CAP Oral History

John Newman (A) My name is John Newman, and I was born and raised in Salt Lake City, Utah.

Kelli Ramirez (Q): Can you tell me about your family?

A: Yeah, I'm a twin. I don't know if you knew that or not. I have a twin brother and one sister. My parents were in their mid-forties when they had kids. So, they weren't exactly young parents, which made childhood a little more interesting, I guess.

But my mother my mother was a very religious woman, and my father was just a hard worker, and he wasn't religious at all. And so, my mother took us all to Sunday school every day or every week. And put us put us through that pretty much on a regular basis. But I had a great childhood. I grew up near Sugar House in Salt Lake City, went to South High School, graduated with honors from South, and then went to University of Utah on a scholarship.

And I was there for about two and a half years, maybe three, and joined the Army. Vietnam was just winding down, and I thought, you know, it's not the worst time to enlist. And my draft number was pretty low. And I thought, if I don't do it, my college deferment will end, and I'll go anyway. So I thought I'd better to select my fate rather than have it dealt to me.

So, I joined the army and I, I went to Ford and then to Fort Benning. I joined the 19 Special Forces Group and I was a crazy one of those crazy Green Beret jumped out of airplanes kind of guy. I managed to avoid Vietnam only, only because it was in the late seventies or early seventies, I'm sorry. And Vietnam was just I think Vietnam formally ended around 73. And I got in in 72.

I was on active duty for a little over a year. Most of it was training in special forces warfare. And when I got out, I joined the Utah National Guard. And I spent, geez, 11, almost 12 years in the Utah National Guard. I came back, wife and my first daughter was born. Actually, my first daughter was born while I was on active duty. Came back, and the hardest thing I ever did in my life, I swear to God, was going back to school after being in the Army. That first semester was so hard, oh my gosh. I remember going back and I knew about where I had left off because I was in the engineering program at the University of Utah. And I knew about where I needed to go, so I just signed up for classes. And I remember my first, I went, "Oh my God, I've been gone too long." And that first semester was really, really hard.

But I stuck it out, graduated. And just in my senior year of college, my mother-in-law was working for the Civil Service Commission. And I was really interested. My whole college career was water-oriented. I was into water hydraulics, and dams, and reservoirs, and pumping plants, and all of that stuff. And it just was really interesting to me. And the Bureau of Reclamation was hiring. And she worked for the Civil Service Commission, and she says, "You ought to go down to the Bureau of Reclamation offices down there on State Street and apply for a job." And I still had another year to go. But she said, "They're all hiring and they're hiring part-time." And I said, "Okay."

Q: And you had a wife and a child?

A: And I had a wife and a little baby, yeah, and needed a job. Although I did have GI Bill, and that helped me go back to school, but it wasn't enough to keep everything in place. Don Barnett was my first supervisor and he hired me as a student. And I worked, well, maybe 20, 30 hours a week. And I was doing computer modeling of the Colorado River. That office I was in operated, we did all the river forecasting and operations work for Lake Powell, Flaming Gorge, all of the reservoirs in the Upper Basin, not Lake Mead, Lake Mead's, a Lower Basin Reservoir. But we did do a lot of coordinating with Lower Basin Office of the Bureau. That last

year of college, I was more or less a computer programmer. Man, I was writing programs and-

Q: In the 70s?

A: In the 70s. Yeah, they had computers in the 70s. Not like they do today, but they actually had computers in the 70s.

Q: But your degree is in civil engineering?

A: Civil engineering. I got my degree in 1974, I think. Yeah, 1974. After I graduated college, I stayed with the Bureau, and they put me on full-time. And I worked there in the Salt Lake office in River Control for, geez, quite a while. I didn't leave there until about 1983 or... No, it was about 1985.

Q: Wow.

A: The reason I remember that is 1983 on the Colorado River was one of the biggest floods of Colorado River history. Lake Powell had filled for the first time and several years prior to that, it filled in 1963, I think. But by 1980... No, wait a minute, Glen Canyon, Lake Powell was finished in 1963. It filled for the first time in 1980. Well, in 1983 and four and five, were huge water years on the Colorado River, big floods, water coming everywhere, overtopped the spill gates at Glen Canyon, overtopped the spill gates at Lake Mead. We had water clear down to through the Gulf of Mexico. Those were some really rough years for me. I worked my tail off in those years.

Q: Too much water?

A: Way too much water. We just couldn't handle it. I remember visiting Glen Canyon Dam and watching chunks of concrete flying out of the spillway, and we decided, Tom Gamble was the manager of Glen Canyon down there at Page.

And I remember talking to him about it and he said, "Well, we need to shut the gates and go inspect the spillway. This thing might be ready to fail." We shut the gates and we rigged up this little tug thing on a winch. Yeah, seriously.

Of course, when you go down in these spillway tunnels, they're 50 feet in diameter, they're huge. And we're on a winch and a cable and they started lowering us down. We had lights and we were looking around and water's dripping off. And we get down there to the point where I couldn't see daylight anymore because we were too far down. And we came down to this big hole in the bottom of the spillway that had been eroding out. You could have parked a city bus in there. It was huge. And we all just looked at it and went, "Oh my God, we've got big problems."

And the runoff in '83 had just started, we hadn't even gotten to the peak of the runoff yet, and Lake Powell was full and the spillways were failing. That was a tough time. We worked through that in '83. By '85, spillway repairs were underway, and we were putting air slots in the spillway, so they wouldn't cavitate the way they did in '83. But '83, four, and five were all huge years. We haven't seen years like that since. '85 was probably the last big water year on the Colorado River. I don't think there's been much of a year like that.

Q: Almost 40 years.

A: Since, that's quite a while ago, yeah.

Q: Where did you go when you left? Were you still working out of Salt Lake then?

A: Yeah, I was. And by '85-

Q: But not as a computer person, you were a civil engineer?

A: I was doing operations. Yeah, I was a civil engineer, and I was doing operations work and river forecasting work. And we did all the work that... It was the data upon which operational decisions were made, how much to release, when to release it, what were our target elevations, how high and how low should the reservoirs be at what time of year? And that sort. By '85, I'd had it, I was just worn out. A job opened up in Durango and I thought, I'd gotten divorced, I was a single guy, and Durango sounded pretty sexy and I thought, I can do this. I moved to Durango in late 1985, and I was the chief of water operations in Durango for four years while I was there.

And I loved it there. Durango was a great place. I worked for Rick Gold; he was the project manager there. And one of the things I started, which set the stage for me coming here to CAP was, one of the biggest jobs we had in Durango was a water project called Dolores up near Cortez, Colorado was just being completed. We had finished the dam, major pumping plants were in place, the canals were in place, but the water district there had not staffed up. They did not have a maintenance program; they didn't have anything. And I was tasked with helping the district there put together their maintenance program for all this stuff, the dam. And we were hiring people who'd never done any of that. They really didn't know anything about maintenance at all. We were building this district staff from the ground up, from basically nothing.

I spent a lot of time in Cortez while I was there, putting together a maintenance program with the Dolores Water Conservancy District. And I was happy there. I wasn't looking for a job. Life was good. I liked Durango. I was a skier. I'd buy a season pass and ski 40, 50 days a year. I was just a ski bum, still single.

Q: Life was good.

A: Life was good. And I remember one day, Rick Gold had left and they made me the acting project manager until they'd filled the job and they never did fill the job while I was there. I got a call from Bob Tolls, who was the project manager here,

and I had met Bob, he was in the E&R Center in Denver during the spillway crisis at Lake Powell. He was head of one of the design groups in the Bureau of Reclamation in the E&R Center in Denver.

I met him and I was on the phone with Bob all the time during that spillway crisis. He knew me and I knew him. And he called me one day and said, "Hey, come on down to the desert, I'd like to talk to you about a job." And I said, "Oh." I came down here in April, no, I think it was March.

I think it was March of 1988 or '89, something like that. And it was 100 and something, and I lived in Durango. The warmest it ever gets in Durango is maybe 80. It's up in the mountains, it's 6,000 feet. It's like Flagstaff.

Q: It's beautiful.

A: It's a beautiful place, and I come down here in March and it's 100 and something. I'm like, "Oh my God." I interviewed with Bob and met his staff, and they were opening up a position called Operations Manager, which was tasked with doing the same thing I did at Dolores, was getting a water district staffed up and ready to assume maintenance responsibilities over CAP. Because up to that point, it had been mostly the Bureau doing it, although they had hired some people in the District to do the work. The Bureau had been funding it, and the Bureau really wanted to get the District put into a position where they could do it themselves. They hired me to come down here and do the same thing.

Q: This is still a Reclamation position.

A: Mm-hmm. Yeah, so I came down here, I don't remember the exact date, '88 or '89, probably. Well, I don't think it was '90, as operations manager. And I had the operations and maintenance group. I had the realty people, and I had the environmental group. And I worked in that capacity, well, until I started with the district, which was.... I don't even remember when I started with the District.

Q: Mid-90s.

A: Yeah, '95, maybe. Yeah.

Q: And what position did you come on with CAP?

A: Sid hired me. I had talked to Tom Clark about working for the District while he was still general manager. And I told him I just wasn't ready to do that. I said, "It's too early." I saw that coming that you set up and design a maintenance program and the next thing you do is you transfer over and you run it. And I said, "We're not ready for that." Tom said, "Well, we'll keep you in mind." Tom didn't hire me, but Tom retired and Sid became the general manager. And Sid interestingly, he hired me as the assistant general manager for planning. He didn't hire me as a maintenance guy. Maintenance worked for Larry Dozier. And he wasn't going to take maintenance away from Larry Dozier, he just wasn't going to do that for obvious reasons.

He hired me as assistant general manager for planning. I did strategic planning, I ran the CAGRD, the Central Arizona Groundwater Replenishment District. We built all the recharge projects, got all that stuff started. And I'd been in that job for a little while and I don't remember exactly where I heard about it, but maintenance excellence was... It was not my idea. This wasn't something I thought up. I'd been in that business a while, and I had a lot of experience doing that and I knew a lot about it. But the maintenance group at CAWCD was maintaining CAP equipment. Not particularly well, but we were maintaining it.

And I remember there were elements, people on the board, who wanted us to do cost of service studies and try to figure out, are we really recovering in rates, the full cost of maintaining the system? Because we weren't charging, we didn't know, we weren't charging. Our water rates were just set politically. They weren't set by any measure of actually recovering the actual cost of taking care of the system.

They were just political numbers that the water users would agree to. That was the way that was done.

Q: Wow.

A: Some people on the board said, "Well, wouldn't it be nice to know what it really costs to run this place?" Putting aside the energy costs of pumping, what does it really cost to maintain the canal, the pumps, the motors, all of the equipment? And we had no idea. I couldn't tell them how much we spent doing that stuff. One of the things I remember when we started maintenance excellence is, if you don't know where you are, any direction you go is as good as any other. Well, the first thing we had to do was figure out where we are.

And I remember, we had hired a consultant and they did the very first maintenance assessment of CAP, and I wasn't in maintenance yet. I was still over here in planning. And it was not good, it was real ugly. And management at the district read the report and they basically said, "This is garbage. We don't want anything to do with this." It was an indictment that that management was incompetent. It went on and on and on. It was ugly. And the effort at that time was to just throw it away, just deep six it and never see the light of day and just go on with life as we knew it. And I talked to a few people that were in maintenance at the time, and I was over there periodically anyway, and I thought maybe this is a real opportunity for me to get back to what I normally do because planning's not my bag. I'm not a planner. I worked in that job and it was fun and all that, but I wanted to sink my teeth into pumps and motors again and real stuff.

I went over to Sid and I said... It was a tough conversation, but I remember saying, "Sid, I know you and Larry and the rest think that maintenance assessment report was garbage, and you don't want to do anything with it." But I said, "There's a lot of information in there that's pretty useful, and the maintenance program here really does need an overhaul. It really does need some help." And I said, "I'll

volunteer to go over there and do that for you." And he said, "Well, let me think about it."

Q: Wise.

A: And he thought about it. For months, he thought about it. I never heard back. I thought I landed a thud, that didn't go anywhere. And I'll bet it was two months, maybe three months later, he calls me into his office and he said, "I thought about it and let's make that happen." And I said, "Thought about what?" I had completely forgotten the conversation by that point. And he said, "I want you to go over and run the maintenance group and make this maintenance excellence thing happen." I said, "Oh, all right." And my head started spinning, and I thought, how am I going to do that? I really put myself-

Q: What have I volunteered to do?

A: Yeah, what have I done? That's how it started. Me coming here wasn't my idea, but it was one of the best things I ever did. And transferring over to the maintenance group and working there was the best job I ever had. Loved it. It was really the best job I ever had. Sid turned me loose and that's how I got into the maintenance business at CAP.

Q: Tell me, when you went over to maintenance, where'd you start? Because like you said, the equipment wasn't that old and from what I've been told, we were pretty much reactive. There was no preventive maintenance, there wasn't any of that. It was pretty much like, oh, it broke, let's all rush over here and fix it.

A: There was a lot of breakdown maintenance going on. But even on the preventive side, we were doing PMs and preventive maintenance, not because the equipment needed it, it was just time. We had guys that didn't have anything else to do, whatever. We were staffed heavy, I thought. And in retrospect, I think that proved out to be true, we were overstaffed. Guys needed something to do, so

let's go tear down a pump and whatever. It didn't need to be torn down, but we got guys standing around here, we got to go fix something. There was a lot of breakdown maintenance, and there was not a lot of predictive, but a lot of preventive maintenance. We called it preventive maintenance, but it was just maintenance to keep guys...

Q: Busy.

A: Busy.

Q: Tell me, what maintenance excellence was and why that approach was different and why you brought maintenance excellence to this organization.

A: Well, when I got over there, there were five maintenance departments and they were all autonomous. They all had their own program. They all had their own thing to do. They didn't coordinate with one another. Records that we kept about what we did to equipment and why were maintained in individual departments. If somebody wanted to know what you did to unit three at Bouse, they'd have to go over and find this guy and he'd look it up, and it was very disjointed. The walls were up, these departments really didn't... They all worked for Larry Dozier, but they didn't talk to each other hardly at all.

And it was a functional maintenance group, but not very efficient. The other thing I found when I first got over there were the crafts and trades guys. We're not a union shop here, never have been. Hopefully, we never will be. But the guys, the worker guys, the electricians and mechanics, the crafts and trades people, some of them really wanted it to be a union shop. And they treated management like it was a union shop. The first thing that I noticed when we started talking about maintenance excellence was, well, that's just code language for layoffs. That's what that is. We've seen this before. Don't come in here talking to us about efficiencies and all this kind of stuff. You're just blowing a lot of smoke. What you

really want to do is downsize. And to a certain degree, they were right because we were way overstaffed and we just didn't know it. That's what I inherited.

Q: They knew it.

A: In their hearts, they probably knew it, but they didn't care. They were good jobs; we were paying close to a union wage without the union membership. We based our crafts and trades wages on union contracts at SRP and APS, so we knew what the trades guys were making in other shops. And we didn't pay them quite that much, but we paid them close enough that they didn't want to leave. And that was it, was well, you're not making what an electrician that SRP would make, but you're making enough to stay. That was the game we played with the trades guys. Those were some tough conversations. Some of the initial efforts were just communication among crafts and trades guys about what this maintenance excellent stuff was all about. But I wouldn't say that was the hardest part.

I think the hardest part was at the management level, I really do. I think getting the right management group together to engineer this change was probably the key to the whole thing. And I knew I didn't have the right people. I knew I didn't have the right people, and I knew that the way we were organized was not the right way to be organized. I knew I was going to have to reorganize maintenance. Actually, we reorged maintenance twice while I was over there, survived them both. That's what I inherited was, a lot of crafts and trades guys didn't want anything to do with it. And a management team, and I use that term loosely, a management team that didn't want to do it either. Yeah, my work was... My work was cut out for me.

Q: How did you do it? And what were you trying to sell? What was maintenance's excellence at a high level?

A: The way I started, I didn't start right in on the maintenance side of things. I started in on safety. I just decided, you know what? This is an organization of people. And

that's what makes this place work is the people in it. It's not management, it's not the equipment, it's about the people. And I personally, as manager of the maintenance group, I took it personally when people would get hurt. It was like, what could have I or should have I done that would've maybe prevented that? And I'd served on safety committees all throughout my career in the Bureau of Reclamation. I knew all about safety committees. None of them worked worth a crap. They were all management types sitting around thinking deep thoughts about safety and getting reports on injury rates and this kind of stuff. But never was anything really done that would improve safety itself. It was just a lot of eye wash if you ask me. I thought, let's not start on the obvious stuff. Let's start with the safety culture at CAP and see if we can start engineering some changes there.

Q: We had a lot of injuries then.

A: Oh yeah, they were just through the roof. Just totally unacceptable. Mike Cook was a safety manager and he seemed pretty complacent about the whole thing. He was like, "What am I"... And I thought, well, my position is the only one that can make this change work. Mike Cook can't do it, Sid can't do it. It really had to come from me. To build trust among employees and try to build more of a team environment over there, putting maintenance aside, we started working on improving our safety program, so that's how that started.

Q: How'd you do that? I know VPP came later, but...

A: VPP was Mike Cook's idea. Mike was our safety manager. I didn't care a thing about VPP. At the end of the day, after we had achieved VPP, it became more obvious to me that by moving towards and achieving VPP, it helped us with our safety program and injury rates more than I could have done without it. It's an organizational type approach to safety where you build a safety program from the ground up and you invest people in the safety program, not management, the people who do the work, you invest those people and get them involved in it from the ground up. And I was doing that, or trying to do that, without VPP. And

Mike Cook came over one day, and he says, "We should apply for VPP." And I knew a little bit about it and there was a couple of manuals that were available.

I read them and I said, "Mike, there is no way in hell we are ready to even think about VPP. We've got a ton of work to do on our program here before we even think about that." It was several years. It was years of hard work in the safety area before we even thought about VPP. But we did it. We applied and went through the interviews and did all of the work and finally got VPP status. But our safety program and injury rates dropped dramatically long before that. We were working pretty hard on it.

Q: What do you think your focus was with the safety? I see that you saw that if you got the people to trust you because you were providing them a safer place and supporting them in that way, the rest would come. But what did you do to achieve that?

A: Well, I guess what I did was started interacting with people who did the work. This is a funny story, one of the questions was, what were one of the things you remember about your dealings with coworkers and people at CAP? And I remember one of the things, I always went to the field, I was in the field a lot and I loved to be in the field. When the guys would show up at a work site, I wanted to be there first. I wanted to be sitting there when the guys showed up. Here I am. I did that a lot and I'd show up unannounced. I was everywhere. And that's what I really liked about the job, because I'd just show up at places. And one of the things I'd do, and there were 275 people in maintenance at the time, I think, something like that. I started memorizing names and I had the yearbook, the communications groups yearbook, and I had everybody's picture and everybody's name.

I'd go out to Bouse to hit their safety meeting at six o'clock in the morning, and I'd sit there in the parking lot and I'd get out, and I'd look at the crew at Bouse and look at pictures and memorize names, so I'd know these guys names. And I

remember one time, I walked in and I don't know if it was before the meeting or during the meeting, I can't remember, but somebody asked me a question and I knew the guy's name and I talked to him and I drew him in by name. And he starts looking around, he was really nervous. And I didn't mean to embarrass you, he said, "I got to tell you," he said, "it scares the hell out of me that my name." And I said, "Why is that?" He said, "There's only one thing that can come from management knowing your name and that's all bad."

And I said, "Well yeah, kind of." I said, "Well, I just think it's important for me to know you guys, know who you are. I don't pretend to know your wife and kids and all that stuff, but I want to be able to talk to you on a first name basis." And I did that quite a bit. I blew it a few times, got some names wrong. And I'd think, oh wait a minute, that's not... I have to go back and say, "Got your name wrong, but I know who you are." I started trying to build that kind of rapport with not supervisors, not managers, but with electricians and mechanics and guys who were out doing the real work.

And I think it worked. After a while, they got used to seeing me around and they'd call me John and I'd call him Pete. And it got to be a little bit of a joke, but it was fun. But I think that connection, that was new. It was rare for them to see their manager, much less the AGM. If their manager showed up, and that was always bad when the manager showed up. But when the AGM showed up, it wasn't bad. If the manager was there, which would've ordinarily been bad, and I was there with him, it wasn't bad anymore. I went to a lot of safety meetings. I went to the field with managers. I went to the field without them, sometimes with supervisors, sometimes without them. And that's how we started that whole effort.

But I got to say, the organization in maintenance really responded to that kind of an approach. We achieved maintenance excellence, the measure of maintenance excellence. We achieved that after oh, three or four years, I guess it was. We'd done three or four assessments and finally, one that showed that we

had achieved maintenance excellence. But what was funny about it was, it didn't feel like we had, it didn't feel much different.

Q: Why?

A: Because I could see all the warts, I could still see all the things that... Well, it said we were there, but we haven't done this and we haven't done that and we haven't done this. And we still had a lot of work to do. Even though on paper, we achieved our goal, it was just the beginning really.

Q: Do you think that the crews that were the maintenance crews were the mechanics and electricians and maintenance workers, were they on board with maintenance excellence by the time you developed the relationships and approached them and came back with the-

A: Some yes, some no. Not everybody got religion.

Q: What was your spiel on maintenance excellence? When you went out and said, "We're going to start doing this thing called maintenance excellence," what would you tell people it was?

A: Well, you can't go out and say it's an efficiency program. That's a layoff. It's to make your jobs better, more secure, and safer. You can't argue with that.

Q: And from an equipment position, it is what? What is maintenance excellence going to provide the reactive maintenance, does not?

A: Well, number one, reactive maintenance is not safe work. It's, a unit broke down, you're out there in the middle of the night in conditions you didn't pick, in an environment you didn't pick, with people didn't... No planning, nothing went into it. And that's where people get hurt. Getting away from breakdown maintenance really helped our safety program too. But equipment that is maintained in a

maintenance excellence environment is equipment that is now predictable. You know what condition it's in, you know how long the stater coil is going to last on that unit before you have to go back to it. It allows you to plan, work and do work more safely and more predictably and more economically.

It makes your program more efficient, you only do maintenance when you have to, not because the unit broke down, but because if you don't maintain that coil now, it's going to break down next year. Our statistics show that if we don't do it now, we'll run the test and we'll do the predictive work. Now's the time to do it. We do it just in time instead of just because we don't have things for people to do. And we did a lot of that in the early going, but that's what maintenance excellence is. It is an efficiency program, but it's making your equipment more reliable, more predictable, and it runs more economically. And that's what ME's all about.

Q: And ultimately, you can then explain how much the water costs to deliver based on the amount of the maintenance costs.

A: Oh, down to the nickel. Yeah, you know exactly what. Now at CAP, the way the law was structured at CAP, wherever you are on the system, you pay the same rate. If this was a private company, the people who take water off the system closer to Lake Havasu pay less than people in Tucson.

Q: I've never thought about that.

A" There's nine pumping plants between the Colorado River and Tucson. So, if you're at the end of the line, you pay maintenance costs on 330 miles of canal, nine pumping plants, 30 checks and turnout structures, all of it, you get the whole boat. But if you're at the turnout one or two, you only pay maybe lift costs at Havasu and Bouse and two pumping plants and maybe 50 miles of canal. The way CAP was organized was, it's a postage stamp rate. Everybody pays the same rate. It doesn't matter if you're out in Harquahala Valley or down in Tucson, and

[inaudible 00:36:27] water costs the same regardless. And you'd think people who are further up on the system would think, wow, I'm really getting screwed here. I'm being way overcharged. Whereas those guys in Tucson are getting a smoking deal and they're at the end of the system and they're paying the same rate as I am? But the way that was resolved, it was baked into the statute that that's the way the law provided that rates would be set at CAP, and that's the way it was done.

Q: Was the board happier that they could see a rate that was couched in an actual cost then?

A: Hard to know. It depends on who you ask. Some, yes. To many on the board, it was pretty invisible. They knew it was going on. I gave regular reports to the board on progress and maintenance excellence and things like that. But unless you had an engineering background or a maintenance background, a hard skill type background, it didn't mean a whole lot. I found that a lot of them just, they either didn't know what I was talking about or didn't care, but some did. The important-

Q: Visionary types.

A: The important ones did, yeah. The ones that mattered, knew.

Q: Which is critical. Let's go back to safety and SVST. What challenges did you face when you said, we're going to be safer? Whether it was safety limits or equipment and all that stuff? I've heard the stories of everyone's sticking cigarette butts in their ears in the early years.

A: I used to do that. I didn't have proper earplugs. And you're in a noisy environment and you put something in your ears. I don't know. I'm trying to think back. All the safety committees that I'd ever dealt with were management driven committees. The Bureau of Reclamation's policy was that the general manager or the area manager, the head of every office, had to chair the safety committee. That just

means he had to be there, doesn't mean he had to run the meeting, just he had to physically be there at all of the safety meetings. He usually would pick some underling to run the meeting. And on that underling in many cases, was me. I ran CAP safety committee with the Bureau for quite a while. And I wasn't wasn't even in the construction group, I was in the operations group, but nobody in construction... Where all of the injuries were happening, by the way, wanted to do it.

Bob Tolls asked me to do it. I said, "Okay, no, I've done safety committees before." But they're not effective. They're eye wash. They're a lot of agenda stuff. You have a meeting, you get reports on how many people got hurt, blah, blah, blah, this and that. You file it all away, and you're write a report and then you meet the next month and you do the same thing. And CAP, the District, the safety committee at the District was the same way. They modeled the whole safety management after the Bureau, which when you're designing maintenance programs, the Bureau built the darn thing. And when you're ready to start maintaining equipment, you follow the Bureau's lead. Well, the safety was the same way. That's how the Bureau does it, so that's how CAP should do it.

Q: That's not how John did it.

A: Yeah, well at the end of the day no, it wasn't. I finally decided, and I did talk to Mike Cook a lot, but I didn't listen to Mike Cook a lot.

Q: Thank you.

A: He was well-intentioned, but he was a real... Well, I won't go down that road. But I thought, let's design a safety structure that is employee driven, not management driven. I know how ineffective those are. Let's do one that actually taps into people at the employee level and build a safety vision around things that workers know would improve things at the working level. And that's how the SVST started was... Well, you were on the SVST. We did a lot of work around vision and trying to

figure out what did we want to be, how do we want to look? And the only thing about SVST was, I was the chairman far too long. It was like, I didn't want to be the chairman. I didn't need to be the chairman. I wanted that to be somebody else.

Q: But it was your vision.

A: Yeah, I knew I'd have to drive the bus for a little while, but I didn't want to drive it quite as long as I did. But eventually, I was able to stand aside and other people stepped up and I'm glad to hear that the SVST is still going.

Q: We're in a reboot situation where we got back to checking lists, reading reports, and closing the meeting.

A: Well, one of the questions that was on your list that you sent me was something about, what are some of the things you're most proud of? When I was doing a lot of the leadership work in maintenance, and we did do a lot of leadership work.

Q: A lot.

A: One of the things that I took heart in was that while you're the boss, you can engineer change and you can implement change, and it gets implemented and done because you're the boss and you don't know necessarily whether people are doing it because they know it's the right thing or because they know you want them to do it. You just don't know. The best measure of whether a change effort that is successful is, it still there after you're gone? I had dinner with Brian Buzard and his wife. God, that's been a year ago or so. Pam, my wife, ran into Brian, I think it was at the grocery store, and they started talking, and then Pam said, "Why don't you come over for dinner?" This and that.

Well, they came over for dinner and Brian told me that the maintenance group had achieved the North American Maintenance Excellence Award. And I remember looking at the NAME program when I was here and I thought, oh my

God, the ME program that we were working on, the arch and all the building blocks and all that stuff, was pretty daunting. But the NAME award was like, "Oh my God, this is ME on steroids." To think we would ever even think about doing that. And Brian told me that it was like two years ago that CAP had achieved that. And I thought, that's made me really proud that all the work that we did is still going.

Q: Yes.

A: It didn't stop.

Q: I would say they've built and grown what you started and what you planted.

A: I credit people like Bob Moody and Brian Buzard. Those two guys championed the program from day one. And there were others, but those are probably the first two guys I would point to, to say they really carried the load and still do.

Q: Bob's retired, but yes.

A: Moody's gone?

Q: You didn't know that?

A: No, I didn't know that. How long ago?

Q: Oh, within the last year.

A: Well, funny story. Bob was in checks and turnouts. This was one of those little fiefdoms I was telling you about. The asset owners in maintenance were scattered. We had checks and turnouts, we had pumping plants, we had canals, and they didn't even talk to each other. Well, Bob was the head of checks and turnouts, and he was a maintenance excellence... He studied it. As just a supervisor, but

Bob was a change guy. Bob was a change agent. He was always in that mode. And I remember when I went over to maintenance, one of the first things I did, I went to the safety meeting in checks and turnouts, and there's Bob. And he had a couple of guys on checks and turnouts. They were just... A couple of the mechanics on there. They were just the worst guys, just attitude up... Just terrible guys. Audy Redstrum was one. I shouldn't name names, but anyway, Audy was in checks and turnouts at the time.

Q: That explains a lot.

A: I went to the safety meeting and it was just chaos. Just chaos. And they didn't know who I was. And I walked in there and I didn't say a word. I just watched the whole thing. And I thought, oh my God, what's going on here? Anyway, after the meeting, I pulled Bob aside and I said, "Bob, we got some work to do, but you're not going to be in checks and turnouts anymore. You're going to be the maintenance excellence project manager." And he about fell out of his chair. Well, I don't even know... At that point, I really didn't know if he even wanted to do it. It was easy to talk about. But when it came to actually, we're going to do this thing, I'm not sure he really thought he was the one who would-

Q: He was the first ME project manager, and then Brian.

A: Yeah. Bob was the first one.

Q: I'd forgotten that.

A: Yeah, Moody was the very first one. Safety and ME were two things I worked on a lot, but they were really related. You couldn't differentiate the two. It wasn't that I was a big safety nut. I am, but I had ulterior motives too.

Q: It was left and right hand.

A: Yeah, it was hand in glove kind of thing. That's where we started, was building trust and getting people on board with a safer work environment. And if you can trust me there, then let's talk about maintenance excellence and making this a safer, better, more secure place to work too. And we built them together, so that's how that...

Q: What was so interesting about water that you spent your entire career...

A: I don't know.

Q: You only worked for the Bureau and for CAP your entire career.

A: My whole career, yeah. That's it.

Q: 40 some years.

A: Yeah, I didn't add it up, but yeah. Well, I graduated from college in 1974 and I retired in 2010 so yeah, I guess that's-

Q: 36.

A: It's up there somewhere. Water in the west has always intrigued me. I've always followed it. I've always been interested in it. Even when I was in civil engineering school, I did water management and water hydraulics and open channel hydraulics and pumps and motors and dams and reservoirs. I just liked it. When I was growing up in Salt Lake, I remember we had a drainage ditch running down the street in front of our house. And I would go out and build dams. I would go out and get bricks and I'd stack these dams and watch their water back up. And then I'd figure, oh, it's going to overtop and I have to make a little side channel and one rod around. And I was only six or seven years old. And I remember out there doing that. And the neighbors, the down street would always get mad at me because they were trying to get their water.

And I was building a little dam and it was going up this way and they weren't getting any water. And they'd come down to yell at my mom to get your damn kid out of the gutter and all that stuff. It's always interested me, I don't know. But career wise, you can't always pick your path. It's one of these things where you're going along and doors open and you decide, am I going to walk through that door or not? And it's not that you can open the doors yourself, they just sometimes open, but you got to position yourself so that it happens.

Bob Tolls calling me and asking me to come down here, I didn't engineer that, but I knew the guy and I'd done a pretty good job in Dolores, I think. And he'd heard about it to the point where he thought, I want to do the same thing here, so he called me, so doors open. And at that point you can decide, do I walk through or don't I? And that's always a guessing game of do I or don't I kind of thing.

Q: It never ends.

A: None. I've been very lucky,

Q: I would say fortunate. But I would say hard work and being able to see the door open is more important than luck.

A: Yeah, see the door open and evaluate, is this one I want to walk through or not? And what's on the other side? And I never answered those questions at the beginning. I'd always give it a little thought first. Is this something I want to do? Career wise yeah, I can look back and I'm pretty happy with what I was able to do and where I ended up. The CAP maintenance job was by far the best job I ever had.

Q: It was incredibly impactful for our organization. Are you surprised about what's happened to Arizona Water in the past 10 years?

A: Well, yes and no. I did a lot of work on the Colorado River and the Colorado River Watershed is known for its prolonged droughts and its flashy floods and they're few and far between. The longest drought, when I was looking at the water supplies on the Colorado River, the longest one was 34 years long. And we called it the critical period when we were modeling reservoir operations. That was the critical period that drove reservoirs the lowest. The drought we're in now isn't quite that long yet, it's getting there. But I can tell you the modeling I did on Lake Powell and the upper basin reservoirs, we had lots of modeling efforts that ran Lake Powell dry. It was easy to do. There were periods of drought on the Colorado River that if you modeled it, the reservoirs through that, you ran out of water. I knew what we're in now was inevitable at some point. Whether it'll continue or not is anybody's guess.

Q: What do you see happening in the next 10 to 20?

A: Well, I think this drought, we're not done with it. And I think climate change, people can argue about climate change all you want, but the fact of the matter is the climate has changed. It's not like it's going to change. That has already occurred, and we can argue all day long about what caused it. But the environment that the Colorado River is in is drier and it's markedly drier, and it's been getting drier and drier with time. There invariably will be wetter periods. How big and how wet? I don't know. Are we going to get another 83, 84, and 85?

Q: That'd be nice.

A: I don't know. Yeah, it'd be nice. If we had a 1983 right now, Lake Powell would fill and spill in the first year. That's how big those water years were. '83 was probably 25, maybe even as high as 28 million acre-feet of runoff. Well, Lake Powell only holds about 25 million acre-feet of water. You can fill and spill Lake Powell in one year if you have that kind of an event. It's still possible for that to happen. I don't see it happening with the climate has changed to the point now where those kinds of events probably aren't going to be as often. I don't think you're going to

see them as much. No, I think the drought will continue. And I think water users, in fact, water users west-wide, are just going to have to figure out ways to do with less and be more efficient and more effective.

But I will also say, the Colorado River system is doing exactly what it was designed to do. That's what these big reservoirs and all of the storage systems on the Colorado River were built for, was droughts just like this. And the fact is, we're in 20-plus years of drought now, and no one's taken a shortage until this year. That's pretty darn good. Hopefully, we'll manage our way through it. But I don't see us going back to the big runoff years. There'll be above average years, but there's not going to be years like I've seen in the mid-80s. I don't think you're going to see those again.