Interview with John Sayre – CRWUA

No introduction on CD

A. John M. Sayre, Senior of Counsel to Davis, Graham, and Stubbs Law Firm in Denver. I have knocked around here and there for quite awhile.

Q. When and where were you born?

A. I was born in Boulder, Colorado in 1921.

Q. What brought your family to Boulder?

A. My father came out in 1907 and he was a teacher at what was then known as State Prepatory School in Boulder which was connected kind of loosely with the University of Colorado. He also taught some classes at the University in business, bookkeeping, accounting, and things like that, penmanship which is something that is not done anymore. He left the school in ’23 and went into banking as a cashier of the National State Bank in Boulder. It was the only bank in Boulder that stayed open during the banking crisis of ’33, if I remember correctly. He kept that job until he died in 1954.

Q. Did he ever say why he moved to Colorado?

A. Like so many people at that time, Colorado was kind of a haven for tuberculin people and he’d been teaching in Chicago and the doctor told him that he thought he would be better off if he came to Colorado. He didn’t have TB but evidently he had some signs that he might have. So he came out here, never had tuberculosis. But a great many of the older people here came from mining or tuberculosis at that time.

Q. What about your mother?

A. My mother was born in Missouri in Chillicothe in 1887. I guess you’d say she was a housewife until she got bad arthritis in her early thirties and diabetes. She lived for about ten more years and died in ’44.

Q. How many children were in your family?

A. Two, my brother who was thirteen years older than I was. When he started college, I started the first grade.

Q. That's quite an age difference.

A. That's quite an age difference. He went on in banking and I ended up here practicing law.

Q. What was it like growing up in Boulder as a boy?

A. It was wonderful. It was about twelve thousand people at that time. I was young and you could climb the mountains. Your mother would give you a sack with an orange and a sandwich and you'd be gone all day. I wouldn't let my children do that now in Boulder for anything. You could ride bicycles and of course, we made our own entertainment because you didn't have TV or anything like that. So we played kick the can, built model cars, and did things like that.

Q. So you grew up during the depression years then?

A. Yes.

Q. Do you remember what that was like?

A. See I was only in about the first grade, no the second grade . . . well a little after that. People didn't make much money and we used to have the people that would travel with the trains. You'd feed them on the back step. They'd come there. They had your house marked so they knew where to go. We fed a lot of people. Fortunately, my father had a job so we got along pretty well. You didn't make any money in those days. My brother started banking in 1933 when he got out of college and he got a hundred dollars a month.

Q. Since there weren't many jobs, I guess that was considered good.

A. It was a good job. He was glad to have it. In 1948 when I started, I made two hundred dollars a month.

Q. So your family was able to help out the less fortunate.

A. Oh yeah. At Christmas time, dad always went down and bought cans of fruit and stuff and gave it to those he knew needed it. He wouldn't do what they do now I

don't believe turning it over to a food bank. He took it to individual people that he knew needed it.

Q. Did you grow up in Boulder going to school? What was school like there?

A. Wonderful. I started in the first grade at University Hill Elementary School and went to junior high school in the same building all together. It was right here next to the university. Then I went to high school and then I went to the University of Colorado because it was only three blocks away. Then I went into the service and came back and went to law school up there.

Q. Were you a good student as a boy?

A. I got along pretty well.

Q. What was your favorite subject?

A. Art and music I enjoyed.

Q. What kind of art?

A. What you had to make the various little things like hot pads and things like that. You'd paint them. I had a lot fun doing that sort of thing.

Q. As a boy growing up, what did you think you wanted to do for a career?

A. I was torn between architecture and law. I always figured practicing law would lead you to business probably sooner or later which I've never done.

Q. You must have gotten out of high school when the war was starting?

A. In 1939, I graduated from high school and started college. And of course, the war was well on its way and we had assigned for the draft. I got into the B-7 program with the Navy. I didn't know anything about the Navy but that's where I ended up and I was in the Navy during the war.

Q. Where did you serve?

A. I was in mine warfare school so I was in various places. I started out in Northwestern University. They had a B-7 program there and after I graduated from there, I went to mine warfare school in Yorktown, Virginia. From there, I went to San Francisco used to sweep out to the Farallon Islands because that was through the gate and they were always afraid that would be mined and then we went overseas. I was in on the evasion of Saipan. I didn't really get much into the Guam because we were busy up in Saipan. They sent us down towards the Philippines. I was down in Ulethe. We were sweeping for mines at Ulethe which was a great staging point for the Navy for Okinawa, the Philippines, just all of those. We hit a mine and sunk the ship and I spent the rest of the war in a hospital.

Q. That doesn't sound good. That must have been pretty scary.

A. I was in the hospital for a year and a half. I had to learn to walk again.

Q. Tell me about that, when you hit the mine were you on a big ship?

A. No we're on a mine sweeper and it's a little wooden hull. They used wooden hulls because they didn't have to degauss the ship very much about all they had to degauss was the generators and the motors and things like that. So it was much easier and we only drew nine feet of water.

Q. How did you hit a mine?

A. We had unfortunately learned in mine warfare school your chances on the first two passes on the mine field, whatever the effectiveness of the mine field is, is what your chances were. After you went through the first two passes down this side and down that side, you can stay in swept waters and you had a pretty good chance. But the first couple passes, if it was really mined liked it was and the Ulethe was heavily mined between every little sand pile. We made the first pass and swept the echelon and the first two mine sweepers went through fine and we came up behind and mines started popping up. And you had to get rid of them and they fouled their gear and they ordered us back by ourselves, a second pass. All I can remember is we had a lookout up there and he said mine dead ahead ten yards. Well, you don't stop a ship in ten yards. The captain, while I wasn't very fond of him personally, he called hard rudder to port and then to starboard but it didn't do the job. We hit it or it hit us right in mid-ship and sunk the ship. Being a wooden hull, the ship just went to pieces. We lost a third of or crew and a bunch of us were injured.

Q. How did you get rescued?

A. There were other ships out there and they put in their dinghies and picked us up. I was in the water for about an hour and a half to two hours. If it hadn't been for my old Mae West lifejacket, I would've drowned. One of the crewmen came over and tied it under my neck so it was tighter. I don't remember it.

Q. You weren't conscious for all that?

A. Don't remember a thing. They put me on another mine sweeper temporarily and took us over to a Destroyer tender called the Dixie. They operated. The interesting thing about that was the doctor that gave me the anesthesia when they were setting my legs; his brother was a pharmacist in a drug store next to my dad's bank. So my father knew all about it before the Navy told him anything about it.

Q. Good underground communication.

A. Yeah.

Q. So you're legs were injured?

A. I basically had compound fractures of both legs both the tibia and fibula. Then I got osteomyelitis and that is an infection of the bone and that was the tough part. I had seven operations before I got that. Later on, I got new knees.

Q. So you spent the rest of the war in the hospital recovering?

A. Yeah, I was retired in San Diego. I spent the rest of the war there. I came back and started law school, probably a little bit too soon.

Q. Why do you say that?

A. The first quarter I was on crutches and I would get so tired. My first year of law school I was not what you would say outstanding. After that, it was fine.

Q. Where did you go to law school?

A. The University of Colorado.

Q. Close to home still.

A. Oh yeah close to home. My wife said you should go to Harvard and my dad said no I don't think you need to go back there. You're going to practice law the Colorado way.

Q. Were you already married by then?

A. We were married when I got my . . . they had a rule for B-7. If you got married, you couldn't stay in the program that meant you went in the draft probably. So none of us were married, there were a couple that were. I graduated on August 20th in 1943, and we got married on the 22nd of August two days later. The County Clerk opened up the office on Saturday and got us a marriage license.

Q. So you came back and went to law school. So you were pretty set on what you wanted to do?

A. Yeah.

Q. What were your thoughts at that time about practicing law? What kind of law were you going to practice?

A. I practiced for about seventeen years in Boulder. Boulder was a growing town. In 1950 for instance, the census was fifteen thousand nine hundred and ninety nine. I graduated from law school in '48. I've practiced a little big of everything, except criminal law. I never did any criminal law.

Q. No crime in Boulder?

A. We had it but nothing like you have now a days. We didn't have everything played up in the newspapers.

Q. When did you first start doing some water law things?

A. 1952. I'd been practicing. I started out by myself. I worked in the bank with my brother and my father and they didn't always agree. I found myself caught in between them so I quit the banking business. I went out and hung my own shingle and then we had partnership. So in 1952, a couple fellows, Jim Yeager, who'd been the football coach at C.U., and the Head of the Chamber of Commerce came over and asked me if I was interested in being City Attorney. They had been no City Attorney since 1918. He died at his desk. That was a

great opportunity because I paid my rent and everything from that. I became City Attorney of Boulder in '52 and when I was being interviewed the City Manger, Burt Johnson, said Boulder has to get into the Northern Colorado Water Conservancy District that operates the Big Thompson Project. That was my first real assignment. That was what I was supposed to do. At that time, the Bureau sanders had just come in to Boulder. We were beginning to grow the first subdivision they had for years occurred at that time. On the water side, I got into the Northern Colorado Water Conservancy District because they had relied on a mountain supply. By getting into the Northern District, then they got water from the transmountain water through the Colorado Big Thompson Project.

Q. What did you have to do to get Boulder into that conservation district?

A. Just like everything, politics and work. We had a wonderful assistant manager up in Loveland that is where their headquarters was. He worked with me and John Clayton, a Greeley attorney; we got Boulder in over some of the other ones, like Bill Kelly who was the attorney for District at that time didn't want to bring Boulder in. He said they had their chance in '38 and they stayed out so let them stay out. Just had a call to make to people and just explained what the advantages were and how much they needed it. Boulder was the site of the university so I'm that played . . .

Q. So people have to vote to get in to it?

A. No, you had to go out and petition and then you had to have a court hearing where people had the opportunity to oppose it. We had no opposition by that time.

Q. Do you pay a certain amount to be in it? Does it cost money?

A. We had to pay all the back taxes from 1938 that the city would've had. It took quite a bit of money and another thing we did; we agreed to build Boulder Reservoir which was a reservoir just outside of Boulder. They gave them some storage. It's a good thing we did because IBM settled right next to them. That turned out to be a wise move. I did that for a little over three years. Then I decided that it was time to move on and resigned. Than later on I got appointed to the board of Northern Colorado Water Conservancy District.

Q. When were you on the board there?

A. I was on the board for four years and we were due for a Federal Court hearing on a matter because the West Slope fought at that time on now transmountain

diversions. They still fight. This is sixty years later and they're still fighting. We had that hearing coming up that they were opposing something we were doing. We just had a big case between the Western Slope and Denver that was decided in about '55. I got into that and Jack Clayton, the attorney, a young fellow died on a Friday afternoon. We had a Monday hearing in the Federal Court. I never worked so hard as I did on that weekend to get ready for that hearing.

Q. That must have been a tough time.

A. Oh, it was a lot of fun. When you're young, things are fun.

Q. A challenge.

A. Yeah, a challenge that's correct.

Q. So how did the hearing go?

A. Judge Arraj, Federal District Court, was presiding at that time and the Western Slope, Frank Delaney and Ken Balcomb got up and made a big talk and everything. They went on all morning. We recessed for lunch and he said gentleman before we go to lunch, I want to tell you something. I'm getting tired of you fellows over there getting up on the Continental Divide with your shotgun hoping you'll hit something. When we get back, we're going to send all of you, there were U.S. Attorneys and people from Washington there too, were going to send all of you up to a room in the court house and you guys can work it out and if you need any help you guys can come down and talk to me. So that's the way it went. About a week later, we came down and we had an agreement.

Q. So you didn't need to go to court at all it sounds like.

A. Oh yeah, we had to. The U.S. Attorneys from the Justice Department, a fellow by the name of Warner and Walt Keephoe, helped us out a lot. Being a Federal Project, they were interested in it.

Q. Which project was it?

A. Colorado Big Thompson Project. I served on the board for four years like I said, then Jack died, and I took that over and then they appointed me attorney for the district and I was attorney for twenty-five years and resigned when I was sixty five.

Q. When did you become the attorney for the district?

A. 1964.

Q. What were some of the big issues you worked on while you were the attorney there?

A. One was getting Boulder Reservoir built and operating. Working out new rules and regulations for transfer of water. We were one of the first ones within the district that they could buy and sell water. So we had to get rules and we had to make sure that they had a base supply of water, this was supposed to be supplemental water. Developed all the regulations and things like that. Then in '72 of course the National Environmental Protection Agency was created, we started have a lot of difficulty with the government with anything that you wanted to do. That was a pain of the neck.

Q. When did that go into effect?

A. 1972. It didn't do much there for quite awhile. Now you know it rules the roost. William Reilly that was the head of the EPA during the time I was back there. When we had Two Forks Reservoir, we were trying to get that built for Denver. They began to get pretty powerful. Everything you did, they took a look at.

Q. Tell me about Two Forks.

A. Two Forks to me should've been built. I think it's one of the big mistakes but we had some butterflies up there. Of course we flooded some people's lands. You have to when you build a reservoir. The environmental people didn't want us doing that. They prevailed. Did a lot of studies to try and find alternate spots. And that's where Mr. Hobbs came in about that time. He handled a lot of the environmental things. I handle more of the, I shouldn't say this but I probably meddled too much in the affairs of the district rather than being a lawyer sometimes. He was a big help to me on environmental things. He could get along with them. I didn't have the patience.

Q. Why did you think Two Forks was a good idea?

A. We need it right now. If we had that storage when there's excess flows over on the Western Slope, then you could bring it over through Roberts Tunnel and could've stored the water up there and had it here handy rather than having it go

down the north branch of the South Platte River. We could have had a large reservoir up there and Denver needs it. Denver is expanding to the south now and they don't have any water down there. It's all well water. They're just mining it. It's going to cause troubles in the long run. As a matter of fact, it's causing troubles now. I think Two Forks really should've been built. It's probably too late now.

Q. Why?

A. The environmental movement and the cost probably went up double maybe triple.

Q. What were the years that you were trying to get the Two Forks through?

A. They had committees that worked. Mr. Lukey that worked up . . . I forget where he works now. He's an engineer, a very competent man, a very nice man. And he handled it for the environmental group and we had meeting, after meeting, after meeting trying to work out alternatives if it was possible. Then of course it got up to Bill Reilly in administration and he killed it. So that was it.

Q. What year was that?

A. That was 1989. I was back there at that time as Assistant Secretary of the Interior for Water and Science. Mr. Reilly . . . environmental stuff was very difficult because people want things nice and they want to go back and do it the way they've always done it. They say they're progressive but I think they are the other way. They want to try and preserve everything. You can't do it in a changing world. You can't do it. My time as a kid was a lot better and more fun than it is now. All we do now is fight.

Q. Like you say, you can't let your kids run around all day not knowing where they are. You have to watch them every minute.

A. Most of our mothers and fathers, a lot them particularly our mothers, didn't work. Like I went home after school everyday before I went out and played. They at least had some idea what you were doing and you could be sure that we weren't always angels.

Q. Talking again about the Northern Colorado Water Conservancy District when you were attorney there, what about Windy Gap?

A. That is one that I kind of shepherded. That started in about 1964. They had CBT water but the cities didn't have any water a lot of them like Boulder was short, Fort Collins. They had thought about something like this before. But I started working on it just about the time I became attorney for them. The other question at that time was how you're going to finance something like this? We didn't want to get the Federal Government into it more than we had to. We didn't want it to be a Federal Project. The cities had to finance it themselves. We started out with six cities water committee which represented the different ones. I spent day after night going up and talking to city councils and water boards to get them interested. We finally got them interested and figured out a way to finance it. We sold bonds. About ten years later, it was about in the early '70s we knew where we were going. We finally got what we call the six cities and we got it created in court. We got a new sub-district it was. Figured out how to finance it. Spent a lot of time going to New York to the bond people and so forth.

Q. What were the six cities that were involved?

A. Boulder, Longmont, Loveland, Fort Collins, Greeley, and the Platte River Power Authority. The Platte River Power Authority was very interested because they were building a power plant up north of Fort Collins. They needed water.

Q. What was Windy Gap or what is Windy Gap?

A. Windy Gap was a name of a place on the Colorado River just below Granby that is known as Windy Gap. It was a windy spot and we built Windy Gap Reservoir and their pumping plants to get it in the Northern Colorado water system.

Q. How big of a reservoir did you build?

A. It's a confluence to the Colorado and Fraser River. Of course, we have a lot of water rights up on the Fraser already. Denver had their system up there and they still do. They were senior to us so we had a lot of studies to see the availability of water. When we let water out of the northern district like Granby Reservoir, that came down and we had to release a certain amount of water every year out of there, still do. So we'd catch it again. It is a small reservoir, four bays, and we pump it back into the northern district to Lake Granby and then Northern Colorado would carry it. In order to do that of course, we had to get the district to agree; even though they had the same board sometimes they didn't always see alike. Then we had to get the United States because we were using their facilities. And then we had to bring it over and we had to get the cities to take a certain share. For instance, Fort Collin's got out of the northern district. They sold most of their water I think to Platte River Power. What's funny is we told them to make Windy Gap really operate; you had to have a storage

component on the Eastern Slope. So when there's water available, we can pump it, and get it over and store it over here for the cities. And that still isn't done. They're looking at it very closely and there are trying to get it worked. They're enlarging the Northern District, Carter Reservoir, the outlet there so we can get it out to the other cities. Northern District now goes clear out to Fort Morgan with a pipeline. It comes clear down to Broomfield. That was another thing that we always worked on was annexations to the district because people needed water. Still do and we'll continue to need it.

Q. And there always seems to be more people.

A. More people, I was just reading the other day where the population of the United States in 1967 was two hundred million people and today it's three hundred million.

Q. So when you were working on Windy Gap, who were the people that were opposed to it? Sounds like a great project. Why would anybody be opposed to it?

A. It costs money. They don't like to pay any additional charges. People these days think everything should be given to them. A different philosophy then we used to have. But we got it built and got it operating in '85. They're bringing water over. We kind of had this drought in the early '90s and now it's saving some of the cities. We couldn't have enlarged the district, if we didn't have it.

Q. So it took you about twenty years from the time you started in '64 until you got it built in '85?

A. About twenty years. That's what people don't realize. You don't build these things. By the time you go through all the contractual things, court hearings, and dealing with the Federal Government it takes time.

Q. You said that they still don't have the final reservoir they need twenty years later.

A. Like Mr. Wilkinson probably told you, they're looking at a reservoir that's above Carter Lake as a site for it. I hope they get it built. But Carter Lake, they have to enlarge the outlet so they can get more water out of it to bring it down to the cities.

Q. Of course when there is a drought, people begin to realize that it's more important to spend some money for water.

A. They can talk all they want to about oil and gas but without water you don't do anything. You can stop people driving cars you know. We hope it wouldn't happen. It's something that is more expendable, water you have to have. You might waste, maybe you need more conservation but you have to have water.

Q. Are there any other major projects that you've worked on for the Northern District?

A. Like I said just about the time I resigned, these cities up north like Fort Lupton, Broomfield, Erie all of them since then decided that they needed more water because they were beginning to develop and grow. So we had to create new pipeline and take it out to Fort Morgan. They were always in the district but they're using wells more than right out of the river. Particularly Bill Farr, Bill must be ninety six years old now. Bill Farr was a dreamer. Also, a very practical man. He and I wanted to start bringing water down this way and it finally got done. I wasn't there. I've been gone twenty years. It doesn't seem like it. We started on that. The first one was to bring it down to Broomfield and they got a pipeline now out to Fort Morgan. They have water that you can drink now that you couldn't before. My wife came from Fort Morgan so I knew something about that.

I was also interested in trying to get the one up on the Puter River. We had a wild and scenic river fight with the Sierra Club, Maggie Fox particularly. Got that worked out and Mr. Hobbs did a lot on that too. Like I said, on environmental things he was very good.

Q. What were you trying to do with the wild and scenic river? What was the issue up there?

A. Whether everybody below there on the river like Fort Collins, if you get a wild and scenic river where are you going to start and where are you going to stop. And they were always afraid that they'd try and put it clear down in Fort Collins and that would've created a lot of problems. Finally worked that out and they have a wild and scenic river such as it is. It reminds me, I took Stan Ladner who was the assistant to Jim Ziegler on bond issues, I was taking him up to Loveland. It was the first time he had ever been out here and we crossed the South Platte River and I said, "There is the South Platte River" and he looked at it and he said, "You call that a river!"

Q. For twenty-five years you were the attorney for the Northern Colorado Water Conservancy District. Is that pretty much a full time job?

A. It got to where I spent most of my time on that. In fact, I sometimes regretted it because it took me out of other things that I was interested in. They were a client and you did what was needed. I got to where I spent an awful lot of time

with that. We had a lot of meetings going on like in 1967 we had the Colorado River Basin Bill on Glen Canyon and Marble Canyon. Of course we wanted it because it would help us on the regulation on the Lower Colorado and a place to store so we could meet our quotas. It's just been fun. It was a great time.

Q. Were you back in Washington for any of the hearings on that?

A. Oh yeah, we went back. The West Slope fought it, again.

Q. Which side were they on?

A. They wanted it but they didn't want to . . . we needed an interpretation of the Senate Document 80. It was a basic document for the Northern Colorado District. There were some interpretations that we didn't like. You didn't know quite what they meant, like most documents there is something that you can always fight about. We needed to get that clarified. We had Wayne Aspinall was the Chairman of the Committee at that time. And of course we had, I forget the fellow who represented the environmentalists . . . I know it just as well as not. He's dead now. The hearings were interesting. He would pace up and down the congressional floor. Aspinall would give him a lot of trouble. But Wayne was very helpful on that and of course, he wanted some more projects on the Western Slope. The Colorado Water Storage Act of '56 authorized additional projects none of which has really panned out. The financing is so difficult on water projects. They are going to be paying a lot for water one of these days.

Q. I hear people talk about the controversy with the Marble Canyon and Bridge Canyon Dams that that was supposed to be the cash register for the Central Arizona Project to pay for it.

A. You could generate more power. Of course, that fell by the waste side Marble Canyon and . . . but we did get Lake Powell. Southern California Edison was very influential in that because they needed the power and still does. Mike Ealey represented them, a terrific, terrific lawyer. He'd been Assistant Attorney General in California and at that time employed by major water people in Southern California.

Q. Did you have a position on the Central Arizona Project as that was going to take a lot of the water out? Arizona already had that allotment but . . .

A. They had their allotment under the Boulder Canyon Project Act. Of course that was done too while I was representing . . . I can remember going down when they dedicated the canal. You had your governor. What was his name now?

Q. It would've been Babbitt wouldn't it?

A. Oh yes, Mr. Babbitt. He's the one that told me we ought to get the South Platte River back to being a natural flowing stream. It never has been. In August, it's dries up. He's a harden environmentalist but he sure was for the Central Arizona Project. Of course, they fought over that for along time too.

Q. They fought to get it authorized from Congress.

A. Well that got authorized in the Colorado River Basin Bill. So I had all of that. It was fun. I spent a lot of time in Washington, Arizona. At that time, Ted Riggins was the attorney for the NWARA. They had an office an office there in Washington. It was a fun time.

Q. I always heard about Wayne Aspinall with Arizona and the project and that he was not very much in favor of it, it seemed like.

A. He just wanted to keep water up for his projects in Colorado that never have developed. They just don't have the financing. They did get Black Canyon up on the Gunnison and a few things like that. I can understand why they fight.

Q. What was Wayne Aspinall like?

A. I thought he was a fine man. Sometimes he'd surprise you and you didn't agree with him but he was used to that sort of thing. And when you are dealing with water, you win a few and you lose a few.

Q. We were interviewing Ed Barber from the Bureau of Reclamation. He was back at the hearings representing the Bureau with Floyd Dominy. He was behind the scenes. He was an economist and he talked about Floyd Dominy and they were in favor of the Bridge Canyon Dam and were very surprised when it was dropped in favor of the Navajo Generating Station. Do you remember that?

A. I don't remember him but I remember . . . the Bureau. They liked to build things. Now they're trying to figure out how to maintain them.

Q. Were you surprised when the dams were dropped?

A. We were disappointed. Not surprised, disappointed. You'd find stickers on the back of people's cars on how terrible it was to have Marble Canyon. People didn't even know where it was. Environmentalism is a great deal of emotion. It thrived on emotion and controversy.

Q. What about Carl Hayden? Did you ever meet Carl Hayden?

A. He slept through most of the hearings. You'd see him sitting up there and you could just see him napping. He was a nice fellow. I didn't know him as well as I knew Wayne. Floyd Dominy, of course, is still going.

Q. That is what I hear. In fact, they've talked about us going back and interviewing him.

A. Oh you ought to. You'd better spend a day or two. He could tell you a lot. As far as I still know, he's still got his wits about him and is still opinionated. We were lucky to have him as Commissioner of Reclamation. I worked with the Bureau some on Boulder. I had developed a lot of those mountain . . . I got in there at the lakes of Boulder got their water from off of the Araphoe glacier. Old man Moorehead who had been City Attorney never bothered to get them adjudicated. So that was another job that I had at that time was that I had to get all of those adjudicated. I was helped by EB Debler who used to be an engineer with the Bureau in this region.

Q. The people say that the days of the big water projects are over.

A. Yeah, I think that is true. They'll be some I think. Some of these will go through just out of necessity. Now whether the Bureau is the one that does it or not I don't know, because they talking about one now up across Wyoming out of Flaming Gorge Reservoir to bring water down to the cities. I look at that and hope it goes well. I don't know whether they can get the money and all the obstacles that they're going to have and of course, going through Southern Wyoming there isn't much there, pardon me. They might not have the environmental problems but they'll be some because they'll be taking the water out of the Green River and out of Flaming Gorge. I can hear all the environmentalist, the fisherman, the kayakers and all that.

These projects weren't built for recreation particularly like Boulder Reservoir, we specifically put in that, and this was a long time ago, that it was mainly for water supply and recreation was subsidiary to that. And that's the way it's been operating and it works pretty well but people want to boat and they want to swim and they want to have races and they want to do all that. Too much time on their hands.

Q. That is something that is kind of new when you talk about the old appropriation doctrine, first in time first in right, which was thinking more of agriculture . . .

A. Mining too.

Q. Now you get into the recreation and environmental uses, do you think that doctrine is going to survive the future?

A. I don't know what else they're going to use unless you turn it over to the SAR which I think would just be terrible. Then it would become very political. At this Southeast District down here, their board every year, I don't know if they're doing it now because I don't keep track of it, but they had to allot their water there every year to various uses and they were always in a big argument. I think first in time, first in right that now it's true, times have changed. I don't know, you might need as much for agriculture but agriculture just like down in Imperial Valley, they were using way more water then they needed. Thanks to Bob Johnston, he wrote a report a couple of years ago and Coachella and San Diego and all of us were fighting. It was a masterful job. He just pretty well laid it out. Now he's Commissioner of Reclamation. Did you ever meet Bob?

Q. No. We may get to that. We haven't yet.

A. I think he did a magnificent job on that. I was on an Advisory Committee to Coachella and of course they're right against Imperial County. That Imperial Valley thing, they were wasting water like everything.

Q. Some people say that maybe if we make water more expensive, people wouldn't waste it as much.

A. I think that's partially true. The trouble is everybody has a different need for amounts, maybe a basic amount. The minute you get the Federal Government in it, it's bad enough with State Governments, the Federal Government . . . after my four years back there, it's a different thing.

Q. Let's talk about what you did after you retired from Northern Colorado Water Conservancy District. You didn't really retire.

A. That was the hardest thing I've ever done was to resign. I was sixty-five. Mr. Hobbs and Mr. Trout were anxious to take over and had been fighting on the construction of **Azier (:35 second CD)** Reservoir over on the Colorado. And I think they thought I was meddling too much in the everyday affairs of the district,

which I guess I probably was but there seemed plenty to do. But anyway, I resigned as of October 1, 1987. I spent a lot of time with them still. They had me do something things like how to transfer O&M from the Bureau. So I was fooling around with that. Then very fortunately, I got this job as Assistant Secretary so I had to resign this job and I even resigned as a partner in the firm.

Q. Tell me. How did you get that job?

A. A lot of good friends mainly in California, Colorado, and I had some in Arizona. Saw the farmers up in the northwest. Jim Zeigler who had been a very close friend of mine was Assistant Secretary and resigned. So they needed a new one and we were having a Colorado Water Congress meeting out here in Denver. I was having breakfast with him and he said, "Why don't you apply?" I said, "I don't know whether my wife would want me to go back to Washington or not." Unbeknownst to me, he phoned and she said, "That would be fine. I need to keep him busy." I was nominated and around the first of March, of course the administration had changed about that time. Boy, I don't know about the end of June, the first of July before I got nominated. Quite a few people wanted it I guess. Some of them like the fellow that had Boil Engineering, he was an Admiral. I had a lot of people that I'd known in NWRA. So in July, they phoned me and told me I had the nomination. Of course they had to clear it through Manual Luhan at that time, he was Secretary, and I think he would've liked somebody from New Mexico. It made you awfully nervous because you never knew where you were.

Q. Colorado was close at least it was in the west.

A. Yeah, we're from the west. Zeigler was from New York. I think that's how I got it. They wanted somebody from the west. They prevailed upon the President to appoint me and I was appointed.

Q. So the President appoints the position not the Secretary of the Interior?

A. Yeah. The President appoints all the secretaries and the cabinet.

Q. The President was?

A. George H.W. Bush. Bush number one.

Q. Did you know him before?

A. No. Never knew him.

Q. So what does an Assistant Secretary of the Interior do?

A. I had three agencies that I had the responsibility to see that they "operated" as best they could. I had the Bureau of Reclamation. I had the United States Geological Survey and I had the Bureau of Mines, which is now gone. I was getting ready to close them up at that time because we were trying to get some efficiencies. I always felt that they were kind of . . . they had some wonderful people working over there. I thought some of the work like records should be kept by the Commerce Department. The USGS and the Bureau of Mines were fighting about classifications of various things. The USGS by the way was I thought was the finest group I've work for. They're all qualified scientists and knew where they were going and I really enjoyed it. Dallas Peck and Doyle Frederick kind of ran it at the time. I just got along with them real well.

Q. What about the Bureau of Reclamation? You must have been pretty familiar with them.

A. Yeah but we were in that silly stage where we had to write mission statements and all that sort of baloney. Dennis Underwood was the Commissioner of Reclamation, fine fellow. I didn't realize he was so young at the time. He was forty years old or just a little over forty, very competent. I can remember writing the mission statement, he came down and he had it for the financial, all the financial aspects, I said Dennis you've got to put an environment in there. You're not going to get anywhere. It's now financially and economically feasible. And it still goes on that way. I'd meet with him about every morning, as many as I could, with the directors and tried to coordinate them. That's kind of difficult. But I think I did a fair job of it. I don't think I did anything outstanding but I kind of kept peace in the place.

Q. What were some of the big issues like when you were back in Washington?

A. So many things I could mention but I don't think any of them are major. I'll think of them here maybe later on. As trying to run those three, you had to try and keep them going the right way. Mining, acid rain, got in to all that. They appropriated five million dollars for them to study acid rain. I forget the fellow's name that did it. He was a pretty good guy. The trouble is you spend all of your time in meetings, just one meeting after another. We got some Indian water rights settlements done. Probably more than had been done before, not like they are doing now. That was new at that time. I had a lot of talks. That was one of my biggest obstacles of getting the job was Bill Bradley. Senator Bradley was interested in Indian water rights settlements. He didn't know anything about

them but that's what he wanted done. So we got a few done some of them better than others. Indians are difficult to deal with. Time makes no difference to an Indian. It doesn't. If it happens today fine, if it happens six years from now that's okay with them too. I still think that the Bureau of Indian Affairs ought to be abolished. I just think Congress should appropriate so much money and say here you fellows are. You're sovereign in our own definition of it; you spend the money the way you want to. Trouble is they'd get in a mess probably. They don't abolish anything back there. Betsy Rieke who followed me as Assistant Secretary did abolish the Bureau of Mines. It was right. It was correct.

To tell you a story about the Bureau of Mines, I hadn't been there that long probably about a year. T.S. Ayers was the Director of the Bureau of Mines and he came in with a list of over a hundred people that he wanted to send to a meeting in Arizona in February. I told him we didn't have the money to do that. He said all they were all members of committees and they're going to give papers and I said they're going to play golf. I told him he could take twenty-five. So he had to get seventy-five people off his list. I got written up by the SCA, the Society of Mining Engineers, about how terrible I was not interested in them. I had every congressman down in Arizona phone me about it. I don't think they gave a dam but they had to do it. This was in Scottsdale. That's what's wrong with the Federal Government now, too much of that sort of stuff.

Q. Somebody should have given you an award for saving the money.

A. I had all that kind of stuff to fool with.

Q. Speaking of Indian water rights, how did you get involved with that under the Bureau of Reclamation?

A. Yeah under the Bureau primarily. We had a San Luis (?), they wanted seventeen thousand acre feet of water and there wasn't any water available for California. They got it finally done. I took the Harquahala people down there in Arizona and they had a water project they couldn't pay for. I thought they were going into bankruptcy and I think they were, I'm pretty sure of it. So we bought it. I think maybe I paid too much money for it but they paid off their bonds as a result. They distributed money . . . but we picked up, I think seventeen thousand acre feet of water. The trouble then was to get that water from Arizona over into California, which is a tough trick. I don't think they ever did. I think they finally got San Luis (?) water under this thing with Imperial Valley in San Diego.

Q. I was at a ceremony when they signed some water rights for the Salt River Pima-Maricopa Indian Community, a settlement with I don't know how many cities. I was always surprised that they signed all the papers that they had settled these

water rights but then they said now we have to go back to Congress and get them to give us four hundred million dollars to pay for the settlement. I thought how is that a settlement if they have to get Congress to pay for it.

A. Somebody else's money. That's what they want. It's a very difficult thing. Indians, some of them, like a tribe we've got down here the Southern Ute Tribe, was really wonderful to work with.

Q. It seems like in Arizona now a lot of the Indian water rights, they are winning the cases and winning the water but the water they're giving them is Colorado River water through the CAP.

A. So CAP hasn't got the water they thought they were going to have.

Q. The Indians have it and now the cities will have to buy from them.

A. You know the Navajos sued them. I don't know what happened to that case. It must be just sitting there.

Q. I don't think it's settled yet.

A. I don't keep up with all that. I try to but I can't keep up with all of it.

Q. It seems ironic that it looks like the cities in Arizona may end up buying water from the Indians. They own it but really need to use it. So they'll sell it back to the cities.

A. That's the trouble. They've never really grown very many crops. Some of the Colorado River Tribes have used some of it. But that gives them money. The Indians need it but I hope they learn to use it wisely. I was up at Lake Roosevelt one time, up at Grand Cooley, and went over there. And their board had CPA's; they had some very competent people there. The Tribal Heads still have to get along with the people. So it's a tough job.

Q. It's interesting too as a lawyer, a lot more Indians are going to law school in Arizona and specializing in water law.

A. C.U. up here has an Indian water rights. . . Charlie Wilkins got it going who's very sympathetic to the Indians. He got is going and they do a lot of . . .

Q. The actual Indians themselves are becoming lawyers so they can represent themselves.

A. I hope they know what they're getting into. They do have an advantage, you talk about Indians and the Federal Government listens. I think State Governments do but not much.

Q. Somebody mentioned in some of the water projects that if they showed how it could benefit the Indians, they were more likely to get it through Washington.

A. That's why I wish I were young because some of these will be a lot of fun. You win a few. You lose a few.

Q. Any other things in Washington? Any big issues while you were back there that you remember?

A. Well the EPA ascendancy was a big issue and trying to cooperate with them. You couldn't get them to agree on anything. I have, probably a lot different now, but they were new and they wanted to flex their muscles. They did. They were difficult to deal with and I think that was a big issue we had in all of the departments. We had enough trouble in the land area. I didn't have much to do with that because that was over Land and Mineral Management Group, but got involved with that. We fought the main battle in the 1982 Reclamation Reform Act, Jim Ziegler had handled. We were trying to implant that, spent a lot of time on that.

Q. So you spent four years back in Washington?

A. Four years and had a good time.

Q. Did your wife go back with you?

A. Yep. We were lucky all of our children were in college and graduated. So we just closed our house here. I stayed here because I was out here a lot because each of those agencies had Denver offices in the Federal Building. So I'd come out and stay in my own bed. It was pretty nice and saved the taxpayers a little money.

One thing that came up while I was there that was a major thing and kind of fell on its face. I've always, and I still feel this way, that the CVP, the Central Valley Project Water and the California state canal in California ought to be under the State of California rather than having two entities with canals a few miles of one

another. I was trying to get California to buy the CVP and we were beginning to get it. I think the price was going to be pretty high. They were interested. But then when Betsy came in, she was more interested in environmental things and the Bureau of Mines falling, and it just kind of died. It's a tough one to put together. They're silly to have two canals running down from north to south, well from the Bay area down.

Q. They're already there. They're not going to get rid of them are they?

A. No they're not going to get rid of them. You can operate them as a unit rather than two different ones. I think environmentally you can probably make it better, plus the fact you've got the maintenance of both of them. You've got two different staffs where you can have one. You could probably save some there. We met out there a lot of times. We were getting somewhere but . . .

Q. Were you surprise when Bush Number one didn't win another term in office? When he lost the election to Bill Clinton was that a surprise for you back there?

A. No, I don't think it was. It's like right now. I wouldn't give you a nickel for either party right now. You don't know what's going to happen, although in Colorado the Democrats are going to take it. There is no doubt about it in my mind. When you get into war, you don't know what you're going to have. It changes thing.

Q. There was a war when you were back in Washington too. The first Gulf War.

A. Yeah. It worked out. They just didn't go far enough.

Q. I would think the emphasis goes away from some of the problems when they're worried about fighting.

A. Oh yeah, they do. You couldn't get me to be President for anything. You're just asking for an early death one way or another. You can't handle all of that. You have to delegate it. And when you start delegating, you have to trust the people got it. If you don't like them, you get rid of them. That's another thing; try to get rid of a Federal Bureaucrat. The only way I could handle it was to find them a job away from where they were doing something else and transfer them and either they took it or turned it down. But you got them out of there one way or the other. Unfortunately, they went to some other place to cause trouble.

Q. Some people talk about the good old days of water politics. When were the good old days of old water politics? Were they so good?

A. I think from about 1935 until you got your new environmental things and when Floyd Dominy was in there. Those were the good days for water politics. Floyd was very difficult to work with and very opinionated but he did a terrific job in what he was supposed to do. Now people may disagree with it but he did a great job as far as water users.

Q. As you look back at Colorado's water history, what projects or legal developments do you think were most key in developing Colorado to what it's become today?

A. Of course, the Appropriation Doctrine the adoption of that was the main thing. The other one was the creation of the Northern Colorado Water Conservancy District which has been as successful as any of the other districts because they can transfer water, which so many places can't do it at all. They've developed, Bob Barkley who was Secretary of the District and at that time was a great engineer, and I think they got things going. And I think they used to be the leader in water policy in Colorado . . . the Denver Water Board.

Q. Why the Denver Water Board?

A. They had guys like Glen Saunders who was the attorney for the Denver Water Board. He never gave up. He's still trying to get a hold of Green Mountain Reservoir for instance until the day he died. He thought it out to be part of the Denver system. He lost that case in 1955. He and Harold Roberts but he developed a hell of a system, I'll say that. Denver is probably better off than any other place in Colorado, except now for their growth. I don't know how they are going to handle it.

Q. How have you seen the water issues change during your career?

A. Basically it seems to me Colorado, and I think throughout the west, has more sophisticated ways of handling the water administratively and trying to keep their systems on good shape with the help of the Bureau of Reclamation. The Bureau of Reclamation is suffering now because they don't get the money they used to get. All of these projects, a lot of them all through the west, are beginning to wear out and to maintain them is going to cost a lot of money, whether the can get the money I don't know. That's where the money is going to go is to keep them in good repair. If they don't, I don't know what the people in the west are going to do.

Q. I guess they'll have to find the money somewhere.

A. Well, they can always do a tax but people are pretty reluctant to give their money for taxes.

Q. How do you see the future for water in the west and in the Colorado?

A. The way I see it there needs to be great efforts to get innovative ideas and trying to work out cooperation between many of the areas like the West Slope and East Slope here in Colorado. To get projects built and to consolidate maybe some of them. I see that but I think it's going to be one fight after another. Russ George is working hard to try and get what he calls these roundtables and I'm just sitting here to see how long they last. Boy, it's true. Whiskey is to drink and water is to fight over.

Q. What do you think about these roundtables? Can it work?

A. I think it's worth a try. Some places it might work. I've been to too many water meetings where everything goes well at the meeting and then you get home and get clobbered by the citizens. I think it's a good try and there'll be some success.

Q. Are you involved in any of the roundtables?

A. I don't do anything anymore except read about it. At 85, I just don't travel anymore. I used to travel all the time. My wife and I used to travel all over the world.

They're going to have, like the Far East, the Tigress and the Euphrates Rivers, if you've seen fighting, wait until that gets going, the Sudan. They will probably fight and there will be a lot of people probably get hurt as a result of what's going to happen.

Q. Looking at Colorado, they're looking at how to allocate the remaining part of their allotment from the Colorado River. How do you think that can be worked out?

A. After fights and many meetings . . . you've heard about this proposal a fellow asked to take water out of Flaming Gorge Reservoir and bring it across and that? He doesn't know the problems he's getting into. He's an engineer and he can see building a pipeline and bringing it down. That's not where the fights will be. Can you see California; they'll do everything they can to keep that going down the stream. So will Arizona and you can't blame them. So they're not going to get much support for that. The environmentalists are going to say you're going to kill the fish and you're going to ruin the kayaking and all that stuff. Then he's

got to figure out an organization to handle it. He says he's going to do it privately. Somebody has to have billions of dollars to do it.

Q. He's going to need a lot of lawyers on his staff.

A. He's a college professor and he might be good at engineering . . . I think it's great that he's trying. I'd love to be in the thick of it, one side or the other. It doesn't make any difference.

Q. Some people have suggested opening the 1922 Compact and renegotiating it, what do you think of that?

A. No. I don't know what would come out of that. I know that you would get a lot of claims for recreation, saving the streams. It might happen but I'm sure against it. That's one thing that I just gave to the University of Colorado. We sold our house and moved into a retirement community which is a major problem but I had all the minutes of the 1922 meetings. I gave them to the University. It's probably the only thing good that I gave them. But there's one meeting that I don't have and I could never get it. It was the 22nd meeting; I think it was the 21st or 22nd meeting. I don't know of anyone who really has them. Now somebody does.

Q. You gave them to the University of Boulder?

A. No, they won't have them.

Q. Where did you give them to?

A. I got them from an old fellow at the Bureau. He was interested. He's long dead. He gave those minutes to Sammy Maynes and me. He might have given them to Jack Ross. I don't know. I don't think so.

Q. How many meetings did they have?

A. I can't tell you exactly. It was in the high twenties and was fascinating reading.

Q. Which University did you give . . .

A. The University of Colorado.

Q. In Boulder?

A. Yeah, my Alma Mater. They have a beautiful new law school.

Q. We were there a couple of days ago. We interviewed David Gettys there.

A. David is a little too environmentally orientated for me but he is a good guy. He's son-in-law works for us here.

Q. Looking back over your long career, what accomplishment related to Colorado water issues are you proudest of?

A. I think the Windy Gap because that was taken something from scratch and an idea . . . it's not complete yet. That was a lot of hard work. I think it will pay off in the long run but it's still got a lot of hurdles. Like you say, it's over twenty years now and they're still working on it. To get it going was very, very difficult and figuring out how to finance it and all that sort of stuff. It was a lot of fun but I think that was the one thing I really enjoyed the most. I enjoyed the Boulder situation when I was up there and getting their water rights. That's when I really learned. At that time, we had a different law the way we appropriated water. And in 1969, just about the time of the basin thing, a bunch of us got together and re-wrote the Colorado law which is still there; Gen Saunders, Chuck Biscen, Bob Wellburn.

Q. It must have been a big project?

A. It was and we had Felix Sparks who was a tough old boy. He's still alive.

Q. I know. I talked to him. He doesn't want to do an interview but I tried to persuade him. Maybe you could talk him in to letting me do it.

A. If he says no, I wouldn't argue with him. He's not well. I know that. He took what we did and got it together. He's responsible for working with the legislature because he had been a Supreme Court Justice. It's still going but they keep refining things all of the time. That is what a law is for.

Q. You are proud of that I would think.

A. Yeah.

Q. Is there any things that you would've done differently looking back?

A. Yea, but I don't know where to start. The trouble with water projects is that people don't realize that it's so important to their livelihood and the money to do these things and it takes so much time. Like it is twenty years on Windy Gap and they hadn't finished it. They've got an education thing up here now the Don Glacier is heading up; California has a good educational one. I think Greg Hobbs is on the committee. They've got a major job to educate people. There are so many new demands for water that we really didn't pay any attention to. Again, people have got too much time. All of our young attorneys here, you have to pay them enough to go skiing every weekend, going fishing, and going to Timbuktu.

Q. What's been the greatest surprise for you regarding water in Colorado in the west?

A. The inability to figure out a way to talk to one another with meaning. The Colorado Water Congress had tried. I was instrumental in getting that started. Governor McNichols and Felix Sparks led the charge. They've tried and have had some success. It's a very difficult thing because if you don't watch out, it'll all falls to pieces because they start fighting.

The biggest surprise to me would be if the Western Slope agreed to sit down and really talk. That would be a great surprise.

Q. Talked to the East Slope or Front Range?

A. Try to talk to the Front Range. They've got the water over there and we've got the money.

Q. Somebody told me that water flows to money.

A. It flows uphill to money. Look at that project that we were just talking about. I don't know how many pumping plants have to be built to pump that water clear across southern . . . and down here. Some of it will be gravity. And the next thing is where are they going to get the power for the pumping? Huge issues, huge issues. I think the biggest surprise to me is how well the North has been able to allocate water to various users and have changes to where it's going. True most of the water has come off of the farms and into the cities but that's economics on it. At least there is a mechanism to do it. Most places they don't have a mechanism to do it. We developed those. I guess I'm proud of that too. Bob Barkley and I worked long and hard on and the staff, they did a great job. And we have records of who has got all the water and how much they got. We got out and check and see what they were really using the water for if we heard

anything. I think the procedures that were developed there have been pretty successful. Now some people would object to it because we don't take in recreation and we weren't set up for that. It's not perfect. The Southeast District is the only other one that I think has really worked. I think that's probably the thing other than the Windy Gap itself that I've really enjoyed.

Q. How so you see the water issues that face the whole southwest region, the impact that they are having on Colorado?

A. Trying to steal it. It means that Colorado has to be on their toes and try to be cooperative. Of course Utah, the Central Utah Project has helped them out but Wyoming what little water they have, they've got to watch if all of the time because of places like Las Vegas. I just don't know where they're going to get their water. Going up in the Virgin Valleys up there and trying to get groundwater. I'll say one thing, what's the girls name down there? She's at the Southern Nevada Water District Water Authority. I know it just as well as not. She's very innovative. You never want to sell her short. She's good. Colorado is going to have to keep on their toes. It's going to cost them a lot of money and whether that will come out of state funds and whether the legislature will spend the money, I don't know. You never know what legislature is going to do.

Q. What do you think will be the biggest challenge for Colorado in the future related to water?

A. To utilize the water that they have. When Aspinall in 1956 got the Colorado River Act done with all these projects for Colorado, most of them never got built. That was to use Colorado's share of Colorado River water. I'm sure there have been a lot of deals going on to kill those things by Lower Basin states. If they fight amongst themselves, Colorado is going to have a tough time because they've got that water sitting over there. Like people say all they're doing is trying to fill Lake Powell so California and Arizona can have water for irrigation, their needs, and electrical power. Why should we let it run down the river? That's a big problem. How are you going to handle that? It's a tough one.

Q. What advice do you have for the people who are operating the Colorado resources today?

A Patience. You can't do things overnight in the water business. You just got to be patient. You win a few and you lose a few but you keep going trying to develop what you want to do that's why I'm not sure if Colorado really knows where it wants to go. Jim Lockhead has been excellent in his job but he can only go so far. I think we have to know what we want. Like this thing up at Flaming Gorge, they're going . . . but to get it done, it's going to be . . . we're going to

have to put up the money. You know we had that bond issue for six billion dollars? It got beat just like that. It's an awful lot of money to most people.

Q. I think I've covered the questions that I had for you. Is there anything that you wanted to talk about that I didn't ask you?

A. No. I think the biggest thing is persistence and patience. They're going to have a hard time keep up all these cities and you can't tell people not to come. People have a right travel.

Q. Do you think conservation should be more of a emphasis?

A. It will help. Denver has made some progress you know in conservation. You have wheat field in your front yard now instead of green grass. In doing that, they have to raise the price of water and I think that's what's going to happen. It's a cheap commodity. Oh, that's another one I had a lot of fun with is Governor McNichols idea of bringing water down from Snake River. The WAPA thing was fund to watch. One time I was in Vancouver and somebody asked me what do you think and I said you've got to treat your water like a commodity. It's there to be purchased. That didn't go over very well in Canada.

Q. Do you think we should buy water from Canada and bring it down?

A. I think eventually they might. Again, it will take patience and persistence. They've got water up there out of the . . . I'm trying to think of the river right now. But they have over a hundred and eighty million gallons acre feet of water going out to sea. Then you get into the environmental problems with that. If you stop that one, then you kill all of the fish. Look at the Columbia River, over a hundred million acre feet of water going out of the Columbia out into the ocean. I'm interested in this new one I heard the other day of joining water from the atmosphere.

Q. Cloud seeding

A. Not cloud seeding, this was a machine that draw the water in and you take the H2O out of the air. They've done it and there's some California outfit that's just developing this. They used it down in New Orleans. The Bureau has some of them, very expensive. There was a lot of air. I think it's cost and working out agreements. We all think that nobody touches ours. I think that they'll make progress, II just think it will be very slow, very expensive. I think persistence is the only thing.

- - - End of Interview - - -