ORAL HISTORY INTERVIEWS

KENNETH PEDDE

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STATUS OF INTERVIEWS:
OPEN FOR RESEARCH

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Statement of Donation

STATEMENT OF DONATION
OF ORAL HISTORY INTERVIEWS OF
KENNETH PEDDE

1. In accordance with the provisions of Chapter 21 of Title 44, United States Code, and subject to the terms, conditions, and restrictions set forth in this instrument, I, Kenneth Pedde, (hereinafter referred to as "the Donor"), of Boise, Idaho, do hereby give, donate, and convey to the National Archives and Records Administration (hereinafter referred to as "the National Archives), acting for and on behalf of the United States of America, all of my rights and title to, and interest in the information and responses (hereinafter referred to as "the Donated Materials") provided during the interviews conducted on December 6 and December 8, 1994, on March 21, and March 24, 1995, and on April 23, 1998, at the Pacific Northwest Regional Office in Boise, Idaho, and prepared for deposit with the National Archives and Records Administration in the following format: cassette tapes and transcripts. This donation includes, but is not limited to, all copyright interests I now possess in the Donated Materials.

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Kenneth Pedde

INTERVIEWER:_____
Brit Allan Storey

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Introduction

In 1988, Reclamation began to create a history program. While headquartered in Denver, the history program was developed as a bureau-wide program.

One component of Reclamation's history program is its oral history activity. The primary objectives of Reclamation's oral history activities are: preservation of historical data not normally available through Reclamation records (supplementing already available data on the whole range of Reclamation's history); making the preserved data available to researchers inside and outside Reclamation.

The senior historian of the Bureau of Reclamation developed and directs the oral history program. Questions, comments, and suggestions may be addressed to the senior historian.

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www.usbr.gov/history

Oral History Interviews
Kenneth Pedde

Storey: This is Brit Allan Storey, senior historian of the Bureau of Reclamation, interviewing Assistant Regional Director Kenneth Pedde, in the Pacific Northwest Regional Offices in Boise, Idaho, on December 6, 1994, at about nine o'clock in the morning. This is tape one.

Mr. Pedde, could you tell me, please, where you were born and raised and educated, and how you ended up at Reclamation?

Education and Getting into Reclamation

Pedde: Well, I was born in southwestern Michigan, actually, the city of Ben Harbor is birthplace, and lived just across the river in the community of St. Joseph, Michigan. Born in 1942, December 29th, and I went to college at Michigan Technological University in the upper peninsula of Michigan.

I got to Reclamation; there's two ways. During the senior year of college we had a course called Professional Practice, where various practicing engineers came in to talk about the business and things like that. One of the people that came to Tech and discussed engineering was Donald Duck, who was then the chief engineer, I believe was the title at that time for Reclamation. Of course, for those that know Donald Duck, he was a big fellow, tall and so forth. With a name like that, you didn't often forget him.[1]

Then a few months after that, Paul Olvert [phonetic], who was personnel officer for then the–oh, I forget the region–Region Seven, Lower Missouri Region, came out on a

1. Donald (Don) J. Duck, *Oral History Interview*, Transcript of tape-recorded Bureau of Reclamation Oral History Interviews conducted by Brit Allan Storey, senior historian, Bureau of Reclamation, in 1996, in Conifer, Colorado, edited by Brit Allan Storey, 2007-2008.

job-hunting expedition at Tech. I interviewed there. Subsequently, Paul offered me a job on the Fryingpan-Arkansas Project. So that's where I started Reclamation, working as a rotation engineer on the Fryingpan-Arkansas.

Storey: Tell me about your education in Michigan in your high school and so on.

Pedde: High school was St. Joseph High School. I don't know how to describe it, it was a typical high school. At the time I entered, it was a new school. Of course, it's no longer new, that's nearly thirty years now.

Took courses, engineering, science, did reasonably well. Participated in sports, football, wrestling, ran track, things like that. I would say I had a fairly typical high school experience, nothing that would stand out as being unusual one way or the other particularly.

Storey: How did you decide you wanted to be an engineer?

Pedde: I've thought about that, and I honestly don't know. It just was the thing to do. My folks had set aside some money and were supportive of going to college for all of us kids. In the end, I'm the only one who graduated from college. I've got four brothers and a sister, and all have attended off and on and so forth, and I'm the only one who completed.

It seemed like the thing to do, like I say. Michigan Tech was a school, resident, tuition, those kind of things, probably made that decision as much as anything. But it just, like I say, was the thing to do.

Storey: What was your engineering specialization?

Pedde: Civil engineering.

Storey: Did you start as a civil engineer?

Pedde: I started as a civil engineer. Of course, started with general generic courses, physics, and chemistry, and all those kind of things that support that. Probably what shaped me into water resources, I might have gone into transportation or something, but again, during my senior year, we had a professor who was on sabbatical from Harza Engineering, and he talked about his experiences. He was an outstanding individual and a good teacher, too. He taught us a lot of technical information, but he talks about his experiences as an engineer, in his first job, for example, and things like that, and probably did as much to shape my decision to go into water resources versus structures or transportation or some other specialty as anything.

I remember one of the stories he talked about. He'd graduated already and was going back for additional education, master's degree, I think it was at that time. The company he'd worked for called up and said, "We've got the summer job and we'd like you to lead the team that's going down to Mexico to investigate this potential dam site." He was working for Harza Engineering at the time. He said, "Sounds good." They asked him what he wanted for a salary, and he said, "I'll get back to you." He thought about it, thought of everything, expenses, all the kind of things you put into it, doubled his salary and said, "This is what I need."

They said, "Fine."

Got down on the job and found that he was the lowest paid man on the job. It was just that kind of thing, I suppose, that made it more real, if you will, in some ways as opposed to just a book-learning type of education.

Storey: What was his name?

Pedde: Dr. Gordon–

Storey: Well, it doesn't matter that much.

Pedde: I'll think of it probably. I'll have to think about his last name.

Storey: What was your impression of Donald Duck?

Pedde: Of him personally, I don't know other than he was a physical presence, like I mentioned, and he talked well and so forth. At that time being a senior in college, had no idea what the Bureau of Reclamation was. He made a good presentation, enough said that at least interested me in the Bureau of Reclamation. It was a group-type appearance, so he was on the stage and there were a bunch of us in the audience, so it wasn't any kind of personal interview or discussion or anything like that. So it wasn't like say there wasn't a close relationship where I could get a personal impression, but like I say, obviously he made enough of an impression that I paid attention to Reclamation and did sign up for a job interview with Paul Olvert later on.

Storey: Do you have any recollection of how he was billed by Michigan Tech to the students?

Pedde: You know, I can't really say.

Storey: You mentioned this was a class. Was it a class with a different person each class meeting?

Pedde: Yes, there were several different lecturers, guests, through the course of a term, roughly one every two weeks, as I recollect. It was a one-credit course. As I recollect, they did talk about Donald Duck's background as a construction engineer, chief engineer, and so forth, but I really don't remember enough about the billing, if you will, to say that.

Storey: Do you remember what he talked about?

Pedde: Just talked about what Reclamation did, where it worked. As I recollect, he didn't have a slide show or anything like that that he used, it was just a discussion of the type of activities, the type of work the Bureau did. Did not, as I recollect, get into a lot of discussion about pay grades and all that kind of technical stuff, but just what the Bureau did, what type of work it was doing, the significance of it, and that kind of thing.

Storey: So he didn't talk about the technical side of Reclamation engineering, either?

Pedde: Not in a lot of detail. He talked about the type of skills needed in relation to the work being done. But in terms of getting into how you design a dam or canal or something, no, he didn't get into that kind of detail.

Storey: Do you recollect anything about your interview with Mr. Olvert?

Pedde: I can remember Paul's face very well. If you knew Paul, he was the kind of person you didn't forget. It was a good interview, felt comfortable with it. We did talk, of course, at that time, more about pays, starting salaries, those kind of things, places to work, went into a little bit more detail about what the specific work would be in the region. Talked about the Engineering Rotation Program, which was one of the things that stuck in my mind, one of the things I remember as being a plus, if you will, in terms of going to work for Reclamation at the time.

Again, specifics, that's a long time ago. I'm reaching back a long ways. I don't know if I remember a lot of specifics about the interview. It was a standard interview, half hour or so. Job offer came through some couple of weeks later, three weeks later or something like that.

Storey: Did you fill out an application of any kind, do you remember?

Pedde: Yes, I think I did. I may have filled out a 171, although I'm not certain at this point. I

know in preparation for the interviews, part of this professional practice course was to work on preparing a résumé and things like that. So we had done some of that. I know I provided that. I'm not certain if I filled out a 171 at the time or not, but there were various. When you signed up for the interview, you provided some personal information about yourself, things like that, copies of résumés, things like that.

Storey: Then, basically, you went back to Colorado and you got an offer within a couple of weeks.

Pedde: Yes.

Rotation Engineering Program

Storey: You mentioned that the Rotation Engineer Program was something that particularly appealed to you. Would you explain why, please?

Pedde: It seemed like an opportunity to get a little bit of variety experience. You asked why I went into engineering, and I don't know that either, and why I decided to come West when all of my family still lives in Michigan, I can't honestly tell you, except it seemed like a neat thing to do, come work in the mountains and go out West and so forth.

I did have interviews with other companies, U.S. Steel, Union Carbide, Linde Division of Union Carbide; got an offer from them, too. It seemed like, I guess, what Paul discussed, what Reclamation had to offer, just suited me better than working in a steel mill or a gas-generation plant of some kind. It just, I guess, suited me. I've always kind of liked the outdoors and things like that, so it seemed to me more in tune with what I wanted to do as opposed to some of the other interviews I had, some of the other plant tours and job offers, and things like that.

Storey: So then you had to move to Colorado.

Pedde: Yes.

Storey: How did that work?

Moved to Colorado

Pedde: Well, after I got out of college, after I graduated, first thing was to get a reliable car, and working through some uncles and so forth, got a car. Matter of fact, it was a '62 Oldsmobile, as I remember. Had a reporting date to be in the project office, at that time at Pueblo, and loaded up my car and came West.

Storey: When would that have been?

Pedde: That would have been in July of 1967. I could remember getting into Denver, or coming into Denver, seeing the lights for the first time. It was in the evening, the lights were out, and coming from back East with humidity and visibility, things like that, I can remember just being amazed how the lights of the city sparkled when you first kind of come into view over the top of the rise coming into Denver. Of course, again, that's thirty years ago, and it's an entirely different city now. I still remember how the lights, just little diamonds, just clear, bright. That was my first impression going across Kansas, Nebraska, all those things were new, too. I traveled some back East, you know, vicinity of Michigan, but I'd never been that far west before.

Storey: You weren't married then?

Pedde: No, was not married then. Just myself.

Storey: Who paid your moving expenses?

Pedde: The government did pay the moving expenses for–well, they paid for the transportation of

goods, not necessarily moving expenses, per diem and so forth, for the first job. Everything I had was in the trunk of that car, so it was not a big expense or a big problem for me.

Storey: At this late date do you recall how that was handled? Did you have to pay up front and then be reimbursed, or how did that work?

Pedde: Again, since everything was in the car, yes, I paid my own gas and so forth as I came in. Somehow I had the impression the project office was in Salida, which was the construction office, not the project office. So I kind of deviated. When I got to Denver, I swung a little bit west and through the mountains, and dropped into Salida to look around and see if I could see anything. Well, there was no construction right in that vicinity, none of the project features were right there at that time.

Came down to Pueblo and checked in, and I do remember talking with Doris Williams at the time. She was the personnel assistant, the administrative officer, I'm not quite certain what her position was, but in terms of talking about paying for my household goods and things like that, they couldn't pay for that deviation. It had to be direct to Pueblo, of course, and things like that. Went and weighed my car with and without the goods. Like I say, it was only a matter of a few hundred pounds of stuff I had in the trunk, so it was not a big issue one way or the other.

Storey: What was your impression of Pueblo?

Pedde: I enjoyed living there, and maybe need to digress. I started my rotation there. I did have a military obligation. I was in R-O-T-C during college, so I had a deferral until December, the first of the year. So I came in, like I say, with the intent of only being in the Pueblo, Salida, wherever, vicinity for a relatively short time, and going back home and reporting for a three-year military obligation.

So my initial reactions, of course, found a place to live and rented an efficiency apartment. Enjoyed the town, enjoyed the office. There were some good people there, and enjoyed getting started. Spent three weeks in the project office there in Pueblo, and then as part of the rotation was assigned to construction of Ruedi Dam, and moved into the Basalt, Colorado, area up in that area, and spent a time doing inspection, various types of inspection, working in the lab, did a little surveying, things like that.

Following that, that took most of that time before I had to report for military duty. I did go back to the project office just for a week or so to kind of check out and finish reports and things like that. Then went back to Michigan and reported for military duty.

Storey: What did you do in the three weeks you were in the office in Pueblo?

Began Work on Fryingpan-Arkansas Project

Pedde: Started working in the design data section. Gayle Ekberg [phonetic] was the office engineer–I think that was his title at the time–and started working for him. One of the first projects I had was as some of the construction was taking place, there was road construction, of course, and one of the first things I did was to design a little overlook parking area for some of the construction features, and I can't even–I think that was for Sugar Loaf Dam, but I'm not 100 percent certain which feature it was. But the job was to balance the cut and fill, so you had a reasonable parking area in the area, as well as having enough space for, I think, it was like a dozen cars, and of course, a little place for a descriptive board, what was going on and so forth. There was a tree in the way that you had to work around, couldn't take the tree out. So it was a matter of just geometry, location as much as anything. That was the first thing I worked on.

Then, of course, during that few weeks or so, and then after I came back from military, did some other things in the office, worked with some hydrology folks, things like that, in terms of, again, acquaintanceship, getting familiar with Reclamation's

different functions.

Storey: Then you were moved to Ruedi.

Pedde: Moved to Ruedi.

Storey: What kind of inspection did you do, and what did that involve?

Inspection Engineer at Ruedi Dam

Pedde: Ruedi was an earth-filled dam, so it was primarily lab work, taking soil samples, densities, that type of work, on the earth-fill section of the dam. Basically, you go down and take the sample, then go back to the lab, and of course, run the tests on it, check for moisture content, density, compaction test, those kind of things.

Storey: So after they placed the fill material and compacted it, then you went in and took samples?

Pedde: Took samples.

Storey: How did you take samples?

Pedde: The procedure was you had a plate that governed a hole, and depending what zone of material you were in, the size of the plate varied. Were you were dealing with the core of the dam where it was the clay or compact material, it was a twelve-inch diameter plate, as I remember–twelve-inch diameter hole in the plate.

You dug out roughly a cubic yard of soil. You did that with a small shovel, a little bar to help break compacted soil, put it in a bucket, sealed it up so you didn't lose the moisture. You didn't want it to dry out. You measured the volume of the hole by putting

in a sand, and it was a dry sand, and by weighing the amount of sand that was in the bucket beforehand and what was left, you knew the volume. You could compute the volume that went into the hole. So you knew the volume of the hole, you had the weight of the material you'd taken out of it, and from that you could compute various things. That was the easy part.

The hard part was taking the density samples from the Zone Two material, the rock facing. There, of course, you quite often hit rocks six, eight inches in diameter, or even bigger. You'd be digging along or using a bar to loosen up the soil, and you'd hit one of those rocks, you'd feel it all the way through to your shoulder. Like I say, that was not the fun part of the job.

Did work a little bit in the concrete batch plant doing lab work, checking for mixed consistency, mixed proportions, things like that.

Storey: Let's go back to the sample thing. You would dig out this material, so it was no longer compacted.

Pedde: It was no longer compacted.

Storey: But you knew what the volume was of the hole.

Pedde: Right. That's why you had a particular diameter that you tried to keep, the twelve-inch diameter, or whatever.

Storey: So that gave you a way to calculate the compaction. Is that what I'm hearing?

Pedde: That's correct. You had a volume, and you could weigh the amount of material that you had in loose form, and then by knowing the volume and the weight, you got pounds per cubic foot. You got a volume. You took it back to the lab. You ran standard compaction

tests on it where you dropped a set weight on it X number of times, and determined the standard compaction, and compared that to the compaction actually in the dam, and see if they met the established criteria.

You also dried a sample of it and compared the weight of the wet material to the weight of the dry material, and that gave you an indication of the moisture content, and you could determine whether or not that was within the contract specifications, again, also.

Storey: Are those the only two things you were looking for–moisture content and compaction? I presume consistency of the fill material.

Pedde: Consistency of the fill material. We did do gradation tests, not on every one. The primary things were compaction and moisture content. But periodically you would take part of the sample and run gradation tests on it. You'd run through a set of graded sieves to determine what part was of various size material, things like that. Boy, I can't remember the frequency. We didn't do those all that often, but periodically, one every hundred samples or something we'd run a gradation test on the material.

Storey: When I think of a laboratory, I think of people in white jackets, and it's clean and glistening and there are test tubes everywhere. What is a Reclamation lab like on a construction site?

Pedde: Well, I think there are some labs like that. Water-quality labs, for example, are clean, people work in white coats, and then you've got the test tubes and various retorts and whatever.

Project Lab Work

The earth lab was essentially a warehouse, concrete floor. It was clean. You had,

of course, an oven, a small oven to bake your samples to dry them out. There was compaction equipment, and like I say, that was a mechanical device that had a set weight falling a set distance, and a motor ran it for you and gave it a particular number of blows so that you could establish the standard compaction. There was an office off to one end where paperwork was done. There was a drafting table out there just for working as you were taking samples and making notes, things like that, a couple of counters and tables, but it wasn't particularly a white-coat operation, by any means. Just wore field clothes, whatever was appropriate for the weather at the time and the job you were working on.

Kept the lab clean, that was part of the job, because your samples as you move from container to the other, you did drop things on the floor, there's no question. So it's the job of cleaning up periodically. Part of the work, after you took the sample, of course, when you went back to do your next test, if there was material left over, you took it back to the dam site and disposed of it somewhere down there. So that was just part of the job.

Storey: Was this the only lab at Ruedi?

Pedde: That was the lab building. Now, there was a set of office complexes also. The lab building was separate from the others, but there was the office complex where the engineers and the inspectors did their work, filed their reports, had the folks doing the on-site design changes, and of course, contract administration, estimating quantities, and things like that.

Storey: How would you describe Ruedi? Is it a big project, a medium-sized project, a small project by Reclamation standards?

Pedde: Oh, I would say it falls in the large complex.[2] I can't remember the height and width anymore. As I recollect, it was a couple-hundred-foot-high earthfill, but like I say, I'm just really foggy on that. When I was working there, we were probably fifty feet off the foundation, something on that order. So it was fairly early in the stage of the project.

Storey: Were you the only inspector?

Pedde: No. I was one of several. Of course, the contractor was running pretty much round-the-clock shifts at that time. Again, with winter in the mountains, things slowed down and shut down in the winter, so during the summer they ran pretty much round-the-clock. So I was just one of the inspectors. There were several others there.

Again, to reach for names, I remember one of the inspectors, and I've kept up a relationship over time, was Cecil Womack [phonetic]. Cecil was working on the concrete placement of the outlet works and things like that. He showed me around what they were doing as part of the training process, again, and what they were working on in terms of concrete placement.

Again, one of the things, I guess you remember Cecil, because Cecil was about six-foot-four, and they had him working in a tunnel that was probably six foot tall, so he was always hunched over working in that outlet works.

Boy, some of the other folks that were in the earth lab, I can see faces. Larry Eldenberger [phonetic], some of the folks that I–again, I'd have to think back on some of those names. It's been a long time ago.

2. Ruedi Dam, a primary feature of the Fryingpan-Arkansas Project, is an earthfill structure 285 feet high with a crest length of 1,042 feet. For more information on Ruedi Dam see "Ruedi Dam and Reservoir," in United States Department of the Interior, Water and Power Resources Service, *Project Data* (Denver: United States Government Printing Office, 1981), 487; for more information on the Fryingpan-Arkansas Project see Ibid, 485-506.

Storey: Who was the supervisor that you reported to? Well, if you don't know–

Pedde: That's interesting. I don't remember. I remember Larry. Hunter they always called him, and I can't remember his first name. In terms of a supervisor, I don't know that I can say I had a supervisor. It was kind of that group worked together, and, yes, there was somebody filling out the time and attendance reports and those kind of things. My rotation supervisor was back in Pueblo. In other words, I had an advisor assigned, so to speak, somebody to talk to about whatever was going on, whatever might be an issue, and to help me set up a rotation program. Again, I guess I don't think of those days particularly in terms of a supervisor. I guess I'm sure there was somebody there. I'm trying even to remember who was in charge of the lab and I can't. Bill White was one of the inspectors, the head inspectors. There are some other names and faces I could probably come up with if I thought about them, but I really can't remember that much at this time.

Storey: I gather there would have been maybe three shifts then, if this was an around-the-clock operation.

Pedde: Three shifts, two or three people on a shift. Again, it shifted a little depending on what the work was.

Storey: Which shift did you work?

Pedde: Primarily the day shift. After working there for a while, I did move up and do some tunnel inspection on what was then called the divide tunnel, or the [Charles H.] Boustead Tunnel, now I guess its name is. They were driving tunnel conventional drill and blast methods in that particular tunnel.

Tunnel Inspection on the Project

So after probably two months on the dam, I went up to work on the tunnel. That was a different set of folks, inspectors, and so forth. Again, that was a unique experience.

The chief inspector took me into the tunnel the first day, and we walked in instead of riding the man-train in. Boy, I'm terrible with names right now. I can see faces; I can see them as clear as day, but I can't put names together with the faces right now. He took me into the tunnel. We walked in, and he showed me the tunneling supports, the steel supports, and the timber cribbing they were using, and so forth. As we walked, he kind of talked about the various activities. We got up to the heading where the drilling was going on and showed me around there, introduced me to the contractor's foreman and some of the folks up there, talked a little bit about the type of rock they'd been encountering, things like that. Probably this took, I would say, an hour, maybe an hour and a half.

We walked back to the inspector's shack. They had a little plywood shack just three-foot by three-foot maybe where a little place to get out of the water from the tunnel, and things like that, and keep your report, forms, and a little bit of a desk. It was just a stand-up kind of desk where you could fill out your logs and whatnot. We talked a little bit about what kind of forms to fill out and things like that. He then said, "Have you got any questions?"

Well, don't know enough to ask an intelligent question. I said, "No, I don't think so right now."

He said, "Well, we're short-handed today. This one's yours. I'm going over to the other tunnel. See you later." And that was my introduction to tunnel inspection.

Storey: What does a tunnel inspector look for?

Pedde: Well, of course, you're looking for–safety is a key thing in tunnel work. Again, this was

conventional drill and blast methods with dynamite, and, of course, after you've fired a shot there were a lot of toxic gases, so ventilation of the tunnel was important, and one of the things was to check the air quality before the contractor's crew could go back into work. That was always a little bit of a contest between the foreman or the shifter, as they called him, and the inspector. The shifter was paid by the foot. If you got a lot of footage in, it was a good day. If you didn't get good footage in, it wasn't a good day. So he was always eager to get the drill crew back in there as quick as possible, and the inspector's job was to make sure things were safe. So there was always a little bit of a contest there about just when is it safe to go back in. It was never a big contest.

I suspect, and I don't know this for a fact, but I suspect the inspector that took me in there the first day and the shifter probably had a long talk about not beating up on the kid, or something like that. But it worked out well, at any rate.

But then, of course, the other thing is just to watch for safety, to measure progress, to see that the tunnel was just being done properly, that lagging, bracing, things like that were put in place properly.

END SIDE 1, TAPE 1. DECEMBER 6, 1994.
BEGIN SIDE 2, TAPE 1. DECEMBER 6, 1994.

Storey: You were talking about the fact that there was always a little bit of tension between the job foreman and the inspector, because he was getting paid by the foot, and you were getting paid to make sure everything was safe.

Pedde: Yes. Like I say, there were never any fights about it, but it was one of those things that you had a little gauge to check particularly nitrogen in the air. How you read the gauge was a matter somewhat of interpretation. It was a color kind of gauge where, depending on the amount of nitrogen, you got a different range of colors. There was always a little interpretation, and of course, there was always a little discussion about, well, is it proper

or is it not? So, like I say, a little bit a tension. They always wanted to get back into the drilling stages, mucking out and drilling. They had to remove the shot rock, of course. They wanted to get back into that as quickly as possible, and as the inspector, it was your job to make sure it was safe. So like I say, a little bit of tension, never any real arguments or anything like that, but there was always a little difference of opinion, maybe.

But it was interesting. Again, that's part of an education I don't know if you get anywhere else, working in confined quarters underground, with a group of men. Miners are a little bit different. People who do that kind of work have a little different approach. So it was quite an experience, again.

Storey: You measured progress?

Pedde: Measured progress, how many feet were drilled in a given shift. Again, they worked around the clock pretty much. The tunnel work could proceed through the winter if the roads could be kept open and get up to the job site. Once you were underground, the temperature was always constant and things like that. So that operation proceeded pretty much through the winter round-the-clock. So it was measuring job progress, seeing that safety was appropriate, providing just a very general discussion of the type of rock encountered, any faults, seams, things like that, or any anomalies that might cause structural problems in the long run were what you were looking for. Not being a geologist, I wasn't really categorizing rock in any kind of detail or anything like that.

Storey: But did you have a geologist available?

Pedde: There were geologists around that were available if necessary, yes. Things went fairly smooth while I was up there. After I left, they did hit a seam that had a lot of water in it, and it took them, as I recollect, about six months to proceed just a very few yards, maybe a hundred yards or something, because it was very poor rock, lots of water to handle. The job just virtually came to a halt because of the poor ground conditions they were

encountering.

Storey: You were working from the Ruedi side?

Pedde: We were working from the Ruedi side, yes.

Storey: So that must have meant–I'm making an assumption–that the tunnel was slanting downwards.

Pedde: It was going downhill, yes.

Storey: So how were they dealing with water?

Pedde: They had pumps, of course, in the tunnel. There was some water all along the tunnel, and again, I'm only going by hearsay. By the time I had returned to the project, they were already through that section. But they did have pumps in the tunnel, and pumped the water out, handled it that way. But it did take them a considerable amount of time to make a very, very limited amount of progress.

Storey: What kind of inspection reports did you have to fill out when you were working on the embankment and then when you were working on the tunnel?

Reclamation Inspection Reports

Pedde. Again, the embankment were the standard lab reports, earth control reports, which, like I say, describe the moisture content, the density in the dam as compared to the standard density that should have been achieved with that project or that type soil, and then, of course, periodically gradation reports and those kind of things.

Storey: And placement reports?

Pedde: Placement reports?

Storey: The placement of material.

Pedde: The placement of material, the amount of material being placed, was the responsibility of the inspectors. They computed the amount of material. I was just doing lab reports.

Storey: I'm a little confused, because I thought you were acting as an inspector.

Pedde: No, this was lab work only. There were another set of inspectors that dealt with the placement of material, location, and actually, they made the initial okay on the compaction, and that was done by a certain number of passes of the material, and based on their judgment, their experience, they would say, "Yes, it's okay. Let's go onto the next lift," or the next area of the dam. Our job was to come behind and verify that, yes, it was okay. So ours was kind of an after-the-fact check, if you will.

Storey: So would lab work have been done on all three shifts?

Pedde: Probably, yes. Yes. You had a certain amount of tests for a particular amount or given amount of work done. I can't remember the numbers anymore, but like, say, there were a certain number of tests per cubic yards, or a million cubic yards, or whatever, to accomplish. So the inspectors took care of all of the safety on the dam, they took care of the traffic routing, which can be a problem in a congested area with lots of scrapers and compaction equipment.

Storey: Especially in dam sites, which are often in confined areas.

Pedde: Yes. So that was their role. Ours was, like I say, strictly lab work to follow up. I did help a little bit on inspection on the dam, but not a lot. I'm trying to remember, I think I filled in for maybe half a dozen shifts or something when somebody turned up ill. But

most of the inspection work I'd done was in the tunnel. Again, that was kind of overall responsibility for safety, progress, things like that, reporting on those type of things.

Storey: Were you carrying paper with you in the tunnel, making notes, or how did this work?

Pedde: There were inspection forms, again. The one thing I remember–it's odd what sticks with you sometimes–the forms for the lab were all on a bound, with a gum header tablet, you tore off a sheet as you worked and so forth. It was–I guess I'd call it bond, although I don't know that I ever looked at really then, but it was a quality paper. The inspection reports up in the tunnel were a coarse non-bond paper. They weren't bound up. I don't know why that is, I can't tell you. It's just one of those things I can remember, that there was a difference in the way the reports were reproduced, the material that went into them, and so forth. But there were a standard set of reports where you reported on, like I say, the type of material they were drilling through, and progress made, any particular safety problems or accidents, anything that might have happened like that. Fortunately, we had no accidents the time I was there. It would have been another set of experiences that would have been new if it had.

Storey: Were there procedures for you to follow if there was an accident?

Project Safety Concerns

Pedde: Yes, and again, there had been some discussion about the Bureau's safety procedures, things like that. There were safety supplies available close to the heading, a stretcher if you needed it, first aid kit, those kind of things were available. The project, of course, did have a safety officer, and he periodically would come through with an inspection, discuss what's going on, talk to the contractor as well as the inspector about progress, risks, things like that.

Storey: Was there an ambulance available?

Pedde: There was ambulance service available at the tunnel heading, and I'm trying to think how far we were in. We were in about a mile at that time. So if somebody were injured, to get them out from the heading to the tunnel, you either carried them, or perhaps used the man-train, something like that, if there were an accident. Like I said, fortunately, we never had one on any of the shifts I was on while I was there.

Storey: I've never been in a tunnel under construction, but let's see. I think I'm hearing about a little maybe an electric train of some sort?

Inside the Tunnel

Pedde: Electric-powered.

Storey: There must have been, I'm presuming, electrical lines, air lines.

Pedde: I bet your pardon. The muck train was diesel-powered. There was compressed air into the tunnel, and that was in what I guess you would call water pipe, inch-and-a-half, two-inch pipe that was strung along the wall. There was a large twenty-four-inch ventilation tube in the ceiling of the tunnel. The tunnel was horseshoe shaped, nine-foot wide. The rough excavation was a little wider than that. The end product after concrete lining was supposed to be nine-foot-wide horseshoe-shaped tunnel.

The ventilation tube was a light gauge corrugated metal pipe that was hung in the top of the tunnel, and it had a fan on the end so it would suck gas from explosions and so forth out through that tube. Of course, fresh air came in right through the tunnel heading, through the tunnel itself. Right after an initial round was fired to help evacuate the gas, they would quite often open the compressed air line and put more air into the tunnel to help force things back out. Again, the idea was to get back there and start cleaning out the broken rock and everything else as quickly as possible.

Storey: The compressed air line was for running equipment?

Pedde: Running equipment. The drills, the jumbo, as they called it, which had four drill rigs were compressed-air-powered. So there was a mixture of diesel equipment and compressed-air equipment that was used in the tunnel. Then there was electricity for light, of course, and then the crew that stood the steel and put up the cribbing and so forth to support the walls, the roof of the tunnel, until the concrete was laid, also had to have electricity for some of their saws and things like that. So a combination of all those things were in there.

Storey: Was the electricity run along the ventilation pipe in the top?

Pedde: Along the side near the compressed air lines. Along the sides. They hung it on the steel supports where they were using steel, or they put a little rock bolt or something in if they weren't using steel to stand–

Storey: Were they also doing the concrete lining?

Pedde: At the time I was there, no. That came in afterward. Again, sequence, they may have done some lining when they hit that bad ground with all the water. I just don't know when they did that. But that came in afterward.

Storey: How long were you working as the tunnel inspector?

Pedde: Let's see. I think I did that about six weeks, maybe two months, a couple of months at the dam, six weeks or two months up there. There were a couple of times I did a little surveying for a few days a week in between, and so forth. So those were pretty much my rotation before I went in the military. I spent some time in the project office, about three weeks or so, a couple of months on earth-fill inspection with some concrete and surveying stuff thrown in here and there, and then a couple months up in the town.

Storey: What kind of surveying were you doing?

Pedde: The surveying you did at that time was, again, surveying for quantities to establish how much earth had been moved and so forth. Again, I just filled in on crew for a few days.

Storey: So you weren't running the crew or anything.

Pedde: No. No, I was just a rodman.

Storey: What about on the concrete? Was that once again labwork or was that inspection?

Concrete Inspection

Pedde: That was labwork. Cecil was the inspector, at least one of the inspectors, I should say–Cecil Womack. The work I did in there was the lab work, and that was to see that there were appropriate proportions in the concrete mix, and we took samples of the concrete, put them in standard cylinders, capped them, they cured for a time, and then after an appropriate time, we'd break them in the lab to see what kind of breaking strength the concrete had.

Storey: So you were just getting the concrete as it was being poured?

Pedde: Yes. You'd take a sample out of the batch plant.

Storey: Did you ever run across a sample that wasn't adequate?

Pedde: No, I don't think so, not in the time I was there. There were some samples, I'm sure, that were not, but I don't think we ever ran one that was not adequate. We occasionally ran across some samples in the earth fill where it wasn't quite compacted proper density. When that happened, they would go back, re-rip the surface with a dozer or other kind of

equipment, and re-compact it.

Storey: So in other words, they weren't allowed to proceed until after your testing was done.

Pedde: That was part of the problem. Then one of the issues about being a lab inspector is you had to get those tests done quickly, because if they covered that section up and then had to go back and tear it out, that was not a good deal from the contractor's point of view, particularly.

Storey: That's why I was asking the question about the concrete, because I was wondering what happened. It would take a little while, I would think, to cure up the concrete.

Pedde: And contractors are generally pretty careful with concrete, because if it doesn't pass and you have to tear it out, that's a lot of work. Again, between the inspectors, and not the lab persons necessarily, but the inspectors and the contractor, there can be a lot of discussion before you took out concrete.

Storey: Tell me about the time frames we're talking about here for. For instance, when you're inspecting the embankment, how long would it take you before you had completed your examination of the compaction and the moisture and so on?

Pedde: Well, those were fairly quick. You could do a test–our lab was two, maybe three miles, from the dam site, at the head end of the reservoir. So you drive down, you'd take your test. It took maybe fifteen minutes, maybe a half hour if you were in the Zone Two, if you had to shift your hole. Sometimes you'd hit a rock so big you just had to shift your hole. You couldn't get through it. So fifteen minutes, a half hour, then drive back to the lab. You'd run your test, and you'd have a report back for the inspectors within a matter of probably a couple of hours at most.

Storey: What about on concrete?

Pedde: Concrete, there you had to let the curing take place for seven days. That's the time lag, and that's why contractors are pretty careful about making sure their concrete mixes are right.

Storey: Were they proceeding to pour additional concrete?

Pedde: Yes. They had to keep moving. So the tests we took for breaking, like, say, were seven days. Now, there were other tests. You'd see what the batch plant was issuing in terms of the pounds of concrete aggregate, the amount of water. You'd check that periodically, too, to see that the initial mix appeared to be right. Then, of course, the final proof was in the breaking of the cylinder. So it wasn't that the contractor didn't have some indication if it was way off base in terms of his mix before he put it in the tunnel or in the outlet works, whatever he was working on. But like I say, the final proof came after you broke that cylinder, which was a little ways down the line.

Storey: Then you went back to Michigan, did you?

Pedde: Yes. Let's see, that would have mid-December.

Storey: Of 1967.

Pedde: '67. Went back, spent just a few days at home, reported for duty and went to Fort Belvoir, Virginia, to engineers school there.

Storey: In the Army.

Fulfilled Armed Service Obligation

Pedde: In the Army. Yes. This was Army Corps of Engineers. Spent three months in kind of officers' basic training. Engineering officers' training had been through R-O-T-C, like I

mentioned earlier, that kind of, how should I say, indoctrination, kind of rotation program, if you will, indoctrination in the Army's way of doing business, working a little bit with explosives, learning Army equipment procedures, things like that. Following that, did not get an assignment right away, permanent assignment. Spent probably a month working with a post engineer company, just odd jobs that they were working on and so forth, just assigned to them.

Following that, when I got my assignment, it was to Germany. Of course, this was right during the hot time of the Vietnam War, and that was a relief, if you will, and upon assignment, I had gotten married in March of '68, just before I went overseas. So my wife and I went overseas, newlyweds, didn't own a thing in the world to speak of, and we saved ourselves broke with all those nice bargains on European economy at the time. At that time marks were four to a dollar–twenty-five cents for a mark. They're about one and a half to the dollar now, or something like that.

Storey: Yes. It's not nearly as good.

Pedde: Not nearly as good. Spent roughly two and a half years in Germany as a post engineer. Those days, again, most officers, or a lot of the senior officers, of course, were in Vietnam or other places, so junior officers were doing what normally would be field grade or major or perhaps even lieutenant colonel's job. So as a first lieutenant, and for a short time as a captain, I was post engineer.

We had 700 German civilians in the organization and responsible for–I think there were 3,000 family housing units and several different bases, air fields, military housing, complexes, motor pools, things like that. So again, I had a unique experience for a young person, doing a lot of things that normally it's not the type of experience you would have gotten.

Storey: What base was this?

Pedde: I was based in Nuremberg, Germany. W. O'Darby Kaserne, as it was called, the particular base I was on, and had responsibility for, like I say, several field offices. One was in Regensburg, which was near the Czechoslovakian border at that time. That was the furthest one away, and a couple that were, oh, within hour, two hours drive of Nuremberg, in that immediate area.

Storey: Your classmates in the Corps indoctrination school, where did they go?

Pedde: Various places. Of course, a good share of them went to Vietnam. I can't really say I've kept contact with any of those folks. Some were stationed stateside, some did go to Korea, some went to Vietnam, of course. Pretty well lost contact with all of those folks. I did know where one or two of the folks I worked with in Germany were at for a while. I'm not certain they're still there anymore. It's a long time.

Storey: Was your wife a Colorado girl?

Pedde: No, she was from Michigan.

Storey: A Michigan girl. Somebody you'd met before.

Pedde: I met her during college. Got engaged over the Christmas while I came home from Colorado, and then married March of that year, and then went overseas.

Storey: Were you in Nuremberg for your entire three-year tour?

Pedde: Yes. Like I say, two and a half years by the time I got through training and everything, about two and a half years in Germany. Promoted to captain during that time. About two months, roughly two months, maybe three months, before my tour would have ended, my mandatory tour, I had a three-year obligation as a result of R-O-T-C, got a notification of assignment to Vietnam. At that time things were already beginning to wind down. You

could see it was–the Army wasn't a career. I enjoyed the military; had good experience. I couldn't say anything negative about it. But you could kind of see that it probably wasn't the place to be for a career. There were going to be a number of surplus officers with military or combat experience, those kind of things. So I wrote back and said, "Folks, I don't plan to make this a career, and it doesn't make sense to send me to Vietnam for two months." Got a letter back. It was just written on the back of my letter to the Pentagon. I forget the captain's name. It was a captain wrote back and said, "Well, this is a great career opportunity, but if that's your decision, so be it." I said, "That's my decision." So that got out of the Army in December of '70.

Storey: That would have been three years.

Pedde: Yes, December of '70. Got out a little bit early, actually, but again, tried to get folks out in time so the Christmas holidays.

Spent a month or so goofing off around home, visiting parents, visiting in-laws, those kind of things, then went back to work in Fryingpan-Arkansas Project, back to Pueblo.

Storey: So you reported back to the office in Pueblo.

Pedde: Right.

Returns to the Fryingpan-Arkansas Project

Storey: I forgot to ask you who the manager was in 1967, the project manager.

Pedde: I'm getting old. Names are getting hard to keep up with.

Storey: How about the project manager in 1970? Do you remember him or her?

Pedde: Bob–can't remember his last name, was the project manager in '67. He went on to become a director of the Denver Water Board after his work there, after his retirement. I can't think of his name. I'm having trouble with the name in '67. He, again, was new to me, and hadn't been on the project too long, and didn't stay too longer after I was there. For a time the acting project manager was Art Soderberg. There was a transition in place. Art had been there before when I was back there in the initial return, or initial assignment. Art had been acting project manager for a while. I'm having trouble with names again, but there had been some transition in between.

Storey: What job did you go back to in 1970?

Pedde: Well, in '70 I went back and after discussion with the personnel folks, Dolores Williams again at that time–Doris Williams, I should say. Dolores Williams is here in our office. Kind of decided that based on the experience I had in the military, it didn't make sense to really complete the rotation program, although I'd only been through roughly half of it. We did do a few things, a few assignments, just to kind of get a little familiarity with some areas that I hadn't been in, but then I went to work in the Design Data Section, and worked on designing the canal, the Mount Elbert Canal. That ran from Twin Lakes, which is on the D slope of the project, down to Mount Elbert Powerplant, using the survey data, the cross-sections laid out, preliminary alignment, capacity of the canal, things like that. Did that for–how long was I there? That would have been from '70 to about '72.

In '72, I applied for a job in El Paso, Texas, as kind of the design engineer, if you will, for Rehabilitation and Betterment Project. Was selected and went down there in 1972.

Storey: That would be the Rio Grande Project.

Pedde: The Rio Grande Project. Right.

Storey: Tell me more about the canal. Are we talking about the penstock?

Pedde: No. At the time, and this changed subsequent to my departure, but at the time there was to be a canal that ran from Twin Lakes to the forebay of Mount Elbert Power Plant–500 cubic feet per second. It was over against the western side of the valley up on the side. So it was a matter of, again, balancing cuts and fills, and putting in canal lining, things like that, determining alignment along the elevation of the hills there, across the drainages and everything like that.

Subsequently, because of environmental concerns, they went to a buried pipe in that same general area. Of course, a different alignment, but along the same general route.

Storey: This is to carry water from the power plant into the lake?

Pedde: It carried water from Twin Lakes to the Mount Elbert Powerplant. Twin Lakes was north and was a reconstruction of the existing dam. They raised the dam and so forth.

Storey: But not for power generation.

Pedde: Not at Twin Lakes. They took the water from the west side of the mountains, through the Boustead Tunnel where I'd worked, into Twin Lakes. That served as a re-regulating reservoir, supply reservoir for several parties, but also controlled releases of the river. There was also then the canal that ran from Twin Lakes to the Mount Elbert Power Plant. The power plant discharged into–beg your pardon. I got those backwards. It started from Sugar Loaf, which is up near Leadville, went down to Mount Elbert Powerplant and discharged into Twin Lakes. Twin Lakes served as the afterbay for Mount Elbert Power Plant.

Storey: Yes. I was having trouble visualizing what was going on here. I'm sorry.

Pedde: I got them turned around. Sugar Loaf. I'm glad you raised that. I was trying to move the water in the wrong direction.

Storey: So that was a canal of some length, then.

Pedde: Yes. Boy, it seems like it was thirteen–no not thirteen–

Storey: Well, it's a goodly distance.

Pedde: It's a goodly distance.

Storey: That's in the project data book. We don't need to worry about that. It took about two years to do this work?

Pedde: I worked on it–well, again, there were other things I did during that time. That was the primary project, though. Yes, I worked on that for roughly two years. There were, again, other things interspersed. I had to do some work associated with Pueblo Dam in terms of some of the initial surveys and sizing and things like that. A good share of work went into that Mount Elbert Canal.

Storey: You did this stationed in Pueblo?

Pedde: Stationed in Pueblo, yes.

Storey: You did the design work?

Pedde: Preliminary designs. Final design would have gone to Denver. They would have reviewed, modified, whatever.

Storey: Tell me about how this division of labor worked. What was done in the project office as

opposed to the Denver Office, and who had control and all of those kinds of issues?

Design Responsibilities between Project Office and Denver Office

Pedde: For in terms of the design, Denver essentially was the control. The project office took the field data, made a preliminary alignment and sizing, determined slope capacity, everything like that for the canal. All that work was sent to Denver where they reviewed it and either made adaptions, corrections, things like that. So final work for a canal of that size was in Denver. In terms of actual construction, of course, the designs and specifications were done in Denver at that time. The construction engineer and his field forces could make on-site modifications to a certain degree, but anything major, again, had to be reviewed and approved by Denver.

My reaction is the quality of work we did was probably pretty good and a lot of it would have been final design had they gone with the Mount Elbert Canal, I'm particularly thinking about. So we did a lot of pretty good quality work, but again, the final approval rested with Denver, the final review approval.

Storey: How did you decide you wanted to be–did you call it the Design Section?

Pedde: Yes, Design Data Section.

Storey: You had had no experience with that previously in Reclamation, but you had Army experience?

Pedde: A little bit of experience. That's where I had the Design Data Section of Gayle Ekberg, was where I started in my first three weeks of rotation, so a little bit of experience. How did I ended up there? They needed help, I guess, was the best way to say it. Education, things like that, would have–I worked for Gayle and some of the others, in terms of they oversaw my work and things like that.

Storey: Was Gayle Ekberg your supervisor when you returned?

Pedde: Yes, for a while. Gayle died, had a heart attack and died, sometime, I forget what, reaching now again for dates and times. But he was pretty much my supervisor during all that time. He was supervisor of the office Engineering Section, and there were various sections within that.

Again, it's interesting, we talk about teamwork these days and so forth, as I think back to those days, really it was we were a team. People did different things, and you helped if somebody had a crunch project, you helped estimate quantities or check figures, cost estimates, whatever. So it wasn't like a very regimented chain of command and so forth. That whole section did whatever needed to be done. So I did work on various cost estimates, occasionally would go over and help out in hydrology–

END SIDE 2, TAPE 1. DECEMBER 6, 1994.
BEGIN SIDE 1, TAPE 2. DECEMBER 6, 1994.

Storey: This is tape two of an interview by Brit Storey with Kenneth Pedde on December 6, 1994.

You were talking about teamwork and how it worked in the old days.

Teamwork and Construction Practices on the Project

Pedde: Yes. When, like I say, I see Gayle, as I think back about it, Gayle certainly managed and supervised the section. We were a team in that the whole group did whatever needed to be done to get the job done. So as I was saying, if–Harold Jacobs was one of the folks was there. Jake was a technician. He did a lot of the cost estimating and so forth. If Harold had a crunch to get some cost estimates done to met some spec need or something like that, well, we all pitched in and helped do cost estimates, or checked quantities for

each other, or did whatever the work required was. So again, the concept of teamwork, I don't know that it's really all that new. We didn't call it teamwork, but it was just getting the job done, whatever was needed.

Storey: If you were doing the preliminary designs on a canal, what were the issues you had to confront and deal with?

Pedde: Again, the size was pretty well established; 500 cubic feet-per-second was the capacity. It was going to be concrete-lined, so you were picking the slope that would provide appropriate velocity, and then fitting that canal on the side of the hill. You could either go with a standard canal section, which had one-and-a-half to one-side slopes, or in some cases, if the side hill was steep and right-of-way was limited, we would go to a bench flume section, which had vertical sidewalls. So it was a matter of picking the right slope, the right section, type of section and canal, balancing the amount of cut, the amount of dirt removed, with the amount of fill that needed over culverts.

You dealt with cross drainage, so that water coming from the upstream side of the canal got somehow down to the downstream side. Of course, there was a need for operation and maintenance roads, so even where you went to a vertical bench flume, you had to have access roads of some kind. So it was really a complete design process in terms of picking location, picking the appropriate section, determining the right slope of the canal, things like that. That's winter country up in there, so you designed the canal to operate under the ice. Generally in the fall you would raise the canal, operate at a high level, get an ice cover on it, and then operate just below that ice cover. So, again, that was a factor in terms of how you designed and what you designed for in terms of concrete and things like that.

Storey: You had not really designed canals before, so where were you getting the guidance that you needed in order to do this properly?

Pedde: Working for–well, Gayle, of course, and Jake. Some of these folks had had a lot of experience. Again, I'm going to miss the last name–Paul. I remember a lot about Paul. He was a backpacker and so forth. That was my first acquaintance with somebody who backpacked, and that's a long time ago. But did a lot of work with Paul, or he was kind of, if you will, maybe the team leader, and he provided guidance, advice, things like that. I would say the quality of the crew there–and again it gets back to this teamwork thing–Paul, all the others, were more than willing to provide advice, but they were also willing to say, "Well, go do it."

Storey: Did you also have something in written form? Did you have, for instance, a book on canal design?

Pedde: Yes.

Storey: Or Reclamation instructions or guidance or something?

Pedde: Sure. Again, the standard criteria for the canal, the capacity, things like that, have been pretty well established in terms of preliminary design during the planning process, those kind of things. But, yes, standard Reclamation instructions were available. Quite often the advice from Paul or Jake or others would, "Well, you want to look that up in this place, and that's where you'll find what you need to know," that kind of thing. Then, of course, they, like I say, oversaw the work, and there was always somebody to go to to ask a question if there were a problem, or to discuss particular problems, things like that.

Storey: I'm interested in the ice, in particular. Did ice present particular problems in design?

Pedde: Well, again, when you're dealing with cold weather like that, you do have to deal with freezing conditions, and the expansion of the ice, for example, behind the concrete lining can break it, so you needed to deal with having the appropriate drainage behind your concrete lining. The design for operating under an ice cover was relatively simple. You

operated high, like I say, you build that ice cover, then you made sure you had capacity under it to operate through the rest of the season. But it did affect, like I say, the type of embankment, drainage you put in it, thickness of the concrete lining, things like that.

One thing we did deal with, made a suggestion, and since they never built the canal, I don't know whether it would have worked or not, but, of course, we had come out of the canal and you go into the forebay for the power plant, you had a drop structure to dissipate energy and provide a tranquil flow into that forebay. That would have created considerable icing problems. The spray from the spilling basin and so forth would have been a problem.

I proposed and did the initial design on making a submerged outlet to the forebay that would have provided dissipation in the forebay, and I hope, if we'd ever build it, it would have been nice to see, it would have eliminated the icing problems, the spray and so forth. I proposed that as an alternative to a standard spilling basin. Folks there thought it was a good idea. I did some initial designs and so forth. Unfortunately, I left before that ever got reviewed by Denver, and then, like I say, ultimately because of environmental concerns, some of the icing and stuff, too, I'm sure, some of the climate concerns, they did go to a pipeline concept as opposed to the canal.

Storey: So you don't know whether, for instance, any lab research was done on this concept that you proposed?

Pedde: No, I couldn't tell you if they ever did any testing in the lab or anything like that.

Storey: Why did you decide to leave?

Decides to Leave the Project

Pedde: It was promotion opportunity. I can't say I was dissatisfied with the work I was doing. I

think in terms of where the project was at the time, things were beginning to slow down in a sense that a lot of the major structures, all the data had been gathered, the initial designs were done. The project office was probably in something of a wind-down phase, although there was no RIFs [Reduction in Force] being undertaken or anything like that at the time. So it just seemed like a time to look for other opportunities. Applied for the job like I mentioned earlier, and was accepted.

Storey: I'm sorry, I've forgotten where the job was.

Pedde: In El Paso, the Rio Grande Project.

Storey: Oh, yes, on the R&B [Rehabilitation and Betterment Project].

Pedde: On the R&B.

Storey: When did you move then?

Pedde: That would have been probably the spring. I forget the time of year exactly, but the spring of '72. I went down prior to being accepted for the job, I went down for a job interview. Sam Bock [phonetic] was the selecting official then, was in charge of the Engineering Section on the project at that time. Spent a day with Sam, a little bit of time with project manager, Jim Kirby, but the time with him was just kind of a get-acquainted session. Spent a good part of a day with Sam talking about what was being planned, what the project's role was, things like that. I can remember telling Sam–and this is kind of interesting, too–I can remember telling Sam that at the time it might have been an imprudent remark, telling Sam that, well, it seemed like after a couple of years, you get the standard designs down and everything would be pretty canned and wouldn't look like it would be a very exciting job. After that, I stayed ten years there at the project, so my observation wasn't exactly right, although I did do a lot of different things besides just design work, ultimately project manager, project superintendent.

Thoughts on the Rio Grande Project

But on that project, again through Reclamation, some projects have been pretty autonomous. Jim Kirby was the third project manager that place had had in–let's see, when I was there it would have been nearly seventy years. So there had been very few project managers, and they were quite independent. It was isolated from the regional office, which was in Amarillo. Even when I got there, plane travel was still something you didn't do all that often. So it was quite an autonomous project. We designed the project. We deviated from Reclamation standards in a number of instances. We just did it. I've not been back since we did that. We put in 180 miles, I think, of canal lining, structures, bridges, turnout structures, check structures, things like that. I've not been back to see how it survived. We did encounter some problems as we progressed. We didn't plan our expansion joints quite right, and on the sunny side of the canals during the summer, they'd expand and we had some buckling problems that we had to work on as we went through it. Again, we literally, and not–we used Reclamation standard guidelines and things a lot, but in some cases we did deviate and tried to build efficient structures. The project was $26 million at the time. The districts were still paying for previous R&B, so the costs were of particular concern to them.

As, I guess you'd call it, design engineer, worked with the surveyors, we gathered our own field data, had our own surveys crews. We designed concrete canals and features during the summer, and then during the winter, the ditchriders, the construction crew, the projects maintenance crew would do the construction. Except for buying precast structures where we needed them and concrete and things like that, it was all the Reclamation job. We were our own contractor. We did have a field engineer, construction engineer, in effect. He had a couple of inspectors who directed the work of our own people. We bought a Barber-Greene trapezoidal ditching machine to excavate the ditches. We were on a floor-form slip liner to put down the concrete lining.

Our initial start-up was interesting, trying to get the equipment to work, learning

new procedures. These guys, the men that were there were ditchriders, and they were good men, but they had not done this type of construction before. So it was, again, an entirely new and interesting aspect of work.

Like I say, we'd design during the summer, gather our field data, survey crews were out in the field gathering cross-sectional information, location information, and then during winter the construction takes place.

Don Berin [phonetic] was construction engineer for us, and Jesse Wert [phonetic] was one of his chief inspectors. He had a couple other folks working for him as kind of supervisors. Like I say, the ditchriders made up the bulk of the construction crew and so forth, and they really took a lot of pride in doing a good job. They took a while to get the bugs worked out the first time. We had trouble with the floor form machine, manufacturing difficulties. It was made during a strike, so we ended up with some odd parts and some problems. But once they got the bugs worked out, it went very well. Actually, the men were really proud of what they did. It was a good project, good work.

Storey: You pointed out that this was an older project. My impression from what you've been saying is that Reclamation was still O&M'ing [Operation and Maintenance] the project.

Reclamation's O&M Responsibilities on the Rio Grande Project

Pedde: We were O&M'ing the project. Of course, operation of the dams and so forth were the project responsibility, and still are. But we took the water from the dam, delivered it entirely from the system to the farmer. We took the orders for water, delivered on schedule. We then gave the water delivery orders to the district, who sent the bill to the farmer and collected the revenues and, of course, paid Reclamation's bills.

Storey: But the districts weren't O&M'ing the project?

Pedde: The districts were not O&M'ing the project.

Storey: Is there some reason for that that you're aware of?

Pedde: It just had not taken place. Part of the reason was one of the responsibilities of the project was delivering water to Mexico under treaty.

Storey: Yes. There's, I believe, a million or a million and a half acre foot obligation there.

Pedde: Sixty thousand on this one. Now, you may be over in the Arizona area again.

Storey: I'm thinking on the Colorado, I guess.

Pedde: Yes. This was only 60,000 acre feet. It's a convention with Mexico in 1906.[3] Jim Kirby, the boss, occasionally remarked he never quite understood how he, a relatively minor Reclamation official, could be responsible for delivering water to that treaty, and nobody ever asked about it. There was a boundary commissioner, but Reclamation took care of making sure that the water got to Mexico. We did give reports to the Boundary Commission, but they seldom questioned us.

Part of the later experience there was transferring that project to the irrigation districts. Again, a unique experience. Some rather interesting times.

Storey: That was when you were there?

Pedde: Yes.

3. For more information on the 1906 Convention with Mexico see "Convention with Mexico for the Upper Rio Grande," in United States Department of the Interior, Bureau of Reclamation, *Federal Reclamation and Related Laws Annotated*, Volume I of Three Volumes through 1942, Richard K. Pelz, editor (Washington, D.C.: United States Government Printing Office, 1972), 114-7.

Storey: Good. I'd like to talk about that when we get up there. What specifically was your job, your new job, in El Paso?

Designing the Rehabilitation and Betterment Program

Pedde: Okay. When I started out, essentially it was to design facilities for the Rehabilitation and Betterment Program. First couple years, that pretty well consumed the job. Now, in the winter sometimes, I'd get involved a little bit in operations or something like that, again assisting the operations folks. But essentially, the first couple of years or so, worked on establishing the project.

When I got there, I was one of the first people, so not much had been done. We established our standard designs, got surveys, again getting right-of-way cleared up, things like that. So the job grew to be really, I'll call it R&B Manager if you will, because we did get into negotiating exchanges of right-of-way, things like that.

Sam Bock was again my supervisor. He was in charge of engineering for the whole project, O&M, everything else. I focused on the R&B, but it grew into being–got into realty, got into like, say, discussing landowners' exchanges, straightening ditches, things like that. So it got to be quite a comprehensive job.

I've got to digress maybe a little bit, but there's a story, and if you ever have the chance, you ought to go down there and look at their project histories. In researching right-of-way, finding out ownerships, things like that, I had a chance to get into some of those, and they are really fascinating. They have a personal touch that we don't do and couldn't do anymore probably economically. But I can remember reading some of the early histories where they talk about Mrs. So-and-so being the project manager's secretary, and she left to have a baby, and Mrs. So-and-so came on board, and the project manager asked for $600 so he could buy a Cadillac touring car as the project vehicle. That type of personal history is something I miss. It was probably not productive time in

a way, but when we had to go back to do that research, it was easy to get distracted in talking about some of the other things that happened down there.

In the archives down there, we had slides, and they were not of the El Paso area. I couldn't tell you where they were from, but they had palm trees in them. They were color slides on glass plates. There was old equipment. There was a circular slide rule. When I say circular, not circular, but a cylindrical slide rule. Patent date on it was 1879, or something like that. I don't know when it was manufactured. But there are really some–like I say, as a historian, I don't know if that stuff is still there, but–

Storey: Oh, I love that kind of stuff.

Pedde: If you ever have a chance to get down there, they had some fascinating, fascinating stuff, and the records, the history, talking about the construction of Elephant Butte Dam. Construction engineer at the time had to build a railroad to get in there. Well, first he had to build a road, then he had to build a railroad. Then of course, he had a community built up, so he had to hire, in effect, a mayor and a sheriff and a justice of the peace, and build a dam as a sideline. For that, I think, he got paid $6,000 in those days for that work. There's really some neat stuff down there.

I'm digressing at any rate from what you wanted to maybe talk about.

Storey: No, this is the kind of stuff I want to talk about. Those project histories are fairly limited in distribution, and I found some on the Belle Fourche Project that had the distribution list, and they were distributed to six locations. I've forgotten all of them, but one of them was the commissioner, one of them was the chief of engineers, one was the project office. Of course, in those days they didn't have a regional office. I've forgotten where the other two went.

Pedde: I don't remember where the distribution was, but the project guarded those jealously. I

don't know if they still are. I hope they are.

Storey: They usually do.

Pedde: They're really a valuable resource document for, again, right-of-way, some of the historical stuff you had to go back and try to find.

Storey: Yes. My experience has been they're very careful of those, very proud of them, and they usually had a lot of photos in them, and specs and maps and all kinds of things.

Pedde: Really fun to read.

Storey: Were you hired then to be, in effect, the chief design engineer for the R&B?

Pedde: Didn't really start out that way. I just was hired as a design engineer. I think it's kind of a thing that grew as things were there. Again, took the opportunity to get involved. We brought on a couple more engineers, and we extensively used college students was a lot of our help.

We had a co-op program. Really proud of that in a lot of respects. There's several folks in Reclamation that I started out with as co-op students who are now in Denver or were in Denver for a while, things like that, Tom Lubke [phonetic] being one of the fellows who's one of our, I would say, premier designers. But we worked with a lot of–had two or three co-op students all the time in helping out doing designs, drafting, those kind of things.

Myself, and then later on we added another engineer or two, did the work. We had a survey crew of four people, generally, and then sometimes we'd augment that with ditchriders or other help. Like, say, we'd make some determination of which ditches to do. That was based partly on political decisions. I guess that's my first introduction to

politics in Reclamation. We'd pick some ditches. I remember one year we picked some ditches to do, and told the boss what we were planning for the next year's schedule. He said, "That's not going to work." He said, "You've got that all up here in this area where this board member is. You've got to have some of your progress where the other board members are, too–the irrigation district board members–so they can show their constituents that things are happening." So we revised our list and found some other things to do. Like I say, that was probably my first introduction to politics in Reclamation, how it governs what you do sometimes.

But like I said, we were essentially responsible for creating a program. Had the money and the general direction, and beyond that we established our own criteria, worked with equipment, things like that. I didn't get into the equipment that much. That, again, was the construction engineer's job.

Initially, we started, we had two field branches, one in Las Cruces and one in Ysleta .

Storey: This is Ysleta in Texas?

Field Construction

Pedde: In Texas. Yes. Initially we started with those field office managers being responsible for the winter construction. So those folks did a lot of getting the bugs worked out of the equipment and so forth. Later on that got to be too much of a burden for those folks to be responsible for operation, maintenance, and construction. So we did hire a construction engineer, Don Berin, as I mentioned a little bit earlier, came on board and essentially ran the construction program. He would help us get surveys and things like that in the summer after he were on board.

I can remember Jess Wert, Don's right hand. We were discussing what's

happening. This was sometime, oh, I guess, had been there about six months. I remember talking with him about, "How's it going?"

"Well, it's going okay. This is really different than what I'm used to." He said, "In construction where I've been before, we used to come in and we'd say, 'Contractor, that's not right. Fix it.'" He says, "Now, I come out and I say, 'That's not right. Fix it,' and I'm talking to myself, because I'm the one who is responsible for fixing it."

Like I say, it was an interesting experience. The program grew. Sam retired. I kind of took over his responsibilities, which included operations, maintenance, as well as the R&B program. Then, of course, somebody filled in behind me with designs, things like that.

Operations was new. I had some excellent people to learn from. Dan Ferias [phonetic] was our operations engineer, and Josephina Derryberry [phonetic] was one of his key persons, a water clerk. Josephina's grandfather wrote the Mexican Constitution, and Dan's father was a landowner in Mexico. Again, sometimes talking with those folks was interesting to hear about their earlier lives. Dan can remember some the things from the Mexican Revolution and things like that as a youngster. When he was born, his father pointed to one of the *vacaros*, one of the cowboys, and said, "You're taking care of my son from now on." And literally until Dan grew up and became a man, that person was with him virtually everywhere he went. It was kind of his alter-father if you will, I guess. So there were some interesting things besides must the work. Good group of people. Different culture, different way of looking at things sometimes, but it was good.

Storey: When you moved down there, did you have any culture shock?

Living in the Southwest

Pedde: Yes, it was different. Again, having lived essentially in the North, Colorado and so forth,

Michigan as a home base, it was different to move to Mexico, see the Spanish influence, and so forth. It was exciting.

It wasn't new in some senses, because we had been in Europe for three years and had experienced different culture there. So in some ways it wasn't a shock, if you will. At the same time, it was different. People with a different way of looking at things, so forth, different attitudes.

I can remember, again, talking with some of the ditchriders. We'd occasionally–not often, but occasionally–go out and ride ditch at night with the guys just to see what's happening. When we had ditch breaks, it was not uncommon to go out and see what was happening, try to get the system back on line. This was after the R&B design when I had more of an overall role. Talking with those folks, it was a different way of life. One of the things that came through was it was really important to those folks, coming from Mexico where they owned nothing, that they find a piece of land. That was one of the high priorities for families. It didn't have to be big, and it does account for some of the development that down there now Reclamation's trying to deal with, the "colonials," as they call them, little subdivisions where people just bought a little piece of land, didn't have water, didn't have sewerage, anything like that, and they built a house, whatever they could on it. Now, we're trying to deal with some of the resulting problems for some of that. But it was different. It was fun.

Working on the border was unique. It's illegal and I know that, and I knew it at the time, but many of the ditchriders carried handguns because of violence. Drug trafficking was something of a problem. It's not nearly the problem it is now, but there were problems then. I can remember one of the ditch riders talking about working on a check structure at night, and when you worked at night, of course, the truck lights out there and a spotlights or whatever so you could see, and when you're out there you can't see anything around you. Of course, you're blind. Everything in the dark. He talked about how this voice came out of the darkness and said, "Señor, we're going to take your

truck."

He said, "Well, okay. That's fine, take the truck. You see that little antenna on top?"

"Yes."

"That's a locator. They can find that truck anywhere." It was a boldfaced lie, but he said, "That's a locator. Just take the truck. We'll find you. It's no problem."

"Oh, okay. We'll leave the truck." So there were again, some different and unique experiences to working down there.

Storey: Did moving down from Colorado to El Paso cause your family any adjustment problems?

Pedde: At that time there was still just my wife and I. Well, I beg your pardon, no, wife and I and our oldest daughter, but she was just probably a year, a little better than a year old. So adjustment problems–when you move, there's always problems. Frankly, I found there's more problems when you move when your kids are older than at that age. But again, at that time it was an adventure, young. I don't look forward to moving near as much as I did then now, but it was an adventure, something new, new challenge. No, it was not a lot of adjustment problems.

Storey: And of course, your moving expenses were paid.

Pedde: Yes.

Storey: Back in those days, were they paying for real estate expenses and those kinds of things?

Pedde: No, they weren't paying for them then. At the time I moved from Pueblo, we were only

renting, so that wasn't an issue. But in those days, if you did have a house, you were expected to sell it on your own and that kind of thing. They did pay for the transportation of your household goods, not quite the same way we do now. There you had more in the selection process of getting the contractor, but then the government, in effect, paid the bill.

Storey: Do you happen to know the size of the Fry-Ark office when you left in '72? Have any sense of it?

Size of Project Offices

Pedde: I probably would be way off. I would guess it was somewhere around seventy or something like that.

Storey: We're just talking about in Pueblo or the whole office or what?

Pedde: Just in Pueblo. I honestly couldn't–I don't think I could make a good guess of what construction staffing and things like that were at the time.

Storey: When you moved down to the Rio Grande Project, do you have any sense of what the size was there?

Pedde: There in the project office there were about thirty people all told. But total with field offices and everything else, we were running around 130 people. It varied somewhat.

Storey: And then did the R&B project cause the office staff to increase in size?

Pedde: Somewhat. We did add a little bit more in terms of engineering staff, myself being one of them, and we did add Don Berin and Jess Wert. There were some increases in the field office staff.

The concept, like I say, originally was to operate during the summer and then do this rehabilitation in the winter. After a year or two, we found the field managers couldn't really keep up with all of that. We also found that the maintenance work, the other work, was getting behind. So we did hire on, not some ditch riders, but some operators to augment that winter maintenance work and take care of some of the critical things that weren't getting done. So there was some adjustment in the staff after we began the construction.

Probably I would guess we may have added a total of, in the field and the office, everywhere, we may have added a total of twenty positions or something like that.

Storey: Well, I would love to keep going, but unfortunately, our time is up.

Pedde: It went quick.

Storey: I'd like to ask you now if it's all right for researchers from inside Reclamation and outside Reclamation to use both the cassette tapes and resulting transcripts from this interview.

Pedde: Yes. I see no reason not to.

Storey: Good. Thank you.

END SIDE 1, TAPE 2. DECEMBER 6, 1994.
BEGIN SIDE 1, TAPE 1. DECEMBER 8, 1994.

Storey: This is Brit Allan Storey, senior historian of the Bureau of Reclamation, interviewing Deputy Regional Director Kenneth Pedde, in the Pacific Northwest Regional Offices in Boise, Idaho, on December 8, 1994, at about 1:30 in the afternoon. This is tape one.

After we had quit taping last time, you mentioned that when you were at Ruedi,

you saw tensions between the inspection crews and the lab crews on the dam. Could you talk about that for a little bit?

Tension with Contractors at Ruedi Dam

Pedde: Yes. There were some occasions when things didn't go as smoothly as one might hope, and I guess that's not unusual. Of course, your inspectors were working to try to get productivity. They made on-the-spot judgments about quality, the density of the fill, the appropriateness of going forward with the next lift, the next activity, whether it's concrete or earth or whatever. Of course, when the lab crews came in, and particularly if you found that something wasn't quite right, that caused some problems. In addition, contractors generally are production-minded and they want to get on with business, and at times when the lab crews were out taking tests and so forth, it could interfere with production at times. So once in a while there were some tensions.

I do remember one discussion. The chief inspector was Chick. I can remember his first name, can't remember his last name, and I don't remember what the incident was, even. I was just kind of an observer off in the corner. But he came in and had a real heart-to-heart discussion with the lab chief about folks interfering with production, not being in the way of earth-moving equipment, those kind of things. So there were some times when there were disagreements within the house about just what was happening and what was priority, things like that.

Storey: I think you mentioned that when you would dig these test pits, you would dig the material out of the dam embankment, how you would park your truck.

Pedde: Oh, yes. Well, it was just standard practice, you parked your truck so that you dug your test hole either in front or immediately behind the truck, generally behind, because that's where your equipment was, you can just get it off the tailgate. Of course, that was there to provide a block as well as a visual signal that somebody was there. Some of the big

earth-moving equipment, operators couldn't necessarily see that well, and you get one person out on a fill, and you could easily be overlooked, and of course, getting run over by an earthmover is not a fun experience. So, yes, it was standard practice to park your vehicle and then either work behind it generally, or sometimes in front of it, but in such a way that it gave you some protection from other equipment, other traffic in the area.

Storey: You mentioned in your discussions before, safety considerations.

Safety Precautions on Project Works

Pedde: Yes. For example, the parking of the truck was one of those considerations. Inspectors always wore bright-colored vests. Thinking back to those days, I don't know if they were fluorescent orange, but they were orange or red, the traffic safety kind of vest. Then, of course, in the tunnel, when I mentioned that working in the divide tunnel, you didn't wear a vest like that, you were working in fairly confined quarters, and you could generally see everybody right within the vicinity. You didn't have the high fast-moving traffic associated with a dam fill, for example. But safety was a prime concern and something that was part of almost every day's inspection reports, particularly for the inspectors, not so much the lab crew, but more for the inspectors.

Storey: Nowadays, I think you have the impression that until there was OSHA [Occupational Safety and Health Administration], there was no safety concern around. I'm gathering that was not the case at all.

Pedde: No, I would say that was not the case. OSHA has brought a whole new set of standards, perhaps even a higher level of safety standards, but safety was a major consideration. Again, I'm speaking here, twenty-five, thirty years ago, and these kind of activities were taking place.

I do remember one fatality took place when I was working at Ruedi. I wasn't

anywhere near, it was mostly hearsay, but again, that was a topic of some serious discussion after it took place, among the Reclamation construction management crew and so forth.

Storey: Was the fatality the contractor personnel?

Pedde: Contractor personnel, yes. Scaling accident. One of the contractor's workers was scaling some rock. He had been working on a protrusion, didn't seem to be coming loose. They quit the shift for the day, and as he came down the rock on his rope, he swung below the place he'd been working, and something came loose and hit him and caused the fatality.

Storey: But that then became a topic of conversation among Reclamation's employees?

Pedde: Yes. Of course, partly it's just the seriousness of the tragedy. You work with some of these people, the contractor's folks on a daily basis, you got to know them, some of them fairly well. So in some respects it was almost a personal accident, part of the family, if you will. But then just any fatality is not anything that's fun.

Storey: No. What was the topic of the conversation, more just generalized concern?

Pedde: Where I was at in the lab, yes, it was more of a general topic. I believe, and I guess I'd have to qualify that, that I didn't really participate in any of the discussions, but I think, believe, that among the inspectors, the construction management folks, the field engineer, folks like that, it was a more serious topic of discussion in terms of how do you prevent it and so forth.

Storey: Well, we had actually gotten you to the Rio Grande Project in 1972 when we were talking last, and you went down there to design, I believe, features. What kind of time lag was there? This was the R&B project, and if I'm remembering correctly, we used our summer, the people who worked in the summer and had slack during the winter, we used

them for the construction work.

Pedde: Right.

Storey: What kind of time lag was there between when you would start designing something for the R&B project and when the work would actually be done?

Planning Work for the Rio Grande Project R&B Program

Pedde: Well, in terms of the time lag, there really wasn't a lag. We would start designing the next winter's work in the fall while that construction was being done. So what we were working on in September, October, November, December, that kind of time frame, was the work the ditchriders would be doing one year later.

Storey: The next fall.

Pedde: The next fall, yes.

Storey: So you were designing for about a year, or you had a period of a year, and then the work would be implemented.

Pedde: Yes.

Storey: Did you ever do any construction inspection as a result of your work there?

Pedde: Down in El Paso? Not really, no. Again, since it was all in-house, when there were problems, certainly we sat down with the field folks, the construction engineer, whoever was involved, and talked about how to resolve problems. A lot of our discussions resolved around how to improve designs, make construction easier, things like that. It was not necessarily uncommon for myself, as a designer, or other folks that were working

with me, to go out to the field and see what was happening, or to talk about getting problems, issues, things like that.

Storey: I have forgotten whether you told me your position when you went down there.

Pedde: Let's see, I was a GS-11 design engineer, civil engineer. Just working in the–we called it the Design Section of the project office there.

Storey: How long did you do that?

Pedde: Well, let's see. There was a kind of a progressive increase in responsibility, so it's a little hard to say when things changed. I went down there in '72. I'm trying to remember now. Boy.

Storey: Just take me through the progression then.

Other Responsibilities Along with the R&B Program

Pedde: Well, as I got familiar, as we got the R&B program started, established, and on a fairly even keel, then began taking over other design kind of responsibilities, for example, operations and maintenance, and helping out in that arena, one of the things, this was later on, again, I can't remember the years, but the district was interested in drilling some wells for drought augmentation, flow augmentation. To help them design the specs, we did the field exploration, took the geology, designed the specs for the wells, and so forth. They did the contracting, but then I went out and inspected the wells. It was that type of activity. There was a kind of a gradual increase.

Sam Bock, who was my immediate supervisor, retired, oh, I don't know, it probably would have been '76, '77, somewhere in there. I assumed his job at that time, promoted to his position. Sam had more overall responsibilities for operations as well as

maintenance, although Jim Kirby, the project manager, had a definite hand in operations. Of course, that's a critical part of the project purpose at that time. So, promoted into Sam's job, and then worked on that aspect in broader context and project operations.

I didn't mention earlier, but, of course, we did have a small powerplant at Elephant Butte Dam, also. They had electrical engineering capability, things like that up there. As needed, we provided environmental support out of the project office; design support if they needed it, things like that. So those kind of things kind of grew after we got the R&B program up and running, began to take on some of those other responsibilities.

Storey: What was your new title in '76 when Mr. Bock retired?

Pedde: Hmm. (laughter) You ask hard questions.

Storey: What about your grade?

Pedde: That would have been a GS-13 at that time, and I think it was, if I remember right, probably was supervisory civil engineer, is what I would think. I'm really reaching right there.

Storey: You mentioned yesterday that it really didn't work out very well to be using your ditchriders to do the construction in the winter. How did that evolve and work out, finally?

Pedde: Well, it was just a matter of experience. We found that there was certain maintenance that you still had to do. There was certain gate repairs, or cleaning of ditches and so forth that if you had 100 percent of your maintenance and ditchrider staff working on concrete lining, the rehabilitation project, then these other necessary repairs weren't getting done. So we probably began to see it really after the first season, but it was probably the second

winter, second year, that we began to bring in a few extra equipment operators, maintenance personnel, to take care of some of the critical winter maintenance, while the main staff was off working on the Rehabilitation and Betterment Program.

Storey: So you didn't change the schedule of the work, for instance.

Pedde: Not particularly. In terms of the Rehabilitation and Betterment?

Storey: Yes.

Pedde: That was going full bore. We augmented the normal maintenance activities with some extra folks.

Storey: So you kept using the ditchriders for the construction work in the winter.

Pedde: Right.

Storey: And brought in special assistance for the sort of normal O&M types of things.

Pedde: O&M. Some of the people we hired were prominent in the sense of a couple of equipment operators I remember particularly. Some, we brought in temporary laborers just for the winter months, five, six months of the year during the winter season.

Storey: Now, as I recall, you mentioned that it was a $24 million project.

Pedde: Twenty-six, I think, if I remember right.

Storey: How long did that last?

Rio Grande Rehabilitation and Betterment Project

Pedde: Well, it really started in '72, and was pretty well over by the time I left there in 1982. The bulk of what we'd accomplished, some 180 miles of lining, if I remember correctly, and then lots of structures and things associated with it were pretty much done by that time.

At that time in '78, '79, and then carrying on a little bit into '80, '81, we were in the process of transferring the operation and maintenance aspects of the project of the distribution system, not of the dams, but of the distribution system, to the irrigation districts. That also had an effect on how the R&B was progressing, since these folks were going to be working for district staff now, we pretty well finished up the project and got back to a more normal business.

Storey: Tell me about the technology of lining at that time. That would have been sort of mid to late seventies. What kind of lining are we talking about?

Pedde: It was concrete lining. We did put in a limited amount of pipeline. The terrain and such down there is fairly flat, so it's not real conducive to a lot of economical pipeline. We did put in primarily concrete lining, did a little bit of concrete pipe work, and we did lay about 3,000 feet of techite pipe. It's a fiberglass reinforced mortar kind of pipe, which was a new product. We did it kind of as an experiment.

Concrete lining was standard, I think probably typical of what we do today even, either one-or two-foot bottom with a canal, one and a half to one side slopes, three-inch concrete lining, pretty standard technology that probably is much the same if we were going to do it today as it was then. We did not have any more exotic materials that you have today where they talk about some cases form lining and things like that. We do have, for example, a demonstration project over in Deschutes Basin here in Oregon, and we had twenty different contractors come in and put in different types of lining for test purposes. It was kind of a cooperative effort. Nothing that fancy, it was plain old concrete lining, essentially concrete structures, that kind of thing.

Storey: No membranes?

Pedde: No membranes, no geotextile-type materials, or anything like that. We did have one interesting presentation there. A Japanese firm came over and they were trying to produce or sell a thermal-setting, a heat-setting rubber pipe. Of course, the reason they were interested in that is if they had something they could fold flat, or compress, or somehow handle like that, they could ship it economically, whereas you could not ship large-diameter pipe very economically from Japan, it's just too bulky, not necessarily too heavy, but too bulky. So they did come over and try to give us a demonstration on this thermal-setting rubber pipe. It was an interesting product The water there carried a fairly heavy sediment load and fairly abrasive sediment, so with a plastic, rubberized kind of fabric, it wasn't going to survive in our type of conditions. But it was an interesting visit [unclear] for a while.

Storey: So this was something that would come rolled up, and then you would treat it with heat.

Pedde: It came rolled up, and they had a little installation train where you pulled the product out, you blew it back to its circular shape with compressed air, and then put hot air into it. The heat would set the pipe into a circular shape, and then, of course, you would cover it up and so forth.

Storey: And make it rigid.

Pedde: And make it rigid. Yes.

Storey: But not particularly suited to your needs there.

Pedde: Not suited to ours. We did refer them to the Engineering Research Center, and I'm not aware that any of that pipe ever went in, so I'm going to suspect it was not all that good a product.

Storey: That's certainly interesting. How long did you work on the R&B project?

Pedde: Well, again, that was ongoing through probably '78, and a little bit tailing out after that. The bulk of the work was probably done by '78, '79, 1979. So that would have been roughly six years, seven years.

Storey: How did your job evolve?

Moving On After Completing the R&B Project

Pedde: Well, again, as I was saying earlier, as we got that lined out, as we got all of our procedures, our standard designs, processes established, and got to be, if you will, more routine, I don't think it was ever truly routine, but got to be more routine, it was possible to assign a lot of that work to other people. I mentioned earlier we used a lot of co-op students, things like that, and then that made myself available for other type activities.

Storey: And what were those other activities?

Pedde: Again, like I mentioned earlier, getting into the operations and the maintenance, ultimately taking Sam Bock's job when he retired, and taking on the overall operation and maintenance responsibilities for the project.

Storey: What were the major issues in the operation of the project?

Rio Grande Project Issues

Pedde: Well, we delivered water down roughly 150 miles of river from Elephant Butte Dam to about 160,000 acres. Since we operated the project, it was our responsibility to assess the available water supply, advise the districts how much they could expect for a given year, whether it was one acre foot per acre or two or three–three was the normal, considered a

full supply–assess the water supply, make available to the district information on what they could expect, make adjustments through the year if we got better precip than expected, or rains, or whatever.

Then beginning with the irrigation season, we'd take orders from the individual farmers. We had a little dispatch shop in Ysleta and Las Cruces both. They would take orders from the farmers, pass the orders out to the appropriate ditchriders, who would see that the water was delivered, measured. It was then reported back through the dispatch office to the irrigation district. They then, in turn, made up a bill for the amount of water supplied, and sent it to the various individuals in the irrigation district. Then that was, in a nutshell, the summer operation.

The winter operation, of course, ditchriders as well, there were some permanent equipment operators that worked year round on maintenance, but in the winter the ditchriders would, of course, take leave for most of the time they worked a six-and mostly a seven-day-a-week shift, and we ran water twenty-four hours a day, so there were three shifts a day. So those folks didn't have a lot of opportunity for leave in the summer months. They'd take leave, and then also perform various maintenance and so forth.

Probably some of the biggest issues in trying to deliver water in the summer were just trying to project the variations in nature. You would get the system primed up and, anticipating hot weather, have a large supply of water coming down the river through the canal system, then you'd get a heavy rain that all the farmers didn't need water anymore.

Then's when the ditchriders, the watermasters, the dispatchers earned their money. Since water in that area is pretty limited, the project's goal was to waste nothing, waste the minimum amount possible out the lower end of the project. That would have been the Texas end. So when you have those rains, you tried to find places to put water, to store it in canals, to do everything you could with it, rather than lose it from the project.

It was not during the time I was down there, but I understand the best records for the project is they lost about twenty-five acre-feet one year. According to what I understand, it was a drought year, and that occurred when one of the ditchriders, Mike Macetas [phonetic] by name, it was Christmas Eve, he was tired, he wanted to go home, so he dumped a check on a lower end of the project that went back to the river and on downstream, and that was their total loss for the year. Just as kind of an aside, Mike retired from the project as a ditchrider with fifty-four years of government service. After he retired, he was so used to doing the job that he commonly went out and rode with the ditch riders, just accompanying them around on their truck.

But like I say, the goal was to make the maximum use of water. It presented a lot of problems, had good folks, a lot of folks spent a lot of hours up at night, things like that, when weather conditions changed or whatever the case may be. Water was in short supply, I mentioned. During the time I was down there, a full allotment was considered three acre feet per acre, and we probably delivered on the average a little over two, so it was about a third short. So again, water management was critical to that particular project, much more so than some other areas.

Storey: How many miles of canals do you suppose you had to deal with?

Extensive Canal System on the Rio Grande Project

Pedde: We had just about 600, 700 miles of canals, major canals, the largest being about 650 feet-per-second. Then I think we had 1,200 miles of distribution systems, smaller canals, secondary supply system.

Storey: So we're talking 1,800 miles of canal that ditch riders had to deal with.

Pedde: Had to deal with, operate, then, of course, maintain, keep the weeds out. Tumbleweeds in the spring were a serious problem. Texas tumbleweeds are four to six foot in diameter,

and when the wind would get blowing down there, a roll of tumbleweeds, you'd fill a ditch. A wet tumbleweed is tough to pull. So that was another one of the annual spring battles, particularly. After the spring, after things got going, the farmers plowed their fields, things like that, we had less of a problem. But in the spring they can be a real maintenance chore when the ditch breaks on certain occasions, things like that.

Storey: Well, being a dumb historian, explain to me why tumbleweeds would be a problem.

Pedde: I suspect by the look on your face you know. Well, again, you take a large tumbleweed four feet in diameter, and they were a fairly thick structure, lots of little branches inside, and so forth. They're very dry, and when they soak with water, they are heavy, extremely heavy. They would get packed into a ditch in front of a trench structure or a culvert or something like that. In some cases they could be a quarter-mile packed in the ditch just filling it for a quarter-mile upstream of a structure. Of course, they impeded water flow, number one, and once they got wet they were tough to move out. Quite often we had to get heavy equipment, backhoes, crateralls [phonetic], that type of equipment, in to move them. It was just a real problem. You couldn't very well burn them. They were soaked, of course. Once they were dry, if you've ever burned a batch of tumbleweeds, they go up in just a really hot flame, and raise considerable risk for fires elsewhere. We did burn a lot of tumbleweeds. I shouldn't say you couldn't burn them. Through the winter, part of the maintenance problem was just to keep the ditches clean, and a lot of tumbleweeds were collected and burned, things like that. But it was just an ongoing chore.

Storey: What about vegetation in the canals?

Pedde: One of the advantages of the R&B program, concrete lining was maintenance reduction. Canals grew a fairly heavy bank cover of grasses, depending where you were at, cattails, reeds, whatever, and they would trap sediment, which made a constant need to periodically clean canal section, reestablish its size so you could move a volume of water through.

An example of the improvements the concrete lining made, we relined a ditch called the Clint Lateral, and let's see, I'm reaching a little bit, but I think that was two-foot-wide bottom when we finished, and it was about three foot deep. The water depth was probably two and a half feet concrete lining, three foot deep. Ditchriders, before we lined that ditch, would turn the heading on and it took a day and a half for the water to reach the other end, which was about eight miles, if I remembered correct. We lined the ditch during the winter. The first time the ditch rider operated that following spring, turned the water on, and he had to drive like mad to get to the other end before it got there ahead of him so that he could reset the structures. But it provided a much faster delivery, and then because of the concrete lining, you didn't need to clean as frequently, occasionally still needing to clean silt, tumbleweeds were still a problem, and things like that. But you'd reduced your maintenance by a tremendous amount.

Maintenance became a matter of keeping roads bladed so ditchriders could get through, and mowing weeds to keep the tops of the ditches and sides and so forth, keep that under control.

Storey: What about rodent problems?

Pedde: We eliminated rodent problems just virtually 100 percent.

Canal Maintenance Issues

Storey: When you lined them.

Pedde: When we lined them, yes. Prior to lining, it was a joke that every ditch was caused by a gopher, and we had a project gopher that always caused ditch breaks. There were quite often ditch breaks associated with rodent burrows.

If you operated a canal at a lower level for some period of time, the ground

squirrels would come in, gophers would come in and burrow into the bank, then if you had a heavy demand and you raised the level of the water in the ditch, it would get into those burrows and sometimes break out, and of course, wash the ditch back out into the farmer's field, cause flooding, and so forth. I have to think a minute, but it was not uncommon to have a number of breaks, particularly in spring when we were first getting started as the rodents had burrowed into the dry ditches.

That was not uncommon to have breaks, but a dozen, two dozen breaks a year were not at all uncommon. Of course, those became emergency response things. You had to shut down the system. If you shut it down very long, of course, crops were stressed, you couldn't get water supply to them, so it became again an emergency kind of response, call out the equipment operators at night, those kind of things.

Storey: With on the order of 1,800 miles of ditches to maintain and control, how many ditchriders did it take working three shifts a day?

Pedde: We had about seventy ditchriders. That number varied a little bit over time, of course. There were about seventy ditchriders, seventy-five or eighty ditch riders, I guess, approximately. Under normal circumstances without the impacts of the R&B, we had about thirty equipment operators, and that was distributed between Las Cruces and Ysleta. After the R&B came on board, we brought on another, I think I said earlier ten, fifteen, maybe twenty additional people, a combination of equipment operators–

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Storey: You were talking about the staffing of ditchriders and equipment operators and so on.

Rio Grande Project Staffing

Pedde: Yes. Again, normal circumstances like, say, we had about seventy-five, eighty ditchriders, and about thirty equipment operators, as I remember, and then we augmented that during the R&B construction with some fifteen, more or less, equipment operators, laborers, things like that to take care of maintenance, to assist the completion of the R&B.

Storey: Were the ditchriders and the equipment operators reporting to you as the person in charge of operations?

Pedde: No. We had two field offices, one in Ysleta, Texas, and one in Las Cruces, Mexico. The ditchriders worked for the watermaster, who is in charge of the overall water operations. The watermaster in each of those branches–I need to back up. There was a field office chief in each of those branches, who was responsible for the operations and the maintenance. The Operations Branch had a watermaster, who was in charge of all the ditchriders and dispatchers. Under the watermaster was a dispatcher. Operation usually had a chief dispatcher or a lead dispatcher and a crew to operate the radio system, to take calls, to take water orders, in effect, and relay that information out to the ditchriders.

The ditchriders were organized into units, with a senior ditchrider and then three or four, depending on the size of the unit and staffing and so forth, ditchriders underneath that individual. They were actually responsible for physically getting the water to the farmer that requested it. They did a lot of on-the-ground liaison, talking to the farmers. If problems arose, they were the ones who would come back and say, "Well, Joe's got a problem. He needs his water now. I can put so-and-so off for a while," and made those kind of changes, and then kept the dispatch shop advised of what was going on. They operated the system, the check structures, things like that.

Watermasters worked with the operations folks in the region and in the project office to get their individual orders gathered up. The ditchriders would take orders, and the dispatchers would take orders, I should say. They would collect those. The watermasters would get together with the operations folks in the project office, and

consolidate a water order. Dan Ferias, who was our chief hydrologist, would take that order and order releases from the dam. Dan and some of his folks would shepherd the water down the river, see that it was diverted at the proper place, at which point the watermasters would pick it up and pass it on down through their ditchrider system to the farmer.

Storey: Gets a little complicated.

Pedde: It was quite an operation. Again, a lot of people making a lot of decisions, doing a lot of good work, really. There were glitches when for either structural reasons or something goofed up, but people didn't get water on time, you certainly heard about that. The farmer was losing a crop. But again, the ditchriders, a lot of the credit for a good operation needs to go to them, because they spent a lot of time out, and as they move around the system, they kept eyes on what was happening, where cotton was getting stressed from the heat too much, or whatever, and they could pretty well predict when an individual farmer or one of their customers was going to order water. So they did a lot to keep things ahead of schedule, if you will, and, of course, when changes occurred, when they had rainstorms or whatever, those folks did an awful lot to make sure the water got moved to the right place, stored, saved, whatever they could do.

Storey: How would you characterize the size of this project as a Reclamation project? Small, medium, large, extra large, extra small?

Pedde: A hundred and sixty thousand acres, I would say it's fair-sized. It's a good-sized project. It's not as large as the largest. The Columbia Basin Project has 600,000 acres under irrigation. The Central Valley Project, some of those have similar type acreages.

Relative Size of the Rio Grande Project

Storey: So maybe a medium-sized one.

Pedde: Medium-sized. In terms of complexity of operation, I would say it's probably as complex as any. You had to know your river system. Again, that was Dan Ferias's job primarily. There were certain idiosyncracies. The river through there, the irrigation project, was really almost three separate valleys, the Rincon, Mesilla, and then the El Paso Valley. Each one had a narrow spot where the river narrowed down either through volcanic flows or whatever. How the river moved through those areas, how it would take a while to recharge groundwater, for example, at the end of the Rincon Valley, it's something you had to know, because it delayed your water delivery by several hours in some cases. Once it had filled that little pocket, then it came through with a sudden slug. So it took a lot of knowledge of the physical conditions, the physical parameters of that river to operate it successfully.

Storey: How long would it take to move water through the system? Do you have any idea?

Complexities of Moving Water Through the System

Pedde: In the spring when we started to really get it through the system, and it took a number of days to get it everywhere, but generally it took us three or four days, plan for roughly a week of getting the system charged, if you will, getting the ditches, getting the main canal system first charged. Banks soaked up a lot of water to begin with, those kind of things, so it took several days in the spring. Again, somewhat depending on if you'd had any real water precipitation or anything like that, which is again not all that common down in that country, but there were variables, but it took several days. Irrigation season, mid-March, beginning of April, again depending on temperatures, things like that, extending through the end of October, sometimes in November, generally through by the end of October.

Storey: I think you said well over 100 miles of distance downstream.

Pedde: A hundred and fifty miles on the river.

Storey: Farmer X on the end of the project wants water, you've got to plan way ahead to get it to him, don't you?

Pedde: Yes, that was part of the process of trying to anticipate water deliveries. That's part of the role the ditchriders played. They had to look ahead and try to anticipate what was happening. Quite a few vegetables grow in that area, lettuce being a very valuable cash crop. Of course, it's got a shallow root system, so it couldn't stand much stress from lack of water. So it was not uncommon to carry what they called a vegetable head, which essentially made a little extra water in the system. It wasn't anything anybody ordered, but they knew they were going to need it to meet some lettuce farmer's demand for a sudden need for water. So those kind of things were gained by experience as much as anything. But those kind of provisions, there was a lot of coordination, a lot of discussion between the watermasters, hydrologists, the ditchriders, in terms of how much water to have and when to have it. Required good judgment on the part of the ditchriders and those folks to do it. If you missed, it could be a serious problem. You'd get a lot of complaints if you couldn't deliver it.

Yes, to take to move water from Caballo, that was just below Elephant Butte, a regulating reservoir in effect, down to the end of the system, that took about a day and a half just in the river. Now, if you wanted to move it through the canal system, then you had to branch out beyond that.

Storey: How many customers did we have on the Rio Grande Project?

Pedde: Oh, boy.

Storey: In 160,000 acres.

Pedde: Eighteen to twenty thousand accounts, I believe. Now, the Mesilla Valley, the New Mexico portion of the project, was, by and large, agricultural. The area around Las

Cruces was subdividing at that time, but at a relatively slow rate. On the other hand, the area around El Paso in the lower valley, there was a lot of subdivision and small tracts, so when they talk about a large number of customers, many of those were relatively small tracts. Community ditch is what they called it down there, delivering an acre or two, that kind of thing. So while there was a large number of tracts, like I say, a large number of customers, a lot of it was in the small tracts.

Storey: Were there any other special problems with ditch maintenance? Tumbleweeds is an interesting one that I hadn't run across before. One guy told me about having to haul a dairy cow out of the ditch that had plugged up a culvert, for instance.

General Ditch Maintenance

Pedde: There were a couple of problems. One was just trash in general. People were forever throwing trash in the canal system–sofas, old tires, almost anything you could name, you'd find in there–refrigerators, electric ranges, whatever. That was kind of a constant problem. Again, a lot of effort just to clean the system to get it ready in the spring, and then to keep it clean during the year.

The other kind of problem, and frequent problem down there, was drownings. I don't know why. Perhaps it was cultural for some reason or something, but it seemed at least in what I'm recollecting, it seemed there were an abnormal number of drownings. I don't know whether people just weren't used to swimming, or didn't know how to swim, or what, but every year we'd have several drownings, which necessitated, again, a rescue operation of some kind, in some cases perhaps shutting down the canal system for a while the sheriff and other volunteers searched, things like that. So, yes, unique operating problems, there were several things of that type.

Some of our culverts were long in the sense that they would cross diagonally under a four-lane highway, for example. If a culvert like that plugged up, boy, that was

work to get it clean. You just had to shut down the ditch, and you sent a crew to work. You'd try to drag things through, and the ditchriders had manufactured several different types of devices. Had kind of like a kid's jack, which was a heavy three-, four-inch diameter bar welded together into a star-shape kind of thing, and they'd hook that to a cable on the back of a Caterpillar tractor. First you'd take plastic pipe and try to snake a lead line through the blockage, then you'd pull your cable through on a lead line, a rope. You'd try to drag this jack or some other device through the culvert to break up the blockage. Quite often that worked. Sometimes they drew old culvert headwalls, or things like that, almost anything they could think of to try to get it through.

In cases where it wouldn't work, all you could do is get in and almost mine it out. A blockage could be causes by anything–a floating board that got hung up on something or crosswise in the channel, like, say, a couch that somebody threw in the ditch. It was just hard to tell what the causes were sometimes, but once it started, you'd get weeds, grass, tumbleweeds, almost anything blocked up behind it.

Storey: On drownings, for instance, did those tend to occur in the more populated areas?

Pedde: Again, probably the most of them occurred in the El Paso area, although in the rural area it was not necessarily uncommon either, but I guess probably just because of more people and more exposure. They did occur frequently in the El Paso areas [unclear] out in the rural areas.

Storey: At that time did Reclamation do anything to try and avoid drownings?

Pedde: We had a fairly intensive education program at schools, for example. One of the project folks, Josephina Derryberry, had developed a little cartoon character, Sammy Seal, and put it out in the form of a coloring book, and used that as an education device. Every year we'd send out 20,000 or 30,000 of those to various elementary schools and so forth. We did have some public radio-type announcements for safety. Of course, there were "no

trespassing," "danger," "no swimming," kind of signs posted in various places throughout the project.

Storey: But tended to be ignored, I gather.

Pedde: In some cases. The canals were an attractive nuisance. Short of the canal system, particularly below El Paso, a lot of the river was dry. in the summer when it's hot that's your source of water. They were an attractive nuisance, there's no question.

Storey: How long did you stay in that supervisory civil engineer position, was it?

Pedde: Well, let's see. That would have been, like I say, '77, '78, probably '77 was probably the time I got promoted to that position. I stayed in that position until 1981–'80, '81. I'd have to think here a minute. In 1979, I applied for and was accepted into the Department's Manager Development Program, and from about August of 1979 through July of 1980, I spent that time in Washington, D.C., in various on-the-job kind of training assignments. That was an eye-opener for myself. Yesterday we touched a little bit on all the different projects operated and independence of them.

Department's Manager Development Program

The Rio Grande Project had historically been pretty independent. It was remote, self-contained, and in a lot of respects there weren't projects upstream, downstream. It didn't have a major power supply that involved a large grid or anything like that.

So I guess when I went to Washington, I had pretty much a project kind of orientation, what we're doing was good stuff, felt proud of it, and so forth. That was the

time of the [Jimmy] Carter administration hit list[4] and things like that. It was a bit of an eye-opener to go to Washington and suddenly realize that maybe everybody didn't view Reclamation and irrigation as a great thing. Like I say, it was quite an experience.

During that time, Keith Higginson was our commissioner.[5] Got to spend a week with him in his office, talking about how he did business, things like that. As a side benefit, that proved beneficial, because now he's the state engineer here in Idaho, so there's a previous personal relationship that's helped over the years here more recently.

Storey: What else did you do on the Management Training Program?

Pedde: Well, there was formal training in the sense of some week long [unclear] and things like that. A lot of it was on the job. I spent about two and a half, three months working in Congressman Vic Fazio's office as an intern or an aide. I spent some time in E-P-A [Environmental Protection Agency]. I did work in the Department and some of the various offices, working with–I don't know if he'd remember me even from those days, but Dan Beard at that time, spent a few days working with some of his staff more than he himself.

Storey: This was in the Department [of Interior] when he was in the assistant secretary's office?

4. Jimmy Carter served as President of the United States from 1977 until 1981 after his election in 1976. Within a few weeks of the beginning of the Administration, an internal discussion document accidently fell into the hands of a reporter. The document proposed cancellation of a number of water projects considered environmentally or economically unsound. This proposal came to be known as Jimmy Carter's "hit list." This happened while Commissioner Daniel P. Beard worked in the Carter Administration, and he discussed his perspective on the issue in his Reclamation oral history interviews and in "The Passage of the Central Valley Project Improvement Act, 1991-1992: The Role of George Miller," an Oral History interview by Malca Chall, 1996 for the Regional Oral History Office, Bancroft Library, University of California.

5. For more information on Commissioner Higginson see R. Keith Higginson, *Oral History Interviews*, Transcript of tape-recorded Bureau of Reclamation Oral History Interview conducted by Brit Allan Storey, senior historian, Bureau of Reclamation, March 22, 1995, and April 19, 1995 in Boise, Idaho, Edited by Brit Allan Storey.

Pedde: That's correct. Yes, that's correct. He was in the assistant secretary's office at that time.

Storey: Yes, he was deputy assistant secretary.

Pedde: Right. Like I say, I worked with E-P-A, did a little bit of work with the [U.S.] Forest Service, spent a little time with [U.S.] Fish and Wildlife Service. They were assignments of sometimes just a few days, generally at least a week to maybe a month. The assignment with Congressman Fazio's office was longer than most. Again, that was also kind of an education in terms of how Congress operates, why a congressman does certain things, and so forth.

Again, one of the things that came home to me was I was working on some budget issues for the congressman, looking at some Corps of Engineers' work. Just as a matter of course, I called one of the district offices and asked about some budget figures, what was the work. They were pretty general questions, weren't anything really critical, just trying to gather information. It probably wasn't two hours later that I got a call from the division office, a colonel. He said, "When you call, you talk to me."

The answers to my questions, some of them I got on the phone, but some they had to give me, came back within two days, handwritten on the back of or on the side of a letter saying, "We'll follow up with more formal answers in a little while." From my experience in Reclamation at that time, we would have never done that. We would have never handwritten a note back.

Also, I think it was probably a week, week and a half later, the colonel was in the office talking to Mr. Fazio to make sure everything was okay. That may have been unique. I don't know if that was true in the Corps overall, but their responsiveness to Congress was really, really kind of impressive, and perhaps a little bit different than what Reclamation might have done.

Storey: And a little eye-opening.

Pedde: A little eye-opening. It was quite an education, like I say. I can remember one particular project. Pat Fulton [phonetic] was the congressman's aide that worked primarily on natural resource issues. There was one vote. I think it was Animus-LaPlata, something to do with Animus-LaPlata, if I remember right. I couldn't understand why Mr. Fazio had voted the way he did. It was not a California issue. I really didn't understand, so I asked Pat. I said, "Pat, why'd the boss vote this way?"

He says, "Why don't you go ask him?"

So I did. I went in and said, "I don't understand why you did that."

He said, "Well, a friend asked me to." That was his reason for voting the way he did. Again, just kind of a little side light that was to me an eye-opener.

"Why would you vote that way?"

"I didn't know anything about it, but a friend asked me to."

Storey: And then he's going to ask his friend to vote his way on something else.

Pedde: That's correct. Later on there was, I'm sure, another exchange between friends. But like I say, from a person who had come from [unclear] field project level work, having worked in a regional office prior to that, had gone there to visit and talked to people and do business, but not had worked in a regional office, the political nature of Reclamation's work wasn't really very clear to me until I went back to D.C. and began to participate in that program. Again, a broadening experience.

Storey: This was the Departmental Management Program, right?

Pedde: This was the Department Manager Development Program. Yes, D-M-D-P.

Storey: Did you design your training program?

How the Department Manager Development Program Operates

Pedde: Pretty much, yes. Some of the more formal training, some of the book-learning, if you will, was pretty well set for us. They established certain consultants to come in, do a week's training. There was training in interpersonal skills as well as business skills, if you will, but more technical skills. Some of that was set for us. That was scheduled and so forth.

In terms of the on-the-job assignments, many of those were negotiated by ourselves, and were the type of thing we worked out with whoever we wanted to spend time with. The Personnel Office back there at the time, Frank Beckeridge [phonetic] was particularly helpful to me, and Billy Spillers [phonetic] and some of their staff would help us do some of those, and would maybe suggest some areas for contacts, or people that had worked with the Development Program before and had been receptive to having strangers in their office kind of thing. So they would help suggest areas, but it was pretty much up to us to lay out the program, talk about the areas we wanted to get other experience in, and then go about negotiating some kind of arrangement with the folks we were going to spend time with.

Storey: Had you had a career plan as you were doing your work?

Pedde: I don't know that I could say I had a career plan in the sense that I had some goal that I was going to be the commissioner at some point in time or anything like that. Part of the Department's Development Program was to sit down and do some of that, talk about where your strengths and weaknesses were. There was an Assessment Center where you went as part of the application process, and you got feedback from that. So in that sense,

yes, we did develop some career plans and maybe a broader outlook on where we might like to be, where our skills might lead up, and so forth.

Like I say, prior to that, I don't know that I had a real objective in Reclamation. Yes, to advance, do more and more interesting things and so forth, but I don't know that prior to going back on that training program that I had a specific goal to say I was going to be a regional engineer or regional director or commissioner, whatever, like that.

Storey: What did your design your training program to achieve?

Pedde: A broader knowledge of how other agencies operate, as well as how they view Reclamation. Like I say, I spent some time with Fish and Wildlife Service and E-P-A as maybe a couple of key examples of that. At that time, of course, E-P-A, Fish and Wildlife Service, Reclamation, were pretty much at odds, even more so than we are now, I would say, in terms of what's the best thing for the water resource. So I guess I felt a need to go over and try to understand those folks a little better. So that was a major emphasis in trying to do.

The other was, and I don't know that it was a given, because I don't think any of us were forced to do anything particular in our training programs, like I say, we designed them a lot ourselves, but it was strongly encouraged that you spend some time on Capitol Hill and you understand the legislative process as much as possible. So there was some strong encouragement that way.

Storey: Of course, this would have been maybe about ten years into the environmental movement at that time.

Pedde: Yes, probably about that when it was really picking up steam.

Storey: Were you thinking in terms of the environmental movement as you designed your

program?

Pedde: No, not really. At that time, I don't think it was a major consideration. At that time, what we were doing, lining an existing system and so forth, there probably were some spinoff impacts in terms of maybe wetlands or something like that. It wasn't really creating a new project, and some of what might be associated, the type of impacts associated with building a new dam, or developing a new irrigation system, or something like that. So when I'd been in Pueblo, there was more consideration of that. I don't think there was the acceptance or the importance placed on it that we might today. But for example, when I was designing the Mount Elbert Canal, or working on the design data, the preliminary designs for the Mount Elbert Canal, aesthetics, visibility, things like that, were considered. I don't think, like I say, anywhere near the degree we would do it today. But it was, shall we say, a budding movement. Maybe it was a budding awareness in Reclamation at the time.

Storey: But it didn't influence the way you designed your training program?

Pedde: Well, like I say, I think because of some of the controversy between Reclamation and what it thought was the proper way to go, thing to do, whatever, and where others, Fish and Wildlife Service and E-P-A, seemed to be coming from, I think it did help. I think it did influence the designs somewhere, the way I designed my program. I think, and maybe I misunderstood your question earlier, but I don't think it really, prior to that, that environmental concern had not really influenced how we rehabilitated El Paso Irrigation District, for example, [unclear].

Storey: I thought you had understood it that way.

Pedde: No. How I designed the program that I took in Washington, D.C., I think that did have some considerable influence.

Storey: What was Keith Higginson like as commissioner?

Commissioner Higginson

Pedde: Friendly, open, willing to talk. At the time it didn't mean much to me, just wasn't aware, but one of the discussions we had is how he really didn't think Reclamation was even right in the way they planned, designed, and, I guess, lobbied might be the right word, but pushed forward the Teton Project. He had been state engineer here in Idaho when that was being designed, and he had some real reservations about what Reclamation had done and what was the proper thing to be doing, not necessarily from an environmental concern, but in terms of technical concerns and things like that. Now, being here in Idaho, and having a better understanding what he talked about, it probably has a little more meaning. But again, it was one of those eye-opening kind of discussions, when here is a person in the water development business, former state engineer, things like that, who was questioning Reclamation's judgment, its direction, what it was doing.

Storey: This would have been after the dam failure.

Pedde: Yes, this would have been after the dam failure.

Storey: Actually, very fairly recently.

Pedde: Fairly recently. His concerns were not about the structural integrity of the dam, it wasn't that, but it was how much water we're applying. What was the real need? Were we meeting a real need, or were we meeting something that maybe was a little bit overblown? His concerns that we discussed were in that arena as opposed to any structural failure kind of issues.

Storey: That's interesting, because I have picked up in the Denver office from somebody who had retired from the Denver office long ago, that they felt as if Reclamation had been forced

to do the Teton Project, and that it had been done unwillingly. Did you ever get any perspectives on that?

Pedde: No, I really didn't, and not certainly from Keith Higginson. I guess I never picked up that Reclamation particularly had been forced into doing the Teton Project.

Storey: Well, let's talk about Mr. Higginson.

Pedde: Okay.

Storey: So you wouldn't say he had what they would describe as an autocratic or a dictatorial management style, then, maybe.

Pedde: Well, Keith–I guess I would class him as a no-nonsense manager, but he was very receptive to having a relatively young kid follow him around, sit in on his meetings, go talk to anybody he'd talk to. Certainly he had some strong feelings. He has them today. You can see it in his management style today. I wouldn't call him dictatorial, but you know where he stands at all times. So like I say, I wouldn't class him as dictatorial. He definitely had some very strong opinions, was not unwilling to share them with people, but at the same time was open to sitting down and discussing what he was doing and why he was doing it, and so forth.

Other than, I think, if I remember right, during the week I spent with him, there was one meeting when he went to talk to the secretary, and if I remember right, it dealt with some personnel issues that I didn't go to. The rest of the time I could go anywhere he could go.

Storey: You were uninvited, in other words.

Pedde: Yes. I was uninvited.

END SIDE 2, TAPE 1. DECEMBER 8, 1994.
BEGIN SIDE 1, TAPE 2. DECEMBER 8, 1994.

Storey: This is tape two of an interview by Brit Storey with Kenneth Pedde, on December 8, 1994.

You were saying that you were not invited to participate in a meeting between Mr. Higginson and the secretary, who would have been Cecil Andrus.[6]

Pedde: Would have been Cecil Andrus. That's right.

Storey: That's interesting to me, because other people have characterized shadowing the commissioner exactly the same way–took them anywhere, went anywhere, except they were uninvited when he went to see the secretary.

Pedde: Like I say, I think, if I remember correctly, the issues he told me they were dealing about were personnel issues, which, again, if there were some sensitive issues, it was appropriate not to go. In terms of dealing with the secretary's staff, again, for example, Dan Beard at that time, I can't remember there were any meetings that I was not included in, things like that.

Storey: So after you had completed the management program, you went back to El Paso?

Pedde: Went back to El Paso.

Storey: Did you take your family to Washington?

Pedde: I did. The family was fairly young at that time, so it was relatively easy to move them. I

6. Cecil Andrus was Secretary of the Interior during the administration of President Jimmy Carter from 1977 to 1981.

looked at it as kind of an adventure. We spent a lot of weekends touring museums, Civil War battlefields, things like that.

Went back to El Paso, back to my previous job in terms of managing the operation and maintenance of the project. I'm trying to think here a minute. Jim Kirby retired in '80 or maybe it was early '81, and I was selected to replace him as the project superintendent at that time.

Storey: About how long would that have been after you returned?

Pedde: About nine months or so, a little short of a year, as I recollect. Let's see, '79, '80, yes, it would have been about nine months or so.

Storey: So that was actually fairly efficient implementation of your management program.

Pedde: Yes. That worked out fairly well in that respect.

Storey: Did you have any thoughts on the way the management program went, ways it might have been better or improved and so on?

Pedde: Well, first off, I think it's an outstanding program.

Storey: It *was*.

Pedde: It was. Yes, it was. I would encourage anybody who had the opportunity to participate in it to really try. One of the things that I do see today, and it's getting more and more critical, is an appreciation of the political aspects of what we do. There is a lot of controversy about what we do as we're changing and so forth, salmon issues and things like that. There's just a huge political aspect of our jobs. Competing for funds, budgeting process, and so forth, is a political process. That was a real eye-opener to spend time

working with a congressman. I understand a little bit better about some of the issues they deal with, and not just the natural resource issues, but even just the general constituent issues on Social Security and military and all of the other things that a congressman has to deal with. It was also very helpful to understand better how the Department works, what happens, why it sometimes seems to take so long to get things responded to, and, of course, that changes with different commissioners, secretaries, things like that. But that program was outstanding.

Could I recommend changes? I don't know that I could recommend a whole lot. The only recommendation I would have, it ought to be available to more people. I see a need as we go forward in the future for people who can–we have two types of need. We definitely need technical experts, hydrologists, the biologists, and so forth, but we also need a group of people that can deal with a wide range of issues and deal with political aspects, appreciate those, can factor them into planning or whatever we're doing, and deal with a wide range of publics, wide range of viewpoints on what we do, good, bad, indifferent, can deal with controversy, things like that.

So that type of knowledge, I suppose there's other ways to gain it besides the Departmental Development Program, but that type of knowledge is valuable, and being able to actually take a controversial issue and shepherd it through a process wherever the process is, whether it's public or internal within Reclamation, in the Department, being able to deal with Fish and Wildlife Service concerns or E-P-A concerns and so forth, is some kind of skills we need.

Storey: I forgot to ask you why you chose Mr. Fazio.

Pedde: At the time, the delegation from Texas was not real receptive to that type of a program, and it was a new delegation to an extent. Again, Mr. Carter's election just prior to that, some of those things. There was still some uncertainty about the relationship between the bureaucracy and the political leadership. So some offices just aren't receptive to it.

Through whatever connections, I can't honestly say particularly what all the connections might have been. Frank Beckeridge at the time knew Mr. Fazio probably would be receptive and helped me make that approach.

Storey: Did Mr. Fazio have anything to do with water bills or anything like that?

Pedde: Well, in California with the Central Valley Project and so forth, yes. He was interested. His district does contain a couple of major water districts and so forth. So, yes, it had something to do with his constituency and the type of things he was involved in.

Storey: What was new and exciting for you when you became project manager, other than the fact that you had a project now under your thumb? How many people, maybe?

Returns to El Paso as Project Superintendent

Pedde: Well, at that time we completed the transfer of the operation and maintenance to the irrigation districts. Again, there was some tailing-out we were doing, but essentially that had occurred. So at that time I think we were down from a staff of probably a peak of around 135 people, we were down to a staff of probably 45, if I remember right, at about that time.

Storey: Rather than moving on then to your project manager, because we only have even fewer minutes than I thought–

Pedde: Yes, just a few minutes.

Storey: Do we have enough time to discuss the transfer to the districts, or is that going to take more than five minutes?

Pedde: It probably would take a little longer time if we want to do it justice.

Storey: Yes. Let's not do that then this time. Why don't we just stop. Why don't we stop now. This seems like a natural place. Then we can pick that up next time and move in into your project superintendency. Is that what they called it in those days?

Pedde: Project Superintendent was the formal title or the proper title at that time.

Storey: I'd like to ask you whether or not you're willing for the tapes from this interview and the transcripts to be used by researchers both inside and outside Reclamation.

Pedde: Yes, I have no problem with that.

Storey: Great. Thank you very much.

END SIDE 1, TAPE 2. DECEMBER 8, 1994.
BEGIN SIDE 1, TAPE 1. MARCH 21, 1995.

Storey: This is Brit Allan Storey, senior historian of the Bureau of Reclamation, interviewing Kenneth Pedde, assistant regional director of the Pacific Northwest Region of the Bureau of Reclamation, in the Regional Offices in Boise, Idaho, on March 21, 1995, at about one o'clock in the afternoon. This is tape one.

You were saying that you remembered the name of the Fryingpan-Arkansas person.

Pedde: When I first came to work there, that was Jim Ogilvie. I couldn't remember his name last time. Of course, I had a break for military service. I was only there in Fryingpan-Arkansas for about six months, and then I had a three-year military hitch. He had departed by the time I got back. So I didn't know him long. He went on to be, I guess it was, chairman of the Denver Water Board and some other things. What little I knew of him, he seemed like a good individual, good project manager.

Storey: When was your military?

Pedde: I spent between January of '67 to December of '69.

Storey: In which branch?

Pedde: Corps of Engineers. Military aspect of Corps of Engineers.

Storey: And where were you stationed?

Pedde: Had short session in Fort Belvoir, Virginia, basic officer training kind of things, then spend two and a half years in Nuremberg, Germany, as post engineer there.

Storey: I think we discussed this before, didn't we?

Pedde: Might have touched a little bit on it, yes. It was one of those lifetime experiences that you–

Storey: You ended up with a lot of people under you, as I recall.

Pedde: A lot of people, not knowing exactly what I was doing.

Storey: We were talking last time, I believe, about the Rio Grande Project, and I'm particularly interested in the transfer of O&M to the irrigation districts or to the water districts on the project. Could you talk about that kind of issues that came up, how long it took, that whole complex of things?

Transferring Rio Grande Project O&M to the Districts

Pedde: Okay. Prior to the transfer, the project was essentially run by government employees.

We took the water from the reservoirs, delivered it right down to the farmer, operated and maintained the project, did the maintenance, operated the system, and so forth, with government employees. We delivered the water to the farmer, sent the water delivery record to the districts. They, in turn, then would bill the farmer for the amount of water used and appropriate charges and so on.

Let's see. Probably in 1977 was the beginning of it, but really the activity was mostly in '78, '79, and a little bit in '80. Entered into a program to transfer that function, the operation and maintenance, to the districts. Prior to the transfer, we had–and the numbers varied, again, over time, but we had probably 120 to 130 employees involved in the operation and maintenance. All the equipment was government-owned, vehicles, everything was government property, of course. Began negotiations to discuss with the two districts, the Elephant Butte Irrigation District and the El Paso County Water Improvement District Number One, transfer those facilities.

Thinking back, the discussions themselves went fairly well in the sense that the districts were willing, wasn't a lot of debate about doing it. The time-consuming efforts, the work was in how you get it done. Of course, you have some hundred-plus government employees who are now going to either be out of a job or working for the districts, a whole lot of personnel issues, a whole lot of uncertainty, of course, concern by the employees about what their jobs would be, what their life would be like after transfer, things like that. Went through all of the processes, the personnel processes, of determining–one of the requirements is that the gaining organization, in this case the water districts, either paid severance or had to offer the employee a comparable job, including benefits package. Didn't have to be identical, but comparable. So went through all the processes of determining what comparable benefits were, things like that. A lot of those kind of details.

The process almost needed to be phased. You couldn't just all of a sudden stop one day and start the next day with a brand-new organization, although some parts of it

did do that. But questions, well, could non-government employees drive government vehicles, and just lots of details like that.

Interesting process. At times harmonious, at times not so harmonious. The one that stands out most in my mind is it was just a few days before the final transfer. Everything was going to transfer to the districts. One of our managers, one of Reclamation's people, field managers, called up and said, "The district manager won't let me in the warehouse to get tools and supplies." There was a series of calls between my boss, project manager at that time, Jim Kirby, and the district manager. It wasn't resolved, and I was set up with the job of making sure the warehouse stayed open and the employees kept working until it was time to transfer the facilities.

So myself and the district's assistant manager, his treasurer and comptroller person, kind of sat across the counter. His instructions were to make sure things didn't happen; my instructions were to make sure things did happen. I can remember the discussion kind of came down to, from my point of view, we were going to work until the day we closed the doors, and if they were afraid we weren't going to account for some material or supplies or something was going to get stolen or disappear, then they could station somebody at the door and watch every piece that went out the door, but we're going to work until the day we quit. And we did. It worked out that way.

Storey: What were they concerned about?

Pedde: Nominally, that people would walk off with tools, equipment, supplies, things like that. I don't know if that was a legitimate concern or a power play, if you want to be honest. It might have been an attempt to just exert influence, shall we say. I'm not certain to this day; I really don't know, because we did not have critical problems with that. Certainly tools got used and lost and things like that. You have 130 people working, things like that occur. My perception it was more a power play than a legitimate concern, but that's just a perception on my part.

Storey: What does comparable mean?

Pedde: Comparable salaries?

Storey: Yes.

Pedde: Benefits package? Well, of course, on the federal schedule you have a salary. Depending on grade and so forth, you have certain leave privileges, certain rates of earning leave, sick leave, things like that. In terms of working for a private organization, well, federal health insurance would be another example of benefits. When you go to a private organization, of course, they don't have the federal health insurance program. So it was necessary to determine that they did have some kind of health insurance program that was approximately equal. I won't say identical, and certainly not identical, and maybe not even completely equal, but that they did have to have a health insurance program.

There had to be a retirement program. Again, it wouldn't be exactly the federal program, but a combination of some kind of Social Security program or annuities, or something like this that would ensure the employees of some kind of retirement program, health benefits, leave accumulation accrual, those kind of things.

At this point, I couldn't even really compare the programs anymore. I'd have to think back a lot about what the districts offered. I remember some of the things, but not enough details to remember how the two programs compared, how the two packages compared.

Storey: Did I understand you to say they either had to offer a job with comparable salary and benefits, or they had to pay severance pay?

Pedde: Pay severance pay for those employees that were not offered a job.

Storey: So they were paying severance pay to federal employees to whom they did not offer a job?

Pedde: Literally, yes. In the end that was it. The federal government, of course, wrote the severance check and so forth. But they were responsible for reimbursing the government for that expenditure.

Storey: Did they have problems about taking a lot of the employees?

Pedde: Not a lot. Most of the employees–I don't know if I could remember a number even anymore. Most of the employees went to work for the district. Some who were eligible, retired. There were a few folks that for one reason or another the district had concerns about hiring, and some found other employment, some worked for the district anyway. There was a mix of activities that took place. But by and large, and I'm really just kind of guessing here at this point, but I would guess probably 90 percent of the folks went to work for the district, or voluntarily retired. It was not an adversarial situation in most cases. There were a few cases that for various reasons the district was concerned about picking up certain people.

Storey: Was there a problem about the comparable paying benefits issue? Did they feel that was too much money or anything?

Pedde: No, not really. You mean in terms of picking up the employees versus severance or things like that?

Storey: Well, there is often a perception that federal employees are overpaid.

Pedde: Oh, okay.

Storey: Even though we know that the salary scales tend to be 30 percent less than comparable

jobs in the private industry. I was wondering if they were kicking about what they had to pay.

Pedde: Not really. Again, I think without some kind of requirement like that, they may have made a substantially smaller offer, but it was a requirement of taking over the district. They were agreeable taking over things. Again, this was not an adversarial kind of transfer in the overall sense. So they said, "Hey, that's the cost of taking over these operations." Again, today, I've not been back to the project in a long, long time, so I don't know if their salaries, if they capped them, and have declined since, or just what's happened. So I can't even tell you how that's gone.

Storey: What does transfer of O&M mean for Reclamation? What I'm trying to get at here is, when we were operating the project, if I understand it correctly, if there were any construction costs left, we would have been collecting construction repayment monies and O&M annual monies.

Pedde: Whatever we expended, yes.

Storey: So presumably the O&M collections went away?

Reclamation's Responsibilities After the Transfer

Pedde: The districts were then responsible for that so they established their own rate, whatever the costs were, whatever they charged their water users. It was their cost, not a federal government cost. Prior to the transfer, annually we would present to the districts a budget, and it was quite detailed in terms of salaries, vehicle replacements, things like that, that it was usually presented sometime before their budget year began so they could set their rates again to charge the water users. Sometimes that got quite contentious when they were trying to hold down costs, and Reclamation had salary increases or whatever to deal with. So sometimes those annual meetings got a little bit contentious. But we

would, in effect, send them a bill. We generally discussed the budget with them beforehand, gave them an opportunity to comment, negotiate a little bit, and then we'd send them a bill for our services, in effect.

After the transfer, of course, all of that function was their responsibility, so other than some residual work we may have done, and we did continue to manage some of the diversion dams where several agencies, Mexican water involved, and so forth, other than that and residual work, we had no bill to send them.

Storey: This was in the eighties, did you say?

Pedde: Late seventies and [unclear] in 1980, late 1980, a little bit into '81. Some discussions continued on for a while in terms of just how to manage some of the facilities, the diversion of water to Mexico, and things like that.

Storey: The Rio Grande Project is one of the very earliest projects.

Pedde: Right. Roughly, 1908. I think 1908 was the Mesilla Diversion Dam was completed.

Storey: Why did it take so long for us to transfer O&M responsibility to the districts?

Pedde: I don't know if I can give you a good answer. Part of the reason was there was a delivery of water to Mexico required. The treaty with Mexico, 1906 was the treaty, specified that they would annually get 60,000 acre feet of water. The International Boundary and Water Commission was essentially responsible for that, but since Reclamation was the operating entity for a long time, essentially, we just did it. I remember my boss, Jim Kirby, at the time, commenting once. This was in the beginning when we were discussing transfer, and the Boundary Commission was starting to get involved, and how the Mexican water was going to be handled and accounted for, and so forth. Jim once commented, he'd been project manager there for a long time–fifteen, twenty years–and he spent his entire career

there, but he'd been project manager for a long time, he commented that it always amazed him that where a relatively minor government official like himself, a GS-14, I think he was, literally delivered this water to Mexico and nobody ever questioned it. It was just part of the project operation, and was done, and that was it. When we began to transfer and there was other potential, at least for other entities to be operating the system, to be impacting Mexico's water, then the Boundary Commission became more involved and have some discussion over just how it would be accounted for, and who was responsible, and so forth. That's part of the reason, I think.

The other reason, I think, maybe might be just the relative isolation of the project. Again, talking with Jim Kirby, he commented once that his predecessor–it was still common in the fifties that to get to the Regional Office in Amarillo, you got on the train. You worked on the day coming up, you went to meetings in Amarillo, and then you took another day to get home. Airplane flights just weren't that common. It was a three-day trip by train to get to the Regional Office. So I think those two things would be my guess is why it took so long–relative isolation. It was relatively well managed, a fairly efficient project, too. There probably wasn't a lot of pressure to transfer. The districts paid the fees, it wasn't a heavy government outlay, things like that. But then, like I say, I don't know if I could really tell you all that history, what prompted things to go in that direction.

It was one of the last projects. I have to think a minute. I wouldn't want to say this, swear on a stack of Bibles about this, but it may have been the last project that the government operated. There may have been one other that was still being operated essentially by the government, but if not, it was one of the last ones to be transferred over to irrigation district users.

Storey: I don't remember whether I asked you about Jim Kirby and what he was like last time.

Pedde: I think we may have talked a little bit about him. Jim was a red-headed Irishman. Does

that sound familiar? Maybe we talked about this.

Storey: No.

Pedde: I found him a good boss to work for. He was always willing to talk. He may have made a decision, if you didn't like his decision, he was all okay with somebody coming in and saying, "I don't like this." He'd listen to you, and he'd say, "Well, I appreciate that. I understand that, but I've decided anyway," and you go on about your business. Intelligent man; worked well with the districts. I wouldn't call him a pushover by any means, but he learned how to work with the district managers and keep things under control, and the budget issues, I mentioned, could be contentious. Well, he knew how to deal with those kind of things. A capable individual. I learned a lot from him. I think he was in part responsible, if not part, a large part responsible, for where I'm at in Reclamation. He took the time to be a mentor. He arranged for me to go to the Departmental Manager Development Program. I don't think I even knew it existed until he suggested that maybe this was something I wanted to do, that kind of thing.

Storey: Then when he retired, you became project manager?

Pedde: When he retired, I took over the project.

Storey: And he's still living in the El Paso area?

Pedde: He's living in the El Paso area last I knew, and I've not talked with Jim for some time. As far as I know, he's still down there. When he retired, he did some consulting and so forth. Jim had been very active in the professional aspects of engineering, was a member of the Texas Board of Registration for Professional Engineers, things like that and, I think, like I say, probably still active down in that area, although Jim now would probably be in his mid-seventies. I'm guessing. I don't know, but probably about that age.

Storey: One of the things I'm particularly interested in is what happens to a project when we transfer the O&M responsibility to the districts. We have a responsibility to assure that the federal interest is protected, and that means, I would presume, that we have to make sure the facilities are maintained and so on. It would seem to me that in a situation like that, there would be a lot of opportunity for disagreement about what is adequate operation and maintenance activity on a project. How do we oversee the district's O&M activities to assure that the public interest is being protected and that the federal investment is being protected?

Pedde: Well, probably in a couple of ways. First off, when a district takes over, they have a vested interest in seeing that the facilities are properly maintained, too. So while as a federally operated project we quite often get grief about the budget and so forth, when they took over, it became their responsibility when things didn't work. It became the manager's responsibility–the district manager's responsibility. Before the takeover, the district manager's responsibility was to keep our budget down, and if things didn't work, well, that was Reclamation's problem. When they took over and assumed the whole responsibility, it became more of a balancing act between adequate maintenance and keeping the budget down, and that whole responsibility rested in one house, in the district's house. So probably, like I say, in some ways maintenance did change to a certain extent, but it also became probably a better operation in a sense, that the people who were responsible for the ultimate product and the delivery also then were responsible for the budget and could make some choices about how they did things and not.

How do we keep track? Well, of course, Reclamation does have some regular review of maintenance programs where Reclamation staff go out and review facilities, whether they're dams or irrigation ditches and so forth. With the transfer of the project office, it didn't go away. The office got smaller over time. I think initially when we had the transfer there were still about forty-five, fifty Reclamation people there taking care of some residual functions, things like that. As time has gone on, I think that staff has been quite a bit smaller, and I honestly don't know what the staff is down there today. So it's a

process of doing some review of maintenance.

We have good relationships, and there is always a goal, of course, to have a good working relationship with your districts. Quite often they may even call for assistance in terms of technical support of one kind or another, or if they're having a particular problem, they may ask somebody to come out and give us some advice. Through ongoing relationships, we hold water management schools and things like that, which help us build a relationship, help transfer knowledge to those folks so they will maintain and manage the projects.

In that particular project, more controversy came around operations as opposed to maintenance. The Texas line down where Texas and Mexico join is very erratic, if you follow that old meander line of the river. In some cases, some of those ditches would cross from one state to another two or three times before they ended. So New Mexico would be delivering water to Texas, who would use some of it, deliver the remainder of it back into New Mexico, who would use some of it, deliver the remainder of it back into Texas, before it returned to the river or the end of the ditch. The accounting at the state line was one of the major issues we tried to deal with in terms of how are you going to do that, who's going to do it.

The other thing, of course, is in the sense of maximizing the total use of the water supply for the project. Water's very short down there, of course. The project had a real good record of being able to move water around. For example, say it's the Fourth of July, the weather's hot. You've got a heavy demand, a lot of water in the system, and all of a sudden it rains. What do you do with the water? When we had both districts, we could manipulate them. Water that was intended for Texas, for example, we'd put some in New Mexico canals for someplace to store it and slow it down and so forth. At other times when there was a shortage, something went wrong, perhaps it was a shortage on the low end. At times Marshall Cunningham was one of our watermasters. We'd go out and ask some of the New Mexico farmers to kick on their personal wells and put the water into

the system so that they could serve Texas. It actually happened. People would do that for each other.

When you divided that, of course, that became a controversy. Who was going to manage the water? How we were going to be sure that its use was maximized and properly used so that you wouldn't waste a lot of it, or somebody would not be short, and things like that? I think, as I understand, and again, not being down there recently, I understand the districts have worked that out among themselves, not without some controversy, but they've worked that out. Reclamation still does provide some service in that area, but more and more the districts are working that out among themselves as opposed to us being involved.

Storey: So you didn't see a lot of major problems coming up then, is what I think I'm hearing?

Pedde: When you say "coming up," in terms of the transfer and so on?

Storey: Yes, in terms of maintaining the system and so on.

Pedde: No, I don't think so. I think probably there's a lot of reasons to do that. Again, it makes a lot of sense to have the people who are benefitting from the system have the major say in how it's operating. As federal agencies, when we operate it, we get directed from above. Salaries were set, not necessarily by our choosing or by any discussion by the districts, it was set by whatever law, whatever union negotiation and so on. That, of course, transferred to the districts, and whether they liked it or not, and we didn't necessarily have a lot of choices in some of these things either.

When the responsibility and everything became that of the districts, of course, they were involved in the salary-setting and enforcement of whatever laws, or if there were water-quality laws to be dealt with and things to be taken care of of that type, they were the people responsible for it and could say how much they were going to do or how

much risk they were going to take if they didn't do it. So it's probably a good thing to happen. It's probably something that should happen. The beneficiaries ought to be in charge.

Having said that, I'd also say that it was not a bad deal to have the feds run it. If you looked at the overall project, it was run fairly efficiently, the water supply was used properly. We had that flexibility that I mentioned earlier to make adjustments easier.

I think the project had a year of drought, and the most water they wasted was about twenty-five cubic feet. That happened on Christmas Eve when Mike Masias, one of the ditch riders, it was Christmas Eve, it was cold, nothing was happening. He was tired. He pulled a check structure, he drained the water out to the river, and went home for Christmas. Prior to that, they would have essentially used the project water supply with zero loss. I don't know, and again, I don't know honestly, but I speculate at least initially they probably were not that efficient in the projects because of the differences between the districts and between the states in trying to work out the various arrangements. Is that good or bad? Well, it's different. Mike Masias spent fifty-four years working for the government–I may have mentioned this last time we talked–he spent fifty-four years working for the government as a ditch rider.

Storey: I think you did mention him. I have here a note that says that I want to discuss honey issues on the Rio Grande Project with you. Does that make any sense to you?

Honey Production on the Rio Grande Project

Pedde: Hunting?

Storey: Honey. Honeybees.

Pedde: Oh, okay. Okay. Yes, okay. Honeybees. Odd problems you get involved with.

Elephant Butte Reservoir is about a million acre feet, a dry area. Generally the reservoir did not fill, and matter of fact, I think it filled and spilled in 1942, and then it never filled, never spilled water again until 1987, I think it was. So there was a lengthy period in there where the reservoir was often at less than full capacity. A full supply of water was considered to be three acre feet of water delivered to the farmer's turnout. I think for that period of time or roughly that period of time in there, the average delivery was about 2.1 acre feet per acre, so about two-thirds of a full supply was the average for the project.

As a result, much of the upstream reservoir area got infested with salt cedar, which is common in the Southwest.

Storey: And also known as tamerisk, right?

Pedde: Tamerisk. Right. Yes. A phreatophyte, a large consumer of water, generally not thought by many people to be a real beneficial tree in any respect. But in the reservoir there developed a honeybee industry.

END SIDE 1, TAPE 1. MARCH 21, 1995.
BEGIN SIDE 2, TAPE 1. MARCH 21, 1995.

Storey: We're talking about a honey industry being established on the tamerisk in the reservoir area.

Pedde: Right. On the tamerisk in the reservoir area, and to a lesser extent, the Flower Reservoir, but that was a smaller reservoir where we could manage the inflow and kept it full much of the time.

But there was quite a honeybee industry. When we began developing plans to clear the reservoir, try to eliminate the water consumption of the phreatophytes, we ran into a real buzzsaw. The interesting part, and again, folks had a legitimate economic

interest there, the thing that always struck me funny is if you've ever tasted salt cedar honey, it is not a sweet honey at all. I don't even know how to describe the taste. It's a very dark honey, very dark brown, not really sweet, and like I say, I don't know how to describe it.

Storey: It's not what you would describe as quality honey.

Pedde: Not quality honey by any means, not clover or alfalfa or orange blossom or anything else. But to those folks, it was an important economic source. We did work on clearing some more and so forth, but we did end up also granting some honeybee hive permits, some grazing rights, if you will, to the bees, and began to manage the honeybee industry out of there, too.

Like I say, in some ways it's odd what develops as part of the projects benefits, if you will, things you don't necessarily expect at all.

Storey: I can't imagine that salt cedar honey would be particularly good.

Pedde: Yes. Like I say, I wish I could describe the taste. I was going to say, I don't even know what they really use it for, to be honest with you. I don't think it was a commercial product like clover honey made for human consumption. I don't know if they used it for cattle feed or some other source. I really don't know where the honey was used.

Storey: Well, I'd like to continue. However, we're at the end of our two hours, even though we got started late because of our conversation, but I appreciate it. I'd like to ask you if you're willing for the tapes and transcripts from this discussion to be used by researchers.

Pedde: Yes, I'm willing. My hesitation, Brit, and let me think about this a minute. We're scheduled to get together later. Maybe I can confirm this answer then. I was thinking about my discussion about some of the controversy with the irrigation district there,

particularly those last few days, and I'd hate for that to be a cause of dissension. What, fifteen, twenty years later, I'd hope it would not be, but I guess I was thinking about that as you asked your question. I'm willing.

Storey: Okay. Good. Thank you.

END SIDE 2, TAPE 1. MARCH 21, 1995.
BEGIN SIDE 1, TAPE 1. MARCH 24, 1995.

Storey: This is Brit Allan Storey, senior historian of the Bureau of Reclamation, interviewing Assistant Regional Director Kenneth Pedde, in the Pacific Northwest Regional Office in Boise, Idaho, on March 24, 1995, at about 11:30 in the morning. This is tape one.

How long were you, Mr. Pedde, at the Rio Grande Project?

Pedde: Well, totally from 1972 through 1982. In '79 and '80, for about nine months I went to Washington, D.C., on a long-term training program. When I came back from there in 1980, a few months after that, Jim Kirby, my boss, retired, and I was selected to fill his place a few months after he retired.

Storey: What kind of a training program?

Development Manager Program was a Positive Experience

Pedde: It was Department Manager Development Program. In a nutshell, went to Washington for roughly nine months, about ten months, probably. It was a program to combine some formal training, but a lot of on-the-job work, detail assignments from anywhere from a week, generally they weren't less than a week, up to two or three months, with different parts of the Department, different agencies in government, including and depending on your wishes and what kind of program you worked out, even some time working for a

congressman or a senator on the Hill. For a person who'd spent all of his life in the field, and working at project level, that was an enlightening experience.

Storey: Tell me.

Pedde: Well, it was just to understand some of what was happening in Washington, D.C. Keith Higginson was the commissioner at that time. For example, spent a week following, shadowing him, went to all his meetings except a couple. Keith was good, by the way, in terms of letting everybody attend his meetings, but went to all of his meetings except a couple that dealt with people issues, and one where the secretary called him down. But the rest of that time I spent a week with the commissioner and talked to him about what he did and why he did it after particular meetings or decisions or whatever. So it was interesting from the sense that with the commissioner, for example, we spent some time talking about what he thought was wrong with Reclamation. Now, when you're fairly early in your career and you've joined the–been out in the field, it's a bit of an eye-opener to have somebody say, "Well, you didn't do this right." Like I say, it was a real educational experience.

Likewise the time on the Hill to appreciate the politics there of things that went on, how some of the committees did their business, subcommittees, committees did their business. I worked for Vic Fazio. I spent about three months up there working for Vic Fazio who's out in California–House of Representatives out in California. In effect, served as a staff person for him. Attended some of the meetings he went to. Worked on budget issues for him, things like that. Like I say, it was an interesting education.

Storey: Did you design your program?

Pedde: Pretty much designed the program with the help of Frank Beckeridge, specifically, and some of the folks back in Washington. It was an individual program. You're to do the things that you felt you wanted to do. It was a selection process leading up to and

including an Assessment Center, which helped maybe kind of shape some of the things you want to do, some of the areas you needed some improvement in, or things like that. But, yes, it was pretty much up to the individual to design a program, negotiate the training session–not the formal training sessions, but the O-J-T [On-the-Job Training] kind of things–arrange a period, a time, things like that. It was a pretty much self-directed program.

Storey: Then you went back into the same slot you had left.

Pedde: Went back, yes, in the same place I'd left, chief of the irrigation division operation and maintenance aspect at El Paso. Like I say, a few months after that, Jim Kirby retired. Sometime after that I was selected as his replacement.

Storey: Then how long were you there?

Pedde: Well, let's see. Came back in the summer of '80, and I left–boy, I'm forgetting. I think it was about April. '82, at any rate. So roughly two years, a year, a little less, a year and nine months or so.

Storey: What caused you to decide to move?

Manager Training Program Influenced Career Goals

Pedde: Well, partly the training program that I'd just gone through, part of it was to say, "Well, what are your goals? Where do you want to go? Where do you see your career going?" Part of it was to get some project manager experience. In terms of laying out the program, at the time I thought my next step probably would be to a regional office as an O&M division chief or something like that. I'd spent very little time in a regional office other than to visit and spend short periods of time.

Didn't work out quite that way. Instead, I ended up being selected assistant director in Billings, Montana. But again, it was all kind of an outgrowth of that program, "Where you going? What do you want to do?" And so forth.

Storey: What did you decide as a result of that program where you wanted to go and what you wanted to do?

Pedde: Well, I guess if I were–again, we need to shift back. Back in those days, the commissioner was still pretty much, or there was still an opportunity for the commissioner to be a career employee. That was changing at the time. We hadn't had a career employee for a while, but there was still an opportunity. I guess, personally, my feelings were that probably I could have been commissioner if I wanted. Didn't know if I ever really had a desire to be commissioner, but I felt that I could have been. Probably felt more like I ultimately would like to be a regional director or something like that, maybe one of the key division people or Denver organization leader or something like that.

Of course, now I think probably the likelihood of us ever seeing a career commissioner again is probably pretty remote. It looks like it's probably going to be pretty much a political appointment kind of thing. Things can always change, but I guess I don't see that being a likelihood. So in terms of a career goal, that's probably not there much anymore. But like I say, I probably saw myself doing something like that as a regional director, or commissioner, or assistant commissioner, or something of that order.

Storey: How did Billings come up, and how did you decide to apply for that? Why did you decide to apply?

Pedde: Well, it came up as a matter of course. There's nothing special about it. I forget who left up there. Anyway, the previous occupant of the job retired, left. I can't even remember

now who that was. And it just seemed like an opportunity to apply. Wasn't, again, quite in order with that career path that I talked about, but it wasn't that far off, either. Of course, when you get to talking about assistant director's positions, regional directors, there aren't that many of them to begin with, and they don't come open all that often, so sometimes you have to apply when the opportunity is there and get on with it.

I guess from a personal perspective, too, while the ten years we spent in El Paso were pretty good years, it was maybe just time to move on. I'd been there long enough, the kids were growing up, they were of an age where it was probably still fairly easy to move them in terms of schooling and friends and things like that, but not necessarily, like I say, there was no special reason to leave El Paso other than maybe it was time for a change.

Storey: What were the job responsibilities that you took over in Billings?

Responsibilities in the Great Plains Region

Pedde: Well, again, as assistant, and there were two assistants, one for administration and one for the other programs and so forth, operations, maintenance, construction. Of course, just generally the assistant director, and taking care of the business of the region. Boy, that's a broad statement. I don't know if I can define it other than to say whatever the boss wanted done, you tried to help get done.

Storey: What were the major issues that you were dealing with up there then?

Pedde: Well, at that time, of course, Garrison [Project] was still much on the front burner. Some of the proposals to reformulate the project and so forth were still being debated or recently maybe decided but not implemented, things like that. So Garrison was one of the issues up there. We were in the process of finalizing the necessary agreements, designs,

things like that, to raise Buffalo Bill Dam[7] and increase the water supply there. So that was one of the projects that was ongoing.

One of the specific tasks I had was to negotiate the repayment contract for Buffalo Bill Dam. That was one of the first ones Reclamation had ever done in a public setting. In other words, there were open negotiations in the sense that the press came and sat in and listened, or the public, or whoever wanted or felt like they wanted to be there. They were not open for the others to participate, it was just the negotiating group, but they were done in public.

The Belle Fourche Project rehabilitation and betterment was beginning to wind down at that time. There were issues about Yellowtail [Dam] and nitrogen saturation, and just the whole realm of issues we probably still deal with today in many respects. Still working on that nitrogen problem at Yellowtail. Recreation usage at Canyon Ferry [Dam] was an issue, still is. Some of these things are hard to get resolved. It takes a long time. So that's kind of a sample of things.

Of course, there were just the ongoing daily operations, water supply, flood conditions, whatever was going on, things like that, a wide range of activities.

Storey: The repayment negotiations for Buffalo Bill Dam, did the fact that they were public cause any problems or difficulties?

Repayment Negotiations for Buffalo Bill Dam

Pedde: Not particularly in that case. It was news, so it was a little uncomfortable and a little different, but generally it was not an issue. We, again, sat around the table with a negotiating committee for the state and the irrigators' various beneficiaries, and two or

7. Buffalo Bill Dam is the primary feature of the Shoshone Project in northeastern Wyoming. Completed in 1910 it is one of the first concrete arch dams built in the United States.

three people from Reclamation, and negotiated with that group. You did have this group sitting behind you that was listening in and things like that, but it didn't cause particular problems. Sometimes after a negotiating session one of the reporters might want to ask a few questions or something like that, but it was generally not a problem.

Storey: How much money are we talking about here, do you remember?

Pedde: Well, let's see. If I remember right, the total project cost was on the order of 150 million dollars. The state was putting up a percentage that varied on what they got out of it. When we were negotiating, it was about $46 million, and in turn they got some of the power off the project and so forth. I think that figure ended up about 49 million dollars, but on that order, 45, 50 million dollars, was the state's contribution to that. That was the negotiation with the parties as well as the irrigators downstream in terms of repayment capability and things like that.

That project's finished now, it's been raised. Dedication was a year and a half ago, something like that, two years ago. Time flies.

Storey: Tell me about the Belle Fourche R&B project.

Belle Fourche Rehabilitation and Betterment Project

Pedde: Well, Belle Fourche was one of the original projects for Reclamation. There's, of course, always debate on which one was the first one, whether it's the one that's got the zero-zero-one behind the drawing numbers, or just what. I think Belle Fourche has the one, in terms of drawing numbers. Some would argue some other projects were actually under way before Belle Fourche, and so forth. But it's one of the older projects.

For a number of years, the region and the construction office there, Dick Browe [phonetic] was the construction manager when I was down there, had been working on

rebuilding the system, in effect, putting in concrete pipelines, lining ditches, doing various things to improve the efficiency of the project, and, well, just rehabilitate the system, bring it up to a better state of engineering, state of the art.

Like I say, it had been going on several years, and it was beginning to head towards winding down when I was there, although I think it was probably–I'm trying to remember here, but it seems like about five years ago they really finally closed the office by the time they tailed everything out and got all the last right-of-way issues or whatever else cleaned up.

Issues with the Garrison Project

Storey: What about Garrison? What was going on with Garrison at that time? Were we getting ready to build something?

Pedde: Well, of course, Garrison had been going on for a lot of years at that time, and hotly debated over a number of years in terms of whether or not the project was needed, impacts to Canada, things like that. There wasn't a lot of active or big construction going on when I was up there. The project was being challenged primarily by the Audubon Society, although there were other environmental groups, but Audubon seemed to have the lead on a lot of activities, and challenging the benefits of the project to whether it should be built or not. Reclamation was, of course, trying to meet those challenges, respond, come up with new plans, whatever the case may be.

One of the things that did come out of that, and this was sometime after I'd left the region, as part of a settlement agreement they did reformulate some of the project, establish a trust fund to help acquire wetlands. That was the big issue, lost wetlands, by increasing the amount of land put under agricultural practices and so forth, was one of the big issues in the debate. They formulated a trust fund to help preserve wetlands, create wetlands, things like that.

Canadian issues were quiet, I guess I would say, at that time. Canadians were concerned that by this bringing water out of the Missouri River and across in to the Red River basin–the Missouri, of course, is in the United States and heads south into the United States, and the Red River goes north into Canada. There was concern that this project would bring exotic fish into the Red River basin which then would get into Canada and cause them problems and so forth. Those issues were still there, but they were fairly quiet at the time I was there. There have been some real discussions and issues with Canada prior to my tenure up there. At that time they were fairly quiet. Most of the issues centered around the Audubon Society's issues and how to deal with those.

Storey: Who was the regional director who selected you?

Pedde: Joe Marcotte was regional director at that time.

Storey: What was Mr. Marcotte like as a manager and as a person?

Management Issues within the Region

Pedde: Mr. Marcotte and I didn't get along very well, let's put it that way. Brit, this may cause me to question whether I'll open this part of the discussion. I'll be frank with you. In my opinion, Mr. Marcotte was very insecure, with an extremely large ego. His desire in a staff, immediate staff as well as others, was to support whatever he decided was right. Even if there was questionable or issues that maybe should be discussed, that was not his desire. Personally, I've always believed that all of the issues ought to be out on the table and discussed, and once the decisions made, certainly you support the boss's decision, whatever that is. But the way Joe worked was not necessarily to entertain the discussion, and that caused us some considerable friction, and ultimately led to my leaving the office and going down to Amarillo after about two and a half years. So the relationship was not good. I would have to say that it's probably the only not-good relationship I've ever run across. It was not necessarily a fun time in the latter part of that tenure up there. Lots of

good people up there, lots of good work and so forth. The difference in operating styles were not something that was really very compatible.

Storey: Before him, of course, the regional director in Amarillo had selected you for the Rio Grande Project. Who was that?

Pedde: The director when I went down there as assistant following my tour in Billings there was Gene Hinds, and I'm reaching back trying to think who was the director that selected me. Boy, I'm having trouble right now. I'll have to think about that a minute. I haven't thought about that in a long time.

Storey: You just told me Gene Hinds selected you when you moved from Billings to Amarillo.

Transfers to Amarillo

Pedde: Correct. One of the things, and again, just speaking frankly, one of the things that is a plus for Reclamation is that there's been a group of people–the organization as a whole, I shouldn't say a group of people–that has tended to look out for each other. When it became obvious there were some things that weren't going well in Billings, some of the folks, particularly Billy Spillers [phonetic], who was our personnel officer at that time, took it upon himself to say, "Hey, let's set up a different situation. Let's make things better." So Billy was instrumental–not just Billy, but Billy was instrumental in helping me get a better situation set up in Amarillo. So I went down there and worked down there for two and a half, three years. That office was in the process of kind of winding down and closing right after I left there. So it was, again, a different experience.

Storey: Tell me more about Mr. Hinds.

Pedde: Gene was a good man to work for. He had, of course, spent a lot of time in Reclamation, had been the 440 Chief in Boulder City for a long time, 440 Contracting Division Chief

for a long time in Boulder City. Gene was pretty straightforward, no games to be played. If he wanted something done, he told you. You could sit down with Gene and talk with him about what was on your mind and so forth.

I remember one of the first things that when I came down there, had a discussion. He said, "Look," he says, "I do all the traveling." He didn't say "all," he said, "most." He says, "If I want you to go someplace, I'll tell you, but I do all the traveling and go deal with the constituents. I want you to stay here and run the office."

Well, that was okay. I knew where I stood and what the job was. Gene had strong opinions about what was right and wrong. Again, he had a lot of contracting experience, dealing with constituents, things like that. So it was never hard to tell where he was at on things. But at the time, you could sit down and say, "Hey, maybe there's a better way to do this," or "Have you thought about that?" and so forth, and had those kind of discussions. So it was a good tour down there.

There was a lot of tension, the office was kind of winding down, the work was declining in the region. Most of the construction projects were done or were in the process of winding down. Palmetto Bend was–no, beg pardon, Palmetto Bend was not what we were working on. Brantley was going on at the time, and again, it was beginning to head towards completion.

Storey: And Palmetto Bend was also ours.

Pedde: Palmetto Bend was also ours, but that's not the one I was thinking of in terms of the construction winding down. Nueces Project is the one I was thinking of. It was beginning to wind down, and so forth, and there wasn't, other than some general planning work, and, of course, ongoing O&M support, and things like that, there wasn't a big program in that area anymore. So there was a lot of debate about how to deal with that.

Regardless of the program, Amarillo was a pretty remote location and not necessarily ideal for a regional office by any means. It wasn't in the state capital, it was hard to get from Amarillo to other places, it wasn't even particularly centrally located in the region. So like I say, there was some tension among the employees, of course, concern over jobs, and things like that. But other than those kind of issues, it was a pretty good place to work.

Storey: Where was the pressure coming from? You mentioned Amarillo closed down. What was going on there? Why was that thought necessary?

Pedde: Just no program to support it. It was combined, of course, with the Billings Office, the Great Plains Region, or what is now the Great Plains Region, and just the program wasn't there to support the kind of organization that was there.

Closing Down the Amarillo Regional Office

One of the options we did look at for Gene was to retain a regional office, but it would be a very small one. I think, again, I'm reaching for numbers and staff, but I think at the time we still at Amarillo had around 200, 225 people in the regional office. We looked at the program, and if you wanted to keep the regional office there, it was probably on the order of 75 to 100 people, and then, of course, there was a choice whether you could keep that many people, or just combine the regions, and the decision was to combine that region with others and form the Great Plains Region. So pressure was primarily program, not a lot of budget, and so forth. Once the decision was made, once Gene had it made in his mind, of course, he was a strong-willed person and that was the way to go, and there wasn't any turning back on that decision.

Storey: So what did that involve for you as the assistant regional director?

Pedde: Again it involved dealing with people a lot and their concerns about where were they

going and what was happening to them. It involved dealing, and Gene did a lot of the external dealing, again, in terms of how the region would be structured, who would manage it, what kind of relationships there'd be with Billings, things like that. We did provide a lot of staff support in terms of how we thought the region should be organized and what kind of field offices there should be, things like that. So again, in some ways that was different, because it wasn't being transferred to a third party, an irrigation district, but in some ways it was somewhat similar to what we did in El Paso when we transferred things to the irrigation district. Naturally, employees had a lot of concerns, "Where am I going? What are my rights in terms of employment?" Retirement, severance pay, those kind of issues.

It was a good staff. So while there were those concerns, there was still a lot of work going on. A lot of things got done. Brantley was still in the process of being constructed. Again, it was beginning to phase out. It was headed towards the end of the work, but it was still in process. Same thing with the Nueces Project, Choke Canyon Dam, those kind of things. There was still O&M work going on, working on inundation maps for dam failure at the time, all those kind of things were still going on at the same time people were wondering, "Where am I going, what am I doing?" And as people found jobs and left, of course, there was always a regrouping of who's going to do the work that they were doing, or are we not going to do it, or do we send it to Billings, or do something else with the work in terms of getting it done. So a lot of it was, well, as Gene said, "You stay home and take care of the office, and I'll go take care of the other stuff." So there was a lot of taking care of the office, if you will.

Storey: You mentioned a little while ago that Reclamation sort of took care of its own folks. What was Reclamation doing about the people in Amarillo?

Pedde: Well, a lot of the folks were picked up in various places in Denver. I can go to Denver now, and, of course, a lot of folks have been retiring here in the last several years, too, but for a while after Amarillo, I could go down to Denver and it was almost like old home

week. Saw an awful lot of folks in the Denver office that I'd seen elsewhere.

So a number of folks went to Denver, some went to, of course, other regional offices. Billings was picking up folks. The goal was to try to place anybody that wanted a job, and I don't think we ever quite said we'd do everybody. I think the goal was to try to place everybody that wanted a job, or some folks just said, "Hey, it's time for me to retire." Of course, that was an option that was available, too. So it never is completely clean when you say we'll try to find everybody a job, because you have working spouses, and there's all kinds of issues like that that create problems. But I'd say, by and large, we were pretty successful in keeping most people relatively whole, and that didn't mean that they didn't have to move or there wasn't some discomfort or dislocation involved with being kept relatively whole, but I think we were relatively able to find places for most folks, or work out their retirement, or whatever else was happening. So, yes, Reclamation pretty well took care of the office. A lot of effort put into trying to find places for people and things like that.

Storey: I guess I don't need to ask you why you decided to leave Amarillo, but how did it come about?

Decision to Leave Amarillo and Transfer to Boise

Pedde: Well, here in the Boise office, Bill Lloyd had been the regional director. John Keys was back in '79 and '80. John Keys was back in Washington at the same time I was. He was on a little different training program, but the same type of thing. He was on a–oh, I forget what that was. It was a little higher level. It was more of an executive training program as opposed to a manager program like the one I was in. Following his program, he came up here and became the assistant for Bill Lloyd. Bill Lloyd retired, and again, with the office closing down, Reclamation was looking around saying, "Where do we place people?" and having known John, he said, "Hey, got a job." So probably from Gene Hinds's perspective, timing wasn't the greatest maybe. I left before maybe I should have.

But John had a need and Gene was willing to accommodate that need, so I left Amarillo and came on up here. That would have been April of '87.

END SIDE 1, TAPE 1. MARCH 24, 1995.
BEGIN SIDE 2, TAPE 1. MARCH 24, 1995.

Storey: So you came up to Boise in '87.

Pedde: '87. Been a good stay. A lot of good people in the office, a lot of good people in Reclamation, period. John Keys is a great guy to work for. In the last few years, beginning like in 1990, I've been heavily involved with endangered species listing, I probably spent three-quarters, maybe even more of my time on that issue. Before that I had a full-time job. So somebody's doing what I used to do, and people just picked up and done the job. I like living in Boise, Idaho, things like that, so it's been a good several years here.

Storey: What are the other issues that P-N, the Pacific Northwest Region, is facing?

Pacific Northwest Region Issues

Pedde: Well, again, they are typical Reclamation throughout the West. There is a changing need in terms of water resources, how they are used, that is a significant change for those who have used the water how they felt appropriate. Now others are saying, "Wait a minute, what about us?" So there is a lot of significant debate in that arena.

P-N as a whole has some of the older projects in Reclamation. We've been heavily involved in the safety-of-dams repairs, upgrading the dams, bringing up to the current engineering state, operations, maintenance, things like that, ongoing activities throughout the region. I don't know that I think there is anything–well, I need to back up a minute.

There aren't a lot of things that are unique to this region over others in terms of the issues they face. Now, of course, the Northwest is different than the Southwest and some of the approaches and attitudes and just the very water supply is different. Up here, probably one of the more significant things is the work we've put into the environment, particularly fisheries. Even before the Endangered Species Act came along and listed the salmon, the region was heavily involved in building fish-passage facilities in the Yakima Basin. Spent large amounts of money, $50, $55 million screening diversions so the small fish wouldn't get swept into the canals, and then, of course, ultimately out onto the fields. So that was an ongoing program even before I got here. Endangered Species has put additional emphasis on that kind of thing and, of course, broadened the scope of it considerably.

Here in the Northwest, again, compared to, say, the Southwest, hydropower is a big issue. Particularly in the early years, spent a lot of time working with the Corps and Bonneville Power Administration [BPA] on how we operated the hydropower system, trying to balance the need for generation versus the resident impacts, recreation, fisheries, things like that.

Again, shortly after I got here, we formed a committee with the Corps and Bonneville, and we'd meet once a month to try to balance our needs. Bonneville always looking–always, again, maybe that's too broad–Bonneville looking for additional power, and the Corps and Reclamation saying, "Wait a minute. We've got these other things to consider here, too, as part of our mission in trying to work out a mutually satisfactory arrangement on how we do that."

That was an area that did cause quite a bit of acrimony. There was a lot of tension between the Corps and Reclamation and Bonneville, the Corps and Reclamation being somewhat on the same side of the fence, but not always, and, of course, Bonneville being on the other side of the fence. One of the things we did there is three times over a period of some years now, three different times we've got our various staffs from three agencies

together and gone out on retreat on the Oregon coast, and sat down and said, "Folks, we've got to figure out a better way of doing business, figure out a better way of working with each other." So that was a significant activity of the hydropower group and so forth. The retreats we held were successful, by and large. We improved a lot of communication. Again, particularly with the stresses now trying to reallocate water for salmon and everything, we still have some confusion and mis-communication at times, but I think we've got a lot better working relationship than we had, say, five years ago.

Dealing with Reorganization of Government Two

Other issues facing the region, well, again, with the changes that Dan Beard[8] has brought about, I don't think we're any different than any other region in that, trying to struggle with declining budgets, increasing workload, just not enough people, people getting burned out. Currently, and I know you're aware, there's a big announcement coming up Monday on some REGO II, Reorganization of Government II, and a lot of people are very nervous about what that means for Reclamation. Are we going to get disbanded, or put out of business, or combined with some other agencies? There's all kinds of rumors running around right now. A lot of stress among employees about "Just what is my job?"

I've tried to tell employees, and I really believe this, that if you're concerned about the name over the door, then maybe there's a reason to worry. I personally believe that somebody is going to be doing a lot of what we're doing right now twenty or thirty years from now, and by that I mean water management. If I were to counsel a young person, an engineer or an environmental type, either one, I would say, "If you want a good career, an exciting career, natural resources, water management, natural resources surrounding water management is probably an exciting field to be in. If you want it to be the Bureau

8. For more information on Dan Beard see Daniel P. Beard, *Oral History Interview*, Transcript of tape-recorded Bureau of Reclamation Oral History Interviews conducted by Brit Allan Storey, senior historian, Bureau of Reclamation, from 1993 to 1995, in Washington, D.C., 2009/

of Reclamation, well, I don't know whether we'll be here twenty years. I can't say that. But I know somebody's going to be doing that kind of work in twenty years. Personally, I think the Bureau probably will be around for quite a while yet."

Again, as a personal point of view, I'm not certain we, the government, doesn't do the taxpayer a disservice by not forming a Department of Natural Resources of some kind and get us some of the Corps functions, S-C-S, B-L-M, some of these folks all under the same roof, and maybe we could be more effective and more efficient. So like I say, if you're concerned about the name over the door, and I like Reclamation, and I'd hate to see the organization disappear, too, but probably from a purely objective look, there's probably some advantage to saying this government needs a Department of Natural Resources that can maybe be more effective and more efficient and not as duplicative as some of our work, and so on.

Where do we go from here? I'm running out of words.

Storey: That's fine. One of the things that seems to me to be a natural is we have traditionally transferred operation and maintenance to the water users. Now we're talking about the transfer of facilities to the water users and fee title, I presume.

The Possibility of Transferring Reclamation Facilities to Water Users

Pedde: Yes.

Storey: Could you talk about that issue and how it's affecting the Pacific Northwest, and where you see it going, and all that kind of thing.

Pedde: Well, it's fairly new, so it's still in, if you will, the development stages, but, yes, in the past we've transferred the operation and maintenance of many facilities to the irrigation districts, particularly the carriage and distribution systems of canals and laterals, but the

United States has retained title. That's just based in law. You can't dispose of title without the approval of Congress.

That's been a good operation. I think there are places and there is a time for maybe the United States to take that extra step and dispose of the title with the facilities. There are some facilities that are costing the government money. They probably don't return all that much benefit to the government as a whole. By that I mean the people of the United States. Regionally or locally, yes, they have some real significant benefits and so forth, but in terms of the taxpayer, in terms of the government as a whole, they probably aren't that important. So some of those facilities do need to be turned over to the local folks, either the states or the beneficiaries, the irrigators, whoever, and get them out from under some of the burdens of dealing with the federal government, some of the requirements we place on them.

That process won't necessarily be easy. Even the best ones, the most likely candidates, are probably going to take a lot of work. I anticipate that particularly if there's any significant feature, there's all of a sudden going to be a lot of publics who are concerned about what we're doing and how their interests are going to be protected, whether that's a recreation interest or perhaps an adjacent landowner kind of interest.

For example, the New York Canal over here in southeastern Boise is built on the edge of the bench, and there's a lot of homes down below it, and if I were a homeowner living below the New York Canal and got wind that the government was going to transfer the facility, I think I might be real interested in who was going to get it and how they were going to maintain it, and how they were going to make sure that I wasn't at risk. So I think once we get into this process, we might find it's going to take a lot of effort and so forth.

But there are facilities, no question, that we probably ought to work at getting that done. There are some facilities that I don't think we will get done, nor should we try. For

example, the Grand Coulee is being an obvious thing. There are a lot of controversial interests there, a lot of folks that would like to put different demands on it, so it's hard to identify one entity that ought to run it, ought to be in charge. Then if you throw in things like trying to meet endangered species needs that are several hundred miles down river, things like that, it gets to be a complex problem. So facilities like that that are of national significance or major regional significance, I don't see those, number one, being easy to transfer, but I'm not certain they're even appropriate to transfer.

But there are, like I say, a lot of facilities that we sure ought to be looking at. There are some small projects that ought to be transferred in a whole, the entire project, dam, everything. There are other places where we ought to transfer the title to the works we've already given the districts responsibility for operating and maintaining and so on.

How it will go, don't know. Maybe as an indication, and I'm not closely involved with this, Rick Gold or some folks could tell you more, but I think it's three years ago Reclamation got authority to transfer the right-of-way to the Elephant Butte and El Paso Irrigation Districts from the Rio Grande Project. It was supposed to be done without cost to the district. As I understand it, the folks down there spent somewhere around $300,000, $400,000 and then working for three years to try to transfer that and they can't get it done.

Again, you have the various conflicting interests, folks who like the drains, for example, because of the wildlife habitat and everything and want to have their interests protected. There are questions about right-of-way transfer. You get into NEPA [National Environmental Protection Act], hazardous materials, a whole raft of issues that make it a difficult process, probably even under the best of circumstances. But it is an effort we ought to undertake and see if we can't conquer some of them.

So where will we go? Well, that's a shift in workload. We do have realty specialists and folks, but not near enough to undertake a program like this, so we're going

to have to look at finding some different resources, having some different people involved, and that's possible. As some of our other works, our engineering work or some other things are slowed down a bit, it may be possible to shift some folks or certainly provide some resources from one place or another into those. From a management perspective, that will not always be easy either, because you can't always fit the proverbial square peg in a round hole.

Native American Issues as a New Challenge for Reclamation

Tribal issues–there are forty-two tribes in the region. With some of the recent executive orders, changes in legislation and so forth, they've gained new status, if you will. I'm not certain "status" is the right word, but new independence. They know that, they want to exercise it. There's a whole realm of work out there in terms of just dealing with the tribes and trying to meet some of their needs. Personally again speaking, to me it's a shame that we've got places like some of our Indian reservations where people don't even have running water. We are not that a poor a nation that we can't somehow deal with those kind of problems. Many of the problems do rest on reservations. Those folks need some help, and Reclamation has some expertise to help do that if we can find the funds and some of the other resources to do it.

So I think there's a wealth of work out there for water resource managers. Again, whether you call it the Bureau of Reclamation or the Department of Natural Resources, you can debate the wisdom of that, but there's a lot of work out there for natural resource managers in the coming years.

Storey: You mentioned a little while ago, I think you said 90 percent of your work now is centered around endangered species.

Endangered Species A Major Issue for the Region

Pedde: I don't know if I'd say 90, but a heavy–I think I said 70, 80, something like that. A hefty amount of it, at any rate.

Storey: Tell me more about what the issues are, what the species are, all of that kind of thing.

Pedde: Okay. Well, in 1990 there were petitions filed to list several species or stocks, as they're sometimes called, of the salmon in the Northwest as endangered. There were petitions–there were spring, summer, and fall chinook in the Snake River, and sockeye salmon in the Snake River. In '91 and, I think, early '92, they finally listed the last one. NMFS did list the spring and summers. First they said they were a common species, a common stock, and listed them jointly as threatened. They listed the fall chinook as endangered and then the sockeye salmon as endangered.

That's really turned the whole region on its ear. I don't know how we'd ever estimate or even get a handle on the amount of dollars spent on this problem so far, but there's been literally thousands of meetings and millions of staff hours devoted to trying to resolve this problem in the last four or five years. There are huge conflicts. If you are going to preserve the species, you are going to change the way the system is operated, the way the region is operated. There are huge social tradeoffs. Are fish more valuable than irrigated land or timber harvests or something? If you're going to make that decision, those are huge social questions, and they're questions that not even necessarily bureaucrats like me should decide. They're political questions for the political leadership of the region. Like I say, just a lot of conflict and a lot of uncertainty on the part of people.

There are huge costs involved. Like I say, Bonneville Power alone estimates a cost of most recent version of biological opinion at around $160 million a year in terms of lost power and impacts of that type, and that doesn't necessarily include everything in the region in terms of recreation opportunities that may be impacted, or resident fishery impacts, or anything like that.

The debates to some extent have turned into a classic upstream-downstream conflict. The folks that are interested in anadromous fish are essentially downstream and want to see those fish move into Lowell River where they can be harvested and utilized.

The fish spawn in the upper reaches of the river, but lately seldom if ever reach the upper reaches of the river, so there's efficiencies, and Idaho hasn't had a fishing season on spring or summers for a long time. Very limited fishing on the others. The sockeye, last year one sockeye salmon got back to Red Fish Lake. The previous year there were none, and the year before that I think there were five. So you can see there are very few fish returning.

The folks at the upstream of the projects, for example, the tribes that are around Grand Coulee, while they are sympathetic with their tribal brethren that are downstream, their Indian brethren that are downstream, they don't necessarily want to give up their resident fisheries for the sole preservation of anadromous fish. They never see the anadromous fish. They lost their anadromous fish when we built Grand Coulee, and over the years there's been a good resident fishery developed. There's some recreation and things like that that they see as opportunities for them. So they aren't interested in having that adversely impacted to benefit a fish they never see.

Those type of conflicts are everywhere–power users versus fish, and things like that. So it's been a process of trying to understand a lot of different people's positions and try to find some common ground, if you can, which there isn't a lot of. But at least some balancing of the different positions and different impacts and trying to continue to operate the system.

Uniqueness of the Salmon Problem

There's several unique things about this particular problem. Most of the species, eagles, for example, being an exception, but most of the species that we've listed as

endangered have generally had a fairly small range. You've got a plant. It sits there; you can study it; you know where it's at; you can build a fence around it; you can do a lot of things to help preserve it. Eagles and grizzly bears get a little bit harder, because they do roam a wider range. But the fish we deal with swim several hundred miles up and down the rivers to spawn, they spend three or four years in the ocean where it's literally a black box. Nobody really knows what goes on out there. They're subject to ocean harvest, river harvest, all kinds of predators along the way, ironically, including other endangered species–sea lions. There's water pollution, exotic fish species in the system that have carved their own niche in the ecosystem, just a host of problems that we don't even fully understand. So the problem of trying to come to a solution has not been easy. We'll be working on the problem for some time.

People often ask, "Are you going to save the fish?" I honestly don't know. The sockeye, particularly, you've got to question when you're only getting a half a dozen of them back, whether you can really save that species. I guess my answer to that question has always been, well, I don't know if we'll save the fish, but if they truly indicate that in developing the system and utilizing the river in the basin, we've done some things wrong or gone too far somehow, then we ought to be looking at that and seeing if we can't move back to a system that will support the fish. Whether they're there or not is maybe another question. But we ought to be looking at what's happening and perhaps trying to find a way to create a system that would permit their survival. Can we do that? Again, I'm not certain, but we ought to be working on it at any rate.

Storey: Where's most of the pressure for the preservation of the salmon coming from?

Pedde: Generally referred to as the fishery agencies and tribes. Now, that's a pretty nondescript term, but there are several treaty tribes that have rights to fish in the river in common with non-Indians, and through various court actions it's been found that they're entitled to 50 percent of the harvestable catch. That's primarily the downstream tribes–the Warm Springs, the Umatilloes [Umatilla], the Yakimas, Nez Perce. But also the Shoshone-

Bannock in eastern Idaho and the Shoshone-Paiutes have an interest in those fish,because traditionally they did harvest them and they're part of their culture. In recent years, of course, very few fish have ever come back to eastern Idaho through the salmon [mud] high basin drainage and things like that.

But like I say, your upstream and downstream interests, while there is kind of a divide there, it's not at all clear, because again, the Shoshone-Bannock and the Shoshone-Paiutes are upstream tribes that definitely have some interest in seeing those fish returned. They also have resident fisheries and other things that could be adversely impacted.

The fishery agencies, of course, are the state fishery agencies, Fish and Wildlife Service, folks like that, and they definitely have an interest. That's their job to preserve fish and wildlife and so forth. One of the complex factors, again, is that not all of the state fishery managers believe that we should emphasize the same species. Some would prefer to see the spring-summer chinook saved, others would prefer to see the effort go to fall chinook. At any rate, like I say, there's differences of opinion about which should be done there.

Of course, even within the states, you have differences of opinion between the fishery agencies in the state and, say, their water resource departments or their agricultural departments. Sometimes it's extremely hard to define what the state really wants. It's not easy to get somebody to state a position for their department or their particular interest. But when you ask the question, "Well, now, does the state accept the impacts of this decision, or this request, on all of the activities in the state?" that gets to be a little harder decision, a difficult one for sometimes political leadership to make. Huge tradeoffs to be made, and they are tradeoffs, because I don't think the resources are there to meet anybody's needs anymore by any means. So we are in the process of trying to find some balancing, some tradeoffs that is acceptable to everyone.

Storey: What's Reclamation doing in all of this?

Reclamation Has a Role in the Salmon Issue

Pedde: Well, most of our projects are on the upstream end of the river system in eastern Idaho, northern Washington, Montana. On the Columbia [River] side of the system, we are operating Hungry Horse and Grand Coulee, our two major facilities up there to try to re-regulate the system, provide water for fish at the right time of year, at the same time preserving some kind of resident fish benefits. Hungry Horse, particularly, is sensitive in that there is a healthy population of bull trout there, and all the indications are that soon, this summer perhaps, maybe fall, bull trout will be listed as endangered species. So we have conflicts there. So Hungry Horse is one that's particularly sensitive in trying to find a balancing act.

On the Snake side of the system, the Snake River side of the basin, we are trying to find additional water to help move the young fish, primarily, to some lesser extent provide good flow conditions for adults coming back, but primarily the emphasis is on moving the young fish from their spawning grounds on down the river to the ocean. Specifically, we're trying to find on a reliable basis 427,000 acre feet water that would be available, managed for that purpose. There are requests, or there are some feel that anywhere from three to six times that amount of water is probably necessary to move the fish successfully.

Again, that all depends on how you operate the lower projects in terms of whether they're full or empty, or what's happening, an extremely complex set of issues, a lack of data. As I said, a lot of these fish come several hundred miles up the river to spawn, they swim several hundred miles back down, spend anywhere from two to four years in the ocean, somewhere in that order–lack of data. There are some sophisticated devices, tracking devices to track fish, but they have their limits. I don't know how familiar you might be, but they are little what they call PIT tags, passive integrated transponders. It's about the size of a grain of rice, maybe a little bigger. They've got a little antenna at each end, and that can be placed in the fish and it sends out a radio signal. So you can track

this fish. But the signal is only good for about eighteen inches. So you put whatever number, several thousand of these in the river, several hundred thousand of these in the river, and you're moving the fish down a river that's a half mile, mile, mile and a half wide, and of course, depth varying from, I don't know if anything's less than thirty feet up to some huge depths. Then you try to find these fish and get them to move through this eighteen-inch box so you can check their signal and see where they came from, and what's [unclear], things like that, what time, things like that. Well, naturally, you're not going to find a lot of those fish in the river unless you tag a whole heck of a lot of them. Those PIT tags, last I heard they were about $4, $4.50 apiece. So even to track the fish, while the methods are there and they're good methods, even to track the fish is a costly undertaking. Like I say, it's just a complex problem that I think folks are going to be working on for a long time.

The water Reclamation provides, does it do some good? Yes. How much good? I don't think anybody can measure it. You're talking of a river that flows at a couple hundred thousand cubic feet per second, 427,000 acre feet, of course it depends on how you release it, but released over any kind of reasonable schedule is just adding 2,000 or 3,000 cfs at the most to that flow. Does it help the fish? Yes. How much? I sure don't know. I wouldn't be able to tell anybody. That's, of course, a great debate with the people who have to give up the water. "If it's not doing any good, why are you adversely impacting me?"

Storey: "Why are you sending my water down the stream?"

Pedde: "Why are you sending my water down the stream?" So like I say, those are the kind of debates trying to find some kind of common ground for it, some kind of solutions for it. I don't know what the solution will be. There seem to be some apparent solutions, but I'm not certain that the solution is something we haven't yet figured out.

One of the new things they're looking at is surface collectors. Right now there are

collection facilities on the dams, on the Lower Snake and on the Columbia to collect the fish, screen them away from turbines and move them around them dam, either into barges or back into the river, depending on what you want to do with them. But those collection facilities are set–it depends on the structure, again, but thirty, fifty, sixty feet deep. The fish probably swim in the top twenty feet or so. So to look at trying to develop surface collection facilities that would collect those fish nearer the surface, guide them around the structure, so forth. There's been some success done on Wells Dam. That's one of the private company dams on the main stem of the Columbia that say that maybe this works. So the Corps is beginning a process of designing, trying to get some facilities in place, to see if they can duplicate the success they have at Wells on some of the other facilities. That's the type of thing. Maybe there's a solution out there yet we don't really understand. Barring that kind of a miracle solution, like I say, probably a lot of controversy, a lot of difficult work–

END SIDE 2, TAPE 1. MARCH 24, 1995.
BEGIN SIDE 1, TAPE 2. MARCH 24, 1995.

Storey: This is tape two of Brit Storey interviewing Kenneth Pedde on March 24, 1995.

You mentioned that Reclamation has been trying to find 427,000 acre feet of water. We released that last year, I believe.

Purchasing Water to Assist Fish Movement

Pedde: We have been able to release that by using uncontracted space that we've had, the power head that we have behind some of our dams for the power plants, and also some water that was reserved for instream flow purposes for resident fisheries and so on.

Our goal in trying to find some water, we're going to try to buy it from willing sellers. The goal is, of course, to try to provide some other sources so we don't have to go

to that insteam flow water, or at least on a regular basis we don't have to, likewise the power heads and so forth. So we need to acquire probably some 300-400,000 acre feet of water to do that, water on a reliable basis, again. So we're out in the market trying to purchase water. We've been successful in getting a couple of small amounts and hope to get our program in better shape that we can begin to acquire some larger amounts of water.

Storey: So if I'm understanding correctly, we have a shortfall of maybe 300,000 acre feet.

Pedde: Again, on a reliable basis definitely. For this particular year, and we've had some wet weather yet recently, so maybe the runoff forecast has accrued and so forth, but for this year, because of certain state laws and the way they work, we're going to have difficulty even finding that amount of water. We emptied all the space, virtually all the space we had last year. That will be the last to fill under state law, so unless we completely fill the reservoir system, some of that space won't have any water in it. So it could be a tough year. Now, again, like I say, it's been raining here the last several days, and I hope it keeps up.

Storey: We haven't yet heard anything from the water users about this program?

Water Users Involvement in the Salmon Issue

Pedde: We've had numerous discussions with the water users, various groups over the last two, three years, been to Committee of Nine meetings. The Committee of Nine is one group that administers one of the state's water pools. The state does have water banks for people that are not using their water for a given year or something can put it in this bank and rent it to others. Committee of Nine is one of the administering groups of one of the water banks, one of the larger water banks. We've had numerous meetings with them, and other meetings with various parties, mixed groups, the state legislature, the state administration, Department of Water Resources, and so forth.

Great deal of concern over what we're trying to do, and I would have to be honest in saying at this point not necessarily a whole lot of cooperation. The state did cooperate with us in allowing us to run some water for about three years, and what in effect they did is they literally set aside the state water law and said, "Well, you guys go do this, and do it through our water banks, but we'll just ignore the question of beneficial use, public trust issues, things like that. You just guys go do it and we'll cooperate with you to that extent."

Various water users, again, there are some folks, I think, who are willing to cooperate. Matter of fact, we've had some expressions of interest from folks that are willing to sell water, and they see it as a good thing, something that maybe ought to be done. We've also had some expressions that say, "Not one damn drop." So it's a real mixed bag out there. It's not an easy situation, and again, there are folks who are trying to make things work, and hopefully working with those folks we can come to some agreement that is beneficial to the fish without too adversely impacting the public or anything else. I think that's our goal. If we can do this in a way that benefits the fish and minimizes impacts to the economy, to individuals, things like that, that's our goal. How we get there is still a big question.

Storey: The water that we can purchase, do you have any idea what we're paying for it?

Purchasing Water Rights for Flow Augmentation

Pedde: The water we've purchased now, and, of course, it's going to depend on the water right that we purchase, and what's its priority, how reliable is it in terms of filling, things like that. But the water we purchased so far we bought for $150 an acre foot. That's permanent acquisitions, not a temporary use. It's not a lease or a rental, that kind of thing. That was based on a water right that fills virtually every year. Water rights that fill every other year, I don't know, we'll pay $100 or something for, I guess, something on that order. There should be a graduated scale, again, depending on their reliability,

availability. We're also working with some folks that have natural flow rights. The previous amount I mentioned what we bought was storage rights. We're working with some folks on buying natural flow rights, which are not stored, they're just diverted from the river by pump or diversion structure of some kind. I'm not quite certain where those will end up yet. Again, it depends on whether we buy them permanently or separately, and so forth.

We are working on one project, involves 26,000 acres of land, trying to buy the water off of that–just the water, not necessarily the land. We're in the process of appraising that and so forth now. I don't know exactly where those costs will come. But we are talking in terms of a program that would require getting 427 [thousand acre feet]. We did set up a scale and kind of graduated it. Of course, we'll pay more as there's less available. But we'd estimate our program is probably going to cost $150 million, $200 million, something on that order. If we are successful in acquiring enough water to meet that full amount.

Storey: Where's the money and the authority for this coming from?

Pedde: Well, the authority is the Endangered Species Act.[9] There's two parts to the law that–there's more than two parts–the two parts that pertain to us particularly. Section Four says that federal agencies will use their authorities to conserve the species–emphasize "conserve." Section Seven says that agencies will look at all of the actions they either fund, carry out or approve, to see that those actions are not likely to jeopardize a species. Conservation, of course, is a measure to preserve, to enhance, maybe, the status. Jeopardy, of course, is you don't want to do anything that is going to cause those species to go extinct. So under Section Seven we have been consulting with the National Marine Fisheries Service on various actions, various activities we undertake, approve, so forth.

9. For more information on the Endangered species Act see USDOI, BR, *Federal Reclamation and Related Laws Annotated*, Vol IV 1967-1982, 2782-2827.

Under the conservation provisions of Section Four is where we've been working on trying to acquire this 427,000 acre feet of water; 427 came about originally through the Northwest Power Planning Council. The Power Act of 1980 set up the council.[10] Its mission was to develop a reliable competitive hydropower system, economical hydropower system, and at the same time provide equitable treatment for fish. They've been working on that for some time. When the fish were listed, they developed a plan of their own that called for this 427,000 acre feet of water. While the Power Council's plans, recommendations, so forth, are not necessarily mandatory on Reclamation, they don't change any of our water rights or project authorities or anything, the law does require us to give full consideration of the council's plan in carrying out our business. So we've been working around the council's plan for some time now trying to acquire that water, trying to provide the additional water for the fish.

Again, it is on a willing-seller basis. That's a particularly touchy issue, and no doubt you've heard about the takings issue and can the government or others take private property or uses of private property without paying for it and so forth. It's been an issue before the Congress here in the last few weeks. We are not in a takings mode, we are just strictly trying to find willing sellers who would be willing to negotiate a deal and provide their water to us for some compensation.

Will we be successful in getting the full 427? A little hard to say. I don't know. Certainly, if you offer enough money, you can find it. Will we have enough money? Can we offer the right price or enough incentives to do it? I don't know what to say yet.

Storey: How much water's available? We're talking now the Upper Snake, right?

10. For more information on the Power Act of 1980, see Ibid., 3225-73; for information on the Northwest Power Planning Council see Joseph E. Taylor III, *Making Salmon: An Environmental History of the Fisheries Crisis* (Seattle: University of Washington Press, 1999), 246; Richard White, *The Organic Machine: The Remaking of the Columbia River* (New York: Hill and Wang, a division of Farrar, Straus, and Giroux, 1995), 103; Jim Lichatowich, *Salmon Without Rivers: A History of the Pacific Salmon Crisis* (Washington, D.C.: Island Press, 1999), 202-3.

Water Availability

Pedde: Yes. The Snake above Brownley, the average annual flow was about 11 million acre feet. The storage in the basin above Brownley, the federal storage is just at under 8 million acre feet, and there's roughly another 3 million, I think it is, of non-federal storage. So about 11 million acre feet of storage out of a total annual flow of about 11 million acre feet.

427, you know, is somewhere, say, around 5 percent of that federal space. Is that doable? Probably. Is it easily doable? Not necessarily. So I think I'm fairly optimistic, given enough time we probably can firm up that water supply. But it's not necessarily going to be easy, and, of course, there is a lot of concern, a lot of worry on the part of the current water holders, water users, to about just how that's going to be done and what impact it has on them, and so forth. So can it be done? Possibly, very possibly. Is it going to be easy? Not necessarily.

Storey: You mentioned the sockeye returned to Red Fish Lake, I believe it was.

Pedde: Red Fish Lake, yes.

Storey: Is that the only sockeye spawning area?

Pedde: Currently, that is, yes. The sockeye spawn in Red Fish Lake. They used to spawn in Pettit , Alturus, and another lake up there I'm missing–oh, Stanley Lake. Over the years, the Fish and Game Department planted rainbow, other species of trout, and in some cases even excluded the sockeye by weirs and barriers in the river from returning there. So currently, Stanley Lake is the only one that does–beg your pardon, Red Fish Lake is the only one where they do return to and spawn.

Again, in terms of the debates and some of the uncertainties, for about thirty years

even that source of spawning was blocked by Sunbeam Dam. It was a private dam that was built to provide power for the Yankee Fork goldmining operations. For thirty years, that dam was there and blocked even the access to Red Fish Lake, but there's still sockeye there. There's all kinds of speculation about what happened. There are also kokinee salmon in Red Fish Lake, which is a resident–I guess they call it a resident form of the sockeye.

Storey: A landlocked sockeye.

Pedde: A landlocked sockeye. There is some discussion that the sockeye we now have are kokinee that ran to the ocean after Sunbeam Dam was taken out. There's other people that believe the sockeye just spawn below Sunbeam and then, of course, when it came out they'd migrate up the river further, and so forth. Those are some of the debates that nobody has real answers for. How do you block a river for thirty years and still have sockeye in the lake where they're spawning?

Storey: There are virtually no fish there.

Pedde: Not now. Not now. In the last several years–Sunbeam Dam came out late fifties, I think. So there was a period of time when there were better sockeye runs than there are now. But here in the last four or five years they've been very poor returns.

Storey: Are the chinook also in such bad shape?

Current Salmon Runs

Pedde: The fall chinook last year we had a return of about–let's see, let me think of my numbers here, make sure I've got the right species. Fall chinook, if I remember right, had a return of about 2,200 fish, and the spring's and summer's had a very poor return. The run collapsed for some reason not quite certain, but they only had several hundred return. So

a great deal of concern about what happened to this particular run of spring and summer. It was supposed to be a good run, but it collapsed. Some of it did come in late, and maybe it turned out a little better than originally anticipated, but a lot of concern over what happened.

We're talking a few hundred to a few thousand fish out of, of course, regionally there used to be millions in the river. Again, that's the reason for the decline [unclear] agricultural, water pollution, dams, lots of different reasons. Man's impact on the environment, I guess, is the best reason to say, overall.

Storey: Are there other species that Reclamation's dealing with?

Other Endangered Species

Pedde: Well, I mentioned the likelihood of listing for bull trout. That's not a given yet, but it seems to be probable. Currently, of course, eagles are listed, and they occur throughout the region at just about all of our reservoirs in varying numbers. There are four species of snails, and a limpet –a limpet is a snail without a shell, in effect. In the Middle Snake in the Twin Falls–actually, it's a little further down than that Bliss area that have been listed as endangered. There are other sockeye, coho, other salmon species that are of concern. There are petitions to list some of them pending. Decisions on those will be made here in the next few months. Steelhead are another species of concern, and steelhead are, in effect, an ocean-run cutthroat trout. They go to the ocean, live there for a while, return, spawn, things like that. So they're anadromous fish, also.

So, yes, there's several species of concern, coastal fish as well as Columbia River fish and Snake River fish. There's some significant other species of concern, and some of them are probably going to be listed how many, exactly where, I think, is a little uncertain yet.

Storey: As I recall, there are king salmon, there are pink salmon, is it?

Pedde: There's kings, there's pinks, there's chums, there's dog salmon, not all of them necessarily in the Columbia River. Some are probably even what we would call spring, summers, or falls. Again, my understanding is that the spring, summer, fall term came from the fishermen, and this is when the peak of the harvest would hit, either in the spring, summer or fall. So that terminology was applied to those particular fish based on when they returned more than any other characteristic. But, yes, whether king salmon–I couldn't tell you whether king salmon are fall chinook or spring chinook, or what, but yes, there are different–there's a number of types of fish. Canada has tremendous runs yet of fish, salmon, including sockeye, but those have been determined to be a different fish than the Red Fish Lake sockeye. Again, debate over even that question, just what is a sockeye salmon? Is this really just a subspecies of a species or just what?

Lack of Scientific Data

I mentioned earlier the ocean is an unknown. They severely restricted, eliminated the drift-net fishing here about two years go, and last year there were some real heavy runs of steelhead in Alaska that hadn't been there before. Some speculate maybe it was the elimination of the drift-net fishing. The weather pattern known as *el niño* is also a point of concern. Normally, the *el niño* which is a particular weather pattern that sits off South America has moved north. There's speculation, and it's more than speculation, I think there's some good indicative information, at least if not solid information that it's disrupted the ocean currents to a certain extent, affected feeding patterns, and perhaps the amount of food available. There is a question about what has the drift-net fishery in the past years done to the fish. So there's a lot of unknowns, that there are indicators, but there's not enough solid information to say this is a problem or it is not a problem.

Storey: I guess what I'm trying to figure out is, for the Columbia system, are the chinook and sockeyes that are either endangered, or threatened, or potentially are going to be listed as

that, are they the only major anadromous fishery there, or are there runs of salmon or of various kinds of salmon that are not considered threatened or endangered?

Pedde: There are runs that are not listed. There are a whole series of runs on the coast, for example, that don't even come up the Columbia River.

Storey: But nothing on the Columbia?

Pedde: The fish that are listed are Snake River stocks. There is concern about the mid-Columbia runs, for example, of steelhead, chinook salmon, and so forth. So, no, it is not the only ones. There is concern about the runs into the Yakima River, for example, but not been listed yet. The American Fisheries Society estimated that there are probably 100 different stocks at risk in the Northwest. At risk doesn't necessarily mean qualified for listing as threatened or endangered, but that are of concern or at risk in the Northwest. Again, that's not just Columbia River, but total of that kind of stocks that are of concern. So, yes, there are other species in the river, in the Columbia, in the Snake, that while they're not currently listed, could be fish that have problems in the future.

Storey: When did the salmon stocks that are threatened or endangered start crashing, do we know?

Background to the Fish Issue

Pedde: There's been probably a general downward trend even since the turn of the century. The real crash seems to have taken place–well, probably mid to late seventies, into the eighties. That's perhaps the most recent real downward trend. Again, prior to that there were various downward trends, various impacts, things like that, but probably the most recent crash has been in the late seventies, early eighties. In working with the states and tribes in settlement discussions on some of their lawsuits, the fishery agencies and the tribes came up with a period that was 1967 to, I think it was '71, as a period when they

felt stocks were reasonably healthy, kind of as a base period, a baseline, if you would. They defined that period as a period when there were not necessarily huge by any means. I'm not saying they were like they were at the turn of the century or anything, but they felt that they were at a survivable level. Using the number of fish in various stream and so forth from that time period, like I say, they established that as a base.

Part of that, again, was based on that's when they had information, and not for every stock, again, and they're saying but some selected, I think, thirty-eight different stocks they felt they had good information covering that time period about their survival, their numbers, and so forth.

So, yes, the most recent crash is somewhere mid-seventies, a little bit later into the current time.

Storey: What are the major identified contributors to the salmon problem?

Contributors to the Salmon Problem

Pedde: Again, it depends on what you call major and who you ask whether it's major or minor or whether it's even a contributor. In terms of our consultations, our biological opinions and so forth, the operations have been divided into four Hs: hydropower system, habitat, hatcheries, and harvest. Those four Hs really do cover pretty much the spectrum of the issues.

Hydropower, the dams, of course, in terms of either blocking the passage or adversely impacting the young fish going downstream. Hatcheries, there is concern that hatchery fish, they're more susceptible to disease, and they spread it to wild fish. There's concern that they are not as hardy a fish, and that they may be competing with wild fish for spawning territory.

Harvest, of course, is obvious. If you catch a salmon, again, variables, but adult salmon will lay several thousand eggs. And assuming they are fertilized and hatch and so forth, that's one adult returning is several thousand juveniles headed downstream after they reach the appropriate age. If you harvest that adult before it even gets to the spawning ground, obviously you've lost a major share of your stock. So harvest is an obvious thing. That's harvest in the river, in the ocean, the full range.

Then, of course, habitat refers to the local spawning conditions. As road building, timber harvest puts sediment in the streams. Instead of having clean gravel, they've got sediment laid in the streams. Water-quality issues go into the habitat area, so grazing and all these kind of things that are adjacent to streams get to be issues.

So really those are probably, like I say, the four Hs are a good categorization of the broad spectrum of problems. Then within that there's a whole range of problems from, like I say, timbering, grazing, how you manage the hatcheries, so forth. Great debate even on hatchery fish, for example. I say this with caution, because it's not a blanket statement, but to a certain extent, the tribal people don't care whether they have hatchery fish or wild fish–to a certain extent. That's not without caveat. So from their point of view, "Hey, run the hatcheries. Let's have lots of fish." So the state fishery managers, some of the other environmental community and so forth, really think the issue is wild fish. "We don't want hatchery fish. We want wild fish that spawn and survive on their own." They think they're a stronger fish, fight better if you're catching them on a rod, or whatever. Again, even in the community of the hatcheries, there's a great debate. There's not a lot of debate about hatchery fish probably do transmit disease and things like that.

Another debate, of course, is within the hydropower arena. Certainly the dams cause impacts. How much impacts they cause, the previous data is based on some mid-seventies information. Currently, they're trying to gather good information about what's happening, again, using better technology, the PIT tags and so forth. Previous studies

indicated maybe a 15, 20 percent impact at each dam, through the reservoir and the dam. Current studies are saying maybe that's less than ten.

So again, there's real dichotomies in information. Some people believe that transporting the fish, putting them in barges and moving them down the river is good. That shows a real positive benefit. Others say, "If they aren't in the river in their natural condition, it ain't no good." Some of the folks in the latter position, it's almost a religion with them, if you will. You probably could say that about some of the folks who believe in barging, too. It's almost a religion. "It's got to be good. No other way." These are the kind of, again, some display of the debates you get into as you get into this issue about how you deal with the problem.

Discussion of removing dams, or at last modifying them to permit unrestricted passage, natural river-type conditions. Can that be done? Yes. Is it expensive? Yes. Could the region tolerate it? There'd be definitely an impact, there's no question. Could we tolerate it? My own reaction is, yes, probably could. Again, not without some readjustment in how we do business. Those folks that would be impacted if you took out a dam, for example, marine operators or folks that use the area for recreation, whatever, certainly there'd be impacts. Could the region survive those kind of impacts? Probably. Could you take out all the dams and survive? No. The hydropower facilities provide roughly 45 percent of the power used in the region. So that's a significant amount of kilowatt hours that would be gone if you took out everything. You can't do that. Could you take out a few and survive? Yes. Major readjustments, major change in cost structures, and a lot of things like that.

Storey: Of the four Hs, the one that sounds to me like it most directly deals with Reclamation is the hydro one.

Pedde: That's correct.

Storey: And it doesn't really seem to be applicable.

Pedde: To us directly?

Storey: To us in the sense that, if I'm understanding what you're saying, it's the smolts migrating downstream that are most affected by that.

Pedde: Yes.

Storey: They can't get to any of our hydro facilities. They're blocked on the Columbia at Chief Joe, and they're blocked clear at the bottom of the Upper Snake Basin, as I understand it, at Brownley, is it?

Pedde: Yes, well, Oxbow, really. Hell's Canyon.

Storey: So I guess my question is why are we involved if we aren't directly doing anything here?

Reclamation's Role in Mitigating the Salmon Problem

Pedde: Well, again, personal opinion.

Storey: That's fine.

Pedde: There's a lot of debate over this and not everybody would agree with me. If you look at the impact of Reclamation's projects in the Snake above Brownley, and let's focus there before we talk about the Columbia side with Grand Coulee and so on, Reclamation was relatively late in coming into this basin, and by the time we arrived, much of the rivers were already over-appropriated. In terms of changing the flow patterns, diverting the spring freshets and some of those things, that was already done. Reclamation built some facilities that probably had some increase in that impact in that change of the flow

patterns. So in that sense, probably Reclamation has some obligation. How much? A real question in my mind. If you were to look and try to say, "well, everybody's going to share in the solution in proportion to the impact they caused," I'm going to have to argue that Reclamation's probably kind of far down the list. That's personal opinion. So does Reclamation have an involvement? Yes, there's some impact there. How big? Tough to say. In my mind, not all that big necessarily.

On the Columbia side when Grand Coulee was built, there was no question we cut off several miles of 150 miles. In the United States and even on up into Canada, we cut off the access for certain runs of fish. At that time, these fish were taken and planted in other streams as kind of a substitute fishery, a couple of fish hatcheries were developed–Leavenworth, Entiat, so forth–as mitigation. Is that adequate mitigation? Well, probably not as we know it today. Columbia side, should we–

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BEGIN SIDE 2, TAPE 2. MARCH 24, 1995.

Storey: You were talking about the Columbia side of the equation.

Pedde: Yes. In terms of Grand Coulee there is more of a definable impact there. Again, though, if you look in terms of when Grand Coulee was built in the late thirties or forties, fish runs were extremely healthy for a long time after that. Was Grand Coulee the sole problem? No. Was it the major problem? In my mind, probably not. Is it a contributor? Yes. Again, if you try to, like I say, distribute the solution based on those that caused the impact, it's a little hard to do that sometimes. It's hard to quantify exactly what caused the problem. Some folks like to point to that period of decline I mentioned in the late seventies and on then to current times and say, "See, that's because of the most recent dam construction," which was before Lower Snake projects of the Corps of Engineers, and, to an extent, Hell's Canyon. I think Hell's Canyon came on that. To an extent, there's probably some merit to that. They occurred at the same time. The decline

occurred shortly thereafter, or shortly after the last one was put in, and so forth, so maybe there's some relationship there. But it's a little simplistic, because at the same time, there were significant increases in timber harvest, in agriculture, in human use of the system as a whole. So to lay the blame solely on those four Lower Snake projects is probably not quite correct either. Are they a contributor? Yes.

Storey: When you say the four Lower Snake, you're talking about not Reclamation.

All Northwest Water Interests Should Share the Responsibility for Mitigating the Salmon Problem

Pedde: No, those are Corps of Engineers projects. Yes. There's four of them on the Lower Snake between the confluence with the Columbia and the Idaho state line, the Oregon-Washington reach of the Snake River.

So it's hard to find and define a portion of cost, if you will. Again, Reclamation's policy is that everybody ought to share in recovery. I think that's a fair statement. How much they should share, that's a real hassle. That's a real issue.

Storey: When we say everybody, who do we mean specifically?

Pedde: Mankind's in the basin. If you want to get down to it, it was mankind that caused the problem.

Storey: The states also?

Pedde: The states.

Storey: Are the states doing anything?

Pedde: The residents of the states. In some respects, yes. Of course, they've restricted fishing; they are working on screening programs for irrigation diversions, for example, or municipal diversions, any kind like that, each state in different areas working with different speed on certain issues.

One of the oddities of the E-S-A is that it requires federal agencies to consult. It does not require anyone else to consult. Again, folks seeing I'm Reclamation, our projects were all built, most of them, by the late thirties. A couple came in in the mid-fifties. There are major chunks of private irrigation development subsequent to those projects–private, not connected with the federal government. Those folks are not currently involved in the solution. Should they be? In my opinion, yes. Are they the major cause again? I wouldn't want to say they're the major cause or anything else, but should they be contributing to the solution? I would have to say yes. If irrigation diversions are a problem, if that's a given, or everybody agrees to that, then it shouldn't be just the beneficiaries of federal projects that contribute to the solution, but it should be all irrigation diverters that contribute to the solution, and that's not happening yet.

So again, some strange things in the way the law is written and who it impacts, then you get the questions of fairness, equity, so forth.

Storey: Let's talk about who is paying. Is Reclamation using appropriated money?

Pedde: Our monies at this time are primarily appropriated.

Storey: So they're not cost-reimbursable.

Paying for Salmon Mitigation

Pedde: Well, let me say, I would say primarily, and maybe I shouldn't even say primarily. In terms of water acquisition in the Snake Basin, it's all appropriated funds. We've not

charged anything to water users.

In terms of operation of the hydropower system, Bonneville Power's customers, through their rates, repay a portion of the cost of the hydropower system. So to the extent that we're charging money into hydropower, and roughly, again, depends on the facilities, but at Grand Coulee, I think just right out 65 percent of the project is charged directly to power. So to the extent we're charging costs against Grand Coulee, 60 to 65 percent of those salmon costs are picked up by the repayers. So, yes, the region is paying in some respects, some parts of the region maybe more than others.

Idaho Power is contributing some amounts that impacts their rate payers who are some of those folks I mentioned earlier that aren't in consultation. So are they contributing? Yes. Are they contributing appropriate share? Well, I kind of have to wonder about that.

Storey: I did hear you say earlier, though, that Idaho Power was cooperating with Reclamation in storing water and various things.

Pedde: We can't–based just on the physical limitations, Jackson Lake, for example, our highest storage project, is nearly 900 miles from Lower Granite–river miles, that is–from Lower Granite Reservoir, where the first smolts are that we're trying to move. It's physically impossible for us to run water 900 miles and get it there in any meaningful manner. It's just going to kind of dribble in, if you will. But by working with Idaho Power, they can reregulate that water roundly, and release it in large blocks in short periods of time and provide a meaningful flow. We then refill Idaho Power.

In addition, they've contributed some of their own water as requested by the Power Council and just as a matter of good politics for the company, and so forth. So, yes, they're cooperating, they've assisted us quite a bit. We've talked in terms of our water acquisition, that if we find some water that we acquire and it's beneficial to them, water

they wouldn't have had before for power generation, would they help us buy it, and they've said yes. So, yes, Idaho Power is cooperating in how we try to get this job done.

Storey: Well, it's certainly very complex and it must be an interesting issue for you to have to deal with so much.

Pedde: Earlier on you asked if it was fun, and maybe we lost that when the tape flipped. Yes, it is fun. Sometimes it's very frustrating, but if you can step back from the frustration and kind of get back out of the woods and look at the forest for a little bit, it's a fascinating problem. Huge decisions, changes, things happening here. I'm not certain how they'll happen yet completely, but in terms of major shifts in society's use of natural resources, they're happening here.

Storey: Well, on a little different tack but the same issue, how many staff do we have in the region to try to deal with this issue, and where are they located?

Regional Resources Dedicated to the Salmon Issue

Pedde: Staff in the region right now is about 1,150. There's about 350 folks at Grand Coulee. Here in the regional office in Boise, there are about 214, I think that is. Our Upper Columbia area office in Yakima, Ephrata in there has, I think, about 135, 140 folks. The Snake River area office is 125 or 130, something on that order. Then we do have some small offices scattered around. We've got a construction office in Bend. They've got quite a few folks attached to that office, but quite often they're in Pennsylvania or somewhere else doing work for, in some cases, even other agencies.

Like I say, total in the region, about 1,150. That's down about 5 percent over last year at this time. With the reorganization that Reclamation's gone through going to area offices and so forth, our regional office staff has declined roughly 15 percent in about a year's time. So there's been a shift in location of staff and some of what they're doing.

Storey: I didn't ask my question clearly enough, for the endangered species work.

Pedde: Okay.

Storey: That's good. I'm not objecting to that information, by any means. How many people do we have, and were are they, and I'm particularly interested, for instance, in whether any of them are in the area offices rather than in the regional office, that kind of thing.

Pedde: Most of the folks that are involved with the Endangered Species Act, closely involved on a regular basis, are here in the regional office. That's because it's a program that covers all of our area offices. It's not just centralized in one.

How many are involved? Let me think here a minute. Probably ten, twelve on a fairly regular basis currently. I emphasize currently. Up to this point, a lot of our work has been consultation, discussions with NMFS [National Marine Fisheries Service], other agencies, other parties and tribes, etc. As we now begin to get more into implementation, trying to acquire water, things like that, we're probably going to be shifting and having some more folks involved. Area offices we try to keep apprised of what happens so they're not caught flat foot or by surprise, but essentially the work's been done out of the regional office here. Water acquisition is going to be a mix of regional office work and we'll probably have some help from the area office, particularly our Snake River Area Office.

If they list other species and so on, again, there's going to be a different mix of things. There is concern, I mentioned, about the Yakima River species and if there's a listing there, of course, we'd probably see our Upper Columbia office more involved, and depending on how those additional listings get handled, perhaps they'll take over the whole problem. If it is just kept to that species, it's hard to say we're going to do some thing for this fish in this river and not consider how it's impacting the rest of the river system, and is it good or bad, and so forth. So I question whether we'll be able to localize

it that much. But if it could be localized, then the intent is those folks would handle the problem.

So right now, like I say, there's probably eight or ten people that are involved on an intensive record basis. That'll change some as we get into implementation. I don't know quite where to say that'll go other than we'll probably be adding a number of people to that to try to acquire water and get some of the other things done.

Storey: What are the specializations?

Pedde: Actually, to a large extent we need generalists, not specialists. What fields? Certainly biology, environment, those kind of areas, anadromous fish, snail biology, things like that. These are things we are weak in, and frankly, everybody's weak in them. We've talked to the N-B-S, the National Biology Survey, about getting help with snails. They don't have snail experts. There are a few around, but very few. So biologists, certainly, natural resource-type people, folks who are familiar with water rights, folks who are familiar with hydrology and operations, weather forecasting, and that whole hydrology arena of water supply.

More than anything, the folks need to be able to deal with others and convey their knowledge, whatever it is, to others and be able to deal with that. Again, as you get into implementation, you talk about where will we be a few years from now. If we continue to operate the way we are, there'll be impacts to cultural resources. So Lynne MacDonald, Joan, and others be involved. There will be impacts to resident fishery. Again, we may have a different type of biologist involved, resident fish as opposed to anadromous fish, things like that. So the problem as it grows and fans out or is implemented has some different ramifications.

But, yes, there's going to be hydrology involved for sure in almost everything, some kind of biologists, and probably if we continue this water acquisition program,

certainly realty experts, appraisers, lots of different folks like that–contract specialists. Like I say, we need some folks who can think on their feet, who aren't necessarily locked into the old way of doing business, and willing to go out and deal with some exciting problems, but also be able to take a little bit of frustration in the process.

Storey: Are there any other things we ought to talk about?

Pedde: Probably we can do this for a long time.

Storey: How about socialization in Reclamation? What's your experience been with the way people in the office interact socially with one another?

Socialization in Reclamation

Pedde: That's been interesting. Yes, that'd be a fun topic. It's changed a lot over the years. As a young person coming into Reclamation, when I first started working, and it wasn't just the office I was in, I think it was true of Reclamation as a whole, there was a fair amount of activity with your fellow employees. I can remember going on hunting trips with other folks and there were parties and get togethers of one type or another. That still goes on to an extent, but not nearly to the extent it did originally. We've talked about that off and on, why, whatever. Probably it's just everybody's so busy, there's so many more things to do, just a change in culture of the nation, I think, as a whole, but there is probably less socializing among the employees in Reclamation now than there was twenty, thirty years ago. Good or bad, I don't know.

Storey: But that has changed.

Pedde: That has changed, definitely has changed. I think we still have employees that work well with each other, a lot of respect for each other. Again, there's always glitches here and there and so forth, but I think overall we've again got a bunch of dedicated, hard-working

employees who, by and large, work well with each other and are interested in their work and trying to get things done. With all the downsizing, REGO II [Reinventing Government II] and all of that, a lot of nervousness going on, too, right now, frankly.

Storey: Yes, I'd hoped we were over all the nervousness, and it just seems to be a continuous process.

Pedde: It seems to be, and I don't know if it's going to go away for a while.

Storey: Well, I'd like to ask you now, Mr. Pedde, whether you're willing for the tapes and transcripts from this interview to be used by researchers both inside and outside Reclamation.

Pedde: Yes, I'm willing to do that.

Storey: Good. Thank you very much.

END SIDE 2, TAPE 2. MARCH 24, 1995.
BEGIN SIDE 1, TAPE 1. APRIL 23, 1998.

Storey: This is Brit Storey, senior historian of the Bureau of Reclamation, interviewing Kenneth Pedde, deputy regional director of the Pacific Northwest Region of the Bureau of Reclamation, in the regional offices in Boise, Idaho, on April 23, 1998, at about one-thirty in the afternoon. This is tape one.

Mr. Pedde, the last time we talked, we were sort of in the middle of reorganizing, I think, and that would have been about '94 or so. I'd like to explore your perceptions of how the reorganization has gone, what's happened to the regions, the relationship with area offices, the relationship to other offices in Reclamation, and so on.

Pedde: Okay.

Storey: How do you think it worked out, and what happened?

Impact of the Reorganization on the Regional Office

Pedde: First off, I'd say to a certain extent we're still working it out. The reorganization we did back, as you said, about '94, beginning about then, is really a significant change in the way we do business, so there are a lot of relationships that are still being sorted to a certain extent. But coupled with that change in mission, change in the way we do our business, change in budget structure, a lot of things all happened in that same period of time that I think we're still, like I say, doing a lot of sorting out.

How has it worked? I think overall it's worked well. While we do have some, I'll call it, tweaking to do yet in terms of relationships and getting the right people in the right place, or maybe having some better understanding on the part of people who are assuming new jobs and things like that, I think overall it's worked fairly well.

The relationship between area offices and the regional office is settling out. We found some common ground in terms of who's going to do what kind of work and so forth. I think one thing we're seeing–and this is something that's fairly recent, Brit–so I guess I say this with a little bit of a caveat that this has got to work itself out, but I think we're seeing that maybe we don't have quite enough people or maybe the right people in the right places on some of the broader issues. And I say that in the sense that we get a request for information, say, from Washington, from the Department or from the commissioner's office. We send that out to area offices for comments, and a lot of times we don't get anything back. That's partly because everybody's busy. It may be party because people don't understand the issue or don't feel comfortable commenting.

Whatever the reason is, the end product is the regional office then assumes the

kind of role we talked about, not necessarily assuming back when we reorganized. We have become *the* experts, if you will. The idea, I think, in our reorganization, to try to develop more expertise on a broader basis so folks in the field could respond more readily to some of these things.

Like I say, that may be one of those things we have to work out, and maybe it's the way it should be. Maybe the response to those kind of broad issues ought to be in our regional office or some higher level, but I'm not seeing it quite like we envisioned, at any rate, at this point, so some things to work out there.

Storey: I remember when Dan Beard retired, I think it was his last interview, he said, "Well, you know, they don't understand. I call out there and I want an answer, and I called out there weeks ago and I said, 'I want to know this. 'And every time I call, they say, 'We're working on it,' and I needed the answer that day. They have a whole different perspective about what goes on."

Pedde: You mentioned that, and we recently had a briefing for Katie Maggedia,[phonetic] CEQ. We got word on a Friday and the briefing was going to be the following–was it Tuesday? I beg your pardon. Wednesday or Thursday. Wednesday it was. And we had to get a bunch of stuff together for a briefing in a hurry, and I was grumbling to Duane Meekam [phonetic] in our Solicitor's office in Portland, "I wish these folks would give us a little more time." And his comment was, "We used to do that all the time in Washington."

So I think it is a matter of perspective. Folks in the field are used to dealing with immediate problems out in the field, and I don't think we've got quite turned around to taking a look back towards the headquarters and seeing what their needs are. I suppose again that's partly natural. The regional office used to do that under our old organization, so it's more natural for folks here to respond differently than, say, the folks in the area offices might be.

So we'll see where that one leads. That might be an interesting one to see what develops over a period of time. But that's, again, kind of an example of where we may not be quite where we thought we should be or where we wanted to go in terms of relationships and working things out.

I think you've talked with John [W. Keys III] already this week, and I don't know if he addressed this, but I know one of his feelings is that organizing what we've called our Board of Directors–I'm not certain it's a good term, but that's what we've named ourselves–and bringing the area managers in periodically and sitting down–I say "bringing in," meeting periodically–because we do go out on a basis to talk about regional issues and how they affect all of us, has probably been a good stroke. That's probably one of the best things that's happened.

We try to discuss issues that pertain to all of us hopefully in the leadership category, but sometimes management issues, too often management issues, but the idea that we discuss them, we talk about how they affect each of us, without trying to make decisions for any individual manager, and then let us go back to our individual organizations and deal with those kinds of issues. That's worked well. Rather than, shall we say, pronouncements coming down from on high, so to speak, there's an opportunity for everybody to have their two cents worth and then go back and try to deal with the problem from a broader perspective, knowing what everybody else feels. So I think that's been a good development that's come out of this, that kind of communication among the top leadership in the region. So, like I say, overall I would say we've done pretty well.

You asked about communications with other regions or other levels in the organization. That's perhaps a bit more of a rub yet, because the regions did not organize the same, reorganize even to the same degree. I'm not certain that's bad. While it does sometimes make communication a little more difficult, I think if you ask the folks, just to pick an area, say, in the contracts field, who they need to talk to in another region, they know who to talk to. We don't have the same mail codes like we used to have before the

400 Divisions and etc., but people know who to talk to.

One thing on a personal level I've found is that, for example, when I make notes on a phone call or a staff meeting or something, I no longer write mail codes; I write people's names. That, I think, is positive development, partly because I don't know the old codes anymore, or the code's in a different region, so you almost have to use names, but I think that's probably a positive development in an overall sense.

Like I say, probably sometimes there is a little friction because we don't understand other regions' operations necessarily and how they make their decisions, so it may cause a little friction once in a while, but again I don't know that it's been too burdensome.

Another thing I think that's happened, as Dan [Beard] has left and Commissioner [Eluid] Martinez[11] has come on, there's been a little change in emphasis. Dan certainly was intending to talk direct to the area managers, and, as you indicated, expected answers, which is fine. If the people on the ground have the answers, they ought to provide them. I think we've maybe gone back to a little more of a hierarchical structure where the commissioner works more through the regional director than Dan did. That has, I suppose, pros and cons depending on how you look at it. I think it perhaps provides an opportunity for a little more coordinated policy. Rather than twenty-six area managers talking about what they're doing, you've got at least regional directors talking or speaking for their region and what they intend to do. So I think there's some benefit in that aspect of it.

I don't think it's gone so far as to revert back to the old hierarchical organization, if that's the right term for it. I think we have put a great deal of responsibility out to the area

11. For more information on Commissioner Martinez see Eluid L. Martinez, *Oral History Interview*, Transcript of tape-recorded Bureau of Reclamation Oral History Interviews conducted by Brit Allan Storey, senior historian, Bureau of Reclamation, during 1996-2001, in Washington, D.C. and Santa Fe, New Mexico, 2006.

offices, things like that, that are still there. But there has been a little shift since Dan left and Commissioner Martinez has come on board.

What else? Again, I think we've got a ways to go yet in terms of continuing to work on it, trying to adapt the process. I think our people still struggle a little bit. One of the frustrations–and this is not just reorganization, but in all of our downsizing and so on, we've badly broken our old career ladders. Used to be pretty clear paths. You were a branch chief, a division chief, whatever. A lot of those paths don't exist anymore, and I think we're still struggling to reestablish them. That's something we need to pay attention to. We've got a lot of good folks out there, but we need to find ways for them to see a career path, something that's positive for them as individuals, a place where they can advance and so on.

So there's some things like that structurally, organizationally, we need to deal with, but, like I say, by and large I think things have worked out pretty well, pretty well.

Storey: What kind of issues did you have to work through between the regions and the area offices?

Issues between the Region and Area Offices

Pedde: Well, there was a whole question of who's doing what, and who got staff, and so forth. The concept, of course, was to put more responsibility, and, of course, with it, the work out in the area offices, and issues got to be, well, let's see, you've got an engineer or a biologist or whatever, who was doing this work. Now the work's done out to the area office. Does that person go with them? What if that person doesn't want to go? How do you deal with that? Do we force reassignments, or do we try to do it somehow through some kind of natural process, attrition or whatever, filling vacancies? There were issues of that type, definitely–structurally, organizationally, human relationships, things like that.

There were, I think–how do I want to put it?–perception problems, I think, in terms of some people–and not everybody. Okay. There were perception problems, I believe, on some people's part, not everyone's, but some people's part. The idea that authority and everything went out to the area office, some people felt they could make totally independent judgments. There were some folks who tried to do that without necessarily the right background or experience. There were some turf issues that, "I'm in charge now and you don't have anything to say," those kind of things initially we had to work on throughout the region, and I say that to divide that a little bit from management.

Management had to work on those problems, too, and be involved in them, but as a board, we did a lot of things to try to minimize those kind of conflicts as top management. We tried to focus on things of common concern. We did quite a bit of team-building. We tried to sit down and write out a document about what does the future look like to each of us. When I say "each of us," I mean we worked collaboratively and came up with one document, but each of us had input to what we think the future looks like. Not about predicting it or anything else, but how do we see it happening. What do we want to happen? So at a management level, I think we put in a lot of effort to try to avoid turf fights and things like that, and still there was probably a little sorting out to be done, even still.

I don't know, haven't really thought about this before, but in retrospect I don't know if we could have done much to help the employees along that way. We had some change training, had some consultants come in and talk about change and what we were going through, and so forth, and I think that was helpful, but those were pretty heady days in certain respects for some folks who all of a sudden could see, at least in their perception, that, "Boy, the future out here, I can make all kinds of decisions, do what I want to do," and so forth, and yet at the same time there were some other folks saying, "Wait a minute. You can't forget the law. Yes, we threw away Reclamation instructions, but that doesn't mean we don't have certain policies and things to follow."

So I think there was some education, some learning in that process. We've come a long way in that. I think we don't have quite the same problems anymore. I think that was just some kind of–I don't know if "euphoria" is the right word to use in this case, but there were some folks who maybe got a little carried away in terms of what they thought they could and could not do.

We did put some effort into that. We had some training classes, sat down and talked about what legally you can and can't do. Tried to get all of our specialists in a given area together and talk about programs and policies and things like that. And that went a long way, too. It not only helped the relationship problems, because people had a better understanding of what's getting reviewed and why, but it also helped eliminate some of these grand ideas that we could do almost anything. There are limits to what we can do, even under the best of circumstances.

So I think that was some of the kind of problems we worked through.

Storey: These were problems at the management level or at the staff level, or both?

Pedde: Well, I talked about two or three different kinds of problems there. The question of transferring work and then transferring people was at both levels. At a very personal level, if you were the person involved and you had a family sitting here in Boise, and somebody said, "Your work has gone to Yakima," that's, of course, very personal. It also created a management problem, because do you decide to say, regardless of that person's personal feelings, "You're going to Yakima," anyway? We did not choose that route, by the way. While we encouraged and talked to folks and tried to make them understand there were some opportunities, and, by the way, personally I've always thought the best experience in the world was out on the old project manager level or now maybe the area manager field office level. That was some of the best experience in the world, and if you didn't have it, you missed something. So, to me, having an opportunity to go out and work in an area office is not necessarily any kind of punishment; it's good training, it's

good background to understand how things work, how to deal with people on the ground, so forth.

But setting all those things aside, you make somebody move even though they may have working spouses, kids in school, things like that, we chose not to do that, and that, again, was a discussion in the board among managers also in just how do we want to approach this. What is going to be our policy? How strict shall we be? Certainly management has the right to make direct reassignments, and we discussed how to use that right. Do we do it or do we not? By and large, we chose not to. We chose to find ways to work around it.

We have made reassignments, particularly where it is convenient. Here in Boise with the Snake River Area Office also in town, it's relatively easy. You aren't uprooting families and so forth; you're just changing the building you report to and the supervisor and so forth. So where we could, we did make reassignments and had people reporting to area offices. Other places where somebody was willing to move, we accommodated that.

If there was a real problem family-wise, whatever, we didn't force those kind of issues. I think that was a good decision. Change like this was traumatic enough without trying to create additional personal hardships and things like that. We would have lost some good people, I think, if we had tried to force moves when people weren't willing to do it.

So, like I say, that was a mix of both on the very personal level, and on a management level it was an issue. I think the area of turf, responsibilities, things like that, occurred probably both on the management and the employee level also. I think on the management level, amongst us, we dealt with it better because we sat down and we did structure some things, like I mentioned, some team-building and so forth, to try to deal with that.

On the employee level, again we did do some things. I don't know if we were quite as successful maybe as we were on the management level. Frankly, again, you're dealing with hundreds of people versus twelve, so it's a lot harder to get common understanding, common direction, and so forth together.

Let's see. I'm trying to remember what else we did talk about in terms of the changes. People relocations. Questions of turf or authority. Process got to be an issue at times, how you do things again, who sent what to who, some of those issues. Again, those were less of an issue for top management, as, say, to middle management. Yes, top management got involved as needed to be, but those were processes that, say, middle management more worked out with their folks and so forth. And I think those process issues have been pretty well worked out. I don't think we have too much of a problem there anymore.

Process issues throughout Reclamation are probably, in my opinion, no worse, maybe no better than they were before either, but again when you try to deal with a big organization, there are always questions about process that seem to–things fall through the cracks, whatever, and have to be dealt with.

So those type of things. Like I say, they seem to be a mix of both management involvement and employee issues with the real emphasis depending on the issue, whether it was more with the employees or more with management and so on.

Storey: What about RIFs [Reduction in Force]? How many folks did we have to RIF?

No Reduction in Force in the Region

Pedde: In terms of this reorganization, we didn't RIF anybody. I separate that, because Steve Clark has been doing some things up at Grand Coulee related to change in works and new change in work rules and so forth that we did do a slight RIF there, would have been early

in the process, probably '94, again probably '93, but carried out in '94. But that was separate from reorganization per se. Like I say, those were issues related more to downsizing of the work up there. Some of the construction work was tailing out, and also some changes in work rules and practices, union laws, and so forth.

So we really didn't RIF anybody here. Again, I don't know if that was a stated goal particularly, other than we were trying to be relatively humane about the whole process and, again, not be overbearing in terms of direct reassignment, things like that.

Storey: Tell me more about the labor unions and what was going on at Coulee. Were you involved at all in this?

Pedde: Peripherally. Steve Clark and his folks handled it primarily. Steve could give you a much better account than I of what happened. But essentially I think you know we've got a number of unions up there. We've got actually a total of twelve now. At the time Steve was doing this, I think we only had eleven.

And there's a Trades Council, which is supposed to represent all of the unions in negotiations and so forth. With that many issues, you can understand there are jurisdictional issues–what work the carpenters do, what work the electricians do, and so forth. We were constantly in a situation where a carpenter couldn't do his work until the electrician came and turned off the power or rerouted the electrical line and so forth, so we had a lot of down time waiting on people.

The project had approached that issue two or three different times over the years. I think this is actually the third time that Steve took it on, and it actually ended up before an administrative judge in terms of making determinations about those jurisdictional rules. The judge came back with a favorable ruling that allowed us to break down some of those barriers.

We haven't quite gotten to where some of the private industry is. For example, they have a classification which is basically a hydromechanic, and he's kind of a jack-of-all-trades. Again, not everybody can do everything, but it covers a broad range of stuff.

Storey: This is at Coulee?

Pedde: Private industry as far as the hydromechanic. We haven't quite got there. We still have all of our original unions and so forth, but we've been able to minimize some of those jurisdictional issues and we've got much better work flow, less down time between the crafts, things like that. Like I say, Steve could give you a whole lot better account than I of what went through that process.

That related to a little bit of construction tailoff. We had–I'm trying to remember the number. It was six or eight people that we RIF'ed because of the tailoff of construction, but the project staffing has gone from about 425 in, say, '92 or so, back first part of this decade, down to, I think Steve said he had 288 people on board today. And we're still generating kilowatts and getting the work done. So there's been a significant change up there due to, like I say, these jurisdictional issues, primarily, coupled with some other RIFs because of work and so forth. But you might want to talk to Steve about that. I think that's an interesting chapter. Like I say, I know enough about it to probably get myself in trouble if I talk very deep about it.

Storey: I'm hoping I'll be up there in June and we'll be able to talk to him then.

Pedde: So like I say, that contributed to a lot there, and Steve's an excellent manager, good thinker, and was able to convince the administrative judge that we had grounds to change our practices. Of course, after you even get the judgment, you still have to negotiate with the union on terms of what that means in pay rates and everything else, so there was still a lot of work that Steve did and has done.

I've discussed a little bit with him, and his reaction is the employees are fairly happy with it. It's not been an onerous thing, necessarily. Certainly when you reduce that number of positions–and some of that was by RIF, some my attrition, of course, you know, whatever we could use to manage the situation–there are some unhappy folks. But by and large, quoting Steve, things seem to be going fairly well in terms of the major change in work conditions up there.

Changes in the Regional Office

To an extent we've had, I guess maybe you'd say, a similar change here in the regional office, in that under our old structure, people in the regional office were *the* experts for the region, and set the policy and blessed things one way or the other. Under our new structure–and I guess we'd call this a change in work rules–under our new structure, the people in the regional office kind of wear two hats. In one case you could have, again, to pick a biologist or an engineer, whatever, working on a project for an area manager, doing technical work, support work, whatever, part of a team. At the same time the end product of that could come back to the region for review. So people sometimes wear two hats, and hopefully not the same hat, or two hats on the same job, not reviewing their own work.

That's been a little bit of a change for folks here in the regional office. I think that's worked fairly well. We do have a number of folks here who work in support of the area offices, particularly in cases where we can't justify a full-time body at the area office, we'll have a person or two here that serves everybody. That still is one where we're probably always adjusting as workloads change, where today perhaps, say, the Upper Columbia Area Office couldn't support a full-time, say, archeologist–that's not the case; they do have an archeology position up there–but they couldn't support a full-time position, well, a couple of years from now, maybe they've got enough work that they can.

So that's something that's kind of always a little bit of change, and something that

we constantly look at in terms of where the work's being done, how much there is, where it needs to be done, and so forth. So that's kind of an ongoing not problem per se, but something that just has to be dealt with.

It does get back to some of those issues that we dealt with earlier, about do you direct reassignments and things like that. Fortunately we're in a situation where we can better project. We can look ahead and say, "This is going to happen in two years," and we can better plan for it as opposed to one day we said, "We're an old organization," and the next day–not literally, but the next day we said, "We've got this new structure." So it's less of a problem, but it is still an issue as workloads change. I guess that's probably always been the case as work goes up and down, people have moved around, particularly in construction areas, things like that. So that's an ongoing problem and something we deal with.

In the reorganization, like I say, overall I'd say it's gone relatively well.

Storey: Do you have a sense of how the staffing has gone? Where is the staff nowadays in comparison to before the reorganization?

Staffing Reductions

Pedde: You know, I'd have to sit down and look at the numbers, Brit. The staffing in the regional office is significantly lower than it used to be. I think probably back in '93 or so, when we started this, '93, '94, there were probably over 300 people here in the regional office, and we're probably down to about 250 or maybe a little less than that, even, probably 240 or so.

There has been a shift out to the area offices of some of those positions. Some of it's just been downsizing through buyouts and other things, and, of course, you couldn't always replace everybody that left, so some of it's been downsizing, but a fair amount of

it's been a shift to area offices.

I mentioned the board gets together and talks about issues that affect all of us. When we started our reorganization, we looked at staffing and we had a discussion and each area manager came in and said, "This is what I think I need to do my job." And we all collectively discussed those and we came up with some F-T-E allocations. They're not in the sense of some of our old hard ceilings, but we said, "We expect area managers to manage within these numbers."

Over time, jobs have been filled, whatever, and they're managing those numbers. If an area manager today has a need, particularly if it's significant, if it's a minor change, generally it might be a topic of discussion, but it's a few minutes at best, but if somebody had a reason for a major change, that again would probably come before the board and expect to have a discussion about why the change, what's the workload, and so forth. Does it affect any of the other parties–

END SIDE 1, TAPE 1. APRIL 23, 1998.
BEGIN SIDE 2, TAPE 1. APRIL 23, 1998.

Pedde: We've been doing some work recently on trying to do some looking at the future. Where do we want to be in five years? Where do we want to be in ten years? That kind of thing. What's Reclamation's work going to be in five years? Will it change significantly from where we're at today? Those kind of things. Those, again, are things the board has been working on in terms of trying to look at a broader leadership role as opposed to just day-to-day management issues.

We've had some discussion on it. I don't know if we have a clear understanding any better than anybody else, where we'll be in five years, but at least we've been trying to understand where things are going.

Storey: I'm interested in this board. Is this a place where everybody votes and John does what the vote is? How does this work?

Workings of the Regional Board of Directors

Pedde: There's twelve of us, first off, and they represent the area offices, plus John, myself, human resources, public affairs, the RATS organization up here, Darrell Beckman's shop, and Cathy Conrath [phonetic], who kind of is our program coordinator. She's more like a special assistant to the regional director to help manage issues and so on. She also serves as our facilitator, note taker, participant, also, not just a passive role by any means. So it's a broad base of the key management people.

We don't vote. We discuss issues. We hopefully come to some kind of consensus or common ground. In terms of John's role, it's been interesting to watch him change. John certainly has opinions about how things should go and so forth, but his role has been interesting. He sits generally very quiet while discussion goes on. He will interject if he feels strongly about things, but generally he tries to step back and let everybody discuss the issues.

Seldom do we ever come to the point where John says, "Hey, wait a minute. This is the way it's going to be," although he has said, "Just remember, one vote equals eleven." So he reserves that right as the director, and you almost have to say, justifiably, he's the guy on the hot seat with the commissioner, so he's got to be accountable, so perhaps has that prerogative, but once in a while he needs to say, "Sorry folks, I can't work with that. I've got to do this other thing."

So he does reserve that right, but by and large, like I say, we work on a consensus basis. We don't vote. Like I say, it's a discussion of issues with the idea that a manager will go away with a direction or the thoughts of the rest of the board and how it impacts them, and hopefully do what's right, I guess is the way to put it.

We try to generate a high level of trust among us so we can talk about anything, express ourselves freely. We've been fairly restrictive in having people attend. We may have somebody come in and give us a report on something, but in terms of participating in our deliberations, we've not encouraged that. We've had discussion about whether we should or not, but at this point we've not, so that we can try to build that level of confidence where we can talk freely about any issue, say what's on our mind without some concern that statements get out, things like that, that could be misinterpreted.

We do put out a summary of the meeting for all the employees, following the meeting. The summary just basically says, "Here's what we talked about. These are the issues we discussed. Here's what we decided," if there is any kind of decision, things like that, but it doesn't talk about what the conversation, or what the discussion was leading to those decisions, which is really where we try to, like I said, we try to share freely with each other how we're feeling and so forth.

It's been a good process. The board has–let's see. We've had several major changes in membership as people have retired, things like that. While every time there's a significant change, particularly if there's two or three members that change within a relatively short period of time, there's a little getting acquainted time, a little getting acquainted process. I think we've been able to fairly well maintain that open conversation and trust and so forth. While we can sometimes have some pretty blunt discussions, I don't think we've ever got into arguments. I wouldn't class anything as an argument. That's been, in part, due to some of the people there and, I think, their own skills at facilitation, self-facilitation.

Jim Cole [phonetic], for example, Jim's retired now, of course, but Jim was very good at that in terms of trying to build consensus and so forth. At the same time, a very good manager, had his own opinions, could express them well, and so forth. Steve Clark is another person of that type. He can be the devil's advocate or he can be an advocate, as the case may be. One of his sayings is that if you can't argue both sides of the issue, you

obviously don't understand it. And there's probably some wisdom in that. So sometimes he tries to argue both sides of the issue just for the sake of the group, to make sure all the discussions get out on the table.

So like I say, that has been one of the more effective things that have come out of the reorganization, and the way we've been able to operate has been quite positive so far. Again, depending on the issue, depending on the day, some people are more engaged than others. Depending on the issue, again, if they are more operational in nature, certainly the area managers, Darrell Beckman, the RATS Manager, John or myself are perhaps more engaged than, say, human resources. On the other hand, if it's a personnel issue, we certainly rely on Max Gallagos and folks like that to take the lead and provide us counsel and advice and so forth, where we go. So it's been a good combination of folks, a good process. We meet roughly every six weeks, two months; it varies a little bit.

Storey: Where?

Pedde: We've met in various places, generally in Boise. We try to get out of the office if possible, to avoid telephones, things like that. We have met in Grand Coulee and Yakima. We haven't gone over to Portland, haven't been over there to meet. We generally meet here, probably because most of us are here in Boise, more people, so we've got three area managers that come in, whereas maybe nine of us going out. So it's generally been more convenient to meet here as opposed to out in the field, although we have done that and our next meeting is scheduled for June and we'll probably go up to Yakima for that meeting.

There is an advantage in trying to get out to the area offices to just let folks know, or even drop by the office as part of a meeting, and visit with people and so forth. So there's an advantage in getting out. Sometimes you've got to ignore the convenience of having most of us here, as opposed to meeting out in the area offices.

Topics. Cathy calls for an agenda, Whatever somebody's got on their mind can be a legitimate topic. It can range anywhere from, like I indicated before, maybe a key promotion or selection or something, to Bureau-wide issues, things the commissioner's talking about or Washington staff are doing, or whatever. So, a broad range of issues.

Try to stay out of the weeds if we can in terms of dealing too much with day-to-day management issues and try to focus on leadership. That's one that's always a constant battle, of course, because today's problems are usually the ones that are on your mind, and trying to step back a little bit and look at the broader issues that we're trying to deal with or have to deal with is always a struggle.

Storey: What about Indian issues? Do they come up often?

Regional Indian Issues

Pedde: In the region, yes. In the board, not regularly. Sometimes, again, as an issue in terms of relationships or resources or whatever. John Dewey [phonetic] is our Native American affairs coordinator. John's done an excellent job of making contacts with the tribes and trying to keep informed. Each of the area offices has at least a part-time person assigned to that same task, and they've also made an effort to get out and talk to the tribal folks.

John makes an effort to try to get out if not to every tribe, at least to the major ones on our reservoirs, for example, or in the immediate vicinity where our operations regularly impact folks or can impact folks, tries to get out out there roughly every quarter to six months and visit with each of those tribes.

The area managers, again, are responsible for getting out on a regular basis and dealing with the tribal folks on issues that may affect them. So we do do a lot of things with the tribes. They are not generally board issues, though. Occasionally, for example, our E-S-A operations impact almost anybody, and sometimes we have discussions about

a particular operation or something that may have tribal implications, but it's generally focused around an issue as opposed to just tribal relationships.

Eric Glover's [phonetic] office is working on trying to build some relationships with tribes in the western part of the region, which we've never had before, working on water assessments and things like that. Of course, again, like Steve Clark with Grand Coulee, having the Colville Reservation on one side and Spokane Reservation on the other side, he deals a lot with day-to-day kind of issues, things like that.

So, tribal relationships have assumed a bigger part of the region's work, emphasis by this administration as much as anything. Probably also seems to be more of an awareness on the part of the tribes. Maybe "awareness" isn't the right word; more of a desire to get involved, be aware of what's going on, be involved and so forth. Again, I think in this region, at least, is driven somewhat by some of these salmon issues that pervade everything we do, and it may be a fish that you're dealing with down in Bonneville Dam, but it could very well affect folks in Montana, so it gets to be issues that tribes as well as everybody else in the region can hardly ignore, even though they're not right at their doorstep. So, again, tribal relationships are one of those areas that we are paying attention to, but again, as I say, not particularly in the board.

Storey: Don't I recall that in the last year or two the percentage of the power revenues at Coulee have now gone to the Colville Federated Tribes?

Colville Federated Tribal Claims

Pedde: That's probably three years ago that that was settled. The Colvilles filed a suit almost twenty years ago, claiming that–had a couple of different claims, but claimed, among other things, that they owned the land under the dam, and that they had never been compensated for it.

The suit dragged on for–and by the way, I need to back up a minute. There was a period of time where these claims could be filed, and the Colvilles filed their claim in the waning days of that window. The Spokanes did not; they missed the window. That's an issue as we go on here.

Colvilles did file the claim. Here some twenty years later, negotiated a settlement where they received a lump-sum payment of about fifty million dollars, and then they receive a portion of the revenues from the powerplant each year. It's somewhere on the order, depending on the amount of power generated, but it's somewhere on the order of about fifteen million dollars a year. They, like I say, settled it.

We were discussing this the other day, whether we actually lost the case or just settled it out of court. I'm not certain where we're at, to be honest with you. I thought that the Colvilles did not prevail on their claim that they owned the land under the dam, but that there was a finding that we had never really purchased the power right, and somebody took exception to that. So I'm not certain what the issue was, but the end product is we are paying them for impacts there.

The issue it's brought up, of course, is the Spokanes did not file a claim, and, of course, they are saying, "What about us? We have the same impacts." And the secretary, I understand–and I've not heard this directly or seen it in writing–but the secretary has said, "Well, legally you missed. Sorry." But at the same time I think he acknowledges there's some kind of obligation there, maybe not to the same extent or something, but probably some kind of obligation that has to be dealt with just in fairness, in equity. Where that will wind up, I don't know. Those discussions were carried on primarily by the Department of Justice folks back in Washington, D.C.

Since they involve revenues, Bonneville Power, of course, got involved, definitely, because that's where the source funds came from. But in terms of the actual negotiations involving us and the project folks, an awareness and so forth, but not a lot of

direct involvement, technical support, those kind of things.

Storey: So this negotiation with the Colville was not by Reclamation?

Indian Settlement Negotiations

Pedde: Primarily by Department of Justice. Of course, that's true of all of the settlements. Indian water right claims, the Department of Justice is heavily involved. They may not actually be the lead. The secretary will appoint a chair of a water-right settlement team, and there are several teams around the region with different chairs. That chair then assembles a team of experts, whatever they need, and certainly Justice, because of the legal implications of water rights and everything else, is definitely a key player in that. They do the negotiations.

This was similar. I don't know who the chair was. Matter of fact, over twenty years there were probably several different chairs, but the negotiations primarily with Justice, with some of the Interior, Solicitor's Office, Department of Justice, so forth.

Water rights settlements is another area. We provide technical support, by and large. We are sometimes members of the actual settlement team. John Peterson out of Denver is a member for a couple of our teams up here. Chris Kenny [phonetic] is a member on the Flathead team. Things like that. By and large, our office, our role here in the region is technical support, providing hydrology information, things of that type. I suppose that's probably good in a way. If you're too involved here in the region, in the operations as well as the settlement, it probably could be a little bit of a conflict at times.

Storey: But I find it very confusing. How can they "settle" when they don't know the parameters within which Reclamation may have to operate or what the realities and the unrealities are?

Pedde: Well, and that's where we provide support. The parties generally are the state, of course, and then the United States representing the tribe, in part, and then the tribe itself. They have their own set of attorneys. Then there are a bunch of other players, like ourselves or other resource agencies, B-L-M [Bureau of Land Management] or maybe even state agencies, that provide information.

The Shoshone-Bannock Settlement might be a good example, and that one was completed here there or four years ago. The negotiations were completed and the final process is just being finished here recently.

Storey: This would be Fort Hall?

Pedde: Fort Hall. Yes. Correct. The settlement was between the state over reserved water right claim and the United States on behalf of the tribe and so forth. The end product did definitely involve Reclamation operations, an understanding of what those were in conjunction with state water law, etc. The whole picture had to be on the table. Part of the settlement was to provide to the tribe–I need to back up–to provide, in lieu of the tribe taking an earlier water right, some uncontracted space that Reclamation had to the irrigators, to make up for the impacts that the tribe's earlier right would have.

So, is Reclamation involved? Yes. Are operations involved? Certainly. The settlement involves space in the Palisades Reservoir, which has a very good refill, and you need to understand that. It's a very reliable source of water. And also in Ririe Reservoir, which is much less reliable. So when you're trying to decide how much is this space worth when it goes toward settlement, versus this space, you've got to have all of those things on the table.

When I say we provide backup support, it depends on the settlement, again, and how closely we're involved. Sometimes our backup support means we're there on a regular basis, in the room, not necessarily sitting at the table as *the* negotiator, but

certainly there on a regular basis. Another case, it may be a periodic appearance to provide some information and so forth. So a full range of activities that Reclamation can have a role, and the degree of the role just depends on what the settlement and what the issues are.

Storey: So if I'm understanding this, the objective would be for Reclamation to provide sufficient technical support, that we aren't confronted with a settlement which calls upon our resources and capabilities in a way that cannot be met.

Pedde: Precisely. That's a good way of putting it.

Storey: And does it always work out that way?

Pedde: Can't speak for all of Reclamation, of course, but the ones up here that I'm familiar with have worked out pretty well that way, yes.

Storey: So it is manageable. They do arrive at something that's workable.

Pedde: Something that's workable. Otherwise, why would you settle?

Storey: Are the Indians happy? Are the tribes happy?

Pedde: I don't know if I can judge that very well. They settled, so again they must be at least accepting. Now, does that mean happy? I don't know if I would say that necessarily. Tribes feel–and with some justification–that over the years they have not been fairly treated by the United States. No question they feel that way. So while they may see this as a victory, I'm not certain that means they're happy, shall we say.

The Shoshone-Bannock settlement, again, for example, provided them water, a couple different blocks of water. One of them, they reserved the right to use that water

for in-stream flows all the way to the state line. As a second round of that, we are now trying to buy that water from them, actually lease it for a period of five years, so we can use it to assist in salmon recovery.

So, one thing leads to another. None of these actions can be independent, and that's one of the problems with trying to manage in the region right now. The salmon issues, for example, you just can't put them over in a little corner. They affect almost everything we do and have repercussions all the way around. So, like I say, there can be a lot of benefits or there can be a lot of problems, depending on the way things work.

Indian Issues Tied to the Salmon Problem

Storey: But this water that they want for in-stream flows, that can't be for salmon, can it?

Pedde: Sure. Sure.

Storey: I understood that the dams on the Snake River, the power dams that we don't own, that other people own, totally block salmon.

Pedde: Yes, they do.

Storey: Okay. Well, I guess I don't understand what's going on.

Pedde: Okay. The Hells Canyon Complex, which is the most recent set of dams, although earlier on different dams had blocked various tributaries and so on, salmon cannot migrate past Hells Canyon Dam, which is 125 miles above Lewiston. However, fall chinook do spawn just below Hells Canyon Dam. So providing water from any source can assist in providing adequate flows in that reach of the river, or even downstream further through Lower Granite on in the main stem of the Columbia, and assist in providing flows that those fish need for survival.

So, does it get the fish past the dam? No. It does good in between, by the way, too, I guess what I want to say, in terms of improving water quality and so forth, but that's a secondary benefit, shall we say. Providing the water for flow augmentation is its primary benefit to salmon. Now, there's great debate on how much benefit that is and how far you should go and so forth, but fish do need water to swim in, there's no question about that.

Storey: Where's the benefit to the Shoshone-Bannock?

Pedde: I think there's two. One is cultural, in that they historically have fished for salmon, not so much on the Snake River here, but over on the Clearwater [River] and Salmon River drainage side, and Lemhi, and Pahsimeroi rivers and so forth. So they have a cultural, religious aspect to it, the benefit for them to see the fish come back. There is also monetary, if we will rent the water. We haven't settled on a price yet, so it's hard to tell, but several hundred thousand dollars a year of income to them. Now they could release the water down the river for free, certainly, and that would provide perhaps the same cultural or resource benefits, cultural or religious benefits, but wouldn't necessarily provide the monetary ones.

Shoshone-Bannocks, by the way, filed the original petition to list the salmon. Although they are the furthest tribe from the stream, they were the ones who filed the petition.

Storey: Does releasing this water help salmon get back into their traditional fishing grounds?

Pedde: It could.

Storey: On the Clearwater and Lemhi?

Pedde: It could. It helps, in part. The passage through the lower Snake dams, Lower Granite,

Lower Goose, Lower Monumental, Ice Harbor, is where there's concern that smelts and adults are lost. And providing flow augmentation through that stretch of the river helps them reach Lewiston, Clarkston. Once they are past there, except for the Warsak Dam, which is on the north fork of the Clearwater, there are no storage dams, no major facilities in there, and there is a lot of good habitat. In the Frank Church Wilderness Area, the middle fork, main stem of the Salmon [River] and so forth, and those fish then do travel upstream and spawn all the way up near Stanley, which is 125 miles or so northeast of us here. Again, those are traditional fishing places for the Shoshone-Bannocks. Then further east in the Pahsimeroi and Lemhi, as I say.

So, yes, there is some benefit. There's a question about how much benefit it provides, but there can be some benefit to fish returning into the salmon drainage that the Shoshone-Bannocks rely on.

Storey: And maybe some emotional benefit.

Pedde: And there's emotional benefit. Again, it's cultural, religious aspects and that's perhaps–I don't know if it's more than the physical benefit, but certainly it is definitely there.

Storey: Do you happen to know if they go to nontraditional areas to fish now?

Pedde: I really couldn't tell you. I know some of the tribal members do, further downstream I'm thinking of, but I really don't know about the Shoshone-Bannocks. The next fishing sites for them would be quite far away, so it may be a matter of logistics as much as anything. I just don't know.

Periodically they and the Fish and Game discuss ceremonial taking of a few salmon again in the upper drainages, although there is a restricted season. Idaho hasn't had much harvest on particular stocks of salmon at all in a long time. They try to do–periodically like to take at least a ceremonial harvest of a few fish, and they've always

done that, again, up in the upper drainages. I don't know that they've, like I say, traveled down to the Columbia to do any fishing.

Storey: That's interesting. So they're doing some of what Reclamation is doing.

Pedde: Yes. We have some common interests, some common activities. We're trying to provide water under the E-S-A requirements of biological opinion, and if we can use their resources to help us do that and helps meet their goals at the same time, it's a good partnership.

Storey: Would that water be above and beyond the–what is it–

Pedde: Four hundred and twenty-seven thousand acre feet.

Storey: Yes.

Pedde: At this point I don't think it is. There probably is some legitimate discussion since this settlement allowed them to move the water downstream to the state line, for instream flow purposes. You could argue that they probably have a separate right. At the same time, when it comes to Reclamation, the state has waived its water law and said, "We'll allow you to deliver 427 through 1999, but no more." And it has to be storage water.

So, you know, again the tribe probably could release its water without Reclamation. The water should be protected by the state, all the way to the state line. Once we get involved, then it begins to cloud the issue. It probably gets to be more a question of whether we are in state law or not. I'm sure the state would argue that if we've rendered it, it's part of the 427. We haven't really discussed that issue. We've been considering it probably part of the 427 in terms of our deliveries, but again I say you could conceivably argue there may be another case.

They have that block of water. That's 460,900-and-something acre feet. That block of water can be used below Miller Dam. That's the key measuring point here in the state. They have another block of water that they can use, that cannot be used below Miller Dam, has to be used for tribal purposes, irrigation, whatever, above Miller Dam. So there's another block of water that they also have under this settlement that's involved, and that doesn't directly affect us in terms of our salmon operations.

Storey: One of the things that's happened recently is John Keys' retirement's been announced.[12] What kind of effect has that had for the region, if any?

Effect of John Keys Retirement on the Region

Pedde: To date, probably not a big effect. We're probably still–I don't want to say not recovering, but still trying to deal with the announcement. John just made that announcement officially here about three weeks ago, so it's fairly recent. I think, in the long term, Brit, that will probably make a significant difference. John has been in the region either as assistant director or director for seventeen-plus, almost eighteen years. It's a long time. He's established relationships with people over a long period of time. People have relied–

END SIDE 2, TAPE 2. APRIL 23, 1998.
BEGIN SIDE 1, TAPE 2. APRIL 23, 1998.

Storey: Interview with Kenneth Pedde on April 23, 1998.

Pedde: There has to be new relationships developed. Whoever comes in will certainly have

12. John W. Keys III retired as PN regional director in 1998; in July 2001 he became Bureau of Reclamation Commissioner in July 2001 and served until 2006; for more information see John W. Keys III, *Oral History Interview*, Transcript of tape-recorded Bureau of Reclamation Oral History Interviews conducted by Brit Allan Storey, senior historian, Bureau of Reclamation, from 1994 to 2006, in Denver, Colorado; Boise, Idaho; Washington, D.C.; and Moab, Utah, edited by Brit Allan Storey, 2008.

different ways of doing business, possibly different priorities, things like that. So it will be a significant change for the region in the coming months, coming years. Depends on the person, whether a good or bad change. I'm not necessarily saying it's going to be bad, but it will be a change. So there will be some period of time where I think there will be, again, some getting used to each other. New director getting used to the folks here, things like that, and some readjustment as we go along.

People in the region, Reclamation people I'm talking about here in the regional offices and so forth, it will probably be a big change there, because some of the folks we have in the office, their whole career they've worked under John Keys, so they don't necessarily know a different style of management, different way of doing business, and so forth. So for some folks here in the region, it will be personally a major change.

John is such a presence, such a force, and such a good person, that even those of us who have worked elsewhere and may haven't worked for him the full eighteen years, are going to miss him, too. So it's going to be a change. I'm not certain when someone replaces another person they should try to fill their shoes, but if somebody tries to fill John's shoes, they're going to be a big set to fill, a hard job to do. You probably need to wear your own shoes in that case and try to deal with it.

Storey: Let's talk about endangered species in this region. Let's talk first about issues that don't relate to fish, because I think fish is going to be the big issue.

Endangered Species Issues Drives the Region

Pedde: It's the one that drives the region.

Storey: Then we'll talk about that one. Are there any other endangered species issues around and about?

Pedde: We've recently made a list, and I would have to count again, but I think we have thirty-seven different plants, animal, bird species in the region that are listed or candidates for listing. Several don't affect us directly, but we have wolves, of course, and they are in the Frank Church Wilderness here. They're often found over near Cascade Reservoir, one of our reservoirs, and things like that. Not direct, but something we have to consider. Grizzly bears are probably not a real issue here.

Eagles have been a long-term issue. I think we've dealt reasonably well with those. We have some terrestrial plants. There's a ute ladies tresses that's been recently found. I think they're just beginning to deal with what that means for us, if anything. We have listed snails in the middle portion of the Snake here in Idaho. There's four snails and a limpet. A limpet is a snail without a shell, as I understand it.

Storey: Fish food, in other words. (laughter)

Pedde: So, yes, there's a whole range of species that we deal with, we have to at least consider. Whether or not we impact on this is, of course, another question. We at least have to consider as we go forward in our work.

Again, terrestrial species and avian bird species are not a major issue. Again, we have to deal with eagles being probably the primary thing, but we've been able to accommodate that fairly well. They aren't quite so closely related to water in the sense of, yes, the eagles, for example, hunt fish, no question about it, so that has some impact on our reservoirs if we draw them down or do some things. But they also have other bases of prey and so forth, so it's not solely tied to that.

When you deal with fish, of course, water is their life, so that definitely affects us.

Storey: And water is our business.

Pedde: And water is our business, yes, so there's no question we get involved in those. Again, some of the plant species, we'll have to see how that may affect us. Just as a general observation, I could be wrong here, but plants, they're fixed. You've got a location for them, you know where they're at tomorrow, if you've seen them today. Management practices, while related to water, may not be simple. Erosion, things like that are not necessarily simple to control. You can control them. You can build a fence around a place and put a reserve or a plant. There are things you can do. When you've got a migratory species, eagles somewhat fall in this category, but again they have a wide range and a base, a prey base and so forth, so they aren't quite as critical.

But when you get a species that has a wide range, it gets much more difficult to deal with, and you're trying to deal with it throughout its full range. Again, we get back to fish. Ones that start in the ocean and come nine hundred miles up to Red Fish Lake, that gets to be a major problem for the region to try to manage.

So, like I say, kind of observation. If we had to deal with terrestrial species, I think it would be a lot easier, but, like I say, the key thing in this region are anadromous fish, primarily, but fish species as a whole are the issues we deal with most.

Storey: Why don't you trace back in your mind the fish issues as they have related to you and the region.

Salmon ESA Issues Impact the Pacific Northwest

Pedde: We have been dealing with fish issues for a long time. I asked our folks to look here a few years back, and I think we came up with twenty-six different agreements to manage flows generally blow the reservoirs for fish. Most of those agreements were voluntary. There were a couple where there was a previous water right involved or something like that, that we had some legal obligations, but most of those are voluntary. Several of them date back twenty years or more. So, dealing with fish and their habitat and aquatics and

so forth is not anything new.

Beginning with listing of the sockeye salmon and chinook in the early nineties, it was a major change. Before, we dealt with them as local species. We dealt with flows in a reach of river that we could manage and so forth. It was manageable. We could work things out. Now you're trying to deal across a whole region, with probably an infinite number of parties. If you really sat down and tried to list all of the interested parties, there's just hundreds of them–thirteen tribes, four states. The problem is just magnified.

Probably my observation, too, and this is just one personal, that others might dispute, but one of the things I think that happened to the Pacific Northwest is they were not ready for that kind of a listing, in that water has always been plentiful up here. While we've had periodic droughts of a few years or something, they've been droughts and they were managed and so forth. Suddenly we have a situation where you can't use water anymore, and it's not just for a drought or for a short term, but we're talking about impacts that have limited your ability to use that water, and it's probably going to be that way for a long time.

I contrast that to the Southwest, for example, where water has been in short supply for a long time, and processes, procedures, ways of dealing with that shortage have developed. Here we have almost an instant shortage that people really weren't prepared for and weren't ready to adjust to. So I think that's been part of the region's trouble in dealing with these listing of fish, that plus just the scope of it, of course.

The process started, again, back about 1990 when the species were proposed for listing. Senator [Mark] Hatfield called for a meeting of the region's leadership to try to come up with a solution before they were listed.[13] It's been called the Salmon Summit

13. For background on the "salmon summit" see Michael C. Bloom and F. Lorraine Bodi, "Commentary," in *The Northwest Salmon Crisis: A Documentary History*, Joseph Cone and Sandy Ridlington, editors, pp. 317-320 (continued...)

since. About thirty parties sat down around the table to discuss the problem, try to come to some kind of solutions.

That was not successful in terms of finding any solutions. From at least a Reclamation point of view, probably if there was a success to come out of it, it was that maybe for the first time parties who hadn't talked to each other before at least sat down around the table and saw each other and talked a little bit. That's been a process ongoing ever since in terms of those discussions, and their level goes up and down, involvement changes over time, but there's been a lot of ongoing dialogue and discussions among parties since.

Starting with those kind of meetings back in 1990, while that group didn't come to any kind of conclusion, the senator asked the Power Council to try to come to a resolution. They took it up under the Fish and Wildlife plan and began to make some recommendations. Reclamation, under John's [Keys] direction, was, "We're not going to be hanging back and waiting to see what happens." He wanted to be proactive in terms of trying to contribute to solving a problem. With that in mind, we began providing water on a voluntary basis early on, even before the fish were actually listed, back in the Power Council days, to try to assist with migration downstream, primarily, but for flow augmentation.

Over a period of time, that voluntary action has become incorporated in biological opinions and so forth, and it's now a required action, not necessarily a voluntary one. It's also grown from our initial efforts at providing about 90,000 acre feet to the 427 [thousand acre feet] that you mentioned earlier.

It's been an interesting process. While I see the rest of the West getting into the same things, maybe the rest of the nation, even, in terms of these broad-based issues, I

13. (...continued)
(Corvallis, Oregon: Oregon State University Press, 1996).

think, at least from what I can see, some of these broad-based things were maybe unique up here or at least early on. As a result, I think we struggled a lot. The initial listing took place in the middle of an operating year, so our first consultations were done very hurriedly. They were incomplete. I think everybody would admit that. It was something to try to get by until we could get enough time to sit down and really look at the issue.

We did that for a couple of years, each one being a little more, shall I say, advanced or a little more detailed in terms of what we're discussing and considering. In 1993, we got to our first real biological opinion–I'll call it that, the first real one. We revised that in '94 to accommodate. Again, we learned a little bit more, but at least we got one that was fairly comprehensive.

Lawsuit over that '94 opinion. The judge, in effect, told National Marine Fisheries Service to go back and consider the input of the states and tribes a little bit more, so we sat down in settlement discussions and came up with the current biological opinion. That's been significant change in the way the hydro systems operate, providing on some–depending on the year again–ten to fifteen million acre feet of water primarily for salmon, significant impacts to Bonneville's power generation, impacts to reservoir levels, resident fisheries, recreation, some of those things. So there's been a significant change in the way we operate.

Agreements Difficult to Achieve

I'm not certain I've seen a significant change in the positions of the parties. One of the frustrating things is if you listen to the various parties and their positions today, it's almost what they were saying in 1990. So in terms of trying to come together on a plan, a solution, and so forth, I'm not certain we've made a lot of progress. We've changed some operations, we're gaining a little bit more scientific information. One of the big problems is we do not have good science, and again considering the scope of the problem, I'm not certain we ever will. Again, you've got a fish that rears in a lake or an upstream tributary,

travels the ocean, disappears out there for three or four years, comes back several hundred miles and spawns. To try to get information on that life cycle, that's a daunting task. We don't even know where they go in the ocean, necessarily. So, like I say, I don't know that we'll ever have good science. So, again, for the parties to come together, it's been a difficult process, and I'm not certain I've seen a lot.

The processes we've tried to establish haven't worked. NMFS tried to form what they call their Executive Committee process.

Storey: NMFS?

Pedde: National Marine Fisheries Service. They tried to set up a process where there would be a technical management team that would deal with day-to-day decisions and operations, and many of our decisions have to be short term, depending on the runoff conditions, what kind of power is being generated or needed, that kind of thing.

For issues that that group couldn't resolve, they set up what they called the implementation team, which was to be a higher level of managers, mid-management, if you will. Then for issues that those folks couldn't resolve–policy, things like that–NMFS envisioned what they called an Executive Committee made up of senior management, regional directors, tribal chairs, folks like that, to deal with broad issues.

The process hasn't worked, in personal opinion, partly because NMFS set it up somewhat arbitrarily. I'm not certain the process itself was flawed, but they didn't get buy-in. As a result, the first time there was a tough decision that went against some folks' interest, they say, "We don't want to play anymore. We leave." So currently the Executive Committee really boils down to about the federal agencies and a few other folks getting together periodically to talk about issues, but we don't have good tribal involvement. State involvement's pretty good. Montana's withdrawn, but the other three states are still involved, but the tribes are essentially not there. So, in terms of a process

to try to build again some kind of common goals, some kind of consensus on what we ought to do, the process doesn't work. It's flawed. Again, it probably contributes to that people haven't moved much from their positions.

Three Sovereigns Committee

There's another process being tried, called the three sovereigns process, where the states, the tribes, and the feds are trying to develop a similar process, where there will be coordination at the highest levels and some kind of hopefully common plans and common actions that will come out of discussion and collaboration and so on. That's still in its formative stages. People sometimes ask, what's the difference? And probably if you look at it, structurally, goals and so forth, there probably isn't a lot of difference.

As far as I can see, the big difference is that this time the states and the tribes are involved, and we may have some buy-in, because essentially it is the same process. There will be what they call the forum, which will be top management. It would be what they call the Three Sovereigns Committee, which would be senior-level managers again dealing with day-to-day issues and so forth. This forum would meet probably infrequently, once or twice a year, maybe, to talk about the broad issues, try to build some consensus among the highest policy levels.

The Three Sovereigns Committee would be, again, senior managers meeting on a more regular basis, and then they would still be working with some of the other committees that already exist in terms of the technical management team and so forth, to try to do the day-to-day business and look at planning and things like that.

So, structurally the process isn't probably much different. The only thing is, who's developing it, who's involved, and do you have some buy-in. That's probably the major difference. It will be interesting to see if it works. Hopefully it would, because right now we do not have good decision-making. I shouldn't say that. We have pretty decent

decision-making, actually, but we do not have good acceptance of those decisions. I probably say "good decision-making" with a biased view from a federal point of view, because I think there is an effort on the part of the federal parties to try to listen to folks.

Even though we don't have a functional Executive Committee, for example, we do try to get out and find out information from the various parties about proposed actions and so forth. We try to make a judgment based on what we hear, but it's our judgment, and whatever we decide, somebody's probably not going to be happy. Whereas if we had a process where everybody fully participated as opposed to us just trying to go out and talk to others, if everybody gathered around the table and heard each other's concerns, we might have more buy-in again to the decisions. So it's hopefully something that will work, because we do definitely need to have a forum where people can talk. Otherwise, it is a federally run system.

Storey: How long have you all been working on this?

Pedde: In its earliest formative stages, it probably started a year ago or so. In terms of actually trying to negotiate some kind of agreement, about six months or so. It's still more in conceptual stages. We haven't talked about a lot of details of how often, for example, will the committee meet. Once a week? Who is it? So forth. It's conceptual in the sense that there would be these various groups. The broad membership has been defined. For example, the tribes have agreed that at the committee level they'd be represented by four parties, not thirteen tribes, but four tribal representatives. I understand they're proceeding to try to write job descriptions for those folks, talking about who they might be and so forth. So we have some of these things worked out, but, again, a lot of the details of how we would do business on a day-to-day basis are not there yet.

The process has gone out for public comment. I haven't been to all the public meetings, but I think it's generally got a cool reception based on kind of the question, the ones I heard here at a meeting in Boise, of, "What's different?" Again back to that basic

question. The thing that's different is perhaps you have some buy-in by all the parties as opposed to a process established by a fed or the feds. So it will be interesting to see what happens here. It will probably be several months before that process comes to fruition, if it does, by the time we really work out the details and so forth. So in the meantime, we'll continue to operate as we have with a fractured process.

Upstream-Downstream Issue

So that's been one of the primary things of trying to get communications going, trying to get some understanding among the various parties, trying to get some compromise or accommodation somehow, because, again, you have the traditional upstream and downstream interests, those who are interested in migration of the fish, classify them as downstream interests. Water, those that are interested in resident fisheries and so forth want water left in reservoirs. And those two things conflict. So, like I say, it's traditional upstream-downstream type of conflicts.

I've told others–and I say this a little bit not tongue in cheek, but I recognize that it's easier to say than it is to do–I really believe if the states and the tribes sat down together and came up with a plan, the feds would probably do it. First off, if they came together with a plan, they'd probably have the political muscle to roll us, so we might as well do it, or at least try to accommodate it. In addition, if they could come together, right now we're the ping-pong ball getting batted around all the players, the federal parties. If they could come to an agreement, it would be so much easier, make life a whole lot easier, and I think there would be personal reasons, if nothing else, to try to get the job done.

Storey: Are environmental groups part of this also?

Pedde: It's interesting, and I would refer to Jim Baker, he's representing the Sierra Club in some of these discussions. The actual discussions and the structuring of this three sovereigns

process has been among a group of federal, state, and tribal managers. The environmental community has been attending, kind of monitoring, as well as some of the industry parties and so forth. The environmental community's point is this is a very appropriate process. The three sovereigns–the states, the feds–should make decisions. Governors, on behalf of their constituents, as elected officials, should make decisions. So the environmental community seems to be comfortable with the process. They certainly want input, they want opportunity to have their concerns known, expressed, and considered, but they don't have a problem with the process. Others aren't quite that comfortable; they actually want to be at the table, feeling that maybe the governor doesn't represent them well or whatever the case may be. So the environmental community's perception is not necessarily universal.

It remains to be seen. One of the problems with the old Salmon Summit was, I think, just the size. You had thirty parties, and that didn't represent by any means. There were some folks that kind of came late, if you would–the timber industry, I remember, being one of them–and said, "We'd like to be members," and the group said, "Sorry. We're already kind of down this process and we don't want to add members at a late date." So we did not have everybody or every interest represented, by any means, but we still had thirty parties around the table trying to make decisions and so forth. That's a large number of folks to try to come to some kind of common ground.

Storey: This was the process that was established by the National Marine Fisheries Service?

Pedde: No, this was what Hatfield did back in 1990 when he asked the region to try to prevent the listing. National Marine Fisheries Service process was to have the five federal agencies the key ones involved–that's National Marine Fisheries Service, Fish and Wildlife Service, Corps of Engineers, Bonneville Power, and Reclamation–be at the table with the thirteen tribes and the states. So it's similar to the three sovereigns process. I mean, the states, the tribes, and the feds at the table. Again, I say there's a lot of similarities. Just the NMFS process, the Executive Committee process, broke down for

various reasons.

Storey: Well, how are we doing?

Solutions to the Salmon Issue are Daunting

Pedde: I'm not optimistic of success. The differences between the parties are deep. They're founded some in religious belief, tribal cultural practices, differences in culture. There are just different viewpoints. We do not have good science to help us get past some of those personal beliefs or cultural viewpoints. Without that, you do fall back to your traditional beliefs, whatever they are, as an individual or as a group, whatever. So I guess I'm not optimistic. I think we need to let it try to run its course. The option is not necessarily fun either, because it involves legislation or it involves the feds making decisions that won't necessarily be popular or won't necessarily have buy-in. Can we do that? Yes, we've been doing it for the last several years, so, yes, we can continue doing what we're doing, but I'm not certain it's a good process.

There are some huge political questions out there that have to be answered. Again, without good science, our decisions here are going to be political, they're going to be negotiated and so forth. So there are political ramifications. There's huge cost impacts to various parties, things like that. So the issues themselves are daunting, coupled with, like I say, a lack of good science or good information to make decisions on, and couple that again with some pretty strong beliefs on the various parties' parts, I'm not real optimistic. I think we need to give it a try and see if we can get to a better situation.

I sometimes wonder why we got to, say, a Bay-Delta solution of the Cal-Fed agreements and so forth, and we can't seem to get there here. I think it's partly–and again I'm hardly an expert on Bay-Delta, Cal-Fed issues, but I think partly it's number, the size of the parties. It also involves the tribes up here to a large extent. They have treaty fishing rights. I'm not certain they've ever been quantified; at least I do not understand

what the quantification is if they've done that. But they do have some definite rights. If I understand correctly, you did not have a great deal of tribal involvement down in California. Again, the scope of it, the size of it, the range of issues and so forth, probably make it different or make it just that much more difficult to get together.

The variety of federal agencies involved, again, the system up here is so large, and I haven't even talked about the private parties like hydropower company that are in the middle of the system, if you will, and definitely have an effect on operations and impacts on the species. How do you incorporate essentially investor-owned utilities and things like that into this kind of decision process? There's lots of complications.

The Sacramento River, if you look at it that way, it's more than Sacramento, I understand, and the Bay-Delta and so on, but essentially it's Reclamation. The Corps is involved with flood control and so on, but it's essentially Reclamation. Here it's not just Reclamation. We've got a big chunk of the storage. The Corps has got a big chunk of the storage. Bonneville Power has huge power interests here. Private parties have a lot of power interests. So it's much more difficult to bring all these parties together.

Will we get there? We'll see. On the one hand, I think we almost have to if we hope to have some kind of reasonable decision process. On the other hand, like I said, I'm a little skeptical that we're going to get there easily, at least.

Storey: You've mentioned a couple of times today the complexities of it all. If we do something here, it affects something else. You also mentioned–I believe it was called the Power Council. Talk about that complexity issue. What's the Power Council, for instance?

The Power Council

Pedde: Well, let me start with the easy part. The Power Council was set up by the Northwest Power Planning and Conservation Act in 1980. The role of the council was to develop a

power plan for the region. At that time they were projecting great shortages in the region and high costs as a result. They were tasked, under the act, with developing a power plan for the region that also treated fish in an equitable manner.

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Pedde: The other big drawback is the council doesn't have any tribal representation. I'm not certain it needs federal representation, but it does not have any tribal representation, which is a major drawback, in my view, in terms of any kind of effective functioning. I don't know exactly why that is. I don't know whether the tribes actually opted not to be represented when the act was passed, or whether they wanted to be and were excluded. I just don't know the background that well.

So the council has had, up until the listing of the species with NMFS, a dominant role in the region. Bonneville funds the council and its activities through power revenues, and now with E-S-A listings, that's gotten to be a bigger burden on Bonneville and the power system in terms of funding actions.

Complexity is a little harder to talk about, and the role of the council is still evolving. The council's role in fish and wildlife is pretty clear, or it has been. Again, the E-S-A has begun to supersede that and erode it. We're going to have some listing of non-anadromous fish, bull trout being the primary one that's coming up, which means the Fish and Wildlife Service will now be dictating fish and wildlife plans also. So the council's role has been eroded in that area. With the proposed deregulation of energy, the need for an energy plan is viewed by some to be moot, because the market is going to drive what happens. So the council right now is really struggling with what its role is.

Again, let me just go on that way. I think there could be a role for the council. One of the difficulties of trying to come up with solutions here is need for legislation.

Once you start to change authorities of, say, Reclamation or the Corps or Bonneville, you, of course, can open Pandora's box, trying to modify things and still protect interests and so forth. It gets to be a real battle.

So the question is, how do you gain some kind of consistency among agencies, some kind of common planning, or some kind of common direction? I could see a scenario that says, do you modify the council's authority to give them a little broader authority to include, as a minimum, a fish and wildlife plan that meets E-S-A requirements? We don't have that requirement now. They plan it. The original goal was to double the runs of the anadromous fish. That hasn't happened, and we're in trouble. But you could give them an enhanced role. I think you could do it relatively surgically in terms of changing just a few parts of the council's act, the Power Act. You enhance the council to include tribal representation. Again, I'm not certain the tribes will be willing to do that. But that would be a role.

By executive order, you could require the federal agencies to abide by the council's plan, or if you couldn't, you would explain why. So I think between a mixture of some administrative actions and perhaps some fairly surgical legislation, you could develop a body that would not–it wouldn't have full governing authority. The feds would still have to retain their authority. NMFS would still have to be dealing with E-S-A issues. They'd have to have some way of saying, "Yes, the council's plan is adequate," or saying no, and what's necessary if it wasn't; same thing with Fish and Wildlife Service. If you try to take that law away from them and give that authority to the council, that's a huge, huge change, and I think it would take a long time to battle that out legislatively. But with some fairly precise language in the Power Act, plus some executive orders, I think you could go a long way towards beginning to have an organization that would come up with a competent plan.

How you deal with the politics, tribal involvement, so forth, I'm not saying this would be simple. There could be some significant issues yet to work through, and maybe

that wouldn't be successful either. I don't know. But it might be one way to address the question of having a common plan developed by a body that would then also have some oversight function to see that it got done.

So, like I say, I can see a role for the council out there in the future, provided the region wants to let them do that. If you don't do that, I don't know where you go. Again, the three sovereigns process we talked about earlier is a voluntary process, really, because nobody's changing authorities. Nobody's gaining any authority, or nobody's required to abide by the plan. It's a group of folks getting together under best intentions, trying to come up with something. Whether that will work versus something that maybe had a little more teeth, I'm not certain. Perhaps I'm too much of a bureaucrat, but I'm inclined to think there might be more hope for a council type of an operation as opposed to some voluntary thing. In the end, the voluntary might be more successful if we could get there, because there would maybe be more buy-in, but again I'm not certain we can get there very well.

Complexity of the Salmon Issue

Complexity. Oh, Lord. The hydropower system up here is, of course, linked to the whole western grid. It involves not only generation but transmission. We had recently here in the last couple of summers, actually, instances where part of the generation or part of the transmission system fell down and we had widespread blackouts. That's just a way of saying whatever we do here affects more than just the local area; it affects potentially the whole West.

So when we say, for example, that Grand Coulee is going to release more water for fish purposes, that releases that water at a time that's not a high dollar market in terms of power. That costs Bonneville money. That means indirectly they don't have as much money to fund fish and wildlife recovery activities. The water may do more good than the money that's lost; I'm not going to argue that. But it does affect their revenues and

their ability to pay for things. It also affects the market throughout the West Coast, because the other buyers, say in California, know that Bonneville's got to release that water. They know it's coming. There is no question about storing it. So you can, so to speak, just sit back and wait.

What's happening now, as I understand from the Bonneville folks, is that generally the water starts coming down the river and Bonneville's out trying to market it, and they start at 20 mils or whatever, and then they try 15, and the price just gets lower until somebody breaks and says, "I'll buy at 10 mils," or 9 mils or whatever. Then the others follow suit. But it's become a buyer's market as opposed to a seller's, and that has significant implications throughout, because that means if you're buying Bonneville's power, you may not be running your own thermal plants or buying Canadian power or whatever. So the whole system has changed. Again, that's coupled with emphasis on energy deregulation and everything else that's making the whole thing different.

Again, in terms of water operations, the Columbia [River] is different than other reservoirs. I mentioned mostly that in other basins you look at either Reclamation, say, as essentially the operating agency for the Colorado, the Corps of Engineers really as the operating agency for the Missouri or the Mississippi Basin. They have the key facilities. They really make most of the decisions. Reclamation in the Missouri Basin has some upstream projects and so forth, but, relatively speaking, they're minor in the whole scheme of things. Again, the Corps is involved in flood control on the Colorado, but it's relatively minor, overall.

Here you've got a diverse management. The Corps and Reclamation have different facilities, but each have a role and it's, let's say, if not equally important, at least close. And then interspersed in that is a mix of private utilities who are impacted whenever you make a change. If, for example, we hold back water at Grand Coulee that the Mid-Columbia public utility districts were expecting to receive for generation, they've just lost money. If we release at a later date when they don't need it or they sell at a lower

price, there's impacts.

Historically that was handled through what was called the Pacific Northwest Coordinating Agreement. In 1964–actually beginning before then, but signing in '64, the federal parties and fifteen private utilities negotiated agreement that dealt with those kind of changes. If you held back water, then the downstream parties were entitled to in-lieu power, and that could be paid either money or could be paid back in power at some other time, and so forth. It's a rather complex process, but there was a trading of benefits and impacts and so forth between the parties.[14]

E-S-A–again, we still do that, but it's changed the whole scope of that kind of agreement. The federal parties now say, "Well, E.S.A. requires us to do this and that's what happens," and Bonneville then makes good on the power, the revenues, whatever the case may be.

In terms of operations, Grand Coulee, for example, is the flood control for Portland. I forget the exact river miles, but it's several hundred miles from Portland, and a lot of facilities in between. So it's not just operating for local purposes or even power generation; you're operating for flood control in Portland.

In order to provide more benefits for salmon, we've begun to try to shift flood control as we can between reservoirs. For example, we will, under the right conditions, shift flood control out of Brownlee Reservoir here in Idaho up to Grand Coulee. Flood control for Portland, again, is what we're looking at. It's not local flood control, but regional flood control requirement. We'll shift that requirement out of Brownlee and put it up at Grand Coulee so Brownlee can store more water and release it at a more beneficial time for salmon. Or we'll put it into Dworshak [Reservoir], or Dworshak's requirements for flood control may shift. We still have local flood control requirements

14. For more information on the Pacific northwest Power Agreement see "Pacific Northwest Power Marketing," in USDOI, BR, *Federal Reclamation and Related Laws Annotated*, Vol. III. 1959-1966, 1760-4.

we need to meet so those don't shift. You can't do that very well. So there's another element in there.

But everything is done on a–not everything. Most everything is done on a systemwide basis, and when you change one place, you have impacts elsewhere. The Columbia River–the flow at the Dalles down here near Portland is roughly 142, 140 million acre feet a year. The U.S. storage totals 43 million acre feet, so we don't have enough storage to really control the river. We've got about a third of a year's storage, roughly. Contrast that with the Colorado, where they can store four years average flow of the river, or the Missouri, where I think it's two and a half times the average flow. So relatively speaking, we have to operate on a very short-term basis. We manage floods. We take the top off the flow, but we really don't control the river. Grand Coulee, largest U.S. reservoir in the system, about 5 million acre-feet, a little more. The average annual flow of the river there is 83 million acre feet. To control 83 million acre feet with 5 million doesn't work. I mean, you manage and so forth, but it doesn't work.

Big storage. The real flood control is in Canada. They've got 20 million acre foot reservoirs compared to Grand Coulee, the largest at 5. And that was recognized when these treaties were built. They're part of a treaty between Canada and the United States, where the United States actually pays Canada to build those reservoirs for flood control purposes, power-generation benefits are shared, things like that, so there's a treaty obligation and arrangement in here.

If you want to change something in the United States, it can affect Canada, or if you want them to change something, it certainly can impact their economics or environmental concerns or whatever, and they may or may not be willing to do that. Kootenia River starts in Canada, flows into the United States, it goes back into Canada. Canada can control the flow of Libby Dam, in effect, which is in the United States. Libby Dam backs up into Canada. The upper third, roughly, of the reservoir is in Canada. So you draw Libby Dam down for salmon, it dries up boat ramps in Canada, creates dust

fields, everything else, and all the environmental problems that go with that kind of thing.

So the complexities, like I say, you just can't sit down and say, well, the impacts are local, because chances are the impacts of the change are systemwide, and it makes it difficult to change operation. It does provide some opportunities if you can operate on a system, say shifting flood control from Brownlee to Coulee, and so on. But it makes the coordination much more difficult.

The other thing that it does create, it's extremely difficult to understand, and I say that in relation to a fish manager who understands fish and biology, but may not understand hydrology and you say, "Well, we can do this but we can't do that," and, "This happens if you do that," and if you don't have an understanding of that, there's an element of distrust. "Well, did they tell me right or not?" So we really have some major issues in the area of trust and understanding that we've been dealing with, and we're getting better, but we aren't there yet either. It leads to a lot of debate, exchanges of letters, things like that.

You get state water rights involved, and the state does have a certain say in how things are done, which may not be the way, say, National Marine Fisheries Service would like to do them, or, say, some of the other salmon managers; state fish and game departments, whatever. But the states do have a right, and Reclamation has responsibilities to comply with state law. So it gets extremely complex when you try to make changes or try to do something different, whether it's for resident fish or anadromous fish.

Looks like we've got a storm coming through.

Storey: Yes. Do you have time for one more brief question? We're ten minutes over now.

Pedde: Okay, yes.

Storey: You had a call earlier about lowering the level of the river. Could you talk about that?

Lowering the Boise River

Pedde: Okay. This is not too uncommon. Unfortunately, it happens in sad situations. In this particular incidence, we had a murder, a stabbing, occur here in Boise a few days ago. A young woman was walking home from her job along the greenbelt, along the river, and apparently was attacked and killed. The local officials would like us to lower the river. They'd like it to go to zero flow, because they think the knife, the weapon, may be in the river, and they'd like to search for it. They did have divers in the river earlier, looking for it, but had no luck.

That creates a whole set of problems, particularly going to zero. The Fish and Game Department is concerned that they would lose all the fish in the river, of course, if we went to zero, so they are willing to cooperate, but only so far.

Storey: This is the Boise River?

Pedde: Boise River. Correct. Right through town here. The death occurred up here near Capital Boulevard, under one of the bridges. The irrigation folks are involved. They've already begun their irrigation seasons. Diversions are taking place. If you drop the river again to zero, that means for some period of time farmers, so forth, are without irrigation water.

While we're willing to cooperate, we also have to try to balance these different needs between a desire to help public officials in a murder investigation versus the impacts to the environment and economics to the agricultural community, etc. At this point I don't know where we will be. The call I had earlier today, this afternoon, that you asked about, was from the Fish and Game Department. Essentially their message was, "We can't go to zero." They didn't think they could back that up at all, couldn't support it. They said if we went to 70 cfs for twenty-four hours, they weren't real happy with that,

but they could probably live with it, and that would get the river down and probably save most of the fishery, and they could live with it. They'd rather see, say, as a minimum, 240 cfs for lesser periods of time. Of course, the higher you can with the flow and the shorter the period of time, the better they like it. So they were just relaying their concerns about the proposed operation.

I don't quite know what we'll do with it, frankly. Sit down and talk with John and see where everybody else is at, but we'll have to try to balance some kinds of needs here and see where we can get to in terms of [unclear].

Storey: The river right now is falling maybe–did somebody tell me around 2,500?

Pedde: Yes, I was going to say 2,000 is what I remember, but 2,000, 2,500 c-f-s, which is a fairly full river. Again, there is a very good fishery through town here. People can fly fish right in Boise, and a number of folks do. Fish and Game stocks it. In addition to stocking, there is a wild brown trout fishery in the river.

Storey: A native?

Pedde: A native, yes. Self-producing; it's not stocked. It's wild stock.

Storey: You mentioned also, I think, a watermaster.

Pedde: The state has set up watermasters to manage the various basins, parts of them, and the Boise [River] watermaster is the one who would be delivering water to the irrigators. He would be setting up the various diversions and so forth, and coordinating requests from all of the different parties, which then we work with and release the water and so on. So he has concerns about going to zero also, and has been unwilling to go that far. I don't know really where he would be willing to go.

As I said earlier, unfortunately this is not uncommon. We quite often get the request, generally in the case of a drowning more often than a murder. Quite often there will be a drowning in the river. Authorities will want some time to search for a body, ask for reduced flows and so forth. Like I say, it's an unfortunate incident, but we try to do that whenever we can.

Storey: I appreciate you taking time today. I'd like to ask you again whether you're willing for the information on these tapes and the resulting transcripts to be used by researchers.

Pedde: Yes, that's fine with me.

Storey: Good. Thank you.

END SIDE 2, TAPE 2. APRIL 23, 1998.
END OF INTERVIEWS.