and we need some people to come through and stand up for what's right. And now I'm getting to far away.

Start from the beginning and tell us that whole story.

Well I asked my mother, "Who did you name me after?" My real name is Frances and of course, no one called me that except my mother. And then it was Frances John Joseph Welsh then I knew I was in trouble. And I said, "Mom how come you call me Frances?" And she said, "Well I named you after Saint Francis of the Assisi." And I said, "Why after Saint Francis of the Assisi?" And she said, "Because he liked animals and so do you." And I said, "How did you know when I was born that I would like animals?" And she could never answer that question. By the way, I dedicated the book to my Irish mother. It made her happy, who never questioned by questioning. And that's another one for your previous question that kids just got to keep questioning. When they're two, three, or four they'll question you all the time but somewhere along the line they stop questioning. And that's a shame because were not doing everything right. In fact, we're doing less and less right everyday. But we got to hang in there.

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