Pam Stevenson (Q):

I will start off by saying that this is an oral history for the Central Arizona Project. Today is July the 3rd of 2009. And we're here in Phoenix. I'm Pam Stevenson doing the interview, and Manny Garcia is our videographer. And I'll let you give me your full name.

Frank Barrios (A):

It's Frank Martin Barrios.

Q: Okay. And, we'll start out with the basic facts of when and where were you born?

A: I was born on April 8, 1942 in Phoenix, Arizona.

Q: And, where did your family live? Your family lived in Phoenix at that time?

A: Yes. In fact, I was baptized at the old Immaculate Heart Church in downtown Phoenix. My family had a house at 809 N. 7th Street (south of Roosevelt near Garfield and 7th Street). It actually faced 7th Street, between the old Upton's Ice Cream and Verner's Furniture Store. I was raised in that area. It was a large two-story house that my grandfather had built. I was born during World War II, and all the men were gone to war, so I was brought up with my mother and two sisters living in a large, two-story brick house that my grandfather had built.

Q: And, when, when did your grandfather come here?

A: He came to the Valley in 1879 and he was born in Yugoslaviain on an Island called Brac. The island was located off the coast of Yugoslaviain what is now called Yugoslavia. When he came to the United States, it was part of Austria-Hungary. He didn't have a lot of things on a little Island to earn a living, so he was a sailor at that time. He had been all over the world to places like India and England as a sailor in the 1800s. He came to New York City and saved some money to try to make a living here. He ended up leaving New York City and moved to Arizona in 1879.

Q: Why does a sailor come to Arizona?

A: He died long before I was born, and my mother never filled in a lot of the details. I believe part of it may have been that there were a lot of people from that part of the world that would have come to work in the mines. There were a lot of Slavic people that were coming into Arizona working on the mines. Although I don't think he ever worked on the mines, but there was a lot of folks here. It's interesting because immigrants all follow one another to be with people who speak their language, and that's where they settle. The same is true for Hispanics or Italians who settle where there are other Hispanics or Italians. I do believe that's why he ended up in Arizona.

Q: If he built a big two-story house, he must have done fairly well for himself.

A: He did well and when he came into Arizona he was a freighter. In fact, he filed for his citizenship in Tombstone, Arizona in 1882. I think it's the same year they had the gunfight at the O.K. Corral. I wish he was alive, but he died in 1931 quite a bit before I was born. I would have loved to ask him questions. He decided to settle in Phoenix and he freighted all over the state and had many adventures. He settled here in Arizona in 1891, and bought land where the airport is today (24th Street and the river bottom.). In fact, I used to have a receipt that he paid a $1.40 an acre for the land, and he bought 340 acres where the airport is today. He purchased land from an individual and ended up with almost a section of land at 24th Street and the river bottom. He also farmed there for many years. He moved into Central Phoenix when he got married in 1895 and started having a family. He built a house at 4th Street, between Madison and Jefferson, and he started having more children. His main business in that period was farming. I'm guessing in those early years he probably had trouble with flooding because of the river. He did custom harvesting which is you contract with farmers to harvest their fields. He would get a crew and my mother used to say they would camp out for weeks in the field. He would stay out in the field until the job was done and then return to Phoenix. During that time he was investing in real estate and would always buy up new lands every chance

he got. And then his brother came to Phoenix from the Island of Brac. He and his brother owned several saloons in Phoenix. They came together and bought the old Lemon Hotel in 1910 and changed the name to the Gold Hotel. My grandfather's original name was Slater, but he didn't like it, so he changed it to Gold. I'm not sure why, but someone once told me Slater in Slavic means a man who works with gold. So he just called himself Gold. He and his brother built that hotel. His wife's name was Dolores Martinez. My grandfather was very close to the Hispanic community, even though he was from Yugoslavia. When they had a big incident over at St. Mary's, he joined with the Mexican people against the Anglo community on the fight for St. Mary's. He then became the treasurer of a Mexican-Catholic society. Even though he was not Mexican, he became the treasurer of the group, which led to the building of Immaculate Heart of Mary in downtown Phoenix. My grandfather never learned to read or write but he could speak seven languages. He was a smart man even though when he was young on the Island he had to go to work he never got an education. I still have documents on things where he marks it with an "X." He could speak seven languages and he accumulated a large amount of land including that hotel I mentioned, which is about half of a block between 3rd and 4th Street on Washington. He also bought most of the land in the area where he built his home. In fact, they call that area the alley (between Jackson and Madison) Gold Alley after my grandfather, because he owned all the land there. He also bought, what would later become known as the Marqueta, which was where all the market produce came into Phoenix. We owned an entire block in that area at one time. Right now most of that area is where Chase Field is today. So he just kept working hard and he'd buy up land where he could. He not only did a lot of real estate but he did some construction too. Eventually, the two brothers got into some kind of an argument and his brother decided to go back to Yugoslavia. My grandfather hated his country and would say, "to hell with my country." He married a Mexican woman. My grandmother had been here since it was part of Mexico. My grandfather loved this country. His brother went back to the Old Country and brought back a Slavic woman, who probably wasn't very happy here. In the early 1990's he sold everything he had and went back to Yugoslavia. My grandfather's brother is buried back there somewhere. They split the land they owned on Washington between 3rd

and 4th Street. On the middle part that my grandfather owned he built the Ramona Theater in downtown Phoenix. The Theater was completed in 1919 and that whole area became part of the Hispanic business center for Phoenix. If you went from about 2nd, 3rd Street, all the way down to 7th Street, there was Hispanic businesses in that area (my grandfather's Ramona Theater). The Rex Theater was also in there in the 50's they built the Azteca Theater. The Ramona Drugstore and so many of these businesses were basically to serve the Hispanic community in Phoenix.

Q: That's quite a family history. And, so your, your mother was born here?

A: Yes. She was born here as were all her sisters. She had two brothers who had Yellow Fever and died at one year old and another was three. My mother was the last of the family born here in Phoenix. She was the baby of the family, but the only ones that lived were her and her two older sisters.

Q: So they inherited all that property then.

A: That's correct. The three girls inherited all the property and then one sister was very ill and died in 1950. They ran what they called the Gold Estate which was all of the businesses. Most of them we still owned clear up through the 1960's. Actually, when we started selling the property was when my mother and her sister died and then you had to sell it to pay the taxes. I think my mother was probably in better shape than my aunt. We had to sell the property in order to pay the inheritance taxes.

Q: What about your father's side of the family?

A: My father was born in Redlands, California and his parents were from Mexico. My grandfather's name was Francisco Barrios and he was from Sonora. He married my grandmother, who actually was born in United States, but she lived right on the border in the area of Tecate. Her father owned a lot of land on both sides of the border. Finally, after my grandmother married my grandfather, they moved into the area around Tecate, which is about 50 miles from Tijuana. It's the area where they

make Tecate Beer. My grandmother and my grandfather had a little ranch in Tecate and they grew grapes. When my father was born my grandfather had a bar in Tijuana, Mexico. I think he was looking to work in the United States, so he got a permit. He went to the Redlands area and was doing some work there for something and my father was born there. My grandparents both had a fair amount of money, and my father was raised in Mexico, but when he got to a certain age, they sent him to school in Los Angeles. He got a very good education both in the United States and Mexico. My father was bilingual and he lived in both the United States and Mexico for many years. In fact, when he was young he worked in the movie industry. He used to always say that he had dated all the famous movie actresses at one time when he was young. He also worked at Caliente in Tijuana where they had a huge racing track there. It was where all the movie actors and everybody would come across the border. It was a very prosperous place. My dad worked there for many years. He then eventually came to Phoenix and met my mother.

Q: So, what brought him to Phoenix?

A: I'm not sure but I think he was looking for work when he came to Phoenix in the late 1930's. Of course, about the time they got married was right when World War II was starting. My dad was drafted and he served as an MP for many years. He came back here and worked as a bartender at the Saratoga and some of these other places. Rose Mofford got him a job, and I still have lunch with Rose, and she always talks about my dad. She remembers him fondly, but she got him a job with the State Liquor Control and also with Ed and John Duncan. Rose knew him very well in those days. My dad stayed in liquor control for most of his career in Phoenix. Except that he always worked in, even though it was liquor control, in those days they also did narcotics. Most of the work my dad did was in narcotics, especially when they were trying to get dealers from Mexico. My dad would go undercover and say he wanted to buy something. And then they would go to a certain point and they would arrest them. But, he couldn't do too much of that because once they know who you are your, your life's in danger. It was an interesting life. Many times they

would threaten my dad's life in court and things. And so, I was always kind of careful who I opened the door for.

Q: So you were born in the middle of the war years?

A: Yes.

Q: Was your father away in the military?

A: Yes he was. The three sisters, Helen, Rose and, and Dolores was my mother. Rose never married and Helen was married and then she was a widow, and her three sons went to war. My dad went to war, so the three women moved into the house on 7th Street and lived there through the war periods. And, I was the only one with three mothers, you might say.

Q: I bet you were spoiled?

A: Oh, I think so.

Q: So, did you have brothers and sisters?

A: No, I was it.

Q: But, did you ever have brothers?

A: No, never. My parents never had any more children.

Q: So, tell me what it was like growing up in Phoenix? What do you remember about it?

A: Well, it was much smaller and I could go downtown. I grew up as a small child who always remembers some of the things on television like Gene Autry, Roy Rogers and Lash LaRue. I was very addicted to all of those shows, but I was also addicted to the

Mexican cowboys, who were very big in those days. I went to the Azteca to see Jorge Negrete and Pedro Infante. But I also loved the American westerns. There was also the Strand and the Fox Theater. As a young kid I was a member of the Lew King Rangers. Every Saturday, all the mothers would drop their kids off at the Fox Theater, and it was a great babysitter. You basically were there, and they would have a western. Then they would have like four serials. There was Tarzan and this guy who used to fly around. I can't think of what he was called. But, they were all serials and you would watch these, and just about the time the guy was going to die, they would stop it. They would say come back next week to find out if they made it. You'd come back next week and you'd find that some way he would escape. Then they would go on for about 15 - 20 minutes or so, and again he'd get into this situation. Just about the time he dies, they would stop it and you would have to come back next week to find out if he made it. The kids would line up in front of the Fox Theater. This was in the time period of Blakely's, where they used to have these special promotions with Lew King. Lew King I always look at; he was the antecedent to Wallace and Ladmo. Kids loved it. They had all kinds of promotions, programs and auctions and things.

Q: Well, tell us a little bit more about…who was Lew King, and how did that work?

A: Well, Lew King was a promoter and he had a talent show. His most famous one was a little gal named Maxine Johnson. I don't know whatever happened to Maxine, but she was a little black girl that sang beautifully. But he also had Wayne and his brother Newton on the show. I remember Marty Robbins would come and sing on his show. But he would have all these talents. But the Newton Brothers were regulars on there, too. And later on, of course, Wayne Newton became very famous. Most people don't even realize this, but after that, he started on television, he had a television show also. And, one of his announcers was this little short fat kid named Gary Peter Klahr. He could never ever pronounce Lew King's name. I don't know where those pictures are, but I think they would be worth their weight in gold. And then the Newton Brothers would come out. I always remember and I would love to find out whatever happened to Maxine Johnson. She was very good. She was a

little gal that had a beautiful voice, and in those days, she was equal to the Newton Brothers. They were very popular, too, but so was Maxine. You would also have Marty Robbins and others that would sing, too.

Q: I think that was an interesting time.

A: Yes it was.

Q: Now you being half Mexican…did you speak Spanish?

A: I did, but my Spanish is not perfect. My mother and my father are both perfectly bilingual. In fact, their first language was Spanish. But, my mother went out of her way to make sure that I spoke Spanish. She never spoke to me in the house in anything but Spanish. She could have spoken to me in English, but she would always speak to me in Spanish. She insisted and I loved them, because I enjoyed the Mexican movies, but she was the one that would insist that I would go to the Azteca and take in those movies. But, as anything, you learn to speak a language if you're in a neighborhood where everybody speaks Spanish. Many people thought my mother was from Sonora, and she hardly ever set foot in Sonora. She was born and raised here in downtown Phoenix. She was in a neighborhood where everybody spoke Spanish. She went to Monroe School but her first language was always Spanish as was my fathers. Both of my parent's English was excellent, and they did not have an accent whatsoever. They were perfectly bilingual. I speak Spanish but nowhere close to how well my mother spoke Spanish. She'd say, you talk like an Indian, and so, then I'd quit speaking Spanish. I could understand it perfectly, but I couldn't quite pronounce it.

Q: So, Spanish was not your first language?

A: No, it was not because English was my first language and then Spanish would be my second language.

Q: And I've heard that in some places the theaters and people didn't like the Mexicans in the same parts or going to the swimming pools. Were you considered Mexican or Anglo?

A: I'll tell you one quick story that happened to me. It depends on who you were dealing with. I never looked Hispanic I had curly blonde hair as a kid. When I was like seven years, the first time I really realized that there was discrimination. I was playing with a bunch of kids and a little girl named Billie, who was from Texas, said, let's go to my house and play. And we all said, okay. So we went in there, and everybody went into her house. I'm sorry, you can't come into my house. My mother doesn't allow Mexicans in our house. That was the first time it hit me that there was discrimination. I was like seven years old at the time. Another incident occurred later when I started St. Mary's Grammar School. The Father said that everybody with a Hispanic last name had to go to Immaculate Heart School. My mother brought me to register at St. Mary's and they said, he can't come here. And she said, why not? Because he has a Hispanic last name, he has to go to Immaculate Heart. But that got resolved very quickly, because my mother and several other mothers went to the Bishop in Tucson to complain about it, and the Bishop changed it quickly. This was echoes of what had occurred in 1915 when many of these families that were there, were the same families that had run into discrimination back then in 1915. I know some of the people there were a lot of Hispanics that looked like me. Although, I didn't look Hispanic. I remember the Blancos because they never sent their kid to a Catholic school again because of that one incident. They were so upset with what had happened. But, there's mixed stories on how much discrimination took place. There was definite discrimination, there's no doubt. But, was it as much as the blacks received? There's no doubt that many parts of Phoenix were very much like the South. The black people when they went to the Fox Theater they had the Crow's Nest upstairs. They had to go up there. They would send some Mexicans there, but not as you would with the blacks. The blacks could not sit down below. But Mexicans, it varied. I've talked too many that were very dark complected. Julian Revelious is one of them. Julian said he went over and over to the Fox Theater and he was never asked to go upstairs. I think it's fair to say that the

worst discrimination was always with the blacks. In many parts of Phoenix it was just like the South. The Mexican discrimination seems to vary. There was always discrimination here, but to what extent depended on a lot of the situations. I remember talking to a good friend of mine. Just before he died, he was telling me that he was fairly light complected. One of their friends that they grew up with went swimming at University Park. They picked on the one dark skinned and told her she couldn't come in, but the rest of you can. And they said, why not and they replied, because she's a Mexican. We said we are, too and they all turned around and walked away. There were covenants that were in existence, where they wouldn't allow anybody of any color to live in a neighborhood. There was a lot of that going on. But, in those early years that I'm talking about, 7th Street where I grew up, that was a mixed group. Even though you hear a lot of times that Mexicans weren't allowed north of Van Buren, I can name you a huge number of Mexicans that were living in that area, too. But, they were part of the old families that came in, and they bought properties and lived north of Van Buren. It was right around the area where I was raised. And, there were a whole bunch of them that were living in that area. I can name maybe 10 families that were in that area there. Like anything else, you can't just say one thing affects everything - it's a mixed bag.

Q: Did it have a lot to do though with your appearance since you didn't look Mexican? You didn't look dark.

A: That's true, sometimes it did. I remember my mother used to always tell the story about when we went into this restaurant one day, and I told my mother, again, when I was very little, because I think that was the era, and I said, Mom, I want a huevos. This one woman looked over and was just staring, and said, "is he Mexican?" My mother said, "yes, he is!" I don't remember a lot of these incidents, because I was very, very young at the time. I do remember the incident with that little girl that wouldn't let me into her house because her mother did not allow Mexicans. What's interesting is we owned the apartments where she lived.

Q: I grew up in the San Gabriel Valley in California, and I know our next door neighbor, he always insisted they were Spanish opposed to Mexican.

A: And that's the worst you can do in Arizona, because in Arizona that means you're ashamed of who you are. My mother would be especially angry at that. She just would go through the roof if somebody called themselves Spanish and not Mexican. If you go to New Mexico, a lot of those people do claim to be Spanish, or San Gabriel. Maybe they are, because there was a lot of Spanish here that were direct descendants. Many of the Mexican people take that as a put-down because you're ashamed of being of Mexican descent, you call yourself Spanish. I'll give you an example. Just recently, a gal that ran for City Council had been asked about the spelling of her name. She says, my name is spelled that because I'm Spanish and that's because I'm Spanish not Mexican. This came out and probably cost her the election. She didn't win because people really frown on somebody that's ashamed of their heritage. She also said she was from New Mexico, and in New Mexico they do draw a line there pretty distinctly. It kind of depends on where you're at, but here in Arizona, generally speaking, it's really frowned upon if somebody calls themselves Spanish and not of Mexican heritage.

Q: You talked a little bit about going to St. Mary's School. Talk a little bit more about your education and schooling.

A: Well, I went through kindergarten there and I think it's just north of Van Buren. There is a school off of 7th Street. I went to St. Mary's for eight years which was from the first to the eighth grade. At some point we actually moved out of that house that I mentioned where I grew up. We moved to a place not far from where we are today (13th Street and Osborn). We bought the first subdivisions that were built in Phoenix. So I went eight years to St. Mary's Grammar School and then I went to Brophy for four years. After Brophy I went and got an Associate in Arts degree at Phoenix College. I transferred to ASU where and I received a civil engineering degree. I graduated from ASU in 1966.

Q: So, were you a good student in school?

A: No. I would say I was an average student and I had to work very hard. It kept getting worse as I went up the ladder. I worked very hard to get my engineering degree. In fact, the only time in my life I got an ulcer was when I was going to ASU. I've not had an ulcer since. I did end up getting my engineering degree. I wasn't even sure I wanted to be a civil engineer because even through high school and to the point after I graduated I wasn't sure what area I wanted to go into. I got the most general engineering degree I could get and then I started looking around for what jobs were open. I did find a job open with the Bureau of Reclamation. I grew up with the whole issue of the Central Arizona Project and how we always hated Californians and called them "water stealers." It just appealed to me the idea of working although at the time none of it had been authorized. We had an office here headed by Cliff Pugh. When I was looking for work, I went and talked to him. I remember the Deputy Manager told me, "you know we get a list from the federal government on people we have to hire, but nobody ever comes in here and says they want to work for us." I said "I do" and he asked me to fill out the application. I'll make sure you get hired. And so, I did that.

Upon my graduation in 1966, I took a short vacation for a month to Alaska. I drove up there and drove back. I then showed up for work here at the Bureau of Reclamation which I believe it was north of Van Buren around Polk. The Bureau then moved to like 4th Avenue and Monroe.

Q: 1966. That was during the Vietnam War period?

A: Yes.

Q: And draft…when people were drafted. How did you avoid…or did you go into the military?

A: No, in fact I did not have always have good grades and I got a notice from the draft board. The draft board would say to be ready to leave the same day as your check-up. I left the house with my mother in tears. I was ready to go. I wasn't going to, but that ulcer I had is what saved me from Vietnam. Of course, that and my poor eyesight. The combination of the ulcer plus the fact that if I took off my glasses I couldn't see anything. They made me 1-Y, which meant they would take me if there was - in those day there were considering the Vietnam War a, a skirmish of some kind. With all the ailments I had, they didn't take me, and classified me 1-Y. I went back to school, and finished my degree. It was interesting because I made it very clear that if you passed the physical, you could leave that same day to a training area somewhere. So have your bags packed, they told me basically. And you would, you'd be leaving that day. It turns out, my eyesight and my ulcer saved me from Vietnam.

Q: Your mother must have been happy?

A: Oh, she was and she was saying 17 rosaries, I think.

Q: Tell me a little bit more about that first job then. What, what did you do at that first job?

A: That would be the Phoenix Development Office, I think they called it. It was basically the CAP. That's all they did there was the Central Arizona Project. I started in a training program, where you got to touch on a little bit of everything they did. Basically we were planning for the Central Arizona Project and we had a survey engineering crew and a hydrology group. We had planners that were putting these reports together. I started with a program that allowed me to touch on all of this. At the end of that period, I could choose where I wanted to go and I chose hydrology. I found it the most interesting of all the areas that were out there. As soon as I had done that in 1966 there was a problem that they were running out of money for the planning of the CAP. They shipped off everybody from the Phoenix office to St. George, Utah to work on what they called the Dixie Project. They were going to

build a dam with a canal system to irrigate lands in the St. George, Utah, area. I was assigned and lived in St. George there for three months. We were on a deadline to finish up the Dixie Project, and after it was finished they didn't build it. It was a great experience and I got to work on several phases of a project that was getting ready to be built, and then got killed later. I came back to Phoenix and worked in hydrology for almost my entire career. I stayed working for the Bureau until 1975. At that point, I was looking to advance, and there were no openings in the Phoenix office. Wes Steiner approached me with an offer for the state. He basically offered me the next level that would have been the amount of money at the next level in the federal government. I accepted that offer and went to work. It was right across the street because at that time it was the Arizona Water Commission. At that time we were located on Central at the Valley Bank Building. The Bureau of Reclamation had three or four floors on that building. Right across the street at the Security Building was the Arizona Water Commission. I only had to move across the street. I went to work for Wes Steiner on a very interesting project, because it was tied to CAP. The reason it was tied to the CAP was because Steiner had come up with the idea for trying to save money so the taxpayer of the CAP would not have to pay so much. We found that there were SCS, Soil Conservation Service, flood control projects that could be built with Soil Conservation Service money, and not charged to the CAP. It was like 100-percent paid for by the federal government, where CAP was 100-percent paid for by us. Wes Steiner put these two projects together and I was doing planning reports on these flood control dikes that not only protected the CAP Canal, but also protected the lands below the CAP Canal. The two projects were Harquahala and Queen Creek which were authorized projects for the Soil Conservation Service.

I took over a planning team and I had an economist, an engineer, a geologist, and, I can't remember what the fourth one was. I had four employees, and I was the team leader. And, we were putting these engineering reports together to authorize the Soil Conservation Service to build the projects. The Soil Conservation Service said that we don't have enough money or time that it would take 20 years for us to do it. But if the state wants to come in and do what we require, go ahead. We will speed

it up and it would match in exactly when the Central Arizona Project came in to be built. I did that and we built the Harquahala Valley and the Flood Control Project right above the CAP Canal and the Queen Creek Project. One hundred percent was paid for by the feds. Under the CAP, it would be a 100% reimbursed by the federal government.

Q: You were working at the Bureau of Reclamation in 1968 when they finally authorized?

A: Yes, I was.

Q: The CAP and what was that like when it was finally authorized? What was going on? Did that change things?

A: Oh, yeah, there was a lot of commotion. We had several things that needed to be done. There was still a lot of work that needed to be done. In fact, I can tell you that during that time period, there were also different alternatives that were being looked at even though it was authorized. One of the projects was on desalinization that they were looking at. There were also a lot more people against the project. We had a group out of Tucson that was very opposed to it. A professor at U of A, and I can't think of his name right now, was fighting the CAP with everything he had. Once the authorization was given we still had to finish up the planning but they also had to hire a Construction Engineer. There was a need to bring in a whole bunch of new people. We were planning an office and it's authorized, and now we can actually start doing the work for actual construction. Most of the final design was not done in that office but in Denver. We would prepare the engineering data and do all the surveying. All of this was done out of our office. But now they had to hire a construction crew to actually oversee the actual construction. Dolyniuk was hired and he started bringing in his own people to oversee the construction. We continued with the planning team I was working with, but basically, the main emphasis after the authorization became the construction crew. The construction crew did not waste time. They wanted to get bulldozers on the ground, and they

started bringing in new people and doing contract work. We had an entire division of contract administration. I remember a lot of them came out of the power section over here on the west side. I believe that is where Andy Dolyniuk came from along with all those people from the Bureau of Reclamation Power Division. All those guys who were given contracts and almost closed down that office so they could take over the construction of the CAP.

Q: That was a huge construction project.

A: Oh, yeah absolutely. It was very, very large. But, they chose Andy Dolyniuk to be the Chief Construction Engineer during that time period after it was authorized. He quickly brought in new people, created his office and started going forward. After the authorization, the construction office became the main purpose. Most of the work was being done out of there with Andy Dolyniuk being the Construction Engineer.

Q: So you weren't as involved then with that part of it?

A: No. That's why I could go and still get into planning which was my background over there with the state, and still work on CAP issues. Same thing I'd been working on with the federal government.

Q: Well, one of the other people we talked that was involved with the construction…Bill Wheeler?

A: Bill Wheeler worked for a private consulting firm, maybe back in California somewhere. I can't think of the name of the engineering firm. The engineering firm would get subcontracts, so he would come to the office quite a bit. He eventually took over after the CAP lobbying group. Bill became the head of that after he retired from the engineering firm. He then became head of the CAPA, Central Arizona Project Association I think it was called. He became the head of that after and I can't think of his name now, who headed the CAPA for years and years. He

even wrote on the CAP. But he had been, over those years when nothing was happening, he was the sole person sitting in the office, trying to make sure there was, there was still activity going on.

Q: So you moved over and worked for the state with Wes Steiner.

A: That's correct.

Q: Do you remember when Wes Steiner was hired over there?

A: He had been there for several years and was replaced by someone that I cannot recall his name. There was a State Water Engineer that would later start his own engineering firm. He did a lot of work on the CAP. He really wasn't doing a really good job so Wes Steiner started the lawsuit. Wes Steiner was representing California, and he did such a great job they decided to hire him and bring him to Arizona. They had to give him two titles in order to pay him the money that they needed. He had two titles and became the State Water Engineer and the head of the Arizona Water Commission. Basically, they fired the person who was there before and brought Wes Steiner in to replace him. He then started his own engineering firm. He had two sons and started the engineering firm with his two sons. Wes started bringing his people in with him and he brought some very professional people. I think one of the sons still has the engineering firm. He was very well known but he just was not that good. When they brought Wes Steiner in he brought in real expertise. Wes started bringing people in that he worked with from California, including Larry Lindsor. In fact, one of the reasons I got hired was because the criticism Wes was getting was that all he was doing was bringing in California people to Arizona, and that the legislature really didn't like that. The first question I was asked was my competency be damned, but the fact that I was a native Arizonan really looked good to Wes Steiner. I'd heard there was some suspicion though that he might just be a traitor and a spy. We couldn't really trust him. Wes Steiner told me this story: he said, the first time everybody was warning him. He says, Hennis is telling everybody that the first time he meets you he's going to beat the crap out of you. Wes said so I really

didn't know what to expect. I didn't know whether or not to put my hands up to keep from being hit. Later on I got along with him pretty good. But, everybody was stopping me to tell me Hennis is going to beat the tar out of you. I don't know if you can see this on this, but he'll beat the shit out of you, is what the word was. Wes said, I didn't know what to expect, because I said he was going to hit him the first time he met him.

Q: Because, as you said, that was our competitor for water.

A: That's right. It turned out to be the best decision we ever made. By bringing Wes in we won the lawsuit, and Wes had been on the other side and he jumped onto our side and had more to do with us winning that lawsuit than anything.

Q: What about him personally? How did you get along with him?

A: Oh! I can tell you that Wes Steiner in those days, it's, it's such a different attitude now. We all worked for Wes and we would have gone over a cliff for him. We had so much respect for him that we all had this unbelievable loyalty for Wes. Wes knew more about the engineering, about everything, than we did and that really made a big difference. You would go to the nth degree for somebody that you really respected. Not only his knowledge, but in those early years when we were the Water Commission, Wes did things for the right reason. Later on, when it became the Department of Water Resources, you had to be doing things for political reasons. But, when it was the Commission, and he had that group that he reported to, it was you doing things because that was the right thing to do. After it became a full department then you had a lot of politics involved. Not that there wasn't some before, but it was always good to be working for somebody that would do things for the right reasons and not the political reasons. Wes basically said after it became the Department of Water Resources, he started looking to retire. He knew what had to be done. Larry Lindsor and Herb Dishlip all of us would have just walked over a cliff for Wes Steiner. It was somebody you had a lot of respect for, and it was a

pleasure to come to work with somebody you knew. That had more knowledge than any, than any of us had. It was a real pleasure to work for Wes Steiner.

Q: We were talking about the Arizona Water Commission and Wes Steiner. I saw a cartoon, that they called him the Water Czar of Arizona.

A: That came in after it became the Department of Water Resources. When it was the Arizona Water Commission they never called him the Czar. In those days I'll just to give you a little sample of what life was like in those days. There were the water engineers who for whatever title they had in the states basically ran water for the state. Wes did it for Arizona and they had a person for California, New Mexico had Reynolds and Colorado had somebody. They all knew each other and they were extremely powerful when it came to water. If you wanted to get something passed you'd go to the Water Engineer, and there was about seven of them that were not political. Basically they would stay on no matter who was governor. Of course, later on it changed because when water became very political, was when we started introducing attorneys into the water arena. In those days they were all engineers and they ran water with an iron fist.

But, by the time we started getting, we changed over to the Department of Water Resources, uh, you could see changes occurring everywhere. Even though elevated on paper we went from a water commission to a full department. In reality, Wes lost power. He had more power as the Arizona Water Commissioner and ran everything that had to do with water. But after it became a department then you were subject to the governor. On this commission that he would report to, I think it was Morley and his brother Cal Fox was the head of the commission on the Board. They changed the Commission to an advisory group. He said I lost my power so I quit. He said it wasn't worth even being there. His brother was Morley Fox and I think he was a lobbyist for the CAP. Later it became the full Department of Water Resources and I believe for a while they kept the Water Commission on as an advisory group. It no longer had much meaning because under the new law, you reported to the governor as a department head.

Q: When did they make that change?

A: In 1981 the law passed the Groundwater Code that created the Groundwater Code created the Department of Water Resources and eliminated the Arizona Water Commission.

Q: Well, why did they do that?

A: It was Governor Bruce Babbitt and he wanted to solve our groundwater problem so he put together a water commission. I remember they worked very hard at it. Andy Bentwick was the head of the State Land Department and he hated Wes. Here's another little thing most people don't know, but they couldn't stand each other. Bentwick always thought that Wes was after his empire and he was the head of the State Land Department. He was born in Nogales Arizona by the way. Andy Bentwick has since passed. When he died I sent the obituary to Wes in California. Andy Bentwick and Wes hated each other and in fact, it was so bad that when they would talk at a meeting, they would always know to put them at opposite ends of the table. When Andy would speak, Wes would walk out so he wouldn't have to hear him. They wouldn't even allow themselves to hear the other. They just literally hated each other. Of course, the coup d'état was Bruce Babbitt did not like Andy Bentwick either. So, what he did was stripped a lot of the functions that were in the Land Department and gave them to the Department of Water Resources. Andy went through the roof when that happened. Wes took over all of the groundwater surface functions. He just took everything that had been with the Land Department away from them and given to Wes. And they hated each other so badly anyway, that it just added to that even worse. Babbitt loved Wes Steiner and were very close. When he became governor, he created the Department of Water Resources and Steiner and Babbitt did a lot of things very closely together. I always remember Wes saying that it was subject to politics, and he knew he was going to finish it off until he could retire. He was entering a world that he did not feel comfortable with.

Q: Is the guy you're thinking of, is his name Rich something?

A: No. That was the CAP guy named Rich Johnson. The guy I'm thinking of was the State Engineer or Water Engineer and he was really incompetent. He was terrible.

Q: Wes Steiner did….got along with Babbitt then?

A: Oh, unbelievably well. Babbitt was thinking of putting the DEQ under Wes Steiner. Wes didn't want it and he kept saying that was a conflict of interest because of some of the functions. I remember he got with Pfister in those days, and they actually fought trying to combine DEQ with DWR. He had stripped Bentwick of a lot of functions and gave it to DWR when it became the Department of Water Resources.

Q: I know one of the things that Babbitt's years are known for was re-writing the Groundwater Code.

A: Right.

Q: Were you involved with that?

A: No, because they had a commission that did most of that and that was Kathy Ferris. Kathy Ferris was the head of that commission. She became the head of the legal staff for the Department of Water Resources. Kathy Ferris was the main person that did the work for Bruce Babbitt. In fact, when Wes Steiner retired, it was always known that Kathy would be the next director after Wes Steiner. Bruce Babbitt wanted it that way and that's exactly what did occur. I got one of my promotions under Kathy. I was the Pinal AMA Director, and Kathy asked me to be the Phoenix AMA Director. I became the Director for the Phoenix Active Management Area when she became director. Dick Wells, who was the director of the Phoenix AMA became an Assistant Director under Kathy. One of the problems a lot of people had is that Kathy was an attorney and didn't have the technical knowledge that Steiner had. What they did was they surrounded her with the most capable people they could find as deputies like Don Mong and Herb Dishlip. I think Don was already

leaving when they brought in Kathy, and Herb Dishlip became a Deputy Director and Dick Wells, and then there was somebody else. Basically they set up an organization where she had technical expertise behind her because the concern was that Wes knew more than his technical advisors, but Kathy did not. Kathy was an attorney and she knew all about the law, but not about what technically needs to be done.

Q: So, were you one of those technical advisors?

A: Well, I became the Phoenix AMA Director and it was quite a promotion for me. I was the Pinal AMA Director before and so I got a big promotion to leave Pinal County at Casa Grande where I was the director there. I came back here to Phoenix and became the Director of the Phoenix Active Management Area.

Q: Why don't you talk a little bit about your career with the…state, when you started, what was your job?

A: When I started, I mentioned that we did the planning for those two projects that would protect the CAP canal and under the Soil Conservation Service. And, I finished two flood control structures along with the planning for it. Those structures got built under that authority versus CAP authority. They just brought the CAP canal, at the base of that and it provided protection. The folks of Arizona didn't have to pay for it out of the CAP. During that time the Water Commission was expanding and I became the Chief of Planning because we were expanding. We had a flood control unit and I became the head of Flood Control for the state. That included not only the building that type of project, but we also introduced a plan very similar to what the federal government does which is cost benefit ratio to see if a flood control project could be built with state money. We did the analysis, and if it was justified, then we would use state money to build flood control projects all over the state. We did several projects in Tucson and we looked at lots of projects, but we could not justify them. We also had another program where we had Les Bonn who took over that program, where we provided state money to help meet federal

responsibilities. A good example would be like the Indian Bend Wash. The Indian Bend Wash required a lot of federal money, but you also had to put in county, state and local money. We had this program that helped fund that under this flood control. We had building, funding and these flood control projects all over the state which made for an interesting little side thing. We built the levy…had a re-built, helped re-build the levy at Holbrook. And we found it was justified. We didn't do the planning, the actual design of it. What we did was just find out preliminary engineering to see if it was justified to do it. The Winslow project to build a dike was justified, but the Holbrook project was not. A big flood came in and many years later I was retired when it happened in the 90's. The local people sued the state over that flood control project that I hadn't worked on for 20 years. I had to testify and that was interesting because I had to try to remember. Most of the letters that went out under my signature I knew everything about it, but they came out under my signature because I has head of Flood Control. Twenty years later they're trying to sue everybody that had anything to do with the building of that project. They did not sue the state because it was justified economically and we helped them out with some money to build the project. Most of the money and the planning came from an engineering firm and they really ended up suing the engineering firm. The next thing was, after the Groundwater Code was passed, we had all these functions under the Arizona Water Commission. I got a promotion to be the head of statewide water planning - CAP. We had an agricultural advisor every function that wasn't falling under the Groundwater Code came under me. I'll show you before you leave as a joke they gave me all these titles everything that you could name was under the group I headed up. The primary thing and the place where the money was going to was due to Babbitt passing it, and when we came to the Department of Water Resources they brought in these AMA directors. Vern Doyle became the first Phoenix AMA Director and Herb Dishlip was the Pinal AMA Director. McNulty, and I just saw where he died, his son was the first Tucson AMA Director.

Q: Explain what is, what is an AMA Director?

A: Under the Groundwater Code they divvied up areas where they're having groundwater problems and they called them the Active Management Areas. Under the Groundwater Code they also had irrigation not expansion areas. The primary thing was these Active Management Areas a groundwater basin, where you were having serious groundwater problems. Also under Babbitt's Groundwater Code we were going to regulate the groundwater being used with a tax. We had a legal department saying that we could come after you with our own legal department. Kathy Ferris was the head of that department. Wes got the name the Water Czar because there was a lot of things under the Groundwater Code that gave him extreme power over a lot of folks. The Groundwater Code was passed, if I remember right, they had 12 lawsuits against us on the day the Groundwater Code. The Groundwater Code was legal, but it was also pretty rough for those AMA directors because of the farmers. Well, nobody liked the Groundwater Code and they only did it because Babbitt held the CAP over them and said you will agree. They met at Castle Hot Springs and some other areas, and basically said the federal government or Babbitt that the bottom line is we're not going to give you the CAP until you find a way to control your groundwater use. Babbitt did use that and got them all to sign off on the Groundwater Code.

When the code passed, the lawsuits piled on us in all directions because there was strong feeling in those days that groundwater was like a God-given right. If it's under me, it's my water, and nobody's going to tell me what I can do and what I can't do. The City says to regulate those farmers because they are the problem. The farmers were saying the same thing that the problem is with the cities. We went forward with these Active Management Areas and the four of them were the Tucson AMA, and Marana south more or less. Then came the Pinal Active Management Area, which basically sat with the center of that was Casa Grande on out through to the Gila River and so on. The Indian reservations were not part of that. Vern Doyle, who had been with the Corps of Engineers for years, was the Phoenix AMA Director, and the Prescott AMA Director was a man named Bob Mason. Part of the law said, you had to bring the water problem under control by 2025, and you did it in five-year management plans. You had the first management

plan, the second, the third, the fourth, until you reached 2025. Then in 2025, you were going to get to safe yield. In Phoenix and Tucson the goal was safe yield.

Q: What is safe yield?

A: The safe yield is the amount of water you're pumping out is equal to the amount of water that's going back into the ground. It so you don't drawing down on your groundwater table and what comes out is equal to what goes in. The safe yield for most basins is a tiny amount of water. We were at that time pulling water out way over and above safe yield. The cities decided to do a per capita decrease of water use for the cities. We said, Phoenix, you gotta come down to these gallons per capita. If you don't, we're going to fine you, or we're going to do something to penalize you. You could use so much water on your farm, and, if you didn't use it all, you could save it in a bank account to draw on it the next year. Then industry had water use requirements also. Dairies had to live with so much water as did golf courses we considered industry. They had to meet every year and cut back on the amount of water they're using. Mainly conservation was the way we were going to bring them to safe yield.

In reality the big answer was the CAP. Once CAP came in, then you would replace that water use with CAP water. Our job, and I can tell you now, when I was the Pinal AMA Director, I was threatened with my life several times. Several farmers said called me at midnight and tell me they were going to kill me. One of them would come in and show me his farm. He said I can tell you, I'm breaking your communist Groundwater Code and when you come to stop me I'll be waiting for you. I'm going to kill you right as you step onto my land. I told him, you're not going to kill me. You're going to kill the sheriff who's got a gun, too. He's the one that's going to implement this law, not me.

Herb Dishlip was the first and I was the second Pinal AMA Director. But, the farmers really didn't like the law, so I have to kind of pat ourselves on the back. Herb and I both won over a lot of farmers. We did everything we could to be honorable on

how we implemented the law. We busted a lot of farmers. We had a, a satellite system where we could actually see them and they were so remote. We had all the land in Pinal County marked that was legal. And when we found a piece of land that was being irrigated that was outside of those lands that were legal, we'd know somebody's trying to get around the law, and we'd go and bust them and fine them. I remember one farmer kept saying that he was a good church-going man and that he belonged to the Baptist church.

Q: Do you remember who that was?

A: I once busted Delbert Lewis, the owner of Channel 3. He was farming; I busted him once for farming land he didn't have a right to farm. There was this particular guy that I can't remember his name, but he came in and said you've wrecked my reputation. I go to church now, and they say they saw my name in the paper for breaking the law. He also said that he was a pillar of the community, but thought nothing of going against the law on this issue.

Q: So, if someone was busted for that, was this a misdemeanor? A felony? What kind…

A: It was a fine and the farmers didn't blink an eye. They just didn't like the idea of the state overseeing and fining them for this thing. It was the answer to getting off groundwater and bringing in CAP to replace groundwater with CAP water. Babbitt used that if you want the CAP you'll sign off on this Groundwater Code.

Q: So, how did you become the, uh…Pinal, uh, AMA Director?

A: Well I was the head of this planning group that covered almost everything. Herb Dishlip when Kathy Ferris became Director, Herb was chosen to be a Deputy Director. Herb went from Pinal to Phoenix, and I was asked if I wanted Herb's job (Pinal AMA Director) and I took it.

Q: Why did you take it?

A: Well, it's a good question. I guess I was looking to where all the action was with the Groundwater Code. The flood control planning, all of these things I was involved with, I'd done it for years, and now here was this opportunity to get into the center of where all of the activity was. It was not about the money, it was more the fact that I was now in the center of where things were happening. Herb became the Deputy Director in charge of all the AMAs. He replaced Don Mong who was a friend of Wes Steiner's. He was a cripple and had polio, and Don had come in from California and took over the when they set up these AMAs and did all the work. Don Mong was a very intelligent man who has since passed away. When his health was failing because he had had polio, he was quite elderly, and he needed to get out. That's when they brought Herb in and they gave him a raise to become the Deputy Director. I replaced Herb in Pinal, and I was the second AMA Director from Pinal.

A year later, when Wes left, and I'm trying to remember exactly how all this happened. I believe Don quit before Kathy and she was director. When Herb retired, Kathy asked me to be the Phoenix AMA Director and then I left Pinal and became the Director for the Phoenix Active Management Area. I served there for many years with several directors until I got fired by Betsy Rieke. Betsy I think I was doing a good job, but all those positions are political. You get a lot more money, but you also serve at the pleasure of the director. I served under Bill Plummer as the director. She got rid of almost everybody when she became Director. I was the last of the people she got rid of. I think she wanted my deputy who always wanted my job. It was tough working with a deputy that always was going to undermine you and Betsy liked him and she fired me and put him in place there.

Q: Who was he?

A: Mark Frank, who is now gone, became the AMA Director after Betsy fired me. But Betsy gave me quite an offer. She fired a lot of people, Chief Legal Counsel Barbara Markam she fired and Doug Toy was the head of hydrology that she fired. She went through a lot of people. She told me that she was offering you a special deal which was if anybody wants to hire you here, you're welcome to take that job, and I'll not

object to it. Larry Lindsor hired me and he was the head of Planning for the Colorado River Planning. I still was with the state which eventually was a good decision cause it allowed me to retire from the state. Had I just been fired and left, I wouldn't have had my retirement that I have today. She said she wouldn't that she was offering me this offer. She said, I have no objection if they want to hire you, and, and you're willing to work for them. I went to work for Tim Henley and that was an interesting change because Tim used to work for me when I was head of Planning. I did Colorado River work, and worked on giving contracts for use of Colorado River water and I continued in that job until I retired in 1998.

Q: So, how long were you the Phoenix area AMA Director?

A: I think about six years in 1986 until 1992 was when she removed me. So that was six years I served as the AMA Director.

Q: And that was the time when the CAP water was actually starting to be delivered.

A: That's correct.

Q: So, talk about what was going on at that time.

A: The Groundwater Code and one of the things we had to do were interesting. We had different kinds of water that had to be counted under the Groundwater Code. If it's all CAP water then we had no jurisdiction over you. But if you mixed groundwater and CAP water together we regulated the groundwater. Salt River Project was a real nightmare. Salt River Project has the pumps all along the canal and they have surface water and groundwater. We cannot regulate surface water, but we have the authority under the Groundwater Code, to regulate ground, groundwater only. So, if you took only CAP water, we would regulate an entire area, and they would have to meet the gallons per capita requirement. If they had been all on CAP water, we couldn't do anything. The fact that parts of it were on groundwater, and the politics was terrible with the cities, because they refused to

accept they ever did anything wrong. Glendale was the worst. Glendale used enough to lower their GPCD, and we were always getting ready to bust them. Glendale would not accept that so when I was the Pinal AMA Director, they were going to kill me. When I came to Phoenix they were going to fire me because I couldn't make them legal. Anyway, all fun and games, I guess you'd say that the CAP came in very well. We just continued to regulate the groundwater portion of it. The CAP would do huge things to help them out and meet the requirements. Especially where you replaced groundwater with CAP then you weren't pumping that much groundwater and your requirements became better. You wouldn't have to meet quite so much of a lowering. The goal in the Phoenix AMA was to have a safe yield in 2025. When CAP came in you were getting much closer to reaching that goal. Pinal AMA did not have that goal because they were different they were sustainable. They had taken so much water out of the ground, you could never bring enough CAP water to get completely off. Basically, would set a limit for them and we were going to save some of the groundwater for urban development. If you're a farmer, the idea was to regulate the water use to a point where you would have a certain level of groundwater that you would not allow them to pump below. The groundwater was being saved for when that land became a city and then that water could be pumped and used by the city. The farmers didn't have safe yield, because I think it was impossible to reach safe yield in the Pinal area. Prescott I think has changed their goal of safe yield just recently.

Q: Now you said with the, the farmers in Pinal County, you could look at the satellite picture and know where they were farming?

A: In Phoenix, too. All over.

Q: But, how would you know whether they were using surface, water or groundwater?

A: It did not matter because the law had two parts. All of the land that was being developed in Pinal County was all groundwater, with the possible exception of the San Carlos Project, which had Gila River water. Gila River Water Project water was

mixed with groundwater. The law said, if you developed land with groundwater at any time, during a certain time period (1983 to 1986) that gave you a right to continue to farm it. If you did not farm that land during that time period, you lost the right to ever farm that land. We went and actually did this work to find out which lands were farmed during that time period. We drew a map showing the lands that had been farmed during that time period. We put that map onto a computer system so when the satellite went over you'd take a picture. You overlap where there's green, where you show the farming onto this map. If there's typical farming green, on an area that was not shown to have a right to farm during that time period, that's when we busted them. There were lands, even though they could be farmed, they weren't within this time period, having been farmed. So basically that land could never be farmed ever. Some farmers were really upset because they really got shafted. If you owned 10,000 acres, and you'd only farmed 2000 of that 10,000, basically the law said you could never farm that 8,000. It basically was removed from farming forever. Some of the farmers were really upset about that.

Q: And what about the development for urban, where they put houses on the land?

A: That's a whole different right, a groundwater right. If you come in and buy up land, the city takes it over and you have different kinds of right. You can develop it for urban use, but you can never develop it for farm. We had different kinds of conversion rights which were called type one and type two. The type one right said that if you had a grandfathered right to farm an area you could convert that land right to an urban right. The conversion was a three acre-foot per acre, so if you had 10 acres you wanted to build a development on that 10 acres, you were then given three times ten which would be many acre. On your farm, once you converted to a type one, you could never go back to farming because it became urban use. If you had a dairy and you were running a dairy and using groundwater, we gave you what we called a type two right. You could move that around and actually sell your type two right. If I wanted to put a dairy somewhere in Pinal County and you had a Type Two Right in another part of Pinal County, you could sell him the Right and he could go there and start a dairy in the new land with that Type Two Right. You had

the urban right or the municipal water rights which basically was tagged where the cities were serving water. If the city of Phoenix, as the provider of water, you have these pipelines out there that you're serving water to. The service area was anywhere the city puts a service area, they have a right to serve it, no matter where it is. Even in these lands that we had forbidden to be farmed. When the urban land grew out and became larger, that right would encompass all that area. The water companies also had the same type of thing. You had a water service area, and you could provide water to anybody within that service area. It was not a real simple idea and that's when attorneys went crazy.

Q: I can see that.

A: The interesting thing was the number of attorneys these people would hire to come and talk to us. I had a pretty large staff that would deal with these people and here's an attorney making 400-dollars an hour, working with a 10-dollars-an-hour employee, trying to work out some kind of a right for that person.

Q: Well, it's interesting…You talked about the dairies, and how that worked, cause a lot of the dairies moved from the, the Phoenix metro area, moved down to Pinal County.

A: They filed for a new Type Two Right because one of the things in the law, you couldn't transfer these rights across AMA boundaries. If you had a dairy here in Phoenix, you couldn't sell that Type Two in Pinal County or in Prescott. They would sell that right and then they'd go over to Pinal and then file for a Right. You can always get a new right to start something, or buy a Type Two.

Q: So, then after you were fired from being the Phoenix area AMA Director, what were you leaving for?

A: Trying to work out contracts on use of Colorado River water was in the Colorado River section. One of my last jobs was going along the Colorado River trying to give

contracts to users. There's a whole bunch of illegal users on the Colorado River and it wasn't always easy to tell them you've got to have a right to use the water. We'll give it to you, but you've got to file for it. Well, it's the same thing that happened with the Groundwater Code. I have a God-given right to pump all the water I want. You're not going to tell me I can't. I've been using this well for 20 years. I said what happens when there's water shortages, and it's not me that's here, but some attorney from somebody in California that, that's going to sue you because you're using water that belongs to California. I said, so we're going to try to give you some water rights. There was water set aside in Arizona to allow those people to get a Right. The last job I had was trying to finalize those rights on Colorado River use and it was a good job that I retired from in 1998 with full retirement benefits. Interesting enough I calculated my retirement, which was based on my highest three year salary, and that was when I was the Phoenix AMA Director. And you can only do that within a certain time period. If I wanted to continue this way, I still had to retire fairly early. I think I still had some years left, but in order to get the highest three working years to compute my retirement I had to retire in 1998. They passed a law that same year that allowed me to use my benefits from the federal government towards my retirement with the state. I transferred my benefits over to the state and retired with full benefits. I get Social Security now, so I've got a good income coming in right now.

Q: That's great. So, let's talk then…after you retired, uh, what did you do?

A: First of all, everyone that retires from the state government has to take that class. Basically, they tell you about how men always die soon after they retire. I was actually worried because I work hard and always did. I thought about what I was going to do now? I jokingly said, if I ever caught myself watching Oprah in the middle of the day, I would go and get a Circle K job. I got involved with history which is something that I'm very interested in. The first group that approached me was called Kids That Are in Trouble. They had an inner-agency project management and I was on the Board for this group that had Kids That Were in Trouble. I was on that Board of Directors. Finally the legislature cut the funding for that and it went

away. I got into other boards and other things. Janet had contacted them and was looking for somebody that had more than the background for it. I went and talked to Mario Diaz with Janet at that time when they still were talking. Interesting enough, the opening that was there was Terry Goddard. Terry Goddard quit the CAP to become Attorney General and left the opening Democratic seat that he had. Janet had the opportunity to replace Terry Goddard's position with somebody that she selected. I was stated as the first Hispanic to serve on the CAP Board of Directors, which turned out not to be true. A good friend of mine, his daughter, Herb Kia's wife is Dianna Kai. I didn't even realize that at the time, she was already serving and she represented Pima County. Herb Kai owns half of Pima County's agriculture farming and that's his wife serving on the board. I was given the opportunity and Janet selected me to replace Terry Goddard. I took the job in 2003, and served there until 2006 when the election came up. And then I had to choose either just get off or run. I ran and lost the election, as you know. Lisa Atkins was on there when I got there. Lisa was replaced by Bob Burns when he went from the CAP to the State Legislature. At that time you had a Republican governor and she had chosen Lisa to be the replacement.

I had some interesting issues that came in when I was on the CAP Board. The most controversial of all was approving the Gila River settlement. I voted for it and several people voted against it. George Campbell was still alive and he was vehemently opposed to that settlement. In fact, he'd come in a wheelchair just to vote against it, and I remember why I voted for it. It was a settlement. Did they get too much water and did the Indians get shafted? Absolutely, but it turned out to be a settlement. One of the things that impressed me the most to vote for it is humungous group of irrigation districts, cities and the Salt River Project. They all came to agree on that issue and I would have bet money that that never would have happened. Those people don't agree with anybody on anything. On this settlement, they all came together on this issue. I thought, my God if they all agree on this, why in the world I wouldn't go along. They all came together. I did know that one of the reasons they all agreed is the federal government threw a lot of money in there. Those districts got a lot from the federal government to vote for this agreement. I

know there's a lot of my friends I thought would never speak to me again. Rose Arden (?) being one of them but we're all still friends. I remember somebody once telling me you may not live long enough, but when that water you're giving to the Indians someday the people in Phoenix are going to go and spit on your grave. I still believe that it was a negotiated settlement and everybody left unhappy. That's probably the key to make a negotiated settlement. That those districts never have been at war since the day they existed. When they can all come together for whatever reason and agree on something, there's got to be said something for that and plus CAP got a lot out of it. Our bill to the federal government was decreased a lot by that agreement. So, I just added all this up together and I voted for it for that reason. And I would again tomorrow if it came up.

I think that just if you weigh those factors versus agree with those saying we gave up too much water. But, how much is too much compared to the water they lost 100 years ago? Whether or not that's justified. Whether or not they would continue their lawsuit and get twice as much water under a federal judge somewhere. All of those factors you don't know, you'll never know. But you gotta make a decision especially when this myriad of irrigation districts, cities, and Salt River Project. These people have never agreed. And they all came together and said, let's do this. And so, why would I vote against something that appears to be unanimity of all these groups to agree on it.

Q: They were the last tribe I think to reach a settlement. The Salt River, Pima, Maricopa and Ak-Chin. They reached settlements years before that.

A: Years before. Out of all the claims that are out there the Gila River Tribe has the most justification. There's no doubt, if you read the history books, what the white man did to them. Basically, they were at the bottom of the river system. Safford Valley and Thatcher, all those farmers that came in there, they took all the water out of the river. You had the farmers up around Florence and down in that area taking water. By the time it got down to the Indians, there was nothing left. There's a lot of stories that the Indians had a pretty good life for themselves. They were able to

earn a living by farming. When this happened, the river dried up and it destroyed a culture and a people because they didn't have enough water to do what they'd been doing since time eternal. There was some patch-work that was done. When the San Carlos Project was built they shared it a little bit more water with the white farmers. They basically still were given a bad deal and no other tribe that I'm aware of has that kind of justification. The others on top of all that, even the Gila River Reservation is, is surrounded by white farmers. The Indians, for whatever reason, never used groundwater very much. And their neighbors all around them pumped everything they could get out of the ground and their water levels started dropping. Not because they were pumping excessively; it was because their neighbors were. And that's why they were involved in the lawsuit. Salt River Project got involved because of all these trades that were made on the upper system. The Indians were justified, and this is the big argument Rose Arden and some of these others makes. A hundred years from now when we absolutely have to have all this water, we are going to an Indian tribe to ask them for it, and are they going to be reasonable? I don't know and they going to say, God, they should never have given this water. We have to have it, and now the Indians are asking 10, some huge amount of money or they're not going to give it to us. Again, like I said all of these people basically came to agreement on this thing. Anyway, that's probably the most high profile vote that I was involved in. There was a second one that was very high profile, and that's the $100 million we got from Las Vegas. Nevada came to us with this deal and they were looking for interim water. They basically are out of water right now because they used their supply. And they've got these plans to bring in water for the future. But, all of these plans are going to take years to develop. In the interim, they asked CAP to give them 20,000 acre-feet a year (or 30,000 something it wasn't a lot of money) but lots of water. Under this agreement what they would do is, they would recharge water in Arizona, and Arizona in turn would let them take an equal amount of water out of Lake Mead for Las Vegas. In return for that privilege, for that exchange they would pick up all the cost and we would charge them the most to recharge that water. I think, we would charge them to pull the water out of the ground in times of droughts and everything. Just to make things even better, they would give us $100 million to make this occur. I want to say that I think it was a

20-year period. In 20 years their idea would go away. But, in that 20-year period, they then would have a source of water for Las Vegas. The plans they've got, whether that will come true, I don't know. They want to divert the entire Virgin River to Las Vegas. And they also want to go into those farming areas north of there and put groundwater wells, and take all that water. But, all of that takes years and years to develop. And they haven't done that. And what they want they're willing to pay so much money is this gives them that interim amount of water to allow them to develop these other sources of water.

Q: And that's what they call the Water Banking Agreement?

A: That's correct. The Water Bank itself made the determination that we have a membership with the Water Bank.

Q: We being the CAP?

A: Yes, CAP and George Renner was the Chairman of that group. George basically said, "I'll vote however you guys want me to vote." Here's the situation and here's what we've got and we voted to go forward on it. The biggest concern, and I'll be truthful with you, it's still the biggest concern. I think the deal we made was not to take the money, because the minute we took the money, the legislature would sweep it. We had lawyers after lawyers telling us we wanted a fool-proof way of protecting that money once we got it. There is none, by the way. I think the lawyers kept saying there were ways to do this, but I don't think there is. The way we've done it is we take payments on the water. At the time, and I don't know what's occurred now. But at the time, the idea was they can't sweep it if it's still in the hands of Las Vegas. We have this agreement; they're going to pay us at some point. They would pay us a little bit at a time and we would use it as the water and the money would come to us. But, if you have a pot with $100 million in it I can guarantee it that the legislature would sweep it. I'm not sure there's a way to keep them out of it because it is water, and it was a deal made for the state of Arizona. Even though the CAP is a separate entity, it's still the one who make the decision to

do this was the Water Bank which was under the Department of Water Resources. We were just one member of that Water Bank. That was a big vote that we had a lot of consternation issues. A lot of people were upset and they said we shouldn't have done it. A lot of people never understand these things and take quick positions without understanding what's really going on here. We didn't need the water right now. We get 100-million dollars for it and they pay to have those same amount of water recharged and pumped out and put in the canal when we need it. It was a very good deal but we had to do a lot of studies, a lot of evaluations, to show that we weren't going to be hurt by this. We couldn't show that we weren't hurt and it was the fear of the legislature just coming in and taking the money.

Q: You mentioned that you served on the Board for, what? About four years?

A: Three years.

Q: Three years? And then you ran for election. Had you ever run for elected office?

A: First time ever and I made a lot of mistakes. I didn't know what I was doing and I went out and got some cards and started handing them out. I also took part in a lot of debates. I'm glad I didn't spend more money than I did because I don't think I ever had a chance. Richard Morrison, a very well-known attorney, spent $54,000 dollars of his own money and lost. The other one spent $83,000 dollars of his own money and lost. I always remember when the Arizona Republic called us upstairs to their office for the editorial and they were asking us questions on what we knew about water. Burn's wife is one of the people that won and she got the second most votes of anybody in the election. They would ask her a question about water and she says, why are you asking me these questions? I have no idea what you're talking about and I know nothing about water. They put that in the Republic and she got the second highest votes during the election. People like George Renner knew as much about water as I did, and I know a lot about water. The man had spent how many years and Bill Perry was the President of the Board. He had done a lot, too. We were all thrown out because we were men. The only one that I was

glad to see that won was Lisa Atkins. Lisa's a sharp lady, and she understands the issues, so I'm a fan of hers. She said the same thing that she was not going to spend one cent on this election. If they want to use my name with them I'm not going to object to it. I don't care what they do because I do not support them. I support George Renner, you, and myself, all you guys. But, I'm not going to spend any money. If they want to spend money and put my name on it that their deal, I'm not going to object. When they came out with this whole idea of vote for the five women, it worked and the five women won. All of the men went out the back door. I'm very glad I did not put more money into it. I didn't spend that much of my own money in it. I was there when Jack Pfister made the decision on Stewart Mountain Dam. I was sitting with Wes Steiner when and that's an interesting story, too, if you ever want to hear that.

Q: Why don't you tell us that story?

A: That was when we were having all that flooding and Jack Pfister had called the governor's office and Wes took me with him. Jack Pfister walked in and he says, lock the door. The press was all over everywhere. We locked the door, and Pfister said, we've just taken the latest stuff that's coming in from the weather modification, and there's a good chance that we're going to have a huge spill over Stewart Mountain Dam and that we're going to lose the dam. There was this absolute quiet and there was maybe 40 important people in the room, and nobody said a thing. You could have dropped a pin because if it failed, that flood wall would come right through South Phoenix and it would kill hundreds of people. I said, that was the first time I ever heard anybody from Salt River Project using the word "we." He said, what are "we" going to do? Immediately, we started drawing flood maps of how bad if the dam broke and I was on TV. Actually Babbitt came out and made the announcement at the time. We had these flood maps showing when the dam failed and the National Guard came in, and they were ready to evacuate people in South Phoenix with the trucks and everything. It turned out the flood didn't materialize because this was based on the storm coming through, and where it would come out. I'll tell you, I'll always remember that, because that was probably

the most dramatic moment that you'll ever see. Everybody saying, oh, and, we're going to have a dam fail, and it's going to come right through the center of Phoenix. Stewart Mountain had already been marked as an unsafe dam in those days but finally we fixed it. There, there was a lot of flood control stories I could tell you for hours, but that probably was one of the most dramatic.

Q: That was 1979, I think, the floods that year?

A: I can't remember the year, but it was when we had the series of floods from 78 through 84.

Q: It was after Babbitt became governor.

A: Babbitt was governor.

Q: I remember being called into a meeting at Channel 10, I worked at Channel 10 at the time…And we had a meeting to see how we…if, if downtown Phoenix flooded, how Channel 10 could stay on the air. And could we move to the second floor, or the roof of the building. The helicopter pad, somewhere, to continue broadcasting. And I remember our engineers saying we could, but we'd probably all be electrocuted.

A: We'd never faced a problem like this! Jack actually gave a paper on it at one of the conventions. I remember sitting in that room, and Jack said, lock the door. And, and, uh, and they locked the door. And the press was banging on the outside and everything. And then when he made the announcement, you know, you could have heard a pin drop. What, what do we do now? If the dam fails, people are going to and how can…what can we do in this interim period right now? I remember going home, and I got in a wreck, too. I everything was really wet, and I stayed up all night working at the Salt River Project, trying to draw these flood maps. I went home half asleep and this guy cut in front of me, but it was an interesting time. The other one, just real quickly, I'll tell you another interesting one. We went to

Clifton when Clifton was wiped out in that flood. I went into the City Council meeting and there was the Corps of Engineers; I was head of Flood Control at the time and the vice mayor was drunk. He said, lock the door and the sheriff was there, he said lock the door. He couldn't even stand, he was so drunk. Of course, Clifton was wiped out and it was a big disaster. He says that door is locked and nobody gets home or gets out of this building until we get the money we need for Clifton. He couldn't even stand and he almost fell down, he was so drunk. The sheriff actually locked the door, you know. You could hear the click in there and these big sheriffs were all around us. He wasn't going to let anybody out that door until somebody started giving him money for Clifton.

Q: Did, did he get his money?

A: Oh, no. The, the deal with the Corps of Engineers, when they condemned the town. And they moved them uphill, and now probably everybody's right back into the flood plain. They were going to make it illegal for anybody to go back in the flood plain. Clifton is built right in that canyon and this happened to be a huge flood. I haven't been through Clifton in a long time, but my guess is people have already moved back in. They were going to move them to the top of a hill somewhere. And they were paying people to move them out of Clifton and putting them up there. But, it took years and years of bureaucracy and money. And, and now everybody's probably right back where they are until the next flood hits.

Q: Sounds like you had an interesting time working in flood control.

A: I also was on the Colorado River when we had the big flooding. I spent the entire summer on the Colorado River, living in Parker. With my own helicopter, going back and forth, trying to evacuate people during that release from Hoover Dam.

Q: That was 83?

A: 83, in fact, I want to do a paper on that one which was very interesting.

Q: Especially now with the Colorado River, uh, water is so low, it's hard for people to remember that it hasn't been that long since it flooded.

A: Exactly, and Babbitt used to fly in regularly at the headquarters at Parker at the Buckskin Park. The entire summer I lived on the Colorado and we were trying to evacuate. What made it interesting is that we had a water surface profile. And the Bureau would call in and say, we have to release 30,000 acre-feet today. Well, you knew exactly where the water level's going to be with 30,000 acre-feet. You could go up to a home and say, tomorrow the water's going to be this high on your house. And you better get out, but I never had a flood where you could actually, pinpoint it because of the data we had. And then, uh, there, there was little area of these guys living at the upper end of the refuge. And we flew in with the helicopter, with a Corps of Engineer guy. And, I always remember that this big burly came in. I said…and they had a county dozer. They were trying to build up a dike to protect some homes in the back. I said it won't work. Tomorrow you're going to have five feet of water that's going to be in this area, and it's going to take that dike out. There's a Corps guy with me. This great big burly guy grabbed the Corps guy up, and held him up like this, and he says, you get on your radio and you bring more people in right now, he said. He had this Corps guy like this. What in the world are we going to do? He was like six foot four, big burly guy and he would not let go of this little Corps guy. Finally, for some reason he dropped him. And I grabbed the guy and said, let's get out of here. And there was a poor county employee, he was on a bulldozer, trying and we left him. And got on the helicopter and took off. But I'm sure that, that bulldozer would have been flooded the next day. There were so many stories like that being with Flood Control those years are probably the, the most interesting of all.

Q: Well, interesting, too. When, when you talk about these floods that had dams that were controlling the water, assuming the dams held you were kind of controlling the floods.

A: Exactly but the problem on the Colorado River that most people didn't realize was when the Corps of Engineers set the flood the dam was built by the Bureau of Reclamation, but, flood control for the dam is controlled by the Corps of Engineers. The Corps of Engineers sets a maximum release that could be released from Hoover Dam and they set a line on the river and said, nothing can be built in this area. Well, nobody every follows it and so, you have all these homes in there, and, you look at the flood control criteria. It says, you should be releasing 50,000 second feet right now. Well, if you release 50,000, half of the homes in that weren't supposed to be there, and the county gave them the permission to build there, would be wiped out. If a big flood comes in and you have to release more water and wipe out everything, you get sued. I can see an attorney now saying, "why didn't you follow this criterion?" I want to read it to the jury. Here's what it says. Well, if you make that release, you wipe out these people downstream. So, the Corps would hold back, and these people that weren't supposed to be doing what they were doing building in that area and went ahead and built anyway. The county let them build there. So the county was as liable as anybody, for allowing these people to build there. The Corps holds back on the releases, and that holding back makes them liable in case you get a bigger flood. I remember one time in Yuma…another quick story.

The same thing happened when Painted Rock was going to spill. And, the, the Corps was holding back against their own criteria, because it would wipe out Wellton-Mohawk if, uh, if they, if they made the larger releases. The Corps had a meeting in Yuma, and they said I've had your call on this, he said. If we expect a much larger release out of Painted Rock Dam, that's going to do a huge amount of damage, but we can start making smaller releases at 20,000 acre-feet or something right now, and lessen the chances of doing that. But if we do that, we're going to affect all these farms that are out there. What do you want us to do? You guys make the decision. Well, if they said, no, keep doing what you're doing and then the big flood hits, they all get wiped out and it's on their head because they told the Corps to do that. The Corps usually gets sued by both sides, too. Whatever decisions they make. And then they pay off to both sides. That's what it's called,

being part of government. Anyway, I know this is not CAP, but these are all interesting stories that occurred while I was head of Flood Control for the state.

Q: And it's certainly water-related.

A: It is.

Q: So I think it's very relevant to what we're talking about. And I have some sort of general questions that they would like me to ask everybody.

A: Sure.

Q: One of them is, looking back, uh, what projects or legal development do you see that prepared Arizona to become what we are today?

A: Well, the settlement of the CAP is absolutely the biggest one. That was settled and of the years that we fought for the Central Arizona Project. When that lawsuit was won that probably was the largest event ever. Most people don't realize today if you say CAP, they always ask…Civil Air Patrol. But, if you look at the newspapers in the 1920s, the 1930s, that was the primary. In Nevada, water is a huge issue. Even the taxi cab drivers will go to the nth degree. But in Arizona it's not anymore. But, in 1930s, 1940s, water was a huge issue here in Arizona. Every person that was living in Phoenix knew about the potential of bringing Colorado River water. And even the little battle they fought over Parker Dam. You know. And, I always love to tell that story. But, but, that gives you some idea of how important that Colorado River project was for Arizona. Today, nobody even knows there's a CAP Canal.

Q: Well, and some people have said that, part of the problem is we don't charge enough for water. That water is not valued as much here as it is, like Las Vegas is now. And we don't emphasize that …maybe we should be charging people more for water.

A: It's always, we'll find a way to get the water where we want to put the people and as far back as you want to go, that's always been the case. Politically one of the ideas when the battle -- so could give you a lot of stories about Frank Welsh, Carolina Butler, and, and Bob Weitzman. I did a study for the Bureau that was called back when the Sierra Club sued the Bureau of Reclamation over the siphon. I did one of the studies on the siphon crossing. All of the things that have occurred but there's no doubt that Frank Welsh had a program that he was trying to sell. He said, if we're going to spend all this money and let's just decide to put all the water on the Colorado River, and then you don't have to build a canal. He almost would say, let's move Phoenix to the Colorado River because that's where the, the water is. Why bring the water here? We'll just build a huge city where, where the water is. Of course you could have done that with Yuma, too, because Yuma's got huge water rights. And they're right there where the, where the river is. But you don't that. What you do is, you, you have a city, and where the development is, you bring the water.

Q: Kind of late, but at least we could have had some beaches. (laughing) Um. What, what areas of western water history have played a part in?

A: Well, I think the CAP being the biggest. Almost my entire career has been in some way or another tied with CAP water. But almost every part of my life has been tied with that part of history. Which, there's no doubt, is the single biggest issue for Arizona is the CAP and the Colorado River. Though what saddens me is that nobody appreciates all that went before us. And you tell people CAP…a lot of people don't know what it is anymore. Also, I did an awful lot of work with the Salt River Project in those early years, too. Working over water issues and not only of flood control, but other issues, too. And I've always felt, there's no bigger part of water history than the Salt River Project. There's no doubt in my mind, Phoenix grew because of the Salt River Project. I spent a good part of my life working with the Salt River Project, and with CAP and the Colorado River. So, all of those are a major part of water history for Arizona.

Q: What part, what do you see as the part that you played in all that?

A: Well, I was young and did the studies, and the work on there. And then finishing up at the end with the CAP Board, making decisions. I guess you can say I've run the whole gamut from a young engineer right out of school to a retired individual on the CAP Board, and everything in between. I'm somebody that really feels strong about Wes Steiner. I think not one person did more for the history of Arizona water than Wes Steiner. I think he's not acknowledged enough for what he's done especially looking at the guy he replaced. Before that you've got some attorneys, Kibbey and some of these other things. But, Wes Steiner is the one person that came in and really made huge, huge differences in Arizona water. I think somewhere he should be acknowledged for the fantastic work that he did.

Q: I think you've done that. And we did do his oral history, too. What were the biggest challenges or obstacles that you confronted in relation to the CAP?

A: Well, one of them was as I mentioned the Gila River Settlement because I went back and forth for a long time on that. That, that wasn't an easy vote. Because, uh, there was a part of me that did believe we were giving up too much water. And…but then there's a part of me that, uh, talked about, uh, why I voted for it. And I had reasons. And, uh, for weeks and weeks I went back and forth. It was not a…easy decision. That was a real challenge for me. Especially when so many of the friends that I grew up with and had a lot of respect for were on the other side. But, I made the decision and I'll hold to my decision today. Many of them were challenges when I became AMA Director, as I mentioned before, I had people threatening to kill me. I don't know how many times people would want to fire me if I didn't have a decision that they liked. Those were all challenges that kept me awake a few nights.

Q: How did you go about finding solutions to things like that?

A: Usually time heals most of them and if you can you need to sit down with the people and work it out. Threatening to kill you, there's nothing you can do about that but just go on. The other solutions, most of them, if you treat people decently

and you work with them and tell them, I'm not going to give up on this. When I left the Pinal AMA and I think part of it is true of the Phoenix AMA. All of a sudden, I was one of them, and the enemy was in Phoenix. They had never considered me part of Phoenix, even though I was the AMA Director there representing Phoenix. But, they almost enjoyed hating our attorneys. Oh, devil incarnate were our attorneys. They would always come to me, and, and, and talk about "they." And, I always…I tried to say, "They is I!" I'm a member and I represent the Department of Water Resources. I did not give in to them, but I did try to work as much as I could with them. Herb Dishlip did a lot the same way. Herb was very well-thought of in those early years in the Pinal AMA. A lot of people had a lot of respect for him. And I came in after him and basically carried the same thing. Herb, later on when he became the Deputy here in Phoenix he raised the anger of a lot of farmers. And to this day, a lot of them don't like Herb. But, that came later. We worked really hard to try to have people leave happy and at the end, and try to work some kind of compromise, but it sometimes it just couldn't be done.

Q: Well, I was going to ask you, who were your greatest allies?

A: We really…it's interesting…we really didn't have many, because everybody was looking after their interests. When we tried to pass the Groundwater Code, the cities were after the farmers. The farmers were after the cities industry and then would go crying to the legislature, the legislature would come pound on us. That's when, if you have somebody like Wes Steiner that was well respected and he was the biggest ally you'd have at the working level. You know, I think the Groundwater Code was something the public wanted to do, but it was always the same thing. Special interest that felt another thing. I'll tell you something that…I would say over and over again. If you can get people to do something without regulating them. A lot of these people spent money to get out of regulations that wouldn't hurt them at all. Just because the idea that government is going to regulate you - especially the farmers. They would spend ten times the money to get out of a regulation that meant nothing to them, and wouldn't even hurt them. My thinking now is a lot different than when I was younger and I was an AMA Director. If you want to do

something, try to find a way to get them to agree to do it, without regulation. Because once you regulate them and say I'm going to penalize you for this, they'll do everything they can to fight you. If you look at the Groundwater Code today, it's been changed over and over again.

They've spent millions of dollars going to the lobbyists who tweak the law in many places. And the law today has given them huge benefits than when it was originally passed. They've tweaked it through their lobbyists and they get the advantage of saying, look, I'm on the Groundwater Code and I'm being regulated by the state, where in reality, they've changed the law where maybe they're not being. It makes people think about the conservation and every one of these special groups, through their lobbyists, has made changes on the law. You really wonder, was it worth going through all of this and putting these strict regulations when over a 10-year period, they'll find ways of getting out of it through their lobbyists.

Q: You may have sort of answered this, but what accomplishment related to CAP are you proudest of?

A: I did so much CAP work over the years, and when I was a young engineer I took an awful lot of pride on the work I did on the planning of the CAP, on the initial Plan Six for example. When we were going to eliminate Orme Dam, we came out with, I think, 12 different plans. And I worked on that Plan Six development. I worked very hard with it. I always remember that little lady who used to work was with the Indians and she was trying to fight Orme Dam - Carolina Butler. I always remember her because her son now wrote a book about hiking the Grand Canyon. I remember in those years she would come and, in these meetings, and her sons would be on the halls in the Security Building, playing with cars. She would put them outside in the hall, and come in and debate with us on the Orme Dam. Herb Dishlip Plan Six was his baby and that was when he was working for the Bureau at the time. Herb was overseeing all of that work on the Plan Six. Babbitt was governor, Wes in fact, Herb did such a good job that that's when Wes Steiner hired him to come and be the Pinal AMA Director. Herb really did a nice job in putting together those alternatives

and I was in the working staff. And that probably was one of the things. That was a good piece of work we did and all those analysis and put all the, the plans together, and worked with everybody in the community. I like to think that was one of the things that and I took a lot of pride in putting together being a part of that Plan Six development. Briefly, just tell us what Plan Six was there were all these alternatives to Orme Dam. We went through Plan Six included a dam above Horseshoe Dam called Cliff Dam. Then it included Waddell Dam. They were going to build a brand new, bigger, Waddell Dam. Waddell Dam was going to provide the storage that once Orme Dam was going to provide. Cliff and Roosevelt were going to provide flood control which Orme Dam would have provided. You could eliminate Orme Dam. You had everything Orme Dam had provided which storage at Waddell, flood control on the Verde and Salt, and you could eliminate Orme Dam. But you had there was like 12 different ideas out there, all for different things that could be done. Plan Six was the one everybody liked the most ended up getting authorized, and they de-authorized Orme Dam. I always remember Wes Steiner and Bruce Babbitt were one of the first to accept Plan Six and the politicians were furious. I remember there were people saying, they're traitors. We should never give up Orme Dam. I always thought Wes Steiner when you were doing these projects, you went to the limit to get these projects done. I always thought to myself, you're not going to beat the Indians on this. The Indians are ready to die to keep Orme Dam out of there. It's not just they kept saying, well, they want more money. No, these people were serious. They, there was no way….I mean, you'd, you'd have people burning themselves alive before you could build Orme Dam. The Indians were really serious about it. I always thought to myself, how can you not see that? All you have to do is see what's going on and Babbitt and Steiner both said, we're going to give up Orme Dam, and we're going to take Plan Six. And I thought that took a lot of courage, and a lot of seeing what needed to be done. The politicians were furious when that decision was made. They thought Babbitt and Steiner were traitors. That they should never have given up. They could have gotten Orme Dam and just should have kept on with it. And, both of them came out in support of Plan Six. Raise Roosevelt has been completed and the only part of Plan Six that never got

built was Cliff Dam. Jimmy Carter threw that out because they found an eagle somewhere behind where Cliff Dam was going to be built.

Q: Well, and…it seems to me that the key to the, the success that the Indians had, was their alliance with the environmentalists.

A: Yes and Carolina Butler and Frank Welsh and Bob Weitzman, and all those guys were they went with them. I almost would tell you it was the Indians and I remember what was occurring at the time and they really weren't going to let it happen. When you have people to that point, where they say, no, I'm ready to die to keep the dam from being built, and I think they really meant it. I always thought what chance did we have when Dick Shunick, who was immaculate. He was, at times, was the Assistant Director under Pugh and Pugh was kind of a scrubby little guy out of the Old School. Dick Shunick came out of DC and he was immaculate. He had a suit on and he's still alive, I think and lives in Sun City. But, he was just like he had been pressed, and he was just perfect. He always said the right things, looked good on presentations and you put him against Hiawatha Hood. Hiawatha Hood was this Indian who was always drunk, most of the time. He was a better speaker when he was drinking than when he was sober. When you compared Dick Shunick with his $500 suit and just everything just immaculate, to Hiawatha Hood, who would always either make you laugh there was no comparison. You know, that battle was lost. I don't know if you remember this, but when Hiawatha Hood was with Barry Goldwater, he said they asked him. Hiawatha would always give something with a really great comeback. Barry Goldwater says that you people are just lazy. He says, when I hear that kind of language he says it just makes me so mad, I want to grab my tomahawk and scalp Barry Goldwater. I'd do it, but I don't remember where I put it. He had lived in New York City and you put that up against the guy who just immaculately says the right terms. And, he's always there. His tie is never out of place, and, and you lose those battles. And, the best thing to know is that your opponent is going to reach the public better than you can. I think eventually they won more so because of that and Wes Steiner and Babbitt acknowledged that early in the game. And just said let's quit this fight and let's go to Plan Six.

Q: Well, how have you seen the, the western water issues change throughout your career?

A: Well, a big part of it is in the early years you called them "czars." Wes Steiner got that title after the Groundwater Code. But, you had water engineers in every state that ran water with an iron fist. They were very powerful people like Reynolds in New Mexico and Wes Steiner. I remember one senator told me they used to think that when you wanted some legislation, or some changes, you'd call the governor. He said, we'd call Wes Steiner and get his permission to do this. We would go ahead, and he would call the other states up. In Colorado and Utah, and tell them, this is not going to hurt us and they would accept it. He said, that just used to blow my mind that these water engineers had that much power in those days. I saw a change to basically went into the hands of attorneys. Almost every director in every state is an attorney. We've ended up moving from engineers into attorneys, and bringing up this, what used to be the joke. Is it real water or paper water and you know the attorneys bring in paper water. I'm not knocking the attorneys. I'm just saying that's a real change that has occurred. We went from a…let's make certain we, we get the water. Do the right things in water, into a very legal arena, where every irrigation district hires their, their set of attorneys, and we, we get into a whole world that's very different. Especially if you're not that we didn't have attorneys in those days, too, but it just was a different way, a different way of doing things. Especially when these water engineers had so much power. And then, later, that all went to attorneys and became a political system. Maybe it always has been but not to the extent that we see today.

Q: Well, what do you think are the, the great…the most critical issues, uh, related to, uh, Arizona's water resources today?

A: The, the biggest issue, there's no doubt. There's some places that don't have the water to grow. And, uh, if you don't do anything, eventually, uh, you…there's no limit in Arizona right now where you can grow. And some of them have a real serious water problem that…and they make believe it's not there. I have always

believed that Phoenix is in probably pretty good shape, but there's limits, depending on how much you grow. Tucson's got a, a problem that they need to solve and so does Prescott as does Payson. You can go through these all through the state of Arizona. Sierra Vista has a problem and there's a whole bunch of these places that were a problem when you had small communities. But now you've got everybody discovering Arizona. And, if you don't do something to, to try to take that into account, uh, you're going to, uh, you're going to have a disaster sometime in the future. I think the Groundwater Code was a good step to help out a lot of the problems. You attempted to restrict some water use. But, there are whole parts of Arizona that have no Groundwater Code, and you go to those counties or those cities, and they don't want anybody regulating their use. And yet, what do you do? Just keep pumping until there's no water and everything dries up? One of the few places in Arizona that could grow and be twice as large as it is Yuma, Arizona. It's got huge water rights in there that could do really well. But, nobody's moving to Yuma because they go to Phoenix and they go to other areas.

Q: There are the areas you didn't mention were Sedona and Flagstaff.

A: Right. They have problems also. Flagstaff…we've known Flagstaff has a huge problem for years. It's interesting, they don't grow though. One of the things they've done is they've priced themselves very expensive to buy land and then the end result is, it's one of the few places in Arizona that's beautiful that's not really growing. Flagstaff can't grow because they don't have the water supply to grow.

Q: Well…and they've look at some other alternatives. One of them is the desalinization plant in Yuma.

A: Yeah.

Q: Can you talk a little…what about that as a solution?

A: I do. It's a desalinization plant. Desalinization is a big answer to all of our problems in the West. The, the problem is it costs too much to desalinize. Especially the very thing you said. Well, if you compare a desalinized gallon of water, with a gallon of water from Salt River Project, it's like 50 times more expensive. No one here is going to pay 50 times more for their water. When you're paying more for your whisky than for your water than you are for your whiskey, you've got a serious problem. I do believe that is the answer to everything, is eventually you've got the ocean out there. You can desalinize, and you can use that. But, they've got this huge hurdle of how do you make it less expensive? When you desalinize you've got this huge amount of brine. Big cost part of the huge issue is trying to get rid of the brine after you've got it as a by-product. I think desalinization is a way to go. But somewhere they've got to bring the cost down, because, right now, it's just too expensive to provide an answer. And maybe, what does a thirsty man pay for water?

Q: What about, uh, augmentation or developing new water supplies? Do you see any other possibilities?

A: Oh, yeah. But that requires new water. What you're doing is transferring water that somebody else owns, and bringing it for your use. That's the most of the augmentation they're talking about. Most of those people who have big water rights on the Colorado River are waiting for the cities to knock on their door. The last time just before I left the CAP we were going to start with the Colorado River Indian Tribe. They were the first we were going to try to offer them some money for their water rights. Because, I don't even think they're using a lot of huge water supply. Much more than they needed and that probably helped settle the Gila River Tribe. It was based on the potential development of land in the reservation. You go through there and you find all of the arable land and the idea is they should be have enough water to irrigate all the land that can be irrigated on their, on their reservation. And that number's huge versus what do they have a right to use, and what have they developed in the past? The Colorado River Indians were given a water right based on the potential, arable lands. So they got this huge water right. , CAP was going that was the first area we were going to augment. We were going

to make an offer. You can put that water in the Colorado in the CAP Canal and bring it to Arizona and you can augment our supply with that. But, everywhere you go, they're all waiting for that knock on the door. If you've got excess water on the Colorado River they know where Central Arizona that there's going to be a time when we're there asking for that water. As long as you're along the CAP Canal you've got a chance for augmentation and all of that. But if you're in Sedona, Prescott, or Kingman there is no canal. You can augment all the water you want, and you're not going to get it because physically it costs you a fortune to get the water up to where they want to use it. The canal opened a huge door for every community that lies within that canal system. Because then you can augment. You can buy water from somebody else. Put it in the canal, bring it in. You can do all kinds of things once you have that canal, and you talk about augmentation. There is also weather modification and I've never been big on weather modification. First of all, what if a lot of weather modification and you have a flood. Can I turn around and sue you when I get flooded? Because, if you're out there seeding clouds and all of a sudden there's this huge storm and everybody gets flooded, well, I'm going to say is, the reason I'm flooded is because you were seeding clouds up there. Sometimes it works, sometimes it doesn't. I never been studying it since the day I got out of school. And that's been 50 years or so not 50. Forty some years, probably for 50 years they've been looking at it and looking at it. And, they're no closer to saying the cloud modification's going to work. But these are augmentation issues. The other one is buying people out and that works in California. They go out and they offer the farmer twice as much as he would get for growing a crop, and he then doesn't farm that year, and gives you his water, and the, the cities can use it. And that's great for the farmers. I guess you could call that augmentation. But recently the issue has been dealing with the shortages of water on the Colorado River. And some people think that, with climate change, that that might be the norm. That there is not going to be as much water as we thought. That's correct. And I can tell you, that's almost universally accepted now. That's when they did divvied up the waters of the Colorado River, they basically did it during a wet cycle. And that was before we even knew about global warming. The Upper Basin gets what is it now? Seven-and-a-half million, and the Lower Basin gets seven-and-a-half million. Well,

that allocation was based on wet years on the Colorado River. So, it may actually be something way less than that.

And so, you're basing everything you've done on this water being there. And, and it's especially bad for Arizona, because we're at the bottom end of the priority. So California gets a guaranteed 4.4, and we have to take the shortages in Arizona. California needs a lot more than 4.4 million, but if there's less water available, we keep these huge shortages. I think what Arizona has done has been the right thing. We've spent millions and millions of dollars recharging the water that we have right now for those when that time comes and we have to take those shortages, we've got the water stored underground. We can pump it out and use it during those droughts. We've got millions of acre-feet already stored in our, in our basins for when that time comes. Nobody wants to change the law, especially California because they've got a guaranteed 4.4. We take the shortages and what we've tried to do over the years is tell California, if you're willing to share with us, we'll work with you. Because to date we don't agree with California on anything. We tell them, that's because we got a bad deal on this. We're not going to join with you. But if you want to share the shortages with us, you'll have a different attitude from the CAP. But they, they skip it. They said, forget it. We're going to keep what we've got. And most of that is in Municipal Metropolitan Water District. The farmer gets the first set of water, and the last set in California goes to MWD and that includes Los Angeles, San Diego.

Q: Well, and all of those allocations are based on the 1922 Colorado River Compact?

A: That's correct

Q: Do you think that should be reopened and re-negotiated?

A: The first thing you would do is change the amount of water that's available. But, if you open that everybody's scared to death of opening it, because everybody has got something they, they don't want to lose. The minute you open the Compact,

then everything is back on the table. The states are scared to reopen the Compact because they don't what's going to come out if you do that. And, you could lose what you've got. California would be scared to lose their 4.4. Arizona's got some benefits in there, too, that we would, wouldn't necessarily want to open. We might lose some things there, too. Every time they talk about reopening the Compact, it's always the same thing. If we knew the answer, we'd be more willing to do it. But, we don't know what's going to happen if we open it so let's just keep it the way it is the usual answer. And that's been part of the discussion with the Colorado River Water User's Association. They recently, in 2007, signed a Water Shortage Agreement. How important do you see that, uh, Colorado River Waters Association? Well, it provides a group that can come together and talk about these issues. I don't know how important they are, to be truthful with you. But, it is a group that meets regularly and talks about the issues. The shortage arrangement took a lot of months which worked well. Other than opening the Compact we agreed on what happens when these shortages occur? I give them credit because they came together and put that shortage agreement together which is based on elevations. Because, under the compact, there's big, broad criteria on what happens. Nobody has ever tackled what happens when you really get down to the nitty gritty and that's what they did recently. When the water reaches this elevation, we do this and when it reaches this elevation, we do that. I give them credit for the Basins to get together and actually have progressed in something. It's interesting, the minute they started talking, everybody started talking about bringing in their attorneys and everything else. It did get resolved in a positive way.

Q: Do you have any advice for people that are operating CAP today?

A: Well, I think a couple of the big factors are going to be where we're going to get the allocation of future water. Because we're going to need all the water we can get. My advice is that I think they're already doing this. You've got to start negotiating with these people that you're going to buy the water with. Start talking to them and don't wait till we're in trouble before you do it, because the supplemental water to the CAP is a big issue. I think for years we've kind of ignored

it. I think now they're starting to look more seriously at what needs to be done. The other big issue is that when I left they were going to start sharing the canal. City of Phoenix bought McMullen Valley with the idea that they're going to be able to put water into the CAP Canal. And take that water from McMullen Valley and use it in Phoenix. Well, what happens if we go out and get all this water from the Indians and the Canal runs full all the time. The City of Phoenix has said yeah, you spent millions of dollars buying McMullen Valley, but we're not going to let you use our canal. Well, there'd be lawsuits galore. That's an important study that needs to be completed. Who has priority and who can use the CAP Canal and how we can use that to bring in additional waters to Arizona? I think the sooner you make deals, the better off you're going to be. If you wait too long, the price just goes up and nothing gets cheaper with time.

Q: I know they've created the CAGRD, the Central Arizona Groundwater Replenishment System.

A: Right.

Q: And there's been a lot of enrollment in that?

A: Yes.

Q: How do you see that?

A: Oh, that's a great thing. What we're doing right now with excess water is, we're recharging all the water we can get our hands on and putting it in the ground. In the future, when the tough times begin we have that water stored where we can just take it out of the ground. The reason we're taking our full allocation is because we're putting a lot of it in the ground. Every drop we can put in the ground, it stores underground, and when we need it sometime in the future, we just pump it out. So the CAGRD is a real good deal. That's going to be the biggest future supply for us is in those groundwater recharge basins and put water in there for future times.

Q: Well, you worked on the construction and the plans for CAP…do you think we'll ever see a big water project like that again?

A: No, never. CAP was the last of the big project and you'll never see one like that again. I don't see things changing. I think that was the last of the really big projects that will ever be built.

Q: You've seen a lot of change and growth in Phoenix, and in Arizona. What has surprised you the most about that?

A: When I was a kid, if you'd have told me we'd look like Los Angeles today, I would say, no, never. Here I am now, 50 years later, and, and that's exactly what -- 60 years later, almost. We've developed into such a large area that has surprised me a lot. When I was a kid, Tucson was the big city and Phoenix was below it. Now to sit here and watch what has happened I'm starting to get used to it, I guess. If you'd have told me Phoenix would have been the fifth largest city in the United States, no way I would ever have believed that I guess of all the things the growth is the thing that surprises me the most.

Q: How do you see the future?

A: Well, it depends on where you're talking but for Phoenix, I think it's got a pretty good future. Tucson, I don't know. If they can't grow and yet they thing they want to grow. Most of them have not done any planning for the future. Planning is essential if you want to grow and continue. So, it depends on where you're at. Flagstaff surprisingly did a good job of staying small, and if they don't grow, they, they'll be a great city. But, these other areas that want to grow and become big and don't have a water supply, and they could be a real disaster there. Phoenix has done, and maybe I'm bias because I was part of it, but I think they've done a good job in their water planning. We've used our groundwater wisely, with the Groundwater Code. There's a lot of good planning that has been done here in the Phoenix area that I think will benefit Phoenix into the future. Not that if it got so big,

and we outlived using more water than we have in supply, things could get bad. But, we've done a lot of planning. There's been a lot of planning that has gone into this city.

Q: I've heard that's one reason we don't conserve more, recharge more for the water is we currently have more water than we need.

A: That's right and it is like you have increments of water. Here's the cheapest Groundwater and Salt River Project and CAP is pretty cheap right now. But, when you run out of the CAP supply water, the next increment above that is the water you're going to buy from the Colorado River. All of a sudden it could double what you're paying for the CAP Water. And, and then, what about the next increment you're looking for water? That could be 10 times what you're paying today. But, it comes in increments. You've got a water supply. The cheapest is here. The next cheapest is here. But, talking about our future, that's going to be expensive water and, if you want to grow, and you gotta find that place to get that water, it's going to be expensive. It's going to cost you a lot of money.

Q: And that may be water we buy from the Indians?

A: That's right the Colorado River Indians are next place we're going to get water or the Gila River Indians. They're going to sell us that water or they're not going to use it all. Once you don't buy it, you lease it. It's not your water, it's our water. And, if we decide we want to sell it to Tucson instead of continuing to give it to Phoenix, we can do that. We would turn around and go to the Colorado River Indians and hope they would give us a better deal.

Q: I think I've covered most of my questions.

A: Okay.

Q: Is there anything you wanted to add that I didn't ask you?

A: No, I'll give you a little history perspective that I feel bad about. We have museums going under now. Historical sites going and it's because we've got so many new people coming into Arizona and Phoenix. We've spent so much of our life taking care of water and water being important to us. And you talk of this mass of people that come in. They, they don't even understand it or care about the, the water issue. And that's sad. Or even history. Most of the history - you can't talk about the history of Arizona without talking about water. You've got so many people now, that it's not even an issue to them anymore. It's all about development and it's all about the free enterprise system or something. This is built on the backs of all these people that for hundreds of years came and water was important. They planned and they built for all this mass of people now coming in. I have no shortage of opinions.

Q: That's okay. We're not…we're doing a documentary here. This is your story. Your opinions are actually what we want. That's what we want, what we came here to get, is your opinion.

- - - End of Interview - - -