CAP Oral History

Pam Stevenson (Q):

Today is Monday, July 9, 2007, and we're here at the Central Arizona Project Headquarters. I'm Pam Stevenson doing the interview and Manny Garcia is our videographer, and we would like you to introduce yourself. Give us your full name.

Sid Wilson (A):

My full name is David S. Wilson, Jr., but because I am a junior, I go by Sid. Most folks know me as Sid.

Q: How did you get that nickname?

A: Well, my folks thought it would be good to call me David and for some reason, even at a very early age, I had an ornery streak. I introduced myself as Sid to everybody I knew. When I was still quite young, I didn't walk home from school one day and my mom was quite concerned. She was calling around trying to find me and she got a hold of a woman and I was there playing with her son, and she said, "No, there's no David here. There's a Sid." I got paddled pretty good, but from then on I was Sid and always have been. I was very close to my dad. So it wasn't that I was alienated at all, I just wanted my own identity.

Q. Tell me when and where you were born.

A: I was born March 7, 1942, in a community known as Aberdeen, Mississippi not too far from the Mississippi River in the northern part of the state. My family was all farmers in the South and although I was born there during the war, my dad was already in the Pacific. He was a pilot first in the Army Air Corp and then the Air Force when it became the Air Force. I only lived in Mississippi, basically, as a very young child. After the war, he stayed in the service. We were transferred all over. I lived virtually all over the United States but my roots are from the South.

Q: So your father wasn't a farmer then?

A: He was the 15th child on a farm, and there was just no way to support himself as a farmer and he was the youngest. So he and several others of the youngest had to find other occupations; two of them went into the military, one became a banker. There were only two girls and they both became teachers.

Q: What about your mother's family?

A: She was originally from Alabama. Her dad was a logger, and they moved into Northern Mississippi when she was in high school. She met my dad there. My dad was a very talented basketball player. In fact, I think the last two years of high school his team never lost a game and he was the center. He was very quiet, never talked about his accomplishments. My mother on the other hand was a very fiery redhead who played basketball too. She fouled out of every game, intimated people, and was not that great a basketball player, but she was quite famous for being such a rowdy player. She carried that over into everything in life.

Q: She sounds like quite a character.

A: She was.

Q: So growing up, you moved around a lot.

A: Constantly.

Q: You didn't feel like you were a Mississippian?

A: I really did because I had so many uncles and cousins in Mississippi. We would go back there for the Fourth of July, not every year, but often, because there would be a family reunion on the family farm. Other than that, I really feel like a Westerner because much of the time we were in the West. That is where I started

high school -- in Tucson. Of course, we promptly moved to other locations, but I was attracted to Arizona and I came back. My working career has been based out of Arizona.

Q: When was the first time you came to Arizona?

A: I was just starting the 7th grade. When would that have been? I don't know in the fifties because I graduated high school in '60. So that was probably around '53.

Q: You came because your dad was in the Air Force?

A: Yes, at the time he was stationed at Davis-Monthan Air Force Base in Tucson -- that is where we wound up. We had come from Connecticut, the station just before that, and being from the South I was used to trees and a wet, humid climate. I was horrified, initially, by the desert. I made a total conversion in maybe six months. I love to visit forest areas, humid areas -- give me swamps, give me mountains, give me anything, but to live, it's the desert for me. It really is. It always has been since that first six months.

Q: What was is that won you over?

A: I liked the vistas. I liked the rugged country. I'd much rather be hot than cold. I think early on I developed an interest in water, and water is so critical in the desert's semi-arid environment. So that had a lot of appeal both personally and professionally. I am a Pisces so maybe I can trace that back. The other thing was that my first reaction was like most folks -- this is such a hostile, sterile, barren environment. But if you spend a little time in the desert, it comes alive. Fortunately, I became very active in Boy Scouts at a young age. I had a scout master who probably should have been a ranger in the military. We did survival hikes and camps and things. I came to appreciate the fact that the desert is just teeming with life. There's so much to see and hear if you just stop and pay attention. Fell in love with it and have been ever since.

Q: How long were you here then?

A: Actually my dad was stationed at Davis-Monthan longer than anywhere. I went to 7th, 8th, and 9th grades in Arizona. I was here three years then we moved. I spent my sophomore year and part of my junior year in Texas and I spent my senior year in Dayton, Ohio. I left Dayton by train the morning after my high school graduation party for Idaho. I had a job with the Forest Service thinking at that point that I wanted to be a forester and go to Alaska. It's a lot different than the desert. Wound up working summers for the Forest Service in Idaho and in the Black Hills of South Dakota. Loved it but really got interested in water.

Started out at what was then Arizona State College in Flagstaff. There might have been less than 2,000 students in those days, but I know there were less than 3,000. I went with a friend from Tucson down to the U of A during spring break one year and wound up transferring down there and majoring in hydrology. I've been in "water" ever since.

Q: What made you decide to go to college in Flagstaff?

A: They had a forestry school and they were in Arizona. I was in love with Arizona, and I thought I was going to be a forester. To me it was logical.

Q: What made you change your mind and go down to Tucson?

A: The truth is, I went to the University of Arizona because my dad was a pilot. He never put pressure on me. In my own mind, I thought that he would want me to be a pilot. I was sponsored by Barry Goldwater for the Air Force Academy, but I played football in high school and had pretty severe head injuries my senior year, including a broken jaw and a severe concussion. In going through the physical for the Air Force Academy, they discovered that I had a broken jaw that had never been discovered before or repaired properly. So they said I would have to take a year out to get that in order and then reapply for the Air Force Academy. I

decided to transfer to the U of A to take engineering classes to get ready for the Air Force Academy. Truth of the matter is, I was never cut out to be somebody in a uniform. The real truth is when I went down to Tucson for that spring break with my friend, coming out of that cold country up in NAU, there was all these coeds running around in halter tops and short shorts, I thought "this is the place for me." I transferred down. Started taking engineering classes. I took a hydrology class and just knew that was what I wanted to do. Never mind the pilots, the uniforms, or the coeds; this is what I'm interested in. That was how I got there. I concluded Pam that most of us at some point in time think we know what we are going to do with our lives. The truth of the matter is none of us ever do what we think we're going to do exactly. That's not a bad thing or a good thing. That's just the way life is. I took a different path than I originally thought I would, but it's been a great path.

Q: It was those coeds that helped made your decision (laughing).

A: It was. It really was. In fact, that was the driving factor. But you have to remember when you're 19 years old, you think with hormones and that's about it (laughing).

Q: Where were you in the family? Were there other children in the family?

A: I only have one sibling, that's a sister who's almost eight years younger than I am.

Q: So you were your father's only son?

A: Yes.

Q: What did he think about your changing career plans?

A: You know the great thing about my dad is if he had druthers about what I do with my life, he never really told me. He never...I created a scenario myself. I thought the world of my dad. He was an amazing human being, flew through a number of wars, including the Vietnam War, before he retired. He was a natural leader, and

you knew that he expected you to be a responsible person -- to do more than your share, to support others, to help them be successful, but he never told me that this is what you ought to do with your life…here's what I think you ought to do. He just expected me to do my best at whatever I did and be responsible about what I did. By far and large, except for a few little excursions as a teenager, I was pretty darn responsible. I always did things to the best of my ability. I don't know if I can credit him with this, but I tried doing things that I really enjoyed doing. Because if it's really something you enjoyed doing, it's a lot easier to do your best. So I never felt any pressure from him, other than I felt enormous pressure to feel respected by him, to be responsible, to be a leader, to make what I did count for something because he did.

Q: So he wasn't disappointed or upset when you changed your Air Force...

A: Well, if he was he never...

Q: Leaving the Air Force Academy is a big deal.

A: It was a big deal. It probably was a bit of a disappointment to him, but I never saw it. He never in a word or action ever indicated that I wasn't doing exactly what he thought I should be doing. That was the beauty of him, which is really remarkable because his mother died shortly after he was born. I think 15 children according to my aunt just wore her out. His dad died when he was maybe 13 or 14 at most. So he didn't have parents himself. He didn't have anything to fall back on in terms of mentoring as a parent, but he was an outstanding parent. And he was the one that was really steady and stable and thoughtful. My mom was effervescent. She was the life of the party. She was a good looking woman. She had a great personality. My dad was methodically smart. My mother was "real quick" smart. She was on top of everything, but she was not a steady, even-handed person. She was just chomping on the bit all the time and the two of them worked really well together. I benefited from that. I probably benefited from each of them equally, but I think in terms of being a manager and trying to be a leader for an

organization, it's better to be evenhanded and thoughtful than to have 5,000 bright ideas and changing them every minute. So I probably take after my dad a little more.

Q: You mentioned that you worked for the Forest Service in the summer time, was that your first job? Did you have other jobs before that?

A: I had other jobs, but that was really my first real job. I babysat which wasn't too common with guys in those days. Those were usually girls' jobs, but I was one of those rare boys that was trusted by mothers. They thought I could take care of kids. I also worked as a lifeguard. In fact, I started as a lifeguard when I was a teenager and worked summers at a local pool. I worked as a lifeguard even after I was in college during spring break. Easter holidays would bring people from back east out to Arizona, and there was always a big demand for lifeguards because there were a lot of kids, etc., in pools. I mowed lawns. I worked several jobs while I was in college simultaneously. I worked at a laundry. That was a Chinese fire drill, but you really learn to juggle a lot of balls at once when you have laundry with a wonderfully eccentric owner. He was the most disorganized person I ever knew. I worked a couple of jobs for the Institute of Atmospheric Physics which included setting up precipitation gauges and forecasting summer thunderstorm activity. I also did photo interpretation to identify vegetative species in various areas. I did a little bit of everything.

Q: Did you have any real career goals then? You got interested when you took the course in hydrology but what did you think you were going to do?

A: I originally thought I would work for the Forest Service in Alaska. But once I really became interested in water, I can't say, Pam, that I had any clear vision. In fact, one of the things that I've concluded over the years is that it's more important to have a direction than a vision because it's kind of like developing a photograph. You start with a general idea, but it's not very clear and as you work on it and as you approach it, it's like watching that film come to life. It begins to develop detail

and it begins to get clearer and clearer. One of the things that I've done throughout my life, consciously in the later years, but not in the early years: I've had a mentor. It started with my Dad. One mentor a generation ahead of me. They've changed over the years. They weren't formally identified as mentors. In each case, I chose somebody that I thought was doing things right, someone that was effective. I used them as a role model in defining what I want to be when I get to that stage in life. And the critical mentor for me when I was in college was a professor who just recently passed away, Sol Resnick, who founded the Water Resources Research Center at U of A.

I remember going on a field trip. I was a young guy, but I went on a field trip to talk about water to a class of college students. It was an overnight field trip at Point of Pines, Arizona. My fellow speakers were all much older, really experienced savvy people. I felt very under prepared and very under qualified, but that night…I get a little emotional about this…we sat around a campfire talking. One by one everyone went to bed, except for me and Sol. Sol Resnick was really interested in what I thought and what I had to say. That is when I became a water guy for life. Wonderful man.

Q: You still feel that emotional about it today, it must have left quite an impression.

A: It was the seminal point in my professional life. I felt kind of bad about it. It was like two in the morning and Sol was an older guy. He was probably 50 then. I'd say, "Do you want to go to bed?" And he would say, "No." We talked until two or two-thirty in the morning.

Q: Do you remember any specific things that he said?

A: We talked about water. He wanted to know what my thoughts were about vegetative management, about the impacts of grasses on sediment retention during runoff events. And we talked about life beyond water topics. We talked

about these things under the stars, by an open fire in the chill of late fall. That was just the first of many conversations that Sol and I had.

Q: He must have seen something special in you also.

A: He was good at finding nuggets in the rocks.

Q: Were you still in college at that point?

A: I had just graduated from college, and I was on my first job with Salt River Project. In fact, probably Sol's recommendation...well two things helped me get that job. Sol's recommendation, because he gave me the strongest possible recommendation; he didn't tell me that at the time. I heard about that long afterwards. And the other thing was the interview team that interviewed me, Pam, since you worked there I don't know if you would remember these people or if they were still there, but one was Bob Moore who was manager of Water Operations for SRP. The other was a fellow name Bill Warskow, Supervisor of the Watershed Division. I really needed a job and they came to Tucson to interview me. In the course of the interview (this was the first time that I'd interviewed for a permanent full-time job), an important interview and I needed the job. I was married and I had one child and another one on the way. That forced me out of graduate school. And in the course of the interview, Bob said some things that I flat didn't agree with, and we wound up arguing during the interview. When I got home, my wife asked me how it went and I said, "I don't know how job interviews are supposed to go but I'm sure that mine did not go well." I got a call a few days later and they wanted me to come up to Phoenix.

So I drove to Phoenix and interviewed with a fellow name Henry Shipley who was the Associate General Manager for Water at the time. It went pretty well. I didn't see Bob Moore. I had lunch with Bill Warskow and about two or three days after that I got an offer for a job. So, I accepted the job and came up. I asked Bob once, because we became good friends (he was my second mentor on the job).

I said, "You know what Bob; it's always puzzled me why you hired me when we disagreed so strongly in the interview." He said, "I didn't disagree with you, but I wanted somebody that would stand up for what they believed." He said, "But in every interview, I took a contrary position on a couple of things and you were the only one who wouldn't back down." It got me a job.

Q: That's an interesting way to do a job interview. Play devil's advocate and see where it gets you. What was your first job at SRP?

A: It was Watershed Specialist. My job was to work on developing cooperative watershed management programs to try and improve the quantity and quality of runoff in the Salt and Verde Rivers. In the winter time, I spent a good bit of time on snow surveys trying to determine watershed conditions and project what the runoff might be during the course of the runoff season.

Q: Why did you want to work at SRP?

A: I needed a job.

Q: Was it the only job available?

A: No, it wasn't and again, it's kind of funny how people play a role in your lives. I didn't know it at the time, but learned later from Bob that Sol Resnick had called him and said, "If you don't hire this guy, it'll be the biggest hiring mistake you ever made." Sol never told me that, but Sol did talk to me about the jobs that I was looking at. He said, "Take this job because it'll give you a breadth of experience that you won't get at any of these other jobs, and it'll be good for you." Because I was telling Sol, "You know, ultimately they need hydrologists in Alaska -- that's where I was thinking about." He said, "Fine, take this job for four or five years. It'll give you tremendous background for anything else you want to do for the rest of your life." So I did.

Q: What was it about Alaska that you kept wanting to go to Alaska? You said you didn't like the cold.

A: I lived a lot in cold climates because that is where my dad got stationed often. I think that it was that I always was Western romantic and Alaska was the last great frontier. I think that was what it was about.

Q: What year was it that you joined SRP?

A: February 10, 1967.

Q: I did notice that you didn't have any advanced degrees just a Bachelor's Degree.

A: Uh-hum.

Q: Were you thinking of going on to get other degrees?

A: I can't remember my exact frame of mind at the time. I had quit working on a graduate degree because I had small children, a wife. At the time, I remember I was hired to a job that paid $7200 a year. That was a lot of money for me in 1967. Our budget had been like $25 a week or something like that. I remember thinking if I can make $10,000 a year, I'll be wealthy beyond belief. I really believed that. After I was at SRP, I was asked to enroll at ASU in an advanced management business program. I think SRP saw the potential for me to be a manager. But in my own mind, advanced degrees are a good thing for certain jobs because they give you some specialization that may be really important in your profession. They are certainly a requirement in some fields. A PhD is a requirement if you want to teach at most universities and become tenured. All the university did for me, and I don't mean to belittle it, but what it did for me was taught me a way of thinking. It taught me a way of communicating. It taught me a way of listening. Those skills have served me well in my career. What makes me effective today (I believe that I'm still effective), is not that hydrology degree. It's not the practice of hydrology.

It's the skill set that I acquired in pursuit of the degree. But what has really been useful to me after that foundation has been my work experience and the people that I associate with. The mentors I've had. They've been far more important than any formal education. And just the experience of working with good people has been important. Solving real problems are much more valuable. So advanced degrees, I think, have their place but we tend to place much more value on advanced degrees then they really deserve.

Q: You probably learned much more working at SRP.

A: Absolutely. SRP is an organization that's been around a hundred plus years. It's regarded as a very effective organization. It provides water and power, but my experience was largely on the water side. SRP has a culture of doing things right, whether it's maintenance or operations or planning. I went right from college to SRP and into that environment, that culture. One of the interesting things about that kind of experience is you never get to see what happens if it's not done right. The Associate General Manager before me at SRP was a fellow named Reid Teeples. Reid is still alive today. He's getting on in years, but an amazing guy. And he wanted me to go to Egypt on an exchange program to look at the Egyptian Water System and how it was managed. They had asked for us to come over, look at it and advise them on possible improvements. I said, "Reid, I'm not interested in going." He said, "Why?" I said, "Well, I've got a family. I've got work I enjoy doing, plus the US provides everything I need. I don't need to go to Egypt." About a year later Reid said, "I would like for you to go to Egypt." I said, "Reid, I'm not interested." The third time he said, "You know what, I'm not asking you to go. I'm telling you, you are going to go." He said, "If you don't benefit from it, I'll never ask you to do anything like that again. I think it would be good for you. You're going." "Okay Reid, I'll go." I went.

In Egypt, they have water systems that are thousands of years old. They have plenty of water, but they're suffering for lack of water. Wait a minute, you say they have plenty of water but they suffer from lack of water…that's because they

don't manage what they have well at all. It doesn't matter if it's the training and development of people, the design and construction of infrastructure, the maintenance of that infrastructure, or the operation of it. They do it all poorly. It was a real eye opener for me. I went to Egypt three times. The first time I was there for six weeks. At that time, I'd already been working for SRP probably 12 years or something like that. I learned more in six weeks, in a sense, than I learned in 12 years at SRP. I had this tremendous foundation at SRP, but then I was put in an environment where nothing worked right. It was like a black and white contrast and that completed my education. It was like, Oh, here is why we do that." Now I'm doing it because I understand not because "that's just the way we did things." One of the important lessons learned was that our culture either encourages us or even directs us, controls us to do things that in some cases are absolutely the right thing to do and in others cases, it's not the right thing to do. When you consider that we live and work in a constantly changing environment, you better understand that just because something worked in the past doesn't mean it'll work now or in the future.

So the biggest lesson I got from going to Egypt was an understanding that whether or not we're effective depends on what we're trying to accomplish and the environment we're in. I could see where Egypt needed to make a ton of changes, but they were so long entrenched in that culture and the economics that developed around it and in the psychology of it, that I concluded it would take a very long time. I was optimistic that they would make the change because a key leader wanted change. I don't know how I feel today. I know that one leader wanting change cannot make change without disciples. I don't know if he accomplished that step.

Q: How long were you over there?

A: The first trip I was there for six or seven weeks. The second and third times, less than four weeks. After leaving SRP, I worked a short while as vice president for a water resource engineering firm and I made a couple of trips to Morocco. After I came

to CAP, I was asked by the State Department to go to Uzbekistan to look at their water management systems and practices. I went there a couple of times. What concerns me as a Western person is what is happening politically and religiously in North Africa and the Middle East and the impacts that'll have on the progress that is needed in those countries just to improve quality of life. I don't know what'll happen. I have ties there. I found that I really enjoyed Egyptians and I really enjoyed Uzbeks. Moroccans were a little harder to get close to. I hope that there will come a time that quality of life in those countries will be what we aspire to here, not that all of our quality of life is something to stand on the rooftops and shout about. I actually believe here we have too much.

We have great work ethic. We work hard. We're objective driven. We want to be accomplished. But in our environment, it's like enough is never enough. The more stuff you accumulate, the more you have to protect and manage and organize and defend. It's not until we begin to get older, if I'm a good case example, that we begin to think a little bit about the fact I need some time just to think as opposed to do.

Q: When I worked at SRP, I did a video on the Egyptian's program. I didn't get to go to Egypt. A couple went and brought back all these tapes for me.

A: Then you put them together.

Q: Yes. Did you take Jack Reed with you to Egypt?

A: No. I didn't make the trip with anyone from communications or public relations. The last time that I went was in '89. The first time was I think '78 or '79. So I went three times over a ten-year period. There was a program between the water resources center for Egypt headed up by a very capable man named Abu Zeid. I remember the acronym for the program. It was called PEEP but I don't remember what PEEP stood for. The biggest successes in Egypt became the biggest failures. Doing things like putting in major canal turnout structures, were great initial

successes because they were engineered under the direction of Americans, Russians, Germans; Holland was a big player as were the Swiss or the Swedish. They were all heavily involved in Egypt. What happened and what I observed over three trips that spanned 10 years was the best technology was employed to engineer solutions for them, design and install them, but there was no culture of proper operation or maintenance and everything that went in fell in to disrepair very quickly. So for their culture, in my mind, what worked best is what I'll call an evolutionary approach. Put in something that is really simple and basic that works and then little by little upgrade. However, when you go from zero to 60 in one program, guess what? You get a car crash, just a wreck. I haven't been back in some 20 years and with the political situation the way it is, I don't know if I'll ever get back, but I wish them well.

Q: Talk a little bit more on your career at SRP. How did you progress from working on the watershed?

A: I worked my first five years; I think it was five years, as a Watershed Specialist. I spent most of my time out of Phoenix, on the Salt and Verde watersheds in places like Flagstaff, Springerville, Pinetop, Payson, and Prescott. The Watershed Division was moved several times in that five years. It was like we were camping out. We didn't have a real permanent home it seemed. On the south side of the SRP administrative building was a big loading dock where equipment was loaded and off loaded. At one time, watershed had an office that the only entrance into and out of was via the loading dock. It worked out well for me because I'd be out all week and I had a truck full of equipment. I'd get in long after normal quitting hours, and I could just back up to the loading dock and off load equipment that needed to be secured in the office. I came in one Friday night. It was seven or eight o'clock in the evening. I backed up to the loading dock, unlocked the door to move the stuff in and the office was empty. There weren't even desks there. My phone was sitting on a phone book where my little cubical had been. It was like "Holy Pete" nobody told me. Okay, did we move or is this kind of an interesting pink slip approach? But there was a note with the phone on the book for me to

check with Bob Moore on Monday. So the following Monday I came in and found Bob. He said, "We've moved you guys and also, I'd like you to consider a supervisory position." I was a watershed field guy. I wore Levi's, boots, and short sleeved shirts in the summer, long sleeve shirts in the winter and that was my life. I didn't even go to my graduation from college because I didn't want to dress up. I did wear a tie when I got married, and I think that was the only time. (It was a sore point with my mother. She thought people ought to dress up to go to church.)

Bob said, "I think you could be a good supervisor. I want you to supervise a newly created division they we will call Users Services." When I went to work for SRP, I said there were two things that were off limits for me. I didn't want a job where I had to wear a tie, and I didn't want to get involved with anything that smacked of politics. I just wanted to do my hydrology stuff. Bob said, "This job is supervising the folks that deal with urban water users and the folks that deal with agricultural water. No politics involved, but you will have to wear a tie." I said, "Bob, I don't want to wear a tie." He said, "Just try it." That was about 1971 and I've been wearing a tie ever since. I never had any supervisory training. In those days it was "learn how to swim by being thrown into the pond." I had to learn in a hurry, and I had some fairly traumatic supervisory experience, but I survived them. I supervised Users Services for probably four or five years. Then I was promoted to another newly created organization called the Surface Water Division that included what had been users services now renamed and reorganized to include the hydrology SOP, the hydrologists, and the Watershed Division. I did that for four or five years and then I was moved to Manager of Water Resource Operations, which included everything that I had plus some water planners and engineers. The interesting thing is I always tell people that it was not a good thing for me to move into an area as a supervisor because when I left, the organization was always disbanded through a reorganization. Then I was promoted to Assistant General Manager for the Water Group before General Manager Jack Pfister selected me to replace Reid Teeples as the Associate General Manager of Water when Reid retired.

I was at SRP for 24 years. During that time, I went from a really happy field guy who didn't wear a tie, didn't get involved in politics, to the Associate General Manager of Water where I wore a tie all the time and spend a lot of time with lobbyists, politicians and regulators.

Q: How did you feel about that change?

A: It was gradual. To be honest with you, when somebody says we think you can do something more responsible it appealed to my ego. And appealed to my upbringing. My dad modeled taking responsibility, do it as well as you could. Do more than your share and help others. Every time that I was asked to take a job, it was one where I was asked to do more. I was asked to be responsible for others, and I felt obligated to do it as well as I could, but I enjoyed each of them.

They became more complex, not because they were jobs of more responsibility, but because they were jobs with more people. The easy thing in life, in my opinion, is to solve a technical or scientific problem because you've got a certain set of facts. If you pull them together, organize them, analyze them, and objectively look at solutions, there may be more than one solution that will work; but you can select a solution that will work. As you become more and more involved with people, and particularly with the political aspects of people, the laws of science don't apply. Sometimes you find yourself opting for a solution that's not optimal, but it's the only one that can work given the people and the circumstance. I found that I enjoyed that and that I was pretty good at it. I developed as I went up through the chain. I went from a young guy who felt insecure and under prepared to being, over time, one of the older statesman. I found people coming to me. There was a period of time back in the 80's and probably into the 90's and maybe still today, where conventional wisdom about management, planning and conducting your career was that you need to set targets. Where do I want to be and what do I want to do five years from now? Ten years from now? Before I retire? I never did any of that. But I would have people coming to me for that kind of advice and I say, "I can't give you that advice." They'd say, "What worked for

you?" I'd say, "Finding a job that I enjoyed doing and doing it as well as I could." They'd look at me and say "That's it?" "Yeah." Well, why did that work? "Well, here's the way that I looked at it. I saw people approach retirement and they were unhappy with what they were doing and pretty darn negative." They were going into retirement that way. But I observed that my mentors found jobs that they enjoyed doing. They did it as well as they could. Generally when you do that, doors open to do something bigger and better. If that happens, you have to look at it and make a choice. Will I enjoy doing that? If you say yes, then go for it and do it as well as you can. Some of it is just happenstance. You may be in a job where that opportunity never comes along, but if you're doing something you enjoy doing and you're doing it as well as you can: A) you're well regarded by the people who work with you and for you; and B) guess what, when the day comes that you leave that company or you retire you're feeling pretty darn good about yourself because you enjoyed your job and know you did it as well as you could.

Q: You obviously saw a lot of changes during those 24 years at SRP?

A: I did. Those were years when SRP was really growing. When I joined the SRP Water Group in 1967, it was like a family but it was a small community of about 450 people. People knew one another, and it's very important to know the people that you are working with because there's a trust that builds up with people when they know one another and they know what they're capable of doing as well as what they can't do. So I don't expect you to do something you're not capable of, and you know what I can do, what you can count on me for, etc. That is really important in organizations. SRP grew very rapidly. By the time I left SRP, there were more than 7,000 employees in the combined power and water groups. There was a breakdown, in my opinion, in relationships among people and, frankly to an extent, there was some overstaffing that developed. So there was not enough for people to do. Another thing that I believe very strongly, although it's not always popular thinking, it's much better to be too busy than not busy enough.

One of the things that I observed in Egypt was extreme overstaffing in governmental jobs, and all the water jobs were governmental. Egypt is not a wealthy country. They encourage everybody who has any ability, particularly males, to get an engineering degree. You're guaranteed to have an engineering job if you get out of the engineering college. What then? You go to work for the government. So they have five times the number of engineers they need. The pay is very low, but they have an engineering title. So 20 percent of their day is involved with real work and 80 percent is spent trying to look busy or important. And then they're working second jobs just to make ends meet. Well, there was a bit of overstaffing with SRP as well. So what attracted me to CAP and what we've been able to retain is that sense of community, which I think is really important. You need a sense of community among employees. You can't have a group of people and have everyone think exactly alike or have the exact same vision of where the organization should be headed, but you need to generally buy in to some common principles and a vision for the organization. The bigger and more diffuse you get, the harder that is to do.

Q: You were there during the flood in the 70's and early 80's?

A: I was.

Q: That was a difficult time I could imagine. You being in the news a lot.

A: Jack Pfister made me the point person for dealing with the media. Not as a media relations person, but as a technical person because he found early on for whatever reason, the media liked talking to me. So he'd wheel me out there. Jack had plenty to worry about. I actually enjoyed working with the media because my experience was you'd sit down with the media and you'd talk before you'd ever do an interview. You'd talk to them about the situation and where you were at, etc. That was important to the media because that helped them know what questions to ask and the media is no different than anybody else. They want to look smart. So they would ask these great questions based on our earlier

orientation discussion. We'd have good dialogue and they felt really good about that. They were comfortable. I was comfortable. That was a great developmental experience for me. Now the litigation that occurred afterwards wasn't much fun. I spent a lot of time being...for instance, interrogated by one of the more controversial litigation firms of the time (Melvin Belli). He came to Arizona to drum up lawsuits for the folks who lived and worked in the riverbed who got flooded when there was water in the river. Those days seemed more grueling than days actually managing the flood.

In fact interesting enough, Pam, SRP was set up with a war room. I don't know if they call it the war room anymore, but we were set up so we could operate 24 hours a day. During floods, I was there 24 hours a day. That doesn't mean I worked 24 hours a day. I started out sleeping on the floor in my office. We had a wonderful President at the time name Carl Able, and when he found out that I was sleeping on the floor in my office. He said, "No, no, no. You come to my office and sleep on the couch." We were eating, sleeping, and working around the clock. I was never out to actually see the flood. I was indoors the entire time forecasting runoff and helping to develop strategies for releases. There's a lot of adrenaline that gets flowing, and I think men have this John Wayne image and want to be the hero. We want to solve problems; and boy, we were doing it right and left. In fact, that's probably what caught Jack Pfister's eye because in those days I was the manager of Water Resource Operations. In fact, during the first storm I may have been Supervisor of Surface Water. I don't know, but I was a great "firefighter." Jack recognized that. That's ultimately why I became Associate General Manager of Water. If we never had floods, I might be a hydrologist at SRP today. I don't know. One thing I've learned. We need great firefighters, but we don't want to operate on a philosophy of having the best firefighters. You really want to operate more strategically and minimize the number of fires you have to fight.

Q: Let's talk a little bit more about those floods. You talked about working 24 hours because that was a pretty serious time.

A: It was.

Q: There was danger of Stewart Mountain Dam failing?

A: Yes, in fact, I was working...at that time Bruce Babbitt was governor. Bruce consulted quite closely with Jack Pfister. Based upon the runoff that was already in the river, the releases coming out of the reservoir, the storage all reservoirs were full, and the fact that another storm; I forget which number it was because there were a serious of storms came up through Arizona. There was one more tracking across Southern California and tracking right through Arizona and the water shed. Based upon that storm, we knew that the spillways could not take the flow out of Stewart Mountain that it would overtop. And based upon the engineering evaluations, Stewart Mountain would fail. That instantaneous flood flow that would come out of a failed Stewart Mountain would result in flows that would go around Tempe Butte. So you would have the Salt River in its old prehistoric channel, south of Tempe, as well as the current area on the north side, it would have flooded the capitol. And our estimates of flood water would have it reaching Indian School Road on the north. That would be just an enormous flow of water through there.

I remember Babbitt coming to a briefing and then going on the air and telling people to keep their radios on and stay by the radio through the night so that they would get the first evacuation notices. Then expectation was we'd evacuate everything north to Indian School. South, of course there was no Ahwatukee in those days, but there would be a big part of the flow that would go around, as I recall, on the south side of the South Mountains. That storm basically, I think, hit the Colorado River, but instead of moving, or maybe just before it got to the Colorado River, instead of sweeping through Arizona, it dipped south into Sonora and created havoc down there. But we were so occupied with the storms and damages up here that we didn't pay attention to what was happening in Sonora. It was pretty bad down there. It's kind of like we start out our career thinking we know where we're headed and then we wound up on a different path. We knew that storm was coming through, except for the grace of God it would've, but it

dipped south. We were spared. Stewart Mountain didn't overtop, didn't fail. We had a lot of damage. We had significant damage at Roosevelt. We had incredible damage at Bartlett, but we survived. That was when we really started reevaluating what we knew about the hydrology of the area and what was a 100-year storm because we were getting a 100-year storm every year.

Q: You were educating the media and the public that SRP was not built for flood control.

A: That's right.

Q: Because people thought it was.

A: It was built for water conservation.

Q: That seems to be a major misconception and people were saying...

A: Why can't you move that water? Why are we being flooded? The main difference is that water conservation dams are designed with large release capacity at the top of the reservoir instead of on the bottom. Flood control reservoirs have large release capacity at the bottom so you can start moving water out sooner. By the time you can move large volumes of water out of a conservation storage facility, you're essentially full. Then, if you get inflows greater than your release capability, you overtop. In addition to that, people were wondering why we couldn't just move the water through the SRP system and dump it in the river west of town. Again, it's a conservation system. The canals are big near the dams and they get progressively smaller as they move west delivering water to farms, cities and industry. At the same time we had those storms up on the water shed, we had big storms in the Valley which generated runoff as sheet flow directly into the canals. If the canals had been designed as a storm drain or flood control canals, they would get bigger as they traverse the Valley to receive local flood flows.

Q: When I moved here in 1972, in that year there were floods also. Not as huge as later, but that year the canals actually overflowed and some friends of ours home was flooded.

A: I'll tell you two things that happened to me in '72. First, I lived in an old adobe house that dated back to 1912 and it had a basement, one of the few houses in Arizona that had a basement. The Arizona canal breached and flooded my basement. The house was sitting like a castle in a moat. Second, before we had all the technology we do today, we had storm patrols. One of my jobs during a storm was to patrol the valley and call in storm water flows to SRP's Control Center for management of the system. I was assigned to the old Cave Creek Dam. It doesn't exist anymore. It was a large concrete structure across Cave Creek with a low parapet wall on one side at the top of the structure. I don't remember now but the walk way at the top was about three feet wide, bordered on one side by this wall that was about knee high and that was it. You kind of balanced and kept your hand on the wall as you walked it. To get to the walkway, you climbed up a very narrow ladder. I had to get to the top to reach a staff gauge every 15 minutes to determine the rate of water rise behind the dams. I'd climb up to the top, look down, get a staff gauge reading, then climb back down, and go to my truck. I was there through the night. The wind was blowing and the rain was coming down hard. I don't remember now, but I'm going to say it was one or two o'clock in the morning. Every 15 minutes I'd climb out of my dry, warm truck cab, get out in the stormy weather, climb up the ladder with my flashlight, peer down, get a reading, come down, and call it in. There was a dirt road there, and I could see headlights coming through the storm. I thought, "Who would be out here at one or two o'clock in the morning?" It was a Sheriff's Deputy. He wanted to know if I had seen anybody in the area, a man on foot.

Visibility was hardly anything, it's the middle of the night, the wind is blowing, rain is pouring down, and I said, "No I haven't seen anybody." He said, "You got a radio. There is a fellow on foot last seen heading this direction. He was stopped by a highway patrolman on I-17," which was west of me, " he shot a police officer, and

he ran this way into the desert. He's armed and dangerous." So this sheriff's deputy says, "If you see him and you have time to make a call,"… I knew his unstated meaning was… before he shoots and kills you, give a call in. So I spent the rest of the night out there with my head on a swivel, trying to look 360 degrees constantly … and then I had to go and climb this ladder. I thought I can be shot in the back 20 feet up. I was just panicked all night. It turns out that the highway patrolman had shot himself. He had had an argument with his wife. She left him. He was looking for sympathy and shot himself. So there was no danger but I didn't know that. I spent the whole night out there at Cave Creek thinking, "I'm going to get killed out here." So it's things like that that make storms exciting.

Q: In '72 you were a manger weren't you?

A: I went to work in '67. I worked in the Watershed for about five years. Actually I went from being a Watershed Specialist or a Hydrologist to a Supervisor. So I might have been a Supervisor at that point. It would've been in my first year. The truth of the matter is I loved doing that sort of stuff. I loved being out in the weather and doing things like that.

Q: Those were some real exciting years early in your career.

A: They really were. They were good years.

Q: Some other things that were going on in that period were the Arizona Groundwater Management Act. Bruce Babbitt was a big part of that. Were you involved in that one?

A: Yes. I was involved in two related pieces. I was involved in the Groundwater Management Act -- the development of it, but I really played a support role, even from an SRP prospective. The executive from SRP that had the lead on that was Leroy Michael. Who, if I remember his title, was Associate General Manager for Planning and Resources, a very bright, hard nosed negotiator. Jack Pfister

(General Manager) took a strong personal interest in it. That is another area where Jack got to know me a bit. I provided a lot of technical stuff that they relied on to determine impacts on SRP and what position made sense for SRP. I had no high profile role at all, that was Leroy and Jack. The whole purpose of the Groundwater Management Act was to protect aquifers that contained major water supplies that this state relied on, principally in the Phoenix and Tucson areas and Pinal County; but we realized that groundwater would continue to be mined as the area grew, unless there were ways to offset mining. This led to the next topic which was groundwater recharge. From time to time whether it's through storms, through excess water on the Colorado River, or whatever, there is an opportunity to capture supplies above and beyond the direct use need and we wanted to store that surplus underground. Historically, it had been stored in surface water reservoirs, but by then environmental concerns were such that it was becoming more and more difficult to permit and build a surface water reservoir. In addition to that, subsidence impacts were occurring to the areas where groundwater was being mined. You probably covered stories about earth fissures and cracking and the break in the interstate when we had subsidence.

What a lot of folks don't realize is that if you're out in the middle of the basin, you can get subsidence of 10 or 15 feet but nothing breaks. So you don't realize it when you're out on the margin next to solid rock which does not subside. Why does the earth's surface when groundwater is mined? Because the pores that had water in them have been evacuated and the air gets squeezed out by the sheer weight of overburden and once the land subsides, you can't restore it. So it became important to begin to fill those aquifers back up with water before they subside.

So we passed a Groundwater Recharge Law. I was very active on that. In fact while I was still at SRP, we not only got the first Arizona groundwater recharge legislation passed, but I was the Associate General Manager for Water when we developed the first recharge facility in the state. That is the Granite Reef Underground Storage and Recovery Project which is still in use today.

Q: When would that have been?

A: That would've been...I think I left SRP in '90, so we were developing that in the '88, '89, '90 timeframe. SRP subsequently constructed one more recharge facility. Today, by far and away, the biggest recharger in the state is CAP. We currently operate six recharge facilities and a lot of capacity. Individual cities and others are developing recharge as well. It's an important piece of the state's and CAP's overall water management strategy.

Q: It seems like Bruce Babbitt was pretty active as Governor in water issues.

A: He was. I was disappointed in him when he became a Presidential candidate and, frankly, as Secretary of the Interior. He became "politicalized." But when he was Governor, he was a very thoughtful guy, a lot of curiosity and interest. He wanted to solve problems. He had a science background. He took better water management on as a key initiative. Frankly, my perspective is that there were three forces, three people who came together at that time and moved the state's water initiatives forward…they made it happen. They were critical to Arizona. You had Bruce Babbitt as Governor. You had Jack Pfister as the General Manger of SRP. The third force was the creation of the Arizona Department of Water Resources and Wes Steiner. Wes was brought in as its first Director. The three of those folks were motivated, capable, and worked well together to make a lot of things happen. I wonder if it could have happened if you didn't have those three men there at that time. It's kind of like before 9/11, nobody thought much of Giuliani; his political career appeared near over. But when the 9/11 disaster happened, Giuliani rose to the top. He's a magnificent leader in a time of crisis. Maybe circumstances just bring that out in people. Certainly based on my experience at the time, they were the three right people in the right place, at the right time to do some things that Arizona really needed done.

Q: When we talked to Howard Wuertz, he talked about Babbitt locking them in a room and saying work this out and you can't come out until you do.

A: Howard, this was before I was here, was a CAP Board Member. Yeah, Bruce did do that and that was important.

Q: You mentioned Jack Pfister several times. What was your relationship with Jack?

A: Jack was one of my mentors. When I went to work for Salt River, Jack was not the General Manager. His predecessor, Rod McMullin, had been the General Manager for a long time. He was a very dynamic, very forceful guy, personality very different from Jack's. I remember as I moved up in the ranks being in a meeting that Rod McMullin had with a fellow. I don't remember his name now but he was the water manager for the City of Phoenix. He was a Dutchman. A big, heavy set guy with a close cropped flat top and a personality similar to Rod's. However, those two guys saw nothing alike. It was like being in an earthquake zone. I thought if this is the way things happen on top, I don't know if I could survive that. We also had Henry Shipley as the Associate General Manager for Water at the time, a fiery guy as well. It was a real battle all the time. Rod retired and Jack succeeded him. Rod was the right guy for his time, I think. But Rod was a warrior. He would beat his opposition into submission. By the time that Jack came, the cities had grown stronger. State water leadership was getting stronger. It doesn't matter how good a warrior you are. If you're constantly fighting battles, you are also picking up wounds and eventually you bleed to death. Somebody comes along and finishes you off. Jack had a philosophy that I think served SRP well. I've tried to emulate it. If you're going to deal with a problem and you're trying to solve it with somebody that has a different view, you need to understand more about that problem than your opposition. You need to learn everything you can about it. Knowledge is power but don't use the knowledge to beat the other side up. Use that knowledge to help them find a solution that you can both live with. Jack was a master at that.

Jack, in my opinion, is not a charismatic public speaker. Folks used to promote him for public office. He would have been a great congressman in terms of dealing with issues and solving problems, but I don't think he could've ever been elected

because he didn't stand out at a podium. But he was incredibly capable and one to one or in small groups he was very compelling. Jack was the best CEOs that I have ever worked with or for. He was just all around the best. One of the things that he told me (which I think is true for me, not that I compare myself to Jack) was "I never had very many original great ideas, but I had this great ability to recognize other people's great ideas and then pull people together to put that great idea into play." I don't know if I've had a single great idea, but I do have the ability to recognize great ideas. If I have a strength at all, it's that I can attract people with great ideas and get them committed to things. There are Senior Managers here at CAP that are a lot smarter than I am, that are more knowledgeable than I am, but they enjoy working with me and we work together well as a team. That is what Jack did. Jack taught me just by observing him and being on his staff for a number of years before he left. Your strength is not in your individual brilliance, it's in your ability to recognize and pull together the good ideas of others and implement them. So Jack was really great that way. Jack was great for SRP at the time because SRP was and it still is in a period of transition. It's been in transition for it seems forever. When I went to work there in '67, there was actually more ag water delivered then M&I water. That day passed a long time ago but because of the acreage voting structure, their board, and council are still dominated by ag business people. Jack recognized that SRP couldn't continue to be a farm district. When you have ag people governing it, that's a hard thing for them to accept.

As I look back on that period of time with respect to changing to address changing and new needs; no matter how successful an organization is, it has to change and adapt to continue being successful. I would say it was like a maritime story. The Board was the anchor and Jack was the sail. So Jack would pull them along in needed new directions and they would keep him from running the ship on the rocks. It actually worked pretty well. The dynamic tension created by the two interests was helpful to SRP.

The other thing about Jack is that he saw something in me. I'll never forget when Reid Teeples was retiring; he talked to folks about who might replace Reid. He called me in for one of those talks. In my mind there was an Assistant General Manager who was the absolute person that should replace Reid because he was so darn smart and knowledgeable. So we talked for about a half hour and I was telling him how good this person was and finally Jack said, "I didn't call you in to talk about that person. I wanted to talk about you." I said, "What do you mean?" He said, "Well, I'm considering you for this position." I was shocked. I wound up with the job.

Q: Why do you think he choose you over this other person?

A: I had better communication skills. The other person had better technical skills. When I went to work for him, people were kind of fearful of working for him. They'd say you never know when he'll undercut you. He doesn't tell you everything you need to know for the job. What I found out working for him was that absolutely wasn't true, but he wasn't a naturally good communicator. He just wouldn't think to tell you stuff that you needed to know. He was not an open communicator and people thought he was keeping knowledge for himself to their disadvantage and actually that was not the truth. I would right up front ask him what about this and what about that. He would end up telling me more than I wanted to know. I would wind up spending an hour with him when the first 15 minutes answered my question. So I think the reason I got that job is that the guy I thought was really best for the job wasn't a good communicator. In retrospect, if you're not a good communicator, how can you lead? As a leader you have to paint a vision and you have to constantly interpret it for folks, encourage folks, push folks, and I think I'm pretty good at that. I'm a long ways from perfect. I can second guess myself all the time if I allow it. I've had some real shortcomings at times, but that still tends to be one of my strengths so that's why I got the job.

Q: When did you become the Associate General Manager?

A: About ’86.

Q: When did you leave SRP?

A: About 1990. That was the most difficult period for me in my working career. I had a great working relationship with Jack. Jack left. He retired. The Board then went about selecting his replacement, and there were two of us who were the leading internal candidates to replace Jack Pfister; myself and the person that was ultimately selected. The President of the Board at the time had a long, strong history with the person that was selected and he lobbied hard for him. I was told that there were long, strong debates in sessions of the Board over whether it would be me or the other person. They ultimately selected the other person.

Q: Did the Board make that decision?

A: Yes, the Board made that decision not Jack. It's the Board’s decision to make. The other person was a very capable guy, but he was about 65. I’m 65 now. In my view he was already acting like he was retired. So unlike my visit with Jack where I came in to talk about why this other guy would make a great Associate General Manager for Water, I was called in and the Board President and Vice President wanted to know what my thoughts were about the other person being considered. The Board President and the other candidate played golf once a week and poker regularly – for years. They also had coffee together most mornings. I said, “Why would you select him, he’s already retired. You need somebody who’s really engaged and has some energy for the job.” That wasn’t the way to handle it. They selected the other person. This is why I never wanted to be involved with politics; it was very political.

Q: Who was it?

A: Carol Perkins, very capable guy, nice guy but “Perk” was 65 and he’d been backing off for several years. He did not have, in my view, the energy it takes to

lead an organization like that. In fact, he was selected and within 18 months he was dead. In the meantime, I wasn't there for the 18 months before he died. I looked at the situation and thought there is a lot of security here. I'm well liked. I'm well thought of. I could finish my career here, but I'd violate a basic principle which is, "find a job that you enjoy doing and do it as well as you can." At that point, I knew that I couldn't enjoy it the same way. So I decided to leave and I left. I was really tested because it was a really hard decision for me. I'd been there 24 years. I'd been successful. People were shocked when I left; but I knew I couldn't be happy the same way.

Q: What did you learn by leaving?

A: I learned a lot of things, but two things really stand out. First, failure or success is determined by attitude. I learned that from my Dad. Initially, I felt insecure about leaving. I came out of college and went to work there. I'd been very successful. I grew up professionally with the organization. What if I left and nobody wanted me? I decided to leave without having a job in hand. What if I'm not good enough? What if I fail? I adopted an attitude that I wouldn't fail. I worked as hard to find the next job as I had worked at the old job. In fact, I wouldn't even miss a paycheck. I didn't fail, and I didn't miss a paycheck. I learned firsthand that it's only human to doubt yourself at times but don't give in to doubt. Push on and everything will be okay. That is really about attitude. It's simple to say, but if you adopt an attitude that I cannot fail or I will not fail, guess what? It's self-fulfilling. I know lots of people that left jobs and failed and it's because they gave in. They gave up. They didn't push through.

The second thing I learned is that if I'm holding this card here and you've never seen it, what do you see from across the table? A blank card. I look at it and say, "Hum, Pam Stevenson is President of Agave Productions." I know something you don't know. Now if neither one of us has ever seen each other's side, by the same token then I don't know that it doesn't say Agave Productions Pam Stevenson, President, on the back side. I don't know that it's blank. What I learned from Jack

Pfister is to know everything about an issue you possibly can so you're better prepared than your opponent to help solve a problem. What I never understood when I was at SRP is that we were very successful at solving SRP's problems but nobody liked us. The cities didn't like us. The regulators didn't like us. The small irrigation districts didn't like us, and I didn't understand why because we were a good organization and we wanted to solve things that worked well for everybody. But guess what? We only knew the issue from the SRP perspective. We never got over to your side of the table to see what was on the other side of the card. Your perspective and your knowledge of the issue was dependent upon where you were, not where we were.

When I left SRP, I could've retired at age 50, but my dad would never have approved of that. I had to keep going. Never mind that my Dad was deceased. His legacy still influenced my decision. Based upon my Egyptian experience, I knew I enjoyed doing international work. People seem to relate to me in third world countries. So I needed to develop more consulting skills. That's why I went to work for Bookman-Edmonston, a well-known water resources consulting firm. This business at CAP just came up as a shot out of the blue. But what I found in the B-E job and then when I came to CAP was the reason people didn't like SRP was because they came across as arrogant and superior. That's because SRP was not good at looking at a problem from somebody else's eyes.

What I've tried to do and what I've tried to get my folks to do is, if you and I are having a disagreement about something, let's get over in Pam's chair and look at this problem from her perspective and her needs. Maybe her needs are different from ours, but at least we will understand why she's so disagreeable and unwilling to see the world as we believe it is. In the process maybe we can figure out a way to accommodate her, as well as what we want. That was the second really valuable lesson for me. Everyone wants to feel respected for their views.

Q: So what did you do? What was the name of the consulting firm?

A: I went to work for a firm called Bookman-Edmonston. It still exists under its own name although it's affiliated with a much bigger company now. It is what I call a boutique water resources firm put together by Max Bookman and Bob Edmonston, both former high-level officials with California Department of Water Resources. I can't say what their status is today because I have deliberately not maintained association with them because of my concerns for perceived conflicts of interest. They have done work for CAP. However, at that time they were the most influential, powerful (even though they were small) water resource engineering firm in California and were mentioned in the same breath with much bigger firms throughout the West. When I say much bigger firms, I'm talking about CH2M Hill, Black and Veach…all those big firms with thousands of employees. I don't think that Bookman-Edmonston employed more than forty professionals. But the way I would compare it, I came out of SRP which was a big fish in a big pond. When I went to work for Bookman-Edmonston, I still felt like I was in a big pond but I wasn't in with big fish. I was in with big sharks. These guys were good. They were experienced. They were well known throughout the West. I was hired as a Vice President by Bob Edmonston, who sought me out. He called me and said, "I want you to come to work for me." I said, "In what capacity?" He said, "Vice President." Well Bookman-Edmonston's principles were all engineers. I said, "You know Bob, I'm not an engineer, I'm a hydrologist." It didn't matter. I said, "Well, I'll think about it." He said, "Look, why don't you jot down everything you want to talk about that might be a question for you and let me know." I said, "Okay." I thought about it overnight and I put together a one-pager. It probably had 15 bullet points of things that I wanted to talk about that related to everything from the technical work to pay. I faxed it to him the next morning. By one o'clock in the afternoon, I had a detailed answer to every question that I'd asked. I thought, "This is not SRP. If I had that same list of questions for SRP, it would get siphoned off to various Associate General Managers. It would go down to the staff. Then it would go back up and then it would go through Jack before it'd get back to me. It would take a week to get an answer." Bob did it in four hours. So I thought this was really interesting. I called him up and said, "Well, you answered all my questions." He said, "Are you ready to go to work?" I said, "I'd like to talk to you first." So Bob flew

out from Glendale, California to Phoenix. We had dinner at a restaurant at the intersection of 24th Street and Camelback. I don't remember the name of it now because it's gone. It was in that high rise building on Northwest corner. It was a real upscale restaurant. Bob showed up. He was a two fisted drinker. He was a two fisted smoker. He was loud. We're in this very refined restaurant. He's drinking like crazy. Smoke everywhere. I was thinking "Holy Pete," but he energized me. It was a really interesting discussion. So I finally said, "Bob there is just one question that is really important to me." And he said, "What's that?" I said, "You're an engineering firm. I've managed engineers. I've directed them but all your principle guys are engineers, I'm a hydrologist. So I can't design anything. I can't even approve engineering designs. As Vice President, what do you want me to do?" For the first time that night, Bob was absolutely speechless. He looked at me for a while. I still remember this because he was a big guy. He had played football at the University of California, enormous guy.

He's sitting there. Smoke like a halo around his face. It was all around him. We've got all these empty glasses. I had one for every three or four of his. Here we are at this refined restaurant and he kind of pushes back from the chair a little bit and then he hit the table. It was like a gun shot. And he says in this loud voice, "Hell, I don't know. I'm about good people. We'll figure it out when you come to work for us." I said, "Okay, I'm coming to work for you." He said, "Can you start tomorrow?" I said, "No. I promised my wife I'd take a month off and I'm going to do that." He said, "Fine. One month from now, you're on the job although you're my employee tonight." I said, "Okay." A week later, I went to the mailbox. I had a complete paycheck in the mailbox. I called Bob up. I said, "Bob I have a paycheck." He said, "Yeah." I said, "I'm not starting for another three weeks and you sent me a paycheck." He said, "You work for me." I said, "Yeah, but I haven't started working yet." He said, "I believe in paying my folks." So I said, "I'm going to get a paycheck for the next three weeks?" He said, "Yeah." I said, "Okay, I'll be at work Monday." I never got my four weeks. That's the kind of guy he was. It was a wonderful experience. He died recently from cancer, probably from smoking.

Q: What did you end up doing?

A: Actually I wound up managing. Bookman-Edmonston did the engineering design and construction management for CAP agricultural districts. Much of that work was finished but there was still a lot of work to do. So I managed that piece of the operation. I was also kind of a "rainmaker." I was never the rainmaker that Mike Clinton, another Vice President, but I did bring in work. I brought in a lot of work for Bookman-Edmonston associated with major floods. A flood about '91 or so, washed out much of the infrastructure for the Wellton Mohawk Irrigation and Drainage District in Yuma. So I brought in work and managed people who actually did the work. Because remember, I wasn't actually an engineer.

Q: But they did find something for you to do.

A: Oh yeah. They did and it was a great experience.

Q: Did you stay here in Arizona or did you have to go to California?

A: I stayed here in Arizona, but I had to go to all the officer's meetings in California. I was back and forth to California probably two or three times a month for a couple a days each time but the rest of the time I was in Arizona. I was also involved in work in Colorado, California and New Mexico.

Q: Was that the first time you got involved with the Central Arizona Project and Colorado River Water issues?

A: When I went to work for B-E. I spent 24 years at SRP. I knew about CAP only in general terms. Even as an employee of B-E, I did not get involved with CAP's Colorado River issues.

Q: The Colorado River water is different than the Salt River isn't it?

A: Of course, the Salt River and its watershed lie entirely within the state of Arizona. The same is true for the Verde River. The water is impounded and delivered to a discrete service territory which is the Salt River Valley Water User's Association here in Maricopa County. By contrast, the CAP is dealing with the Colorado River, an entitlement of water out of the Colorado River which has to be diverted and moved through a manmade river to Maricopa, Pinal, and Pima County for the folks that we serve. What a lot of folks don't realize is that the "man provided" river that CAP manages is 50% greater than the Salt-Verde River and it's a river that flows up hill. It's one and a half million acre feet of water that we deliver every year uphill for the people we serve. I don't mean this to minimize SRP at all, but there's a significant difference. SRP is really good at what it does.

It collects water in a reservoir system and then it has people who herd the water with gravity downhill to the people that need that water. With CAP, we're pushing the water uphill and if we don't do our job really well all the time, our river doesn't go anywhere. We don't have gravity working for us. It's all machinery that moves it uphill. So in order to be reliable, the requirements for both maintenance and operation are more critical. The person who lives on Brown Street and turns on the tap, just knows that when they turn on the tap, the water is there. They take it for granted. They pay a City of Phoenix water bill.

They have no idea if it's coming from SRP or CAP or whether it's coming from a reservoir or an underground well. Truth of the matter is they don't care as long as the water is there and it's good quality. For CAP to be reliable, to have good quality water every time you turn the tap on, that's a huge challenge. If you didn't have CAP today, there wouldn't be a water supply for a lot of taps here in the Valley. We deliver somewhat in excess of 40 percent of the total supply in the Valley.

Q: How did you end up getting the job here?

A: I didn't know much about CAP, didn't really know anybody at CAP. Remember, I was preparing for my international consulting career. I viewed working at Bookman-Edmonston to be something I'd do for six, seven, eight years and then I would retire and "cherry pick" international consulting assignments. I developed some relationships with folks who were interested in me doing international work. I came to CAP because of a secretary. I don't guess it's politically correct today, but I still call a secretary a secretary. Every secretary that I have ever worked with has been really good. That's important because usually it's that secretary that people have a first contact with. My secretaries have always been efficient, effective, pleasant, and just great in their personal and technical skills. I actually think they've each made me seem better than I am. Because everybody enjoys working with them, so guess what? They just assume they're going to enjoy working with me. Literally, I have had secretaries tell people no you can't meet with him now, he's tied up but do it in such a way they felt like their problem had been addressed. Well, I had one of those secretaries at Bookman-Edmonston.

She called me when I was on a job in California and said, "They've got an ad out for CAP General Manager, and I think you'd be perfect for it. Have you considered applying?" They had been advertising for a few weeks. I replied that I had seen the ad but it but it wasn't in my plans. Rhoda said, "If there was anybody cut out to be a General Manager, it's you and I think you ought to at least apply." I said, "I'm on this job in California." Her call came two days before the submittal deadline. I told her I didn't have any of the paperwork. I didn't have anything. She replied, "This will get me in trouble with Bob Edmonston, but you have to at least apply. I will fax you all of the information. Put together a responsive application, sign a blank and I will finalize your information on the signed copy and I'll send it in. You haven't got anything to lose." I thought about that and my theory about finding something you enjoy doing, doing it as well as you can; and consider new opportunities as they may present themselves. So I said, "Okay." She faxed it to me. I sat in the hotel room that night and hand wrote my responses; faxed it to her the next morning. She typed it up and hand delivered it for me on the deadline date. I wasn't interested in the CAP job. I don't remember the timeframe exactly,

but a week or two later, I received a response. "We would like you to come in for an interview with the search committee." The search committee was chaired by a Board member George Renner, who would eventually become Board President. George and other Board members that comprised the search committee interviewed me. We talked I guess for an hour or two. In the course of that discussion, I really got interested in the CAP and its challenges. I left the interview and thought, "Nothing is going to come out of this and guess what? I'll be disappointed because I think I'd like that job." Well, low and behold I made the short list and I came back for an interview that included several folks that I thought were better qualified for the job. One was the former Commissioner for the Bureau of Reclamation. They called my former boss, Jack Pfister. Jack was now retired from SRP. They asked, "What can you tell us about this guy?" Jack, like Sol Resnick before, apparently said, "He's the guy for the job. If you don't hire him, you'll make a big mistake." I was leaving for a week's vacation. I got a call from George Renner as I was packing the car to leave saying we want to offer you the job. I wound up here January 1, 1995.

Q: What was CAP like at that point?

A: It was about the same number of employees. We might have grown 10 or 15 in our table of organization over the last 12 years or so. First, I was really interested in CAP's role of providing a reliable water supply in a semi-arid region because without water, nobody lives here. Second, CAP was an employee family. CAP has a Christmas party every December. I went to work January 1, but I came out in December 1994 for the Christmas party. It was a seminal moment for me. All of the employees had gathered together in the vehicle maintenance garage. They had emptied the garage and rolled in 50 gallon drums, put boards on top of them for stand up (to eat) tables. Employees brought beans and coleslaw and things like that. Employees barbequed steaks outside the garage. We stood together eating steak or chicken, if you preferred, and beans. It was like the Wilson family Fourth of July reunion. It was family. By the time I had left SRP, it wasn't a family anymore. It

had gotten too big. It was like going back to 1967 when I went to work for SRP, a family of employees. I knew I was home. There was a place for me.

Q: Looking over your career in water, what do you see were the most important issues that you personally were involved in?

A: If you go back over my entire career, the things that strikes me about my experience at SRP was the fact that SRP does such a great job operating and maintaining its system. In terms of particular activities or events in those early career years; I was involved in land management programs. They were designed to enhance the quantity, quality, and reliability of stream flow. I think SRP did a pretty darn good job of approaching those programs from a multiple use perspective, not managing just to increase river flows at the expense of all else. We really did approach it from a standpoint of esthetics, grazing, (because there's a lot of ranches on the water shed), the environment, sediment control, wildfire suppression, etc. The environmental movement really took off and associated with was a mentality that mankind doesn't have any business tinkering with the environment. While that is well intentioned, I don't think it served us well. If you look at the fire problems we have today, for example, it's due to poor management more than the popular villain – global warming. It was the absolute protection of the forest to try and make it appear that mankind doesn't even exist but at the same time, protecting forests from wildfire and other activities so we had this huge accumulation and buildup of fuels. We're paying the price today. So I think that SRP was involved in some very important programs that frankly got derailed by well-intentioned concerns for protecting the environment that just weren't carried out well. It's a case where you really need everybody to constantly change positions around the table so we really understand what's at stake and what's needed and work toward compromises that really serve us all well, including the environment.

Secondly, I was involved in some huge flood operations. I helped move SRP forward in terms of its ability to collect, interpret, and analyze data to make

operational reservoir decisions. Now there are some risks in that. Early on, we just became fascinated with the technology we could employ to collect data. We could use satellites. We could use meteor bursts to bounce signals off of. We could collect data like crazy and move it into computers to produce simulations for reservoir operations. That's good. But one of the things that I learned out of that is that we could inundate ourselves with data. We had the technology to collect, sort and analyze enormous amounts of information producing data, but I'm reminded of the old saying "Garbage in, Garbage out." For a while, we were having trouble; just losing touch with reality amidst the mass of information. So we could get bad information and not realize it. Because we had all that technology, we assumed the data had to be good. I guess the comforting thing for me, at least in my mind, is it doesn't matter how sophisticated we become or how much technology we have; there is still a place for people because we're the common link that can pull things together and ask does this make sense?

There's a very popular term right now. I think it's called "intuitive leadership" or "leadership from the heart." For some folks, that's too feel good. What? I'm supposed to lead based upon good feelings? No. However, I think there is intuitive value; there's something in us (given the right experience) that enables us to synthesize information and sense that this feels right or it doesn't quite feel right. So we shouldn't ignore that feeling. We haven't been able to capture that with machines. That is where we still need people. I was also heavily involved while at SRP in getting the first groundwater recharge programs going. SRP was relying on surface water, pumped groundwater, and now a new element – stored water underground. Recharging excess water and then blending it back in with our other supplies. That whole ball of wax you could call conjunctive management of various sources of water, and that's really important in the desert. That experience has been really useful to me.

Q: Where you involved at all with the Orme Dam issues?

A: That was a big issue when I was at SRP. I didn't have much to do with it. Leroy Michael who was the Associate General Manager for Planning and Resources was SRP's "point person." Reid Teeples was the Associate General Manager for water at the time. He used another manager who was responsible for water planning, a fellow by the name of Bob Mason. In fact, Bob is long retired, but he is still around. I saw him just the other day. So Bob Mason and Leroy Michael were the principles for SRP. I was only peripherally involved.

Q: The alternative they ended up with was raising Roosevelt Dam.

A: And building New Waddell. I was involved in land management, forecasting the runoff and developing conjunctive management schemes other than CAP supplies. SRP was very territorial about the Salt and Verde water supplies. They really wanted to maintain a distinct, separate presence between SRP and CAP and Colorado River water. Because there was a fear based upon external initiatives that SRP had more water than it needed. Therefore, the SRP boundaries should be broken down to move SRP water to other areas of insufficient supply. SRP said, "No, no, no. We've got just the right amount and we're going to keep it." So there was fear that if they got too involved with CAP, the attack on SRP supplies might be increased. Pfister asked the question: "Should CAP be managed by SRP? Should SRP become more like a Metropolitan Water District of Southern California?" The decision was no. There was too much risk to the SRP supply. Well, it worked out well for me because if anybody is more like a Metropolitan Water District today, it's CAP. We're involved not only in CAP, but just the nature of our resource and our role gets us involved in a lot of state water issues. That really makes for interesting, challenging life work. I also had the opportunity to get involved with international work at SRP. That was significant to me. When I moved from SRP to consulting, that really helped develop a different skill set in me. For instance, when I was at SRP as Associate General Manager of Water, either everybody worked for me or with me and it was easy to control what was going to get done. When you work in a consulting role, you don't control anything. You're

working for a client. You're trying to help them make good decisions about what they need and about what they should do.

You have to use influence as opposed to control. That's a wonderful skill to have. I got involved in a variety of projects there as a consultant, and I learned something else that was really important that I didn't fully appreciate at SRP. I "grew up" with SRP as a professional and as a manager and leader. I became a big fish." When I went to Bookman-Edmonston I was associated with a small group of very focused, profit-oriented professional experts. More like sharks than fish. As a consultant, you're always working on work, but you're always looking for work, as well. Because when you finish work and there's none in the pipeline, you haven't got any work. I developed a sense of ownership that I never had before not only for me, but for the organization and the people that worked there. I was the owner -- and if I didn't do my job, it could go away. It was like, I have to do the best I can do today, if there's going to be a tomorrow. If you're working for an organization like SRP, there will always be a tomorrow.

So it's a little bit more bureaucratic. I learned a new management leader skill set and then when I came to CAP, all of the things that I had done before were really preparatory for, the next step, my life's work. The challenges here have been huge but really rewarding. When I came to work for CAP, we were being told by the US Government that we owed a lot more money than we thought we owed.

They said if you don't pay up, we'll take the project away from you. And in the meantime, we will assess interest and penalties against payments that you haven't made on amounts that we believe are due. It amounted to $1 million a month in interest and penalties. We had to make a decision. Do we take the path that is least hard or do we do what is really right? I told you earlier when I left SRP that was hard. I could have stayed there. I could have been comfortable there. Life could be fine or I could do what I thought was really right following my intuition, i.e., what felt right. I left SRP and was now confronted with a decision that called for deciding what felt right and the stakes were high.

Here we might overpay the Federal Government for CAP, but there wouldn't be any threat. Who were we? We were 450 employees and a Board of Directors versus the Federal Government. When I started conversations with the Feds to see if we could resolve it, (I'm not overstating this); and their attitude was "we're the Federal Government; our job is to tell you what you owe. You, your job, is that when you get that invoice… pay." To try and talk with them was like trying to climb a wall of sheer granite. You couldn't get a hand hold. They wouldn't even explain to us the rationale behind the bills we were receiving. We owed $1.78 billion under a contract. But we knew, based on the bills we were getting, they were billing us on something much more than $1.78 billion. The easy thing would've been to say we'll pay and we'll continue to complain and maybe at some point, it will get resolved. Reality was if we paid, even if some day there was a recognition that we were paying too much, we would never get that money back because it would go into the Federal Treasury and gone forever. Our Board of Directors said no. On my first Board meeting which was the first Thursday in January, we decided to sue the Federal Government. I had already been working on this issue for a month or so before I officially came to work. We were 450 people working here to operate, maintain, and repay CAP. There were approximately 450 Bureau people here on-site, as well. We were operating. We were maintaining. We were repaying. Their job was to provide oversight.

So in essence we had a federal employee looking over each one of our employee's shoulders to make sure that we were doing it right. And you wonder why people say that Federal Government is too expensive, it's too bureaucratic.

We said we're going to sue you (BOR) and we want you out of here. Those were really difficult times because it became personal. People, who were friends on both sides, were now enemies. There were people that retired from the Bureau that were very angry with me when they retired. People I have never seen again. I hope that they're still not angry with me, but we sued. I think the federal experience was: when you have a dispute with somebody over something like this, they are so big and they have so many resources that they just wear you

down. In our case, we didn't have a lot of people, but we had a lot of money. The Board and the taxpayers said we want you to have a lot of money in reserve because if we lose our dispute with the US, there's going to be a big bill to be paid. We used those financial reserves to carry the fight to the US in negotiations and in court. There were times when we were negotiating with the Feds here in this building 'til three or four in the morning. We'd work through the night and then we'd leave here. There were really just four of us from CAP to carry the primary load of that for several years.

Q: Who were the four?

A: There was me and Larry Dozier, who is the Deputy General Manager. There was Doug Miller our General Counsel and a fellow named Grant Ward who had the opportunity to become a General Manager in the middle of all of it, a great guy. He left. So I hired John Newman to replace him, a very capable guy, but I hired him from the Bureau so he couldn't be involved in anything that he had done with the Bureau. So although I replaced the body, I wasn't able to replace the person. Grady Gammage, who was then the President of the Board, became heavily involved as we began the negotiating phase. We contracted two outside law firms to represent us in the litigation. That litigation was described at the time as the largest legal action against the US, against the Bureau of Reclamation anyway, ever, maybe still is. It was a multi-part case, i.e., it was being litigated in parts. We won the first part hands down which was that we only owed $1.78 million. By then the US was claiming we owed $2.32 billion.

We didn't owe that; we only owed $1.78 billion, and by the way, we had operated CAP very prudently so there was no basis for the Federal Government to step in and take it away from us which was their threat. By the time that decision came down, we were already in Phase Two. I ran into two of the attorneys for the US in Washington, DC in the middle of Phase Two. They had been drinking and were both feeling no pain. They said, "You know what? You whipped our a_ _ in Phase One, and it looks like that is what's happening in Phase Two, we're ready to

negotiate." I said, "Fine, but we're not going to quit litigating. We'll litigate and negotiate at the same time." So that is how we wound up, ultimately, in a negotiated settlement because we were whipping their you know what in court, and they realized that they were going to lose and they were going to lose big.

By negotiating, they had an opportunity to resolve the financial dispute and at the same time resolve some long-standing disputes over Indian Water Rights. We continued to litigate and negotiate simultaneously which was a pretty difficult process for several more years. I'm trying to remember, I'm going to say about 2000 after about five years of that, we resolved it. Maybe a little bit ahead of 2000.

That was a huge accomplishment. To me that was pure bonding because we would go to meetings and they would have ten people to our one. It's funny. You develop a very strong bond with the people that you're in the fox hole with when you're surrounded by the enemy. We succeeded. I would not trade anything for my experience of working with Larry, Doug, Grady; Grant Ward when he was here; and Ted Cooke who I brought in to head up Finance and became an important part of our team. Those are just things that you never forget that somebody else is there working just as hard as you, and you know that they've got your back and you've got their back and it is a war. We were able to resolve it in a way that the working relationship between us and the Bureau is pretty good now. Most of those wounds have healed.

We committed to groundwater recharge when we realized that as we were building up our deliveries we didn't have a direct demand for all the water we were entitled to take off the river. If we didn't take it off the river, California did and had been. They are very strong in Congress because of the size of their Delegation. There began to be talk that Arizona doesn't need that water and California does and maybe we need to revisit all of this for the benefit of California. We realized that we were already the junior appropriator on the river.

In times of shortage, we're the first to be cut, therefore, we ought to take advantage of any available water whether we have a direct use for it or not. I had three Board Members who understood that as well as I. They were Grady Gammage, George Renner, and Karl Polen. Their charge to me was: we want you to figure out how to get all that water off the river and protect it from California and put it somewhere we can use it in the future during drought. Several of the senior staff and I developed a plan and presented it over dinner one night at Karl Polen's house. We said, "Here's what we'll do;" and they said, "Great. Do it." We presented to the whole Board and began to implement the plan. We became the biggest recharger...I suspect that we may be the biggest single entity doing recharge anywhere in the United States today. I don't know that, but I wouldn't be surprised. We certainly are in Arizona. We have recharge facilities in Maricopa County and in Pima County. We have indirect recharge programs in Pinal County. We're putting water in the ground to protect the aquifers; we talked about that earlier. They really constitute our "bank" account. You know they talk about banking money for a rainy day? Well, we're banking water for a dry day. We can withdraw our stored water during drought when the water isn't available to us from the Colorado River. It's been a real challenge and a real source of satisfaction to the Board, staff and to me.

We've become more and more involved on shortage issues among the seven basin states that share the Colorado River. We were talking about Colorado earlier; Colorado sometimes tries to rip us off. Of course, they contend we're trying to rip them off. We frequently have disputes with California. I don't always trust them; they don't always trust me. We have our ups and downs with Nevada etc. We're all dealing with a resource that isn't enough to meet our individual needs, let alone our collective needs. So we have to learn to work together more effectively. We are doing just that.

There is another project that may seem small in the whole scheme of things, but is a big source of satisfaction for me. We've been working with environmental interests and water users to figure out how to operate the largest unused reverse

osmosis desalinization plant in the world. It has been sitting idle for years. The environmentalists opposed operation of the plant because of its impact on excess waters that currently flow to a place called the Cienega de Santa Clara in Mexico. I recognized early on that we could fight with the environmentalists over this and there would be no winner. Winning would be a long shot because the environmentalists have tremendous political clout. No politician wants to be viewed as an enemy of the environment and yet, the water supply is critical to people and the environment north of the border. So we put together a working group of environmentalists and water users in a closed room. Have you seen that ad for Las Vegas? Well in our room what happened in that room, stayed in that room until we were all in agreement about what could go out of the room.

We developed a solution that meets the environmental needs and the water needs of people and we're in the process of trying to get that solution implemented. At stake? One 100,000 acre feet of water a year. That's no amount to sneeze at. However, the greatest value of this effort may be the process for getting historic antagonists together to solve problems. Another major accomplishment is getting the Multiple Species Conservation Plan adopted. It is the largest conservation plan to be implemented in the history of the US.

There have been some huge organizational accomplishments with CAP, as well. We have a Maintenance Excellence initiative underway because if the pumps don't run, our "river" doesn't. We've made huge strides in that area. I think we've also made huge strides in developing people who do the jobs at CAP. We've done, I think, a really good job of developing with the Board a vision for the future and developing our work plans each year around those long term business strategies, updating them periodically to keep "our eye on the ball."

We've received national recognition for our excellence in planning, budgeting and safety. And finally, something that's important to me, important to the Board, is leadership planning for the future. I've jokingly talked about being old as dirt. Well, I'm past the age when most people retire. I can't tell you how many times

people ask me now, "When are you going to retire?" And I keep saying, "When I no longer enjoy doing the job or I am no longer effective at doing the job." And there's a little trick there. Sometimes we don't recognize when it's time to change...when I was a kid growing up, Johnny Unitas was my hero. The greatest football quarterback that ever played, but he didn't retire soon enough. I remember him sitting as a back-up quarterback on the bench in San Diego feeling horrible because that's not the way somebody should go out. So I want to go while I'm still effective as opposed to the Board deciding that it's time for me to go out no matter what I think. It's the Board's job to hire a General Manager. CAP has only had two. It will be this Board's job to replace me when the time comes, but I owe it to the Board to do the best job I can and I'm already transition planning for that day. I want to help them identify what they want in the next General Manager, to help ensure we have strong succession planning in-house for senior leaders, managers, critical professionals, and critical technical jobs that ensure the success of CAP. I do have a legacy requirement. I want my legacy to be an absolutely seamless transition. This is a good organization, and I want the history of excellence to continue.

Q: You covered a lot of ground there. The desalinization plant in Yuma, recently a test was started up. How do you see that?

A: The test worked really well. It met all the test run objectives while running at 10% of capacity. We also began collecting baseline data in the Cienega before and during the test run. We didn't expect to see an impact based upon the low level of operation, and I don't think we saw an impact. We're still in the process of analyzing the final data, but here's what I think will come out of it. We'll find at that level of operation there was no impact on the Cienega de Santa Clara and that we operated it for less money than we thought would be required. In fact, if we could operate that plant today, the Southern Nevada Water Authority in Las Vegas or the Metropolitan Water District in L.A. or the San Diego County Water Authority would write us a check for all the water we could produce. It's cost competitive. The problem for them is we don't have a way to get the water to

them, but they may be a beneficiary ultimately of some of the operation of that plant. Longer term, there are still challenges. What level do you operate the plant? Who pays for it because the Bureau is saying they don't have the money.

How do you make sure that environmental values are protected? In the long run its best use might be to provide M&I supplies for communities on both sides of the border and along the border.

Q: So is it not working now?

A: It was a test run only and the plant currently sits idle again. The Bureau says they have got to have more money. One of my jobs is to push and pull the Bureau through Congress to get more money to continue to run the plant.

Q: Do you think it will be started up again and running?

A: Yes. If I didn't, I would think what a great experiment but what a waste of time. It was a great experiment. It's going to be a great project. We'll get it running but it won't be easy.

Q: Will it be soon?

A: Yes. I think we will get it operating at low levels for the next year or two, maybe intermittently. Ultimately, we'll ramp up to where it will operate initially at 30 percent capacity year round; ultimately at two-thirds capacity. I don't ever see it running at full capacity. The reason for that is that it's kind of like CAP. We have more pump capacity than we need because sometimes individual pumps are down for maintenance. You need to have some back up reserve at the plant so you can take units down for maintenance. But, yeah, it's going to happen. Hopefully, on my watch but if it takes four or five years. I'll probably miss it. That's okay. Solving water problems requires time and collective effort. Mine was simply a part of the collective effort.

Q: What about the Arizona Water Bank? You mentioned banking water. Tell me about that.

A: The Arizona Water Bank was created to provide a vehicle to bring water off the river and use that water to back up or firm up municipal and industrial supplies and protect those uses from drought. The water brought off the river is banked or stored underground. When the drought comes, we then move water from the bank for domestic and M&I uses. You can tell a farmer sorry you can't plant cotton on half your fields this year, but you can't tell a city only half your people don't get to drink water this year. There's a lot less flexibility to M&I demand. You can eliminate car washing and watering lawns but, hopefully, you don't eliminate toilets, showers, and drinking water. It was envisioned and, in fact, created as a partnership between the Arizona Department of Water Resources and the Central Arizona Project. Why is that? The Department of Water Resources is the regulatory entity that makes sure that various cities and other water users have the supplies they need for long term reliability. Thus, the Department of Water Resources is the administrative arm of the bank. CAP is the operating arm of the bank because the bank can't do anything without a vehicle for moving the water. The vehicle for moving the water is the CAP aqueduct.

Q: Most of the water that goes into the bank is CAP's Colorado River water?

A: Most of it is today, but it could be other sources as well. And in time, there will be other sources. These include water that's brought in from remote groundwater aquifers, surface water brought in from other areas, and reclaimed water.

The CAP allocation of Colorado River water is 1.5 million acre feet. The total Arizona allocation of Colorado River water is actually 2.8 million acre feet. There's 1.3 million used along the river. California has an even larger allocation of Colorado River water, and Nevada has only 300,000 acre feet. Nevada argues that it's just not fair. I mean look at Las Vegas. It's one of the fastest growing urban areas in the country. However, back at the turn of the century when the river was

split up, there was nobody in Nevada. There were some Indian tribes. There were some miners. There was no city of Las Vegas. There was no vision that Nevada would ever need much Colorado River water. The fact that they only have 300,000 acre feet is an artifact of history and it has all been allocated. Nevada is in a tough spot. They are developing additional water supplies to meet their long term needs. They're developing groundwater supplies from remote aquifers. They are acquiring some surface water from the Virgin and Muddy rivers through purchase and retirement of agriculture lands.

They envision desalinization projects and other things, but they need a water supply to carry them over as a bridge. The agreement we made with Nevada, and I say we because the Water Bank is administered by DWR. Folks often say to CAP, "Why did you enter into that agreement with Nevada?" We didn't enter into it. The Water Bank did. Do we support it? Yes. It makes good sense from a water management perspective. The idea is that in these next 10, 20 years there will be some excess water that will be available off the river beyond direct use needs and even recharge needs. Water will be recharged for Nevada after all other Arizona deliveries are made. Nevada doesn't have any recharge facilities, any place to store water but we do. So we said, "If you'll pay for our recharge activities on your behalf and pay handsomely for it, we will bank limited amounts of water on your behalf that will be your bridge water." So while Nevada is still developing their other supplies, when they need water they can withdraw up to 30,000 acre feet per year from their banked water. We'll cut back 30,000 acre feet that we take out of the river for our use, replace that with pumped banked water from Nevada's account and then Nevada can take 30,000 acre feet out of the river. For that, they pay the full cost which includes the cost of the water, power, and recovery. Plus, they pay a service charge that helps pay for CAP's repayment cost so it actually helps the taxpayers of the state somewhat. But that's water that only gets banked if there's water available after all of Arizona's needs have been met.

Critics either don't understand that or they just don't like helping somebody else in another state. They try to portray it somehow or other that we're sacrificing, and

we're not. One of the things that I've learned about dealing with tough water issues is if Nevada has a problem, it's not just Nevada's problem. It becomes Arizona's problem. If Arizona has a problem, it's not just Arizona's problem. It becomes California's problem. We have to be fair minded in how we protect our own interests but work with others to make it through hard times, otherwise what do you have? Civil War, I guess.

Q: We hear so much about the drought today that I think people who are not informed about water think that there isn't enough water.

A: I think that is probably true.

Q: So what do you see as the challenges with the drought?

A: The drought has concerned us obviously because when there is a shortage on the river, we're the first ones to take that shortage. That's why we bring any extra water in and recharge it now. It's more expensive to do it that way, but the water is worth what it costs you if you don't otherwise have it. We're banking now for that drought period so we can make withdrawals in times of shortage.

In addition to that, we're involved in other activities. We're working with the other basin states to augment the flows of the river through cloud seeding (weather modification) and pursuit of salt cedar removal. Very few people, even environmentalists, see a value to salt cedars. We're also looking at things like operating the Yuma Desalter so water is not lost that can otherwise be used. Treatment and use of poor quality groundwater is also being looked at. We're going to build some huge desalting plants on the Gulf that are powered by nuclear power plants. The energy from the plant will be used to desalt water. The water will flow to the US and Mexico under cooperative agreements. The power that's in excess of what's needed for desalting will flow to the US and Mexico for people uses, it's going to happen. This is a longer term solution. Won't happen on my watch; I don't know if it'll happen in my lifetime, but it will happen.

Q: On the Gulf of California?

A: On the Gulf of California, yes.

Q: What we didn't talk about was the Central Arizona Groundwater Replenishment District (CAGRD). Is that different from the Water Bank? It's not state water?

A: The Water Bank takes any water that is available and recharges it to firm up M&I uses. The CAGRD is different. Under requirements of the 1980 Groundwater Management Act in order to grow, to build houses on cotton fields or to build houses in the desert, you have to demonstrate that you have an assured water supply if you are in Maricopa County or Pima County. What does that mean? It means you must have a 100-year water supply not only for your current use but your projected future use, and you have to have that supply physically available.

Well for those new uses, the physically available supply is groundwater. So they can grow by pumping but if they pump without doing anything else, they're mining the groundwater which is contrary to the requirements of the Groundwater Management Act. So the Replenishment District was created to bring water supplies into these basins and recharge it to offset the amount of water that is being pumped. A city or developer, can expand and develop new uses if water is physically available, but you have to have a way of replacing the water you're pumping so you don't deplete it. That is what the Replenishment District does.

CAP is also the Replenishment District. Our Board of Directors are responsible for the Replenishment District's. Why? The legislature and the various interests fought like cats and dogs over whether there should be a Replenishment District, who'd run it, etc. In my opinion, it all comes down to plumbing. When the Central Arizona Project was created; it was envisioned as a big ditch company.

CAP would take water out of the Colorado River and bring it to the fields and the water treatment plants in the three county service areas. In fact when I first came

to work here, we were referred to as a big ditch company. That's your job; move water from the river to the user. But having that infrastructure in place to physically move water then made it possible for us to develop water management uses and strategies that exceed the original vision. It gave rise to groundwater recharge projects. It gave rise to indirect recharge programs. It gave rise to the Arizona Water Bank. It gave rise to the Central Arizona Groundwater Replenishment District. It will give rise to other concepts simply because we have the infrastructure in place and we are only limited by our ability or lack of ability to think creatively. That is why the Hohokam didn't make it. They developed irrigated agricultural here in the Valley. They had a ditch system. They had the ability to divert water, but they didn't have an infrastructure in place that could withstand drought or flood and; ultimately, they succumbed. We've got a system in place we believe will withstand both drought and flood.

Q: Bill Swan seems to think there are warnings that the whole system could give problems to the CAP in the operation in the future.

A: Remember, Bill is a lawyer and lawyers have to find problems or they don't have any income. I've known Bill for years. He's a good lawyer. However, my job is to solve problems. I try to find real solutions to real problems so that it's not a problem anymore. The problem with lawyers is that you get to a point where people aren't working for a real solution, they're looking for justice. So you know what, Pam, you and I don't agree so I'm going to sue. There is a place for lawyers, but here's what happens when you rely too much on lawyers. We litigate, you win and I lose. You say, "I was right. Justice has been served. I can go on and lead my life now." But guess what? You and I are still water users in the same environment. I'm thinking that justice wasn't served but that's okay you'll need something in the future and I'll get you. I'll get even. So that just breeds the next round of litigation and in the meantime, you won in a lower court. I'm going to appeal it to the Superior Court, and then I'll appeal it to the Supreme Court if I have to. So problems don't really get solved that way. They just carry on and on and on for generations. Now what is the constructive role for a lawyer? My guy, Doug Miller, is what you want in a

lawyer. He often comes across as a combination of Genghis Khan and Attila the Hun. "I'm right. You're wrong. When the earth has been burned to just the mineral content, you'll be only a memory, and I'll be standing here." That's the way he comes across, but that's not the way he thinks. He's always looking for solutions. He will put up the forceful face while at the same time, figuring out a resolution. For one reason when I came here, I said, "Doug, I want you to be sure what I do is legal and ethical. Your job as a lawyer is to figure out legally and ethically how we can solve this problem." Doug really takes that to heart, and he works really hard to solve problems. A solution that is the result of a court decision may be the solution of that battle, but it never solves the war. It just keeps going on.

Q: Speaking of water rights that have been litigated, Indian Water Rights. Arizona has the dominant Indian Water Right issues here out of the seven basin states.

A: And most of them are now solved with the exception of the claims of the Navajo Nation. They're not the only entity with claims out there but with respect to potential claims to the Colorado River, the only really significant outstanding claim is the Navajo Nation. Of course, they started out claiming more water than was in the Colorado River. So you realize there is a lot of compromise that needs to be made. They have claimed more than exists and we've countered that you're not entitled to any water from the Colorado River. However, discussions are taking place which involve the Navajos, the Feds, the State, and water agencies like CAP and SRP. We're making progress. I think we'll be able to get to an agreement on the amount of water that's required to settle the Navajo claim. Probably the bigger issue, in the long run, will be the cost of plumbing. For them to be able to put the water to use, they have to get the water up and out of the Grand Canyon. Then they have to distribute it over this vast area where you have these little communities or settlements with nothing in between.

Q: What accomplishment are you the proudest of related to CAP?

A: I'm going to give you motherhood and apple pie because it's true. There's no single one in my mind that I can pull out and say this is it. I could and then I'd say, "yeah but..." If you think in terms of water right settlements, the Arizona Water Settlement Act is the biggest Indian water right settlement. Yeah, it is huge, and I have to say somewhat smugly that we got the Arizona Water Right Settlement on my watch. We got MSCP through. The largest environmental program in the history of the US and, yeah, that's huge. There are so many things like that. What I hear from people all the time is that CAP employees possess an almost missionary zeal about CAP and serving water. It's like we're called to a higher level of service than the person who sells shoes or balances books for Wells Fargo or manages the produce department at Bashas. We all need shoes. We all need our bank accounts to be right. We all need food. But what do you have to have in a desert? Water … and you don't get it by just turning on the tap. It has to be managed. A desert is inhabitable without water.

CAP makes sure that the water is not only here today, but it'll be here tomorrow. It'll be affordable. You might complain about the cost of it, but it'll be affordable. You might complain about the quality of it as compared to bottled water, but it's good safe water. It'll be reliable. It'll be there every time you turn the tap on. Everything that I've been involved in at CAP all goes into that. The biggest accomplishment for me is that CAP exists in the desert, brings water 336 miles across that desert in a manmade river that's larger than any river in the state, uphill, to meet the expectations of people. That is what it's really about.

Q: Is there anything that you would've done differently?

A: It wouldn't be truthful to say there's nothing I'd do differently, but here's what I would say. Probably the biggest things that I'd do differently would be in my personal life. It's not about CAP. It's not about water. It's about the life I have to live when I'm not here. I'd do some things differently there. With respect to CAP or the water business, sure there are lots of things that I'd do differently, but they'd all be small. They wouldn't change in any way the outcomes of the big stuff. There

are times when I could've been a little more patient in listening to somebody's issue. There are times that I could've been a little better organized or I could've planned better or I could've recognized somebody's contribution and didn't. Those are all important, but they don't change the overall outcome. It's been a good life.

Q: Looking into the future, what do you think will be Arizona's future in water challenges?

A: Continuing to provide for growth in an environment of water scarcity. Ever since I've been at CAP, Phoenix, Arizona; San Diego, California; and Las Vegas, Nevada in varying orders have consistently been the top three metropolitan growth areas in the US for 12 years. I don't think that will change in the near future. We're going to have to do a better job at conservation. We're going to have to do a better job of our expectations around what the quality of life should be. There was a time in Phoenix when quality of life was to live on a quarter acre with SRP irrigation service with big trees in the front yard. We're not going to be able to do that. It doesn't mean we have to live in a rock quarry either, but we're going to have to examine what represents quality of life. We're going to bring new projects such as desalinization online. Weather modification will also be important.

I will tell you right now, and you'll probably leave here thinking what kind of cold medication was he on. It won't happen in my lifetime, but there is a major importation project in our future. It's going to be 25 years down the road before it really gains traction, but right now there is far more water in the Mississippi River than will ever be used. It floods places like Louisiana regularly. There's going to be another CAP. There's going to be another aqueduct built off the Mississippi River. There's going to be lots of needs for water, not just in Arizona, California, and Nevada. Texas and some of the surrounding states have survived on the Ogallala Aquifer for a long time, and they're running into serious shortage. There's going to be a water project that's going to bring a lot of water off of the Mississippi River. That can happen with no detriment, although there will be social concerns and

cost challenges. There will be delivery points all along that system for Texas, Oklahoma, Colorado, New Mexico and Arizona. That's going to happen. The big two are going to be desalinization and the Mississippi River.

There will be serious talks about desalinization in my lifetime, and we might see that plant starting. The Mississippi River diversion is going to escape me unless I live to be of biblical ages, but it's going to happen.

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