

Colorado River Water Users Association –WYOMING
Tape #7
GORDON “JEFF” FASSETT (TAPE #1)
ORAL HISTORY INTERVIEW
December 10, 2009

jf – Gordon “Jeff” Fassett

ps - interviewer Pam Stevenson, Agave Productions, Inc

bs - videographer Bill Stevenson

ps To start off then we’ll identify on the tape that today is Thursday, December the 10th of 2009. And we’re here in Las Vegas at the annual conference of the Colorado River Water Users Association to do some oral histories. This year we’re focusing on Wyoming. (jf – Okay.) And I’m Pam Stevenson, doing the interview. And, Bill Stevenson is running the camera. And I’d like you to give me your full name.

jf Sure. Actually my formal name is Gordon Fassett. But I go by Jeff. Sort of a permanent nickname.

ps Where did that come from?

jf It actually came from my initials. G-F. If you say G-F quickly, it turns into Jeff. (laughs) It’s a nickname that stuck.

ps I notice here Jeff with a “J” and there are Jeff’s with a “G.”

jf There are. That’s exactly right. But, yeah, I’ve.... don’t do that to your children. I’ve never used my real, formal name.

ps Interesting. So, you got that nickname young in life.

jf Yeah, right. I’ve had it my whole life. So, I’ve always been Jeff. So.

ps To start off...we’d like to get some background about you personally, so we start at the beginning. Tell me when you were born and where you were born.

jf Oh, oh. Gosh. (laughs) Well, I was born in November of 1952. Actually in Summit, New Jersey. I’m an East Coast person.

ps And did you grow up there in New Jersey?

jf I did. I went all the way through high school. Same town. Actually lived in Chatham. But I was born in Summit because that’s where the hospital was. (laughs)

ps And, what was Chatham, New Jersey like when you were growing up?

jf Chatham was a small town. By New Jersey standards. That's sort of...about 25 miles, just directly west of New York City. It's sort of a suburb. Most of the...it was a, a relatively small town. I mean, I think it's more like 20, 30-thousand in population. So, the town itself was pretty small.

And it had a small town feel to it growing up. As far as, uh, going to school and sports and 4th of July parades. Things of that nature. But, here you were on the, on the fringe of this giant metro-plex on the East Coast.

ps What did your family, what did your father do there?

jf For the most of his career, my dad was a car dealer. Sold, sold cars. So, that was a good, good thing to do. Around a lot of people.

ps What kind of cars?

jf Most of it was Volkswagens actually. Volkswagen dealership. Had some other foreign cars along the way, but most of his career was selling Volkswagens..

ps And he, did he own the dealership?

jf No. He was the manager. Yep.

ps What about your mother? Did she work?

jf She did. She worked for the school system. (clears throat) During the...she was sort of full time mom as we were all small, but, uh, as my sisters and I began to go to college, she went back in the work force (laughs) And, uh, worked for the local school district in, in Chatham.

ps How many kids were in our family?

jf I have two older sisters.

ps You were the baby.

jf I was the baby and the only boy. (laughs)

ps Hmm. Spoiled in two ways.

jf Yeah. (laughs) Well, I don't know about that. But... (laughs)

ps Tell me about you going to school there. What was...you know, you said it was like a small town. Did you know everybody?

jf Well, knew a lot. It wasn't quite that small, but, uh, you know, it was a very, very safe community, as I remember growing up. Uh. We always walked to our schools all the

way through. I think by the time I graduated, uh, the high school...my class had maybe 150 students in it was all.

Like I said, it was a small downtown. There wasn't much business there. Many, many of the professionals, if you will, in the, in the city, they all...many people commuted to New York City. We were...

Chatham was right near a, uh, a huge facility run by AT&T at the time, back in the 60s and 70s when I was growing up. And, there were a lot of scientists, and it was sort of Bell Laboratories, if I can use an old phrase like that. Was, was near, near Chatham.

But, it was, it was good. It was a nice place. We lived in the same...I lived in the same home my whole...until I went off to college.

ps So, were you a good student?

jf I was average. (laughs) I was sort of middle of the pack, I think.

ps Did you have any favorite subjects?

jf Yeah. I was always partial to math and sciences and things of that nature. So that was what ultimately led me into engineering which is what I did in college. So.

ps So, did you have any ideas as a boy growing up in school, what you wanted to be when you grew up?

jf Oh, I...not too much. I think...as I think back now it was, uh, it was sort of an interest in building things, you know. Building roads, uh, buildings. Things of that nature. There was always that sort of....

ps Big things.

jf Big things. Yeah. Big, big things. I don't know if that was just being a boy, or....(laughs)

ps Did you ever build things, you know, with a hammer and nail?

jf Well, yeah. Your basic childhood carpentry. (laughs) Yeah, I had a tree fort in my backyard.

ps Play with those bricks that you had. Those little red ones you could build....

jf Yeah. Like Leggo's or something

ps Well, even before that. My brother had all these little red....

jf Well, we had, uh...we used to have Lincoln Logs, I remember, as a child.

ps Build things with those.

jf Build things with those. Right.

ps So...you graduated from high school. Did you go straight to college after that?

jf I did. Uh, huh.

ps Where did you go?

jf Went to University of Wyoming.

ps Now, what would make a New Jersey boy go to the University of Wyoming? (laughter)

jf Well, there was sort of a combination of, you know, go West. Uh. Using college as an opportunity to explore somewhere else.

I knew that I was going into engineering. The math and sciences were my strength. I was looking for a degree that didn't require languages (laughs) and things of that nature. And then, I had...we skied. Was a part....

We had a...when I was growing up, we actually had a second home up in the Catskill Mountains of New York state. Right near, right next door to a small ski area. And so, as kids we did a lot of skiing. So, I'd always heard and, and read about, but had never been West. I had not ever been West until I went to college.

So I applied to all Western schools, generally in the Rocky Mountains, that had engineering programs. And, uh, really...there was nothing very overt about it. I mean, I think Wyoming was one of the first ones to offer me admittance, and so, I just took the pressure off by saying "sure," I'll go there. So, it was done, early in my senior year of high school. (laughs) So, I didn't have to sweat.

ps And you had never been to Wyoming.

jf No. Had never been to Wyoming.

ps So when did you first come to Wyoming/? What year was that?

jf It was in 1970.

ps What was your first impression?

jf Oh, it was very different. Yeah. And the university's in Laramie, uh, Wyoming. And, you know, it's high plains. High elevation.

You know, you're launched right into some pretty severe weather compared to what I was used to. But, but, very pretty. I mean, I...you're right. You can see the snow-

capped peaks, and the wide open spaces. All of those things that you read about or heard about, about the West. And there I was.

But, you're sort of going to college. So, you know, you're just involved with, you know.... I did some recreational things, but you're launching into a career, and, uh. So, did lots of studying, and met lots of people. And liked it. Yeah.

ps Did you know anybody when you came out?

jf No, no. (laughs) Actually met some people from New Jersey after I got there. There were other Easterners at the University of Wyoming. But, my first couple of roommates my freshman year were all Wyoming Kids. You know. So, I got to...I went home and visited their families for weekends and things. And so. Got, got a little exposure to the countryside

ps Well, you must have like it.

jf I did. I've, I've stayed almost ever since. I had a short stint in my career in Colorado, but, uh....yeah. I stayed West. That's for sure.

ps What did your family think of your coming out West like that?

jf Oh, at the time they, they were very supportive. They, they had sent both of my sisters to school. Neither of my parents graduated from college. And it was very important to them that we all went. And they were positioned to send us to wherever we could get in. And wherever we wanted to go. So, so, we did.

My sisters went to school in Pennsylvania. They didn't go as far away as I did. But, uh, uh....I think they wondered. I've heard them say since that, we must have raised you too well. You know. You're too independent. You left and never came back. (laughs)

But, I think my Dad was kind of a cowboy at heart. Or, you know, he'd always read about the West. He li...loved history. And so, I thought he thought it was a good thing that his son went West.

ps I guess they got to come visit you.

jf They did. They did. Exactly.

ps Give him a chance to come West.

jf Exactly. (laughs)

ps They never moved out here though?

jf No. No. They stayed in New Jersey. And then they retired and moved elsewhere.

ps But, didn't move West to retire?

jf They didn't move West. They went South to retire. (laughs)

ps So, uh....tell me about...what was college like?

jf Oh, well, I don't know how to compare it to...I didn't go anywhere else. Uh. Yeah.

I think, you know, Laramie, Wyoming's a, a rigorous place as far as weather's concerned. So there's....that's always part of an element.

But, I got real involved with studies. I had played soccer in high school, so I played soccer at the university. And, and I fulfilled my dream and went skiing. (laughs) There were small areas nearby, but I used to take weekend trips to the bigger ski areas in Colorado and elsewhere. And, uh, but, uh, you know, it was good.

It turned out to be a good program. At the time, I don't think I knew that much. You know, you go into those things sort of naively. But, uh, as I've come to learn, Wyoming actually has a very good reputation as an Engineering School. And met lots of good people Very high caliber people. And felt like I got a good education there.

ps So, as you, as you were going through school there, did you make plans of what you were going to do when you graduated?

jf Well, I didn't....I suspect the biggest influence was, uh, after my junior year. I'd decided... I'd always gone back to New Jersey for the summers. But, uh, in my junior year, I was going to stay West. And one of my professors, uh, knew people that worked for the Denver Water Department. The major utility for the Denver metro area.

And, and so, I applied for and got a summer job staying West. Or, in this case, in Denver. And didn't go back to New Jersey. And it was with the water utility.

I mean, who, who knew? And so, while I was a civil engineering student, I had this exposure to, to water resources and reservoirs and everything about operating a system, a water system, for a municipality. In that summer. I think that got me very much intrigued about water related issues.

And so, (coughs) excuse me.

I went, you know, I went back and finished my senior year. And then the Denver Water Department offered me a full-time job when I graduated. Cause they...by then they had known me, had some exposure to me.

And, uh, so....at the time I graduated, that was in the early 70s, 74....most of my fellow engineering students all went to work for oil companies. I mean, that was right ahead of the oil embargo, and oil companies were hiring any engineer. Of, of any degree. (laughs) But I did not.

I went to work with the Denver Water Department. And that really was...as I look back now, that was significant in, in projecting my career into water law and water rights and water resources. And, ultimately that career has become very different than, than what, than what I studied.

I mean, I, I was a civil engineer. You learn about building roads and bridges, and ultimately I never did any of that. (laughs) I never built anything. I've, uh, I've spent most of my time with lawyers than with engineers. So, it's sort of interesting.

ps Ever built any big water projects?

jf Well, I've, I've been a part of it. But I was never directly involved with the design or things of that nature. But, you're very familiar with big water projects. So.

ps Now, you were in the...that was in the early 70s that you were in college. Did you ever have to worry about being drafted? The Vietnam War was going on.

jf Well, I was in the first group back when the draft was, uh, instituted. And they had draft numbers. I don't know if you remember that or not. But, there was a lottery, and at the time I had a real high draft number, and I also at the time had a student deferment. They still were allowing student deferments back then. So, I was not pulled in.

I...there were lots of other...that was my era. That was the war that was going on. Lots of my friends and associates, uh, have served in the service. But I did not.

ps It ended in 74, so I guess you graduated at the right time. (laughs)

jf I graduated at the right time. When it was, uh...yeah. I was in the career force by then, and, and never had to, never had to experience that.

ps How long did you stay with the Denver department?

jf I was there about five years. From about 74 to 79.

ps And what were some of the jobs you did there?

jf I worked in the...I think it was what was called the Water Resources Division, I think. They may have changed the name.

But, it was in the, the staff operations where you were basically the group that operated the reservoirs. The, the raw water reservoirs.

And so, I was involved with the group that was involved with measuring the snow pack. With forecasting the runoff. And, and making the operational decisions at the major reservoirs that fed the water down into the, to the system where it was then treated and delivered to the customers.

And so, I was always on that, sort of that untreated end of the system of the utility.

But, that's also where I learned and got to work with the, with the attorneys for the Denver Water Department. Uh. And got involved with helping them support the water right filings in front of the Colorado Water Courts, the, the system of water law that they have in the state of Colorado. And that's really...that's where I got all the exposure to the legal side of water resources. Was working in that group.

ps You ever think about becoming a lawyer? Going back and getting a law degree?

jf Oh, yeah. Over time I've thought that a number of times. You know, after that....uh....you never know where your career's going to take you. So.

As it's turned out I've spent a lot of time with lawyers and litigation and, and water rights and, uh.... So, yeah, there's been times. I never had a personal situation where I could, you know, step back from family commitments and other things and go back to school. And, so....I stayed an engineer.

ps Just worked with the lawyers.

jf Just worked with the lawyers. That's right. Yeah. Lawyers, lawyers are my clients now. So.

ps So, uh, when did you first get really involved with the Colorado River water? In Denver...might have been somewhat related.

jf It was. Part of the Denver Water Department's system is on, on the west slope. On the headwaters of the Colorado. So the...really, pretty early on I began to understand at least a little bit about the compacts and the water from, from that basin.

The, uh, the Denver's municipal system gets a significant amount of their water from the West Slope, and that's the head waters of the Colorado River system. Some of the big tributaries. So, that's probably where I first heard the word Colorado River, when, when I was still working there.

ps But in Laramie, you're closer to the head waters.

jf Well, we are. Wyoming thinks that they're the headwaters. It's, it's always a bone of contention between Wyoming and Colorado as to who really is the head waters.

ps But, you didn't really pay much attention to the Colorado when you were in Wyoming going to school?

jf Not when I was in school. Yeah. I hadn't really focused on the water issues. You know, I was doing my civil engineering stuff. And, and skiing. And hadn't really thought about the river basins the way you, you do when you start. When you start into the job, in a career.

ps Worked for the water department.

jf You work for the water department. And then all the way through my career since then. You know exactly where the rivers are, and the legal systems they each have. And, they're all very different.

ps You say you were there for five years?

jf Uh, huh.

ps So, how did your per, career progress?

jf After that I actually was in, uh, private engineering consulting, in Colorado. I worked for a firm called, uh, Leonard Rice Consulting Water Engineers. And, it was a small firm of about 15 to 20 engineers. A consulting business.

And, in working with a variety of clients. Our clients were cities. And assisting them with their water rights. We worked for ranchers. Uh. Wide variety of sort of water resources work.

And, interestingly, for my career, during... while I was still there, we were retained by a law firm in Colorado. But that law firm represented the state of Wyoming. In a big, uh, litigation involving the Wind River Indian Reservation which is in Wyoming.

And, uh, we became the key outside expert engineers. Hydrologists and the water rights experts for this litigation. And so, our client was really the state, the State Attorney General's Office of the state of Wyoming.

And that's really what gave me where I really re-connected with Wyoming, and got to know Wyoming and Wyoming water resources. And Wyoming water law.

It started while I was still in Colorado, uh, working for a private firm. But, our, our project, my big project, was actually in Wyoming. And, uh, so that really was kind of that next step.

ps And you got more involved with the Wyoming water issues.

jf That's exactly right. And very much so. Now that, that particular litigation was not in the Colorado River drainage, but it was in the Missouri River. So the Wind, Big Horn system, which is the north, uh, northwest, central Wyoming.

But, as a result of that, I got to know the Wyoming State Engineer, and Wyoming Attorney General, and all the officials. And ultimately the State Engineer offered me a job.

And so, I left consulting and moved to Cheyenne and became the Deputy State Engineer, for the state of Wyoming. And, and that's really where, you know, that's where I started to learn about all things western. (laughs) When it comes to water.

ps So, as the State Engineer, I would think they're involved with more than just water, but water was still your...

jf Yeah. Actually, the State Engineer's Office is primarily water. It's all water rights. That's what those, those agencies are. You're really, in Wyoming, the State Engineer's Office is the agency that does all, issues all water right permits for any use of water in the state.

And so, I was hired by the State Engineer as his deputy. Worked in that position for about three years. And then he retired, and, and then I was fortunate enough to be appointed as the State Engineer for the state. And then I held that position for about 13 years. Thirteen or 14 years.

ps You've obviously served in political administration and things like that.

jf That's correct. Uh. Initially worked for a Democratic governor, and when I left I was working for a Republican governor. But, uh, politics really wasn't a, a big consideration for those issues.

ps I know some is...sometimes the politics do filter down if you're a state employee, even though you don't want it to.

lf Yeah. Well, yeah. you have to be cognizant of the politics. I think, uh....

The position of State Engineer in Wyoming is a little different. Different than many states, in that, it actually has a term. Uh. Once you're appointed and confirmed by the state legislature, actually have a six year term.

And, and that was unique to those positions. But, in Wyoming, it was Wyoming's way of keeping pure politics out of it. You, you don't serve at the pleasure of the governor. In theory.

Now, you would never want to be an agency head of any state government, if, if you were at odds with the chief elected official. But, but, that was an interesting legal framework in Wyoming.

It's very different in the other states who...my counterpart agencies all serve at the pleasure of their governor. So, you can be removed, you know, without cause. Just for any reason, they can make a change. And that wasn't technically the, the situation in Wyoming.

ps Sounds like a good system.

jf Yeah...it was.

ps Every state should look at that. Arizona's just gone through that with the change of governor. (jf – Is that right?) Change of administration. All the department heads.

jf They all change.

ps In the midst of this economic crises.

jf So, we've, we've had a system...a long history of fairly stable...

If you look at my predecessors, uh. Pat Tyrrell, my, my successor, as State Engineer. My predecessor was there 12 years; his was there 12 years. We have a long term consistency in those chief water resources official positions. And, I think, I think that ultimately helped Wyoming.

ps Does that work for all the state departments? They have six year terms?

jf No. No. Most of them were not. Most of them you would see a more routine change, or a turnover, with a, with a political change of some kind. Not always, but, uh,...

Wyoming has the benefit too of being, being a smaller state. A smaller population. You know lots of people. They know you, you know them. Sometimes that's helpful, sometimes it's not. But, uh, it's easier to establish your own credibility. And so, the governor's didn't necessarily just automatically make changes. If they knew they had a good administrator, you could keep them. And it was less political from that standpoint.

ps Sort of a technical expertise kind of job.

jf Precisely. That's very insightful. I think that's exactly right.

I think that's the reason our constitution was written with a term. When you read the law about the qualifications, they wanted technical people. You were required to be an engineer, and be a licensed engineer, to hold the position of State Engineer.

Many states have walked far away from that. Many of them are attorneys. If you look at the top water resource officials in many state governments, it, it is in many cases an attorney that is at the top of the Water Resources Agency. Not engineers. And Wyoming was, was very aggressive in making sure it always stayed technical.

ps Well, in calling it a State Engineer. I don't think every state has a State Engineer.

jf Yeah, they don't. It's changed over time. There used to be more states that actually used, used that, that terminology. I think there's only five of us left. (laughs) I think there's only four, five or six states, in the West, where they still use the term State Engineer, for the agency director of the Water Rights Agency. That, that's what was unique.

In some states, the State Engineer is the head of the Highway Department, instead of being in charge of the, the Water Department

ps That's why I thought, when you said that, that perhaps you had more...that the State Engineer had more than just water.

jf No, in Wyoming, it's purely a water resources and a water rights agency. So, you're in charge of water rights. You're in charge of representing the state on the Compacts.

ps So, you stayed in that position until...when?

jf Yeah, so I became State Engineer in, uh, in 86, 87, I guess. And I was there through 2000.

And, and, it was really when I first became the Deputy State Engineer in 84...that's when I moved from Colorado back to Wyoming. So, I've lived in Wyoming now ever since 84. In Cheyenne. And that's where I really first became involved with, with Water Users Association. So. And the Colorado.

I got very involved as Deputy, and then certainly as State Engineer. Beginning to represent this...all of this...river basins that Wyoming is a party to. And, and the Colorado is, is a part of that.

What, what was actually fun about being State Engineer in Wyoming is that...you're at the top...geographically, Wyoming sits at the top of every major river basin.

We're at the top of the Columbia, we're at the top of the Colorado, and we're at the top of the Missouri. And so, you, you found yourself, even though you're representing this very small population state, with not a lot of water use, but you're involved with issues a, across the entire western U.S.

Because you spend a lot of time with issues on the Missouri, downstream. You spent a lot of time worrying about what California and Arizona were doing in the Colorado. We spent time keeping an eye on Idaho and Washington and Oregon on the Columbia, because those downstream interests would often ricochet upstream. And so...

So that's where, you know, being in Wyoming, and Colorado to some degree would be very similar...you're really involved with issues well beyond your borders. And, and that was really a very interesting aspect of, of being... representing Wyoming. Again, a relatively small state.

But, you, you found yourself involved with controversies and litigation and, and water resource issues. Of Endangered Species. And things that weren't even in our state. But, they were downstream of our state. And that's really why Wyoming was involved.

ps Interesting. I hadn't thought of that.

jf Yeah.

ps So, so you really do see the big picture.

jf You really...you do. And that's somewhat unique. I mean, in that...when you look at, you think about some of the other states. They're all...Colorado's somewhat similar.

And so is New Mexico to some degree. They have the Rio Grande, so they have to worry about very different issues than just the Colorado.

But Wyoming I think was somewhat unique, which, to me, made that job very fun. Because you, you were constantly being challenged. You were involved with lots of issues that affected lots of people. Defending and protecting your state's interests.

Often the issues were outside your borders.

I remember I used to go to the legislature asking for travel budgets, and they always wanted to know why I traveled so much. (laughs) And it's like...well, you know, nobody's going to represent Wyoming unless you go. And so, you want...you want to keep an eye on Nevada, and what Law Vegas is doing, you, you have to Las Vegas. (laughs)

ps And California.

jf And you have to go to California. And so, it, uh....

You find yourself...the rivers are truly a connection of, uh, when you look at the issues. Clean Water Act. Endangered Species and things. That, even though they're not in your state, they can affect what you do in your state, because you're in the same river basin. I think that's what was always fascinating to me.

ps I know how complicated the Colorado River system and the, the laws and the compacts, and agreements are.

jf Indeed.

ps Keeping track of three different rivers, must be...

jf It was a lot. Yeah.

ps Are they as complicated as the Colorado?

jf They're, they're complicated in different ways. I mean, they all have their unique thing.

Wyoming is actually a party to seven different compacts, interstate compacts.

There's two on the Colorado. But, uh, we had a compact on the Bear River with Utah and Idaho. We have a Snake River Compact between Idaho and Wyoming. The Yellowstone River Compact with Montana and Wyoming. The Bell Fourche River between Wyoming and South Dakota.

And then we have the North Platte, which is probably for Wyoming more complicated, between Colorado, Wyoming and Nebraska. And there it's not a compact, but a Supreme Court degree that allocates the water between the states.

I spent a lot of time in litigation or...in, you know, protecting all those inter-state relationships because Wyoming, again, sits at the top. All of the water goes out; nothing comes in. To Wyoming. (laughs) And, uh....so, you spend a lot of time on all of those.

I think Colorado's more intense just because of the...more water and the tremendous amount of, of the number of citizens and the number of users that are dependent on the Colorado. That would make the Colorado a different situation. But, uh, certainly the others have their own complications. Environmental issues and things of that nature.

ps So is the Colorado the largest river system? The Missouri....

jf Well, Missouri itself is, uh, much bigger than Colorado. But, uh... Actually the Columbia is probably the biggest. The Snake River in Wyoming is actually the biggest river in the state. Up by Jackson Hole. Starts in Yellowstone National Park. So, on a volume basis, within Wyoming, it's actually, probably, three times the size of the Colorado tributaries that are in Wyoming.

ps Well, you are truly a water expert of the whole West.

jf Well, yeah. Whether I wanted to be or not, I found myself there.

ps So, you say you stayed in that position till 2000?

jf 2000. And then, uh, I went back to...I'd had enough. (laughs) So, I, I went back into consulting.

At first just had my own firm, just by myself. And then, about three and a half years ago I joined a big national engineering consulting firm called HDR Engineering. And, uh....but I've continued to live in Cheyenne, Wyoming. I stayed in Wyoming.

And do a lot of, again, water rights. That's really my expertise, is in water right engineering. And so, I work for municipalities. Developers. Wide variety of clients.

ps What does HDR stand for?

jf Oh, Jeez. Uh. The original is...it's about 100 year old firm. Henning? Let me see. Henningson, Durham and Richardson, I think. It's the names of the, of the founders.

ps So, it's just the names of the founders.

jf It was just the name of the original people that developed the partnership.

It's based in, uh...the headquarters is in Omaha, Nebraska. But, uh, HDR is a, a large firm. Eight thousand employees, uh, 160 offices around the country. In every state in the Colorado River Basin. (laughs) We're a, we're a sponsor of the Colorado River Water Users Association. So.

ps And you're the National Director for Water Resources?

jf Yeah. Hm, hmm. Hm, hmm. Right.

ps So they do other things besides just water?

jf Oh, yes. HDR does all types of engineering. Uh. Transportation. Lots of highways and bridges. Mass transit systems. One of...new mass transit system in Phoenix was an HDR project. If you've ever been there. Water treatment plants. Waste water treatment plants. Really...

Environment work. We have a huge environmental staff, doing EISs for projects, things of that nature. Pretty, pretty wide spectrum.

Lot of power. Lot of energy. Gosh, I think we've done 20,000 megawatts of wind power projects recently.

ps That's big right now.

jf Yeah, that's big right now. So, it really...it's, it's a full spectrum engineering firm. Of all sorts.

ps But you're the National Director of their water resources.

jf In the water resources. Right.

ps Obviously, from your experience in Wyoming, you kind of know all the water in the West.

jf I know lots of water in the West. I'm learning more about the Mid-West and East as well now.

ps And so, you're, you're still involved then with the Colorado River Water Users Association through your job there.

jf I am. Yeah. When, when I joined HDR, and, and, uh...I was really...helped initiate their involvement in this and others. Uh. They, they had been coming to this meeting. Uh. There's a Las Vegas office. And had some exposure to it.

But I think the...HDR's becoming much more broadly involved with a lot of different kinds of projects across these major river basins. And, and Colorado's a good one to be working in.

We, we have lots of projects in all the different states, and I think it was just natural for us to, to get involved with an association at a conference like this.

Many of our clients, or potential clients, you know, that come to meetings like this. And so, that's, that's a great opportunity for a private firm. And why we've become a

sponsor and an exhibitor and things. You want to let people know what your expertise is. (laughs) So.

ps How to find you.

jf Yeah. How to find us, so they can hopefully hire us. (laughs)

ps Well, in going back...a couple other things on this note that Ben had given me. You were on the 2002, President Bush's Federal Representative and Chairman of the Red River Compact Commission?

jf Yeah. That's, a, uh...it was sort of interesting.

After, after I had left state government, (clears throat) I, of course, had represented Wyoming on a number of interstate river compact commissions. Most of the interstate compacts have commissions. Like the Upper Colorado and the Yellowstone. And so, I was a member of those compacts...those interstate organizations, representing Wyoming, during my tenure as the State Engineer.

Actually I was a trustee of the Water Users Association as well, representing Wyoming.

But, after I'd left that position, of course, you're no longer involved. But, uh, but, uh, yeah. Associates of mine, from Texas and Oklahoma, my counterparts from those states, had, uh, wanted to get a new federal member of an interstate river commission. And had come to me and said, well, gee, you've been on a number of these compact commissions. Would you...representing a state...but, in this case, would you like to be the federal member?

And, so, uh, at that point, I was in private practice and available to do something like that. And so, they ultimately elevated my name.

This is the Red River Compact. This is the Red River Com...the Red River that divides Oklahoma and Colorado...excuse me...Oklahoma and Texas. Is the border. And then it flows into Arkansas and Louisiana. So, there's actually four states involved in the Red River.

And they had an interstate compact that divided up the waters, just like the Colorado had, was one I wasn't that familiar with.

But, they elevated my name. And, uh, and I was appointed the, the federal representative to that compact convention.

So, it's kind of a...just a part-time thing. It's not a paying job. (laughs) You, you get to go to meetings, and, uh, and chair them. But again, it's been an interesting...to me. Because I, I've gotten involved with water resource issues in other states. Other kinds of issues.

Navigation is a big issue in Louisiana and Arkansas. Flood control. Things that were...you don't think of as much in the West, where it's more driven by water supply. But there, there's a lot of water.

So, anyway. So, yeah. I was appointed, and I, I still serve that capacity. I haven't been changed. I, uh...those are federal appointees, so President Obama could, could make a change. Or he could reappoint me, or he can do whatever he wants. I, I serve until removed. (laughs)

ps So, that does sound like a whole other part of the country that you're involved in.

jf It is. It's, it's been, it's been interesting.

Again, I, I had some exposure to Oklahoma and Texas. Certainly not nearly as much in Arkansas and Louisiana. Their, their water allocation systems are very different than Wyoming and most of the western states.

So I did that before I joined HDR, but HDR has continued to allow me to...you know, they, they let me get my salary even though I'm off doing something like that, for, you know, four or five days a year.

But, it, it gives you good contacts, and, and, and, interesting exposure to different water resource issues. They're, they're fighting over, you know, how many barges they can float on the river. And that's not an issue we had in Wyoming. (laughter)

ps I never heard that anywhere on the Colorado.

jf Yeah. Exactly.

ps Maybe how many rafters can go down the Grand Canyon.

jf Rafters on the Grand Canyon. But, but, no commercial barges. And that's what goes on. And Red River is a tributary to the Mississippi. Right, right upstream from New Orleans. So, I'm, I'm learning a lot about another river basin now.

ps I've got a whole set of questions that we try to ask everybody.

jf Okay.

ps First we start with your more personal background.

jf Yeah.

ps But then we have these other questions, that I'll start in on.

jf Okay.

ps Looking back, what projects or legal developments do you see in the, in the history of Wyoming that prepared it to become what it is, what the state is today?

jf The state itself?

ps Yeah. In the wa....relation to water.

jf Yeah. I had the, I had the pleasure, (laughs) if you can call it that. I had a lot of, there was lots of important litigation going on in water...during my tenure as State Engineer. As I said, I...

My first real exposure to the state's water issues was involved with this huge litigation between the state and, and the tribes of the Wind River Indian Reservation. And I think....

And that played out over 15 years or so. I mean, I was involved with that for a very long time. And, and those decisions ultimately were ruled upon. They went to our State Supreme Court. They ultimately went to the United States Supreme Court. And so, so that was a sort of issue. Quantifying the, the tribal rights. It wasn't in the Colorado River drainage, but it was an important issue for the state of Wyoming.

The other sort of major activity that I got involved with, again, unfortunately, was litigation-based. And in that case it was on the North Platte River. As I mentioned, the North Platte has a, a Supreme Court decree that, that allocates the water between the states in Colorado, Wyoming and Nebraska

Well, Nebraska sued Wyoming, and when two states sue each other, there's only one place to go, and that's the United States Supreme Court. And so, again, for almost 15 years, almost my entire career, we had that litigation going on.

And, and the achievement that I was proud of was that we ultimately settled that case. It ultimately didn't go to trial. And, and I brought that to closure right about the time I left. I was very much burned out by then. (laughs)

But, uh, it was a significant effort for that whole southeastern quadrant of the state of Wyoming. North Platte is just a critical river basis. And the litigation was very disruptive. And created uncertainty.

And so, bringing that to disclosure was, was very satisfying during my tenure. I think it will be a very lasting agreement for Wyoming and something to build upon. And things of that nature.

ps What role did you actually play in, in the settlement of that? Or with Wind River. What was your personal role?

jf Well, on Wind River, it, it changed. I went from being the consultant to being the hired engineer, running computer models, and analyzing water rights and hydrology. And

then, of course, during the time of that case, I went to work as the Deputy State Engineer, and then became State Engineer.

So, I went from the consultant to being the client. And, and ultimately was the representative of the state of Wyoming in, in the litigation, and in the settlement discussions we had with the tribes as well.

Same thing with the North Platte litigation. As the, as the State Engineer, as the Chief Water Resource official, and a very high profile, high risk situation like that, it took a lot of my personal time.

I clearly had staff involved, but the settlement of the Nebraska versus Wyoming litigation was something I was personally involved in.

We had over 100 negotiating sessions, between us and the state of Nebraska, that I was personally in attendance in. So, had great personal involvement. As well as running your agency, and issuing water rights. And you know, involved with Colorado, and every other issue that's going on.

But those were two significant efforts that took, took a lot of my time as, as the agency head. You can't really delegate those kinds of issues.

ps Did you have to testify at some of these meetings?

jf Well, they...for the most part those, uh...in the trial with the tribes, I did testify. I was, was...as an expert, uh,...gosh, I think I was in...I bet I was on the stand for almost two weeks. That, that, that, that trial went on for most of the year with the tribes.

And, at the time, I was the consultant, and had done a lot of this technical work. Lot of hydrology. Lot of analysis of water rights. And so, I had to testify to all that.

After I became the State Engineer, I was really the state's representative in the settlement negotiation. So, I, I consulted with my attorneys. I didn't do too much testifying. The case really never went to trial.

ps Did you hire consultants then?

jf Hired, hired lots of consultants to do all the technical work. And, uh....

You know, for me as a non-lawyer, what was....well, that litigations are very difficult, very risky, you know, for your citizens.

For me personally, it was very interesting. I mean, I got to go to the United States Supreme Court. I've been there three times, over the course of these cases. And, and been to the...Washington, D.C. And listened to the, the highest court in the land, you know, ask questions of our lawyer, about issues that you knew a lot about. It was very fascinating. When you view that from a distance, it was very intriguing to me to watch that legal process at the, at the highest levels in this country, play out.

ps A lot of lawyers don't get to go to the Supreme Court.

jf They, they do not. That's exactly right.

ps Were you actually sitting at the table with your lawyers?

jf No, I got...I had to be in the first, first row of that.

ps They could consult with you so they'd know the answer.

jf Well, I...those that know me know that I would have loved to have been the attorney, arguing. It was hard to sit back. But, we were in the, we were in the front row of the audience area. Only, only the attorneys can be on the other side of the fence. (laughs)

But, uh, it, it was fascinating. To, to, to see the same people you'd see on TV, to see them in their courtroom, and asking, you know, very difficult questions of both sides, and just to see how smart those people really are. It's a, it was...it was a real...it was an interesting...you know. And, you know, there was no way for an engineer would get that kind of exposure without having been a, a director of a water resources agency.

ps Only the water engineers.

jf Yeah. Only the water engineers get to do that.

ps How did those rulings come down? Were they in your favor?

jf Sort of a mix.

Actually, the one on the tribes case was very interesting. Of course, it was...most of the trials were in front of our state courts. And so, it initially went through our State Supreme Court. But then, because there are issues of federal law, the appeal went to the United States Supreme Court.

Actually, that argument, which we thought, listening to the judge's questions...you know, you always come out of the courtroom thinking, okay, we, we won. It was actually a tie. It was fascinating. I still to this day don't understand some of that.

But, even though there were nine Justices in the room, one ultimately...Justice O'Connor, Sandra Day O'Connor from Arizona, actually declared a conflict and didn't participate in the final vote. And so, it was a four to four, and a four to four decision meant the Lower Court's decision was affirmed. Because they didn't really say anything. They didn't rule one way or the other.

And so, our State Supreme Court decision was, was basically upheld because of that. And so, that.... And, and, I think both the tribes and the state that they won and lost things at that level.

ps It was interesting that she would have a conflict because she probably knew more about Indian water rights than any other Justice.

jf Absolutely. Precisely. Precisely.

She's very knowledgeable about western water issues among all of them. Asked very good questions. What was always curious to me is why you wouldn't have declared a conflict ahead of time, and had a, had a different Justice, or somebody else sit in for you.

ps They don't really have anybody to sit in.

jf Yeah. Well, I guess sometimes they do. They, they will, they will pull from a federal district court somewhere else, I guess.

But, it was interesting to us that she participated and heard the arguments and asked questions, and then didn't vote. We, we....so....you know, maybe there will be a book some day. (laughs) We, we need her to write a book about...

ps I just did an oral history interview like this with her.

jf Did you really?

ps I didn't get to ask her that because I didn't know about it.

jf Oh, that would have been fascinating. I would have....

Some of the attorneys have said they looked into some papers, or done some research. I, I don't know how you'd get some of those inner, inner sanctum notes, or whatever. I'm sure there was much discussion among the Justices. On any case. But, as an outsider and a non-lawyer, it was very surprising to me that...so....that that's the way that that one came out.

I think in *Nebraska v Wyoming*, most of the things that we...were being elevated to the Court, were these interim decisions. And I think we won and lost some of those arguments.

At the end of that case though, we, we settled it. We basically didn't go to court. And, uh, the two states ultimately negotiated a, a resolution that was confirmed by our governors and legislatures. And so, the Court never got involved. They did approve the settlement, but there were never any specific rulings.

My experience there was that the court, the court was a good motivator for both sides. It was interesting. I'm not sure if that isn't a, an appropriate role sometimes, for the....you know.

If you think you're going to win everything, you don't, you don't want to settle. You want to go have the win. But, I think the, the Court....over, over these kinds of

cases...very important water cases....you're at the highest court in the land. There's no appeal. When they rule, you're done. (laughs)

I think we'd seen enough interim decision by the court that both states be, you know, began to wonder how an ultimate fight might come out. And, and I think that ultimately motivated both Wyoming and Nebraska to come up with a solution themselves.

And I think at the end of the day, that's a better solution, personally. That, uh...I'm not sure courts a good place to solve a complicated water case. Nothing is that, that clean.

It's not like...is the criminal guilty or innocent kind of a case. When you're fighting over these kind of complicated water issues. And the consequences of those.

So, I think it was....personally, I think it was a good idea that we settled, and, and I think the Court played a role in motivating a settlement, by, by making everybody nervous. (laughs) If only one side was nervous, then you know, then you might not have had a settlement, cause they may said, well, we, we think we can win. And so....interesting process.

That must have been interesting to have talked to the Justice.

ps It was. It was challenging because she wouldn't answer a lot of things. She wouldn't really talk much about any decisions on the Supreme Court.

jf Is that right?

ps Just about her personal life.

jf Yeah. I guess that's probably true. But, I would have loved to have had you ask her about the Big Horn. The Big Horn General Adjudication.

ps Probably wouldn't have answered it.

jf She probably wouldn't have answered why she didn't vote. (laughs)

ps Want to get a drink of water? How are we doing on time? (bs – Ten minutes.)

bs Still rolling.

ps Why didn't you turn it off?

jf Wanted to tape me drinking water. (laughs)

bs (can't hear)

jf You can edit.

ps As long as you're still rolling. Some of these things, you've sort of already answered. Where the questions are written about what roles you've played in, in the water issues. What are, what are some of the problems that you confronted? Or, the greatest obstacles that you had in, you know, trying to settle some of these water issues?

jf Oh. I don't know if there were any particular obstacles. Uh. I think...you know, the water business is, is funny.

It, it's controversial. You, you have to make hard decisions. The prior Appropriation Doctrine is how Wyoming makes de, decisions. And, and, uh, so I think what happens is, the issues kind of flow with the times.

I mean, there's the drought. Just natural conditions. Just bring more attention. So, when there's not enough to go around, there's going to be disagreements about it. And you, you end up being...you end up being the decider, if you will, to, to resolve a lot of those issues. So, you know, when there's....

I had both wet years and dry years. I was there long enough that I saw some of both. And, you know, when lots of people have water, you don't have any water problems. (laughs)

ps Unless it creates floods.

jf Yeah, unless there's a flooding problem. That's right.

So, yeah, a lot of the, a lot of the tension, a lot of the litigation that got started was often as a result of just natural droughts. And, those dry years. And, it, it...you turn off the juniors to respect the seniors. And that got...creates tension.

We had, uh...and that's no different than, than anywhere else really. I think, uh.... You know, when you think about the Colorado in, in the case of Wyoming, Wyoming's one of the states that's not using its full allocation. So, we spent a lot of time working with the....

Across the Colorado River Drainage, my job was to protect our ability to use what hasn't been used, in the future. That's really what your job was, as State Engineer, was to protect your water users, and, and to protect your allocations.

Programs like the Endangered Fish Recovery Program, um, In the Upper Colorado River Drainage, that was very important to Wyoming, even though those fish aren't in Wyoming. But, they're downstream of Wyoming. And, uh, and the federal regulatory process can, can, can ricochet upstream and affect what we can do with water. Because you have an endangered species downstream.

So, Wyoming was very involved with our fellow states. Working on a program.

Assistant Secretary Castle today at the conference talked about that program as being a poster child to, to find the balance between environmental issues and water development.

And, I, I had the pleasure of being involved with that when that program was being put together. It was back when I was State Engineer.

And, and that was exactly the point. You...we worked desperately to make sure that we always had the right to develop the water that hadn't been developed. But, at the same time, you had to respect the law of the land that included the Endangered Species Act, and the, and the power that that act has.

Those really weren't obstacles, that was...but it was the problem. It was the confrontation between the environmental laws and the compacts. And, how do you craft a solution to, to try to address both needs? And that was a good example, where we could do both.

ps How did you do that?

jf Well, the program provides, you know, so much water from the Upper Basin is going to flow to the Lower Basin anyway. So, the, the idea of manipulating and managing when that water is delivered, to meet the needs of the species, was something that was doable.

If you're going to let a million acre foot go down anyway, does it matter to Wyoming how it goes down? The point was, it did not. If there was a better way to deliver water, that would help the endangered species, and that, by helping the endangered species, you then take the endangered species regulatory threat away from new development in Wyoming.

So, that became a really...you know, this was back in the, the 90s, when that program was first put together. And, uh, it's kind of stood the test of time.

It was interesting, like I said, even today, in 2009, it's still being pointed out as an example of a, of a win-win sort of solution. Instead of having a huge fight, or a huge threatening litigation over endangered species and compacts, you were able to work through and say, well, how, how can we do both? Is there a way to do both? And, in that case, we were able to find that solution.

And you, you see other examples now, popping up in other river basins, where they're trying to do the same thing.

ps Who did you see as your, your allies when you were trying to work out this compromise? Who were the people working with you, and then, who were the opponents?

jf Yeah, in that case it was primarily the three...uh...Wyoming, Colorado and Utah were involved. And, you had, uh, the Fish and Wildlife Service and the Bureau of Reclamation on the federal side. And then you had both water users organizations and the environmental conservation groups.

And I think the trick was to, to bring them all into the process. To bring all those stakeholders is the term you hear so much today. But, to bring all of those people to the table.

And, it took years of discussions. It wasn't...nobody said it was easy. But, you had to bring the constituents from all sides together. And, and to see if there was a way.

I mean, instead of us saying, you know, the hell with the endangered species, we're going to develop our water no matter. And the other side saying, the hell with you. We're going to sue every time you want to develop a drop. We were able to come up with a recovery program. And it took time and effort. Money. It took money from the federal government. It took money from the states.

I mean, can you imagine? I went to the Wyoming Legislature to ask for millions of dollars to help fish habitat projects in the state of Colorado. They weren't even in our state.

And, and, you had to explain, as I discussed with you today, sort of the connection of, of why this is important to Wyoming, even though these fish don't even reside in our state. And so, that we, we really, truly are connected by these rivers. So.

ps Okay. We need to change tape here.

Colorado River Water Users Association –WYOMING
Tape #8
GORDON “JEFF” FASSETT (TAPE #2)
ORAL HISTORY INTERVIEW
December 10, 2009

ps Okay. Let's see. We were talking about you working out a compromise for the fish. How do you see your personal role in finding solutions to these kinds of problems?

jf Well, while I was State Engineer, it was...it's a bit more obvious. You know, you're, you're the state official.

And so, for the most part, you know, the governors and the legislature looked to you to represent the state in those, those kinds of efforts.

I mean, I had lots of staff who were involved with a lot of those issues. But, again, the advantage of our government, and state government of Wyoming, was, it's fairly small. It's not as big as the, the big bureaucracies of, of these other states. And so, (clears throat) it was always easier to get involved with those issues. It was also easy to get approvals.

I mean, I had direct access to the governor. To our state legislature. Things of that nature. So, it was easy to get involved.

It's harder now. I mean, I'm back in the private sector, and you don't get to be involved, you know, unless you're hired to be involved.

ps It's not as easy to get access to the governor.

jf It is not as easy to get access to the governor, although I still, I still know him. And the new governor we have.

So, yeah. As a firm, like HDR Engineering, we've, we've got all kinds of skill sets. We're, we like being involved in helping our clients find solutions.

The, uh, Commissioner of Reclamation, I think, uh, Assistant Secretary Castle, mentioned about this new water planning initiative that's, that has come out recently with the new Obama administration. And there's going to be some new river basin planning studies, that Reclamation's going to be doing.

Well, a firm like HDR, we're looking forward to, to try and be the firm that might get hired to provide some technical expertise. And so, your, your role has changed.

So, I miss, personally, some of the policy kinds of decisions that you got to be involved with as a, as a representative of the state. Where now, you know, you're representing the interests of your clients. Providing technical work, and, and tools, for these kinds of compromises to be worked out.

In the Colorado River, I think you're aware, the, you know, a couple years ago there was this huge settlement on this, uh...the Shortage Criteria, I think is the, the shorthand term.

And, again, I was not with Wyoming then, so I wasn't sort of direct...Pat Tyrrell, my successor, got to be, you know, at the table, and involved heavily with those negotiations on behalf of Wyoming.

But, again, there were retained experts that assisted the states. Assisted the, the Bureau of Reclamation on those kinds of projects. So, so, you know, I'm hoping to stay involved with some of those issues. But, but to do it from a private perspective. Instead of being the decision maker.

ps I guess as a recognized expert, you could be seen as more impartial perhaps. Than...

jf Yes. (ps -- ...as being the state.) Exactly. Yeah. When you're with the...you're the State Engineer, you're representing Wyoming. And, it's real clear what your, yeah, what your interests are.

But, uh, but you also don't get to be the policy maker. You're, you're providing the technical tools and the information and the models and things. But, that's still very rewarding. If you can get involved with helping others, you know, solve these very difficult issues.

Climate change is, you know, kind of the Issue de Jour that, uh, is going to dramatically change a lot of things. And I think that'll be an interesting challenge going forward. So I think we're hoping to maintain the expertise that we have, and hopefully we can help

either state or federal government or others, uh, analyze how they can, they can handle that change.

ps As you look back over your career with water, what accomplishment related to water are you the proudest of?

jf Oh, gosh. I, I suspect it was the North Platte issues. I...it was satisfying. It was very difficult, but very satisfying, to achieve a settlement of a very hard fought, you know, very risky sort of litigation. Uh. That was, uh...it wore, it wore me out, but it was a satisfying process.

It's one of those things where...it'll be there for a long time. And, uh, history will determine if we did a good job or not. We, we thought we did the best we could. And, so did Nebraska.

You know, those are personally satisfying. And, you, you, you hope you're looked on favorably. But, you never know. They're still very controversial decisions.

ps Is there anything, looking back, you would have done differently?

jf Oh, I don't know. There...you're always second-guess...some decisions you make. But, uh, nothing really sort of big sort of jumps out, you know, at this time.

You don't solve all the problems. You know, I left a few things for my successor.
(laughs)

What, what's interesting is the, I think, about water, is, it's never forever. I know in Wyoming... again it's not in the Colorado Riv....or, I guess there is a little bit in the Colorado River Drainage.

One big issue that became very big for my successor that was almost hardly on the radar when I was there, was water issues related to coal-bed methane gas development.

And this was a whole new theory of natural gas development where, where gas drillers were drilling into relatively shallow coal seams, and that often were filled with water. And the way they produced the gas was to pump the water out, and get rid of it.

And, as they pumped water out, they took...the water actually held the gas in, in solution, in the coal seams. It then began to produce natural gas. (coughs)

Again, new technologies that were just emerging when I was there in the late 1990s, when I was still State Engineer. But, the issue turned in to be quite a controversy in Wyoming.

Because, it turned out it was a very easy way to produce gas. Gas was very...priced very high in the early 2000s. And, all of a sudden, there were thousands and thousands and thousands of these wells being drilled. They were being permitted. There was a lot of controversy about wasting the groundwater. You're pumping water of the ground and

dumping it, just to get rid of it. Because they were there to get the gas. They weren't there to develop water.

And, and so, those are just these, you know, issues that sort of come out of left field. I know Mr. Tyrrell has spent a lot of time working on that. And the permitting. And the policy issues about those things. That was non-existent during my time. Yet, my time I had other different issues. And so, you know, things are always changing, so you don't really...you know. You're there to do the best you can.

ps That leads me right to my next question. How have the western water issues changed during your career?

jf Yeah. Well, they do. I mean, when you look at the Colorado.

The Colorado's probably a very dramatic example of, of....

When I first was the Deputy, to George Christopoulos, was my predecessor as State Engineer. And that's where I began to represent, with him, the state in dialogues with the...on the Colorado River.

And, if you think about the early 80s, this was right after the last round of big floods that went through the Glen Canyon, and damaged the overflow spillways, and things of that nature. And, of course, right after that, we plunged into a long term drought.

But, but ultimately, the things that were approved just a couple of years ago by Secretary Kempthorne and came out of the Seven States The Shortage Criteria, the Surplus Interim Guidelines. I mean, those were things that in the early, mid, late 80s, people would have been shot to have, suggested those kinds of creative solutions.

So, I think things are just constantly evolving. I, I, I agreed with the Assistant Secretary today when she was talking about how there's just a new dialogue now among the Colorado River Basin states, that are much more solution oriented.

In the old days everybody would sit around and fight or threaten litigation, and, and not much really happened. But, you know, nothing like a good drought to, to really have people focus on a problem.

And, when push came to shove, nobody did litigate. They ultimately did find a way to, to resolve their differences across this very complicated basin.

And, so, it is interesting to me, looking back, how things, you know, you would have been laughed out of the room about are now reality. And, and things just keep changing and, and adapting.

And, I personally, that's why I like it. It's a, it's a very interesting field to be involved in, because it's, it's literally not very...it's not static. Things are changing all the time.

And, and climate change is going to even make it more dramatic. Those are issues that are going to make...they are going to pressure those same institutions a lot more. Uh. In the future.

ps Have there been surprises for you regarding water in Wyoming? What would be the greatest surprise? Of things you didn't expect.

jf Oh, uh...I'm not sure there were some big surprises.

I mentioned this coal bed methane was sort of an interesting issue that came out of left field. I think Wyoming's had a little bit of the luxury of, of growing slower than so many states.

It would be very different to be here in Las Vegas when...not today...but, you know, over time they've had these huge growth rates. I mean, that's got to be very, very scary to make sure you're protecting and developing the supplies that are necessary for a burgeoning economy and, and population. You don't see that as much.

Wyoming has boom and bust, cycles, primarily we're an energy driven state. Uh. But the population growth is, is smaller, it's relatively modest.

And so, you don't see these sudden changes in water demands like you might somewhere else. And I think that allows us to accommodate that, that change more easily.

Our, our legislature is very conservative, very cautious. With water and water law. I mean, I was there, involved with the office for 17 years. I think we made two or three modest changes to our water laws.

Probably the biggest one, maybe I should have mentioned earlier, that changed during my tenure, is....

We actually passed an in-stream flow law. And that was a fairly dramatic change for, for a state like Wyoming, to establish water rights for minimum flows in streams. And, and that occurred early in my career as, as State Engineer.

But, other than that, change is very slow. And that's probably for the good. Water rights or private property rights are very....the very foundation to irrigated agriculture and municipal water supplies. So they, they take that very seriously.

And so, you don't see a lot of dramatic change. I think that was probably a benefit to being a State Engineer in a slower growing state, compared to some of these states where, where the economy and the population growth is just thrust upon them so quickly that it, it adds a lot more tension. So.

It was easy to be critical. (laughs) When you don't have to face it yourself.

ps Well, you mentioned the issue with the groundwater being wasted, (jf – Yeah.) It seems like your state doesn't rely much on groundwater.

jf It doesn't as much. We don't, uh...we don't have big huge aquifers, like, like many states. Certainly not like Arizona or the Mid-West, uh, Nebraska and Kansas. And the Ogallala's. Major aquifers for irrigated agriculture.

A lot of our deep aquifers are, are sort of poor water quality, and so, most of the groundwater development is, is, is tucked in a few isolated areas of our state. Or it's groundwater that's right along the river valleys. And, and so, it's not much different than surface water.

Yeah, the situation with the, with methane development was, was in a...what's interesting...was in a very dry area of our state.

The, the complaints by the land owner was, they didn't want the water discharged, because it, it put water into dry draws that they didn't want there. I mean, can you imagine somebody not wanting more water? I mean...logic would suggest most people want more water.

Well, these were, these were rural ranching areas, that happened to have coal and gas under their lands. But they were rural ranching areas where they had...their ranching operations were dependent upon relatively spread out stock watering wells.

And, and having...most of the drainages are dry. There's not snow melt runoff, and so, it was interesting to talk to the ranchers about....

One of the biggest problems with water in a creek was that they had to buy a lot of culverts. They had to have roads. They used to just drive right across the, the dry draws. And that was a terrible inconvenience to them to have water in those drainages.

But, it was controversial in, in...because it was perceived, and, you know, many people believe it was a complete waste of water. To pump it out of the ground, and just to dump it. And let it flow away.

But, that was developing an energy source that the state has a huge interest in. It's natural gas and oil. And coal is the backbone of, of the state of Wyoming from an economic standpoint.

ps Wasting all that water does seem like that would be appalling to most people.

jf Yeah. That's right. It would be That's right.

So, I think that's turned into more actions. Since I left, I think they're, they're looking at whether they should be forcing re-injection of the water. And, and managing the water in a different way than simply dumping it. Uh. So that was one, that was one fun issue I left to my successor. (laughs)

ps What problems related to Wyoming water resources do you think are the most critical today?

jf Oh, I think, uh, I think we're...we have to keep an eye on this, the climate change.

Interestingly, the state of Wyoming has a fairly well-funded, aggressive water development program. Separate from the State Engineer's office, that I was associated with.

And so, the state legislative and gubernatorial policy was to create a program where they take some of the severance income, the tax income, from energy, and they put it into a special fund, just for water development. Uh. Understanding how important water, and secure water, is to our...state like Wyoming.

And that program provides a tremendous, uh, you know, bucket of money, if you will, that municipalities and irrigation districts and people can apply for, to get support, funding support from the state, to develop and protect their water supplies. And that gave us the ability to invest in those infra-structures.

Well, that same program, interestingly enough, is now looking at, at weather modification.

They're beginning to look at cloud seeding and things of that nature in our state, to try to bolster the supplies. Particularly in the North Platte River Drainage, which is the most tightly regulated area in the state of Wyoming.

And so, so, you know, with climate change and creating new shortages, I think there will be an interesting dichotomy of, of...do we need to be developing more reservoir sites to allow us to, to allow us to carry over more water from wet years into dry years. Are the droughts going to get worse? There's just some uncertainty out there that I think will...we're hoping our state will be positioned, Wyoming will be positioned, to help protect themselves against that.

ps What do you see in, in the future for Wyoming's future challenges? In general, or else....water challenges?

jf Yeah, I, I think funding is going to be an issue. You know. Like I just mentioned, I think, making sure we keep up with the infrastructure.

A lot of the old facilities are just that. They're very old. Some of the Bureau of Reclamation facilities in Wyoming are...

Some of the earliest ones the Bureau ever built are in Wyoming. Pathfinder Dam just celebrated their 100th year anniversary.

So, I think we're hoping that, uh, that infrastructure is well maintained and developed for the future. I think that's going to take a larger role by the state. I, I don't think we can necessarily look to the federal government to, to fund all that. I, I think those are...those are over.

And so, I think that protecting, maintaining, developing new infrastructure is going to be a challenge going forward to secure the water supplies we're entitled to.

I think we have to be vigilant, like I said, with endangered species, and Clean Water Act. You have to....

We've got water that's, that has yet to be allocated. That's an enviable position to be in. So, I think we're going to have to be vigilant to, to, to protect that future supply. As our growth, uh, occurs.

I think the compacts, particularly on the Colorado, were, are pretty well thought out. If you read the Compact, I think it's almost 100 years ago they, uh, they, they allocated water in perpetuity.

A state like Wyoming knew then that they were going to grow slower than California and Nevada. And, uh, and so, I think, we're, we're hopeful that the waters we haven't put to use, will be able to be put to use at some point in the future. As, as our growth occurs, it's just occurring a lot slower than a lot of the other states.

ps A lot of the states, Arizona and Nevada particularly...and California...the growth has slowed down a lot because of the economics.

jf Yes. Yes. I understand that.

ps But, I think Wyoming's not facing as much of the economic crises.

jf Not as much. Yeah. We're fortunate. We've, we've seen some decrease. But, again, I think as I mentioned earlier, we didn't have the explosive growth, so we don't have the explosive downturn either.

In Wyoming's case, because of our lousy winters, uh, we have a lot of people going to Arizona right now, that are hoping to take advantage of the better prices on, on condominiums on golf courses.

ps They'll find it.

jf Yeah. So, they, uh....you know, if you have some money, this would be a good time to be a buyer.

I think our...the economy's held up a little better. We, we rise and fall with energy. Energy is kind of a mixed bag right now. But Wyoming has no state income tax. (someone coughing in background) It's very, very dependent upon the minerals. So, we, we've invested for the long haul though, I think, so the state, uh....

I know, just talking with people within state governments, there are so many of them are being cut so severely right now. And, and furlough days and things for their employees.

I mean, I, I was fortunate during my tenure. We, we had tight budgets, but you never had to furlough anybody. So. (laughs) I don't miss having to make those decisions in state government. So. Uh. So, Wyoming will just have to take care of itself.

ps It seems like it's pretty well positioned to do that.

jf Yeah. I think so. I think it is.

ps Well, what advice to you have today who are dealing with the Colorado River?

jf Oh, I think, uh...I, I'm a supporter of what they're doing now. I think it is going to take cooperation.

Like I said, I lived through some of that transition, during my tenure. When I was representing the state more directly. And, there were always lots of threats of litigation, and, you know, let's just...let's just re-do the Compact. And things like that. And that was very threatening. And, and it didn't advance the ball. And, it seems like everybody's kind of gotten past that.

The states and the representatives...there's just fabulous people across this basin that are very smart and they've proven now in the last five or six years, that they can be very creative. And, and working hard through some difficult issues. And, I think that's the pattern that's going to...that will serve the basin the best.

The threats...my senators are more powerful than your senators. I mean, those sort of things really don't advance the ball, so I'm, I'm glad they're on the track they're on.

You want to...my bias...and that's probably because I was State Engineer...my bias is that, uh, the states ought to be representing those interests. It's the technical people that understand the issues that ought to be at the table to solve the problems.

Taking problems that are as complicated as this to the politicians or to the courts, I think, are taking them to the wrong place. It's not that there aren't smart people there, too, but they're just not prepared. They're not prepared to sort through and understand the complexities that the, the professional experts that reside in these major water entities. Whether it's state government, or any of these...like Southern Nevada Water Authority...is full of smart people.

And those are the people who ought to be solving these things. And that's what...as an outsider now, that's what I see occurring. And, I hope that that continues, cause the challenges are only going to get worse.

Everybody has lawyers. And, you know...Wyoming is a small state, but we can hire good lawyers, too.

I told Nebraska...as I said, we had this long interstate fight. And the, the easiest...the easiest request I could have made to the Wyoming legislature for money was, money to

defend our water. They, they, they will appropriate whatever you need. Uh. It's that important.

But litigation gets you...litigation doesn't get you water. And so, my observations from afar now, is that they're finding solutions that are, that are going to get people water. And that's more important than, than having the fight.

ps A lot of people say that we've seen the end of the big water projects. Do you think that's true? And, what, what caused the end of big water projects? And do you think we'll ever see them again?

jf Actually I'm, I'm one who thinks that they're not over. Um. And, it may depend on your definition of big.

Will there be another Hoover Dam? Probably not. But, will there be no dams? I think that's wrong as well.

I think you're going to see...I. I think it's fascinating to, to watch some of the early discussions about climate change. And if you look at the potential changes in hydrology, uh, the snow pack. There may be more rain instead of snow. It may melt sooner.

A lot of the changes that may occur, may actually demand more storage. And, there will be some people that won't like that answer. (laughs) But to manage the supply may take more infrastructure. So, I don't think the dam building is over. But, maybe facilities like Hoover, and, and Glen Canyon Dam for Lake Powell. Those gala projects may be over.

Partly I think there'll be, there'll continue to be less federal dollars, too. Most of those projects were built by the federal government. And I don't think the federal government has the resources anymore.

And so, you're seeing the shift to local and state entities being the developers. But, uh, (clears throat) there's a couple of big projects.

The state of Utah is pursuing a, what I think is a fairly big project, with the pipeline from Lake Powell to the St. George area. There's proposals to take water in the Upper Basin to, to Denver from the Green River. A very large...billions of dollars of scale water projects.

And so, so, I think there's some big ones out there, but they're going to be different. They're going to be certainly more ecologically friendly kind of projects.

But, as long as the West is growing, there's going to be a need for water. And, and there'll be investment in re-cycling, and investment in de-salinization. That could...de-salinization could be a big project. It's just going to be a different kind of project than what you've seen in the past.

ps California decides to de-salinate all their water.

jf Yeah. Right. But those are very expensive, very big water projects. They're just, they're just a different kind of project.

ps The pipelines or canals...like the Central Arizona Project. (jf – Yes.) Hundreds of miles of canals.

jf Right.

ps That was considered a big water project

jf It was. And so, you know, there may not be as many of those, but you're seeing some pretty large pipeline proposals.

Nevada Water Authority's project to bring groundwater from Northern Nevada to Southern Nevada is a, you know, those are projects that are measured by billions of dollars. I think that's big. (laughs) Even though it's not as dramatic as a, as a Hoover Dam. I mean, but, they're still very important, very big projects. So, I don't think those are over yet.

ps Several people have mentioned to me the possibility of bringing water via canal or pipeline from the Mississippi to the West.

jf Yes. I've heard the same thing,.

ps That would be a big project.

jf That would be a huge project. You know, it's, it's uphill, for number one.

But those are, those are becoming more real, uh, I think. I don't think...people laugh it off, but I think there's more thought about that than you'd think.

ps You're in a perfect position in your new position to see this nation, nationwide.

jf Exactly. Yeah.

And, and, again, because things are so connected, when you think about bringing the Mississippi. It's not like you have to bring the Mississippi all the way to Las Vegas. You only have to bring it to Denver. Because Denver can, can take that water, and let go of the water in the Colorado. So you don't, you don't need a physical connection. You just need a connection to the customers.

(someone off camera talking – can't understand)

jf Right. You could bring it to Albuquerque. Helping Albuquerque helps the Colorado, believe it or not. So. I mean, it's sort of...you get very fascinated with what the connections really are. But, we'll see. Maybe not our lifetime. But sometimes, they may be, they may be building something from the Mississippi.

CRWUA – Wyoming
Jeff Fassett – Oral History

- ps Depends on desperate they get for water.
- jf Yeah. people keep, people keep coming.
- ps Depends on climate change.
- jf Yeah. Unless you think people are going to stop moving to Arizona.
- ps We'll see.
- jf Yeah. They're going to keep coming. So, you have to keep find...
I haven't seen water control population growth yet.
- ps Well, interestingly, Arizona's got more water, as you know, than they're using because they're pumping it into the ground, to store it.
- jf Right
- ps They can't use it all.
- jf Which is a good thing.
- ps Which most people don't understand. (jf – Yeah.) Non-water people don't understand.
- jf Yeah, But, it's a great idea. And you're saving evaporation loses by, by doing that.
- ps They're replenishing some of the groundwater that they've been pumping.
- jf Had been pumped out for so many years. Right.
- ps So, right now, we are not.... It surprised me, someone just mentioning the cost of water in Wyoming. Some people getting a hundred dollar water bills. And, that, that would be unheard of in Phoenix.
- jf Really?
- ps Yes.
- jf Oh, no. My, my summer water bills are over a hundred dollars a month.
- ps Mine are 40. (jf – Is that right? Oh, well, there's the problem.) And we have a swimming pool.
- jf The problem is you're not charging enough.
- ps Well, and I've heard that, too. So, it's very interesting what different people are paying.

jf Yeah. We have, uh, we have lawn watering restrictions, even in Cheyenne, Wyoming. For our water system. Yeah.

We have a increasing rate schedule, so the more you use, the higher the rate. And, uh, I could easily have 100 dollars a month in the middle of the summertime. For a water bill.

Okay. I, I now have a new angle here. For Arizona and Nevada.

ps Although I interviewed someone in, in Denver, the Denver water, talking about when they raised rates. They used less water because the rates were higher, so then they still didn't have enough money to run....

jf Then they lose revenue. That's exactly. right. That happened in Cheyenne. So, they had to raise the rates again.

ps Kind of an interesting....

jf There's a, there's a penalty. You know, you think you're saving water, so you should have to pay less. But, those agencies still need the revenue to, to do what they need to do. So, it's, it's a hard one.

ps I've got a couple more questions here. So, uh.... You talked about the Appropriation Doctrine. The first in time, the first in right.

jf Right.

ps Do you think that's going to survive the new demands you see with drought and the population demands?

jf I do. I don't think that framework will change.

It would be too politically, across all the states, unsettling to, to resolve that.

I think the, uh, I think the, uh....well, the Shortage Criteria. Or, the, uh, in the Lower Basin, they have this intentionally created surplus. ICS water they call it now. Where they're allowing, uh, entities to conserve water and then to take the savings and, and move that around. You know, those are creative solutions that don't threaten the Prior Appropriation Doctrine at all. And really opens up me marketplace.

You can sell water in Wyoming, and it moves from one use to another. Um. And, and that marketplace mechanism is, is not all bad. In, in taking water to the highest and best use. If that's what's required.

I don't think the underpinning framework....

It's kind of like litigation. You know. It's a fun thing to do. Maybe there's a better way. But, I, I don't think you unravel 125 years of history, uh, without having everybody push back against that idea.

ps We have seen though, with that doctrine, the Indian water rights, and even the some of the recreational and environmental values have been introduced into that, saying they have that first right.

jf That's exactly. Well, and the tribes under the Reserve Rights often, often do have the senior right.

I think the environmental issues are a little harder, so they're trying to achieve their goals not using the Prior Appropriations Doctrine.

But, uh, I just don't...I think it's, I think it's unproductive maybe, to...my view is, it's unproductive to sort of upset the apple cart as opposed to working with the system you have. I think that's what's of interest. I think you're finding some very creative solutions without trying to throw the Prior Appropriation Doctrine out the door.

It's interesting. I've had the pleasure of getting involved with water issues on the East Coast. Working for HDR. And, and, you hear Eastern states, that are used to having more water than we do, uh, begin to talk about having a Prior Appropriation Doctrine.

When, when the big shortages were affecting Georgia and Alabama, they had no system. They didn't know who was first and who was second. And who gets it and who didn't.

Now, ours may be perceived as being very harsh, with the first in right...first in time, first in right. But, everybody knows that's the system. And you , and you can work with it. And you can allocate it. And, and, juniors can buy seniors, and solve their problems.

When you have no system of allocation, they didn't know what to do.

And so, you're seeing some states and some...looking at different... maybe it's not Prior Appropriation...but other ways of having water rights or some sort of allocation system that even these water plentiful areas, as the country continues to grow, are becoming less plentiful. And, and those states aren't very well prepared.

We, like I said, we, we know what's going to happen. The more severe the drought, the more people are going to be turned off. And they know who they are.

ps Yeah. I know. When I interview farmers. They almost always say, well, we've got this and that water right....and they know....

jf Precisely.

ps ...when their grandparents were here. And they have the early water rights.

jf Or they know they don't. So, they can plan on that. They don't like it, but they know they're going to be called out. And that's the system they...you work with.

That's why I just don't think that system gets thrown out, personally. I know some who have advocated a different system. But, I...I...you know. By the time you can resolve what a different system's going to look like, it'll be too late. Some of these issues are coming at us much quicker than that.

Again, that's why I'm more optimistic that the direct dialogue, the negotiations, the sitting down at the table and having the professionals...the federal government, state government, the other stakeholders...work out solutions, uh, is really the better way to go. And, and make it fit within the system you have.

ps And I always ask everyone, would Wyoming advocate...do you think Wyoming should advocate to re-open the 1922 Colorado River Compact?

jf No. (laughs) They, they, they shouldn't. I didn't, and they shouldn't. There's no.... And I think, there's really no reason to do that. Uh. You know.

That creates winners and losers, and, uh, I don't think that's helpful. So, it's better to leave it alone and work within it. And, and that's what's interesting.

What you're seeing today is, is things that people would have thought were unimaginable 20 years ago, but now they're just completely accepted. And the Compact hasn't changed one bit. So.

You're, you're finding, by cooperating, by having consensus agreement among all the parties to those compacts, you're able to do more than if you just say, let's start over. That's too threatening to....

I mean, Las Vegas, I assume...I assume Nevada assumes they'd get more if we did it again.

ps They don't want to re-open it either. The water people I've interviewed...not one water person has wanted to re-open it.

jf I think it's too uncertain. There's more certainly with what they have now. And, and to work with it, than to say, let's get rid of it and start out with a blank piece of paper. Cause you don't know what that's going to look like.

And I think that...everybody assumes they would get more, and Wyoming would get less. But, you don't know that. (laughs)

ps Talk a little bit about the Colorado River Water Users Association. You've been a member for a long time.

jf I have.

ps What do you see...how do you see that, this organization...how important is it? Or is it important?

jf Oh, I think it is important. It's a...as we spoke earlier, I think, uh, it's a great way to bring all of the people together. And, and this conference, this organization, has had, in my view, pretty high success rate in pulling people from across the entire basin together in one place. And, that doesn't happen very often.

The, the officials might get together, but this conference is much broader than that. It's the state and federal and local officials, but it's also the water users themselves. Whether they, whether they're a municipality or an irrigation district or whatever.

I, yeah...I've been coming to these meetings...probably about 25 years now. When I first went to work for the state, and then even after, I've continued to come now.

And, uh, and, uh...my role has changed. And, and, what I might get out of it now, might be different. But, uh, they have had some real success getting the right people here. And I think the organization deserves credit for attracting the people.

I think the president mentioned today that, uh, they'd done a survey recently. And, I think one of the top three things was sort of the informal meetings that are all around this meeting. I mean...that may be a distraction to some degree, but it is a meeting everybody can kind of look forward to, you know, seeing lots of people and, and, involving lots of things. All in one-stop shopping, if you will.

(someone off camera)

jf Wyoming is, uh...again. We're a small state. We don't have the large con, constituencies that show up at these meetings. I think our state caucus breakfast this morning at this year's meeting had almost 20 people. And that's as big....

I remember coming to these, and we'd sit around one table together. So. Even our small state, I think the importance of the meeting and, and coming here, having direct dialogue with their counterparts.

I think it can only be positive. And so, that's why we always came. As state officials. I now come as a consulting engineer. And, uh, with, with, with...

ps You still caucus with Wyoming.

jf I still caucus with Wyoming, but, our interests are across all seven Basin states. But, yeah, I don't forget my roots. So. (laughs)

ps Have you served on committees here, or been an officer?

jf I was, uh, I was never an officer. I was one of Wyoming's trustees. And, uh...the three trustees from the state. I was one of those during my time as State Engineer.

Partly because we didn't have as many people involved. I think the state people aren't involved now as...you know....that we've got the users themselves, which I think is better.

If you look at the makeup of the Board of Directors, it's, it's people from the.... It isn't the state officials or the federal officials, it's the actual water users from the Basin. And I think that keeps that perspective.

In Wyoming it was different. And, as a state official, I, I got more involved, uh.... So.

ps Well, that covers most of the questions that I have down here.

jf Well, good.

ps Is there anything you wanted to talk about I didn't ask you?

jf Oh, no. I had...I didn't really know what you were going to ask me. So, I hope we've covered the topics you wanted.

ps Something I should have asked that I didn't ask.

jf Ben, uh, Ben Bracken sort of surprised me with the invitation to do this with you. So, uh, I wasn't too sure what you wanted to cover. So, hopefully, we've covered the things that you, you were interested in.

ps We've got this whole set of questions we've been asking most every state. (jf – Okay.)
The one other question....

jf What, what do you think you'll be the...all the interviews?

ps They're transcribing them, and they're going to put the transcripts on the web site.

jf Oh, really

ps Other than that I'm not sure what they'll do. We haven't really talked about...they could do a lot of things with them.

jf Yeah. I'm sure it'll be interesting to you. You're, you're going to learn a lot just by interviewing so many people.

ps Well, you're kind of the last group. Although, California's doing their own. California didn't want to be part of this project.

jf Oh, really. Oh, that's typical of California.

ps You know, California.

jf You know how they are.

bs (can't hear)

jf Yeah, you only have one camera, not 12. Right? Yeah. That's right.

ps I do always like to ask, if I have time....on a more personal level. You saw your career kind of take a turn you hadn't planned on. What advice do you give young people that are trying to decide what to do with their lives?

jf Wow. It, uh....I'll come back. What flashed through my mind when you asked that question.

It's interesting to me, I...ever since I went back....so, since the mid-80s, when I moved back to Cheyenne, got involved with state government, and stayed there, I've been routinely been invited back to the university to, to give talks. Well, every talk I've ever given has been at the law school. I've never been invited back to the College of Engineering, that I graduated from.

So, so here I am in the position of State Engineer, that's my title. But, it's water. It's water law, it's water resources. That's....that's....I've enjoyed...I mean, it was a bit of an accident, as I told you, as to why all of a sudden I got involved with water. But, I like it because it isn't the same all the time. It's always changing. To me, that, that's more challenging.

And I think if I was designing a, a building, you'd...I'm sure I'm over-simplifying it....but that seems like that would be similar things. Maybe you're using a faster computer now, but the, the science and the engineering behind making a building stand up, really hasn't changed. And, when you think about water, it's just changing all the time. And I have always been interested in the law. I probably should have gone to law school.

So, for 20 years, 25 years, I've taught at the University of Wyoming Law School. And, uh, as an engineer. So, you get a lot of license. It's kind of fun.

I'm not a lawyer, but I've hung around the law. And know a lot about the law. And when you're State Engineer, you're the, you're the chief water rights official. So, you're right in the middle of all the litigations, all the lawsuits. Everything happening to water law as an engineer.

So, yeah. When I talk to those students, who are law students, I, I think they should stay in water. I mean, a lot of them do. I see...I've been doing it long enough now, that I've seen a lot of them, you know, sort of cycle back in their own careers. Or they're in front of me as an attorney, representing a client. You know, that used to be a student.

But, uh, it seems to me like it's a great area. And so, I, I never discourage anybody from doing water. I, I think it's an interesting field. It just doesn't... there's always something new out there. And I think that keeps it more exciting, personally. You don't, you don't know what's around the corner.

ps So, in, in more general terms, do you tell all students they should go into water?

jf (laughs) (bs – can't hear) Yeah. That's exactly right.

bs No, I, I have a step-daughter now who is about to go to college. And she seems to have tendencies towards sciences and maths. More so than other things. And, I've done my best to sort of not counsel. I mean, I think you kind of have to find your own place.

In my case, I didn't know going into college, what I would do coming out. And I would have never dreamed I would have a career like I've had. I really thought I would be building buildings or roads, or kind of big construction sort of projects.

And, uh, and I've spent most of the time in, in policy and, and law and, and things of that nature. So, um. I think you have to kind of keep an open mind. And, and stay pretty flexible.

I don't, I don't know too many people that knew, as a freshman in college, what their life was going to be. And certainly, mine hasn't been. When I think back, it's amazing that... I didn't know what a State Engineer was, or what they did. And now I am one. (laughs) Sort of thing Anyway.

ps I think that's true. Most students don't know when they go.

jf Yeah. And, I, I have two other boys, and they've chosen entirely different careers.

ps What are they doing?

jf One's a graphic designer. And the other son is in the service. He, he went to college, but, uh, went into the Army after it. So, very different things. So. I mean, so... very different things.

ps Have to find their own way.

jf They do. Exactly right. (ps – Just like you did.) That's right. I wasn't going to be a car salesman. (laughs) I knew that wasn't in the books.

bs That it then?

ps I think so. I think we can wrap this up. Very interesting.