

ORAL HISTORY INTERVIEWS

DARRELL WEBBER



STATUS OF INTERVIEWS:  
OPEN FOR RESEARCH



Interviews Conducted by:  
Brit Allan Storey  
Senior Historian  
Bureau of Reclamation



Interviews conducted–1993  
Interview edited and published–2012

Oral History Program  
Bureau of Reclamation  
Denver, Colorado

SUGGESTED CITATION:

**WEBBER, DARRELL. ORAL HISTORY**

INTERVIEWS. Transcript of tape-recorded Bureau of Reclamation Oral History Interviews conducted by Brit Allan Storey, Senior Historian, Bureau of Reclamation, Denver, Colorado in 1993. Edited and desk-top published by Andrew H. Gahan. Repository for the record copy of the interview transcript is the National Archives and Records Administration in College Park, Maryland.

Record copies of this transcript are printed on 20 lb., 100% cotton, archival quality paper. All other copies are printed on normal duplicating paper.

**Table of Contents**

Table of Contents . . . . . i

Statement of Donation . . . . . iii

Introduction . . . . . v

Oral History Interviews . . . . . 1

    Growing Up in Western Kansas . . . . . 1

    Training at Reclamation . . . . . 9

    Spells Computers . . . . . 11

    Federal Executive Training . . . . . 13

    Assistant Regional Director . . . . . 15

    Becoming a Manager . . . . . 18

    Managing the Computer Division . . . . . 20

    Designing Software . . . . . 25

    Looking Back . . . . . 27

    International Activities . . . . . 30

    Egypt and Southeast Asia . . . . . 33

    Australia, Africa, South America . . . . . 35

    Reclamation and Foreign Aid Organizations . . . . . 39

    Bureau of Reclamation Professional Affiliations  
    . . . . . 43

    Vacationing at Reclamation Facilities . . . . . 49

    Louis Puls and John Parmakian . . . . . 51

    Management Philosophies . . . . . 54

    Equal Employment Opportunity Program . . . . . 58

    Politics . . . . . 62

    Cultural Changes for Reclamation . . . . . 68

    Reclamation’s Transition . . . . . 72

Reclamation and the Environment . . . . .	83
Conclusion . . . . .	85
Appendix . . . . .	90

## Statement of Donation

Enclosure I

### STATEMENT OF DONATION ORAL HISTORY INTERVIEWS DARRELL W. WEBBER

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, representing the estate of Darrell W. Webber, (hereinafter referred to as "the Donor"), of Golden, Colorado, do hereby give, donate, and convey to the Bureau of Reclamation and 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 August 17 and 18, 1993, at Building 67 on the Denver Federal Center, 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.
2.
  - a. It is the intention of the Archivist to make Donated Materials available for display and research as soon as possible, and the Donor places no restrictions upon their use.
  - b. The Archivist may, subject only to restrictions placed upon him by law or regulation, provide for the preservation, arrangement, repair, rehabilitation, duplication, reproduction, description, exhibition, display, and servicing of the Donated Materials as may be needful and appropriate.
3. Copies of the Donated Materials may be deposited in or loaned to institutions other than the National Archives, including the Bureau of Reclamation. Copies of Donated Materials may also be provided to researchers. The Bureau of Reclamation may retain copies of tapes, transcripts, and other materials.
4. The Archivist may dispose of Donated Materials at any time after title passes to the National Archives.

Date: August, 2010Signed: Louise E. Webber  
On behalf of Darrell W. Webber's estate

By: \_\_\_\_\_

Printed name of signer: Louise E. Webber

(Intentionally blank)

## 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.

Brit Allan Storey  
Senior Historian  
Land Resources Office (84-53000)  
Policy and Administration  
Bureau of Reclamation  
P. O. Box 25007  
Denver, Colorado 80225-0007  
(303) 445-2918  
FAX: (720) 544-0639  
E-mail: [bstorey@usbr.gov](mailto:bstorey@usbr.gov)

For additional information about Reclamation's

history program see:  
[www.usbr.gov/history](http://www.usbr.gov/history)

**Oral History Interviews**  
**Darrell Webber**

Storey: It is August 17, 1993. This is Brit Storey doing an oral history interview with Darrell Webber, the Assistant Commissioner for Engineering and Research in his office in Building 67 in the Bureau of Reclamation, Denver, Colorado, at 1:30 in the afternoon.

Well, Darrell, I was wondering if you could tell us about your training and how you became interested in your professional field and all that kind of thing.

**Growing Up in Western Kansas**

Webber: Well, that's easy. When I was in high school, I was interested in mathematics, and my math teacher invited me, or invited the local county engineer, to a trigonometry class one day. And he took us out in the schoolyard, and he had a transit, which is a surveying instrument that they use. He set it up out there and roughly explained what it was for, and we got to look through the eyeglass and look at things in the distance, and he explained how a level worked. Anyway, that was my trigonometry class, which was taught by Mary Norris, one of the neatest, meanest old gals I think I've ever known (laughing). But I loved her, and she had a lot to do with my getting into the engineering business. Anyway, the county engineer's name was Roy Rhodes, and he brought his transit out. When I did that, I saw that, he explained what he did for a living, I decided that's what I wanted to do. And that was probably when I was a junior in high school.

And so . . . I had to lay out my senior year, because I had got polio and I couldn't go to school. But then when I graduated the next year, I was able to get scholarships because we didn't have any money. And I enrolled in

engineering school, University of Kansas. [I] went to school like everybody else, only it took me 4-1/2 years because I had to take "bonehead English," and I wasn't very good at English. And I did get married my last semester, so anyway, and my wife helped me pass a reports writing course, just so I could graduate.

[I] came to Denver with the Bureau of Reclamation, and I had to borrow money from my father-in-law for the first month's rent, and I was just so happy to get a job. I was interviewed by the Bureau, the Nebraska office of the Bureau at school before I graduated, and the Bureau of Reclamation job offer was next to the lowest job offer I had. The lowest was the Federal Communications Commission in Kansas City, and so this was another government agency, the Bureau. The defense industry was offering very high salaries, and that was 1957. And I was getting telegrams from Boeing and North American Aviation increasing the starting salary, and so it was quite a temptation. But for some reason I decided I really wanted to be in the water business. I think that was because I was brought up in the dry lands of western Kansas, and there was no water, and so that probably had something to do with the Bureau of Reclamation being attractive to me.

Two guys that interviewed me were from McCook, Nebraska, where the Bureau had a big project office at the time, and so they said, "Well, we can give you a job right there in your home town because we're going to build a dam in this small town of Norton, Kansas."<sup>1</sup> And I knew about that dam that was being planned, matter of fact, the big proponent in that dam

---

1. Norton Dam is part of the Almena Unit, Kanaska Division of the Pick-Sloan Missouri Basin Program, see United States Department of the Interior, Water and Power Resource Service, *Project Data* (Denver: United States Government Printing Office, 1981), 785-790.

---

was a doctor there in town who delivered me when I was born (laughter). But he liked to fish, and I think he wanted his own private fishing pond. However, they were considering building a dam there and I said, "No, I didn't want to work there because the reservoir was going to inundate the land that two of my uncles had for farms, and they hated the Bureau of Reclamation because their land was going to be inundated." So I said, "I don't want to live in my home town and work with the Bureau because my kinfolks are against the dam." And so they said, "Well, how about McCook, Nebraska?" I said, "No, that's only 60 miles away, that's still too close." And so, that's how I ended up in Denver. They evidently sent my application to Denver, and I got a job offer. I was just happy as a lark. That was in February of 57 I came here.

Storey: What was your engineering specialization in Lawrence?

Webber: Oh, civil, civil engineer, yes. Oh, I wasn't that great a student, as I recall. I had an interesting collegiate life. I tried to get as much social education as I could technical education, and that was the first time I'd been away from [home].<sup>2</sup> The University of Kansas was only 30

---

2. A note on editorial conventions. In the text of these interviews, information in parentheses, ( ), is actually on the tape. Information in brackets, [ ], has been added to the tape either by the editor to clarify meaning or at the request of the interviewee in order to correct, enlarge, or clarify the interview as it was originally spoken. Words have sometimes been struck out by editor or interviewee in order to clarify meaning or eliminate repetition. In the case of strikeouts, that material has been printed at 50% density to aid in reading the interviews but assuring that the struckout material is readable.

The transcriber and editor also have removed some extraneous words such as false starts and repetitions without indicating their removal. The meaning of the interview has not been changed by this editing.

In an effort to conform to standard academic rules of usage  
(continued...)

miles from Kansas City, though, and so I'd tell everyone I went to school at University of Kansas in Lawrence. But I got my education in Kansas City, because that was a big city for a farm boy like myself.

- Storey: When you say Reclamation was next to the lowest, do you mean in terms of the amount of money offered?
- Webber: Right.
- Storey: So the Government wasn't competing very well then.
- Webber: No, not with the defense industry and salaries were going up; they were also unionized. The defense industry had the engineers unionized at that time, so the unions were negotiating contracts with those companies. So that's why they sent a telegram and increase the . . . oh gosh, I think Boeing, I think I got two or three telegrams in the course of a few months increasing the starting salary. But anyway, I decided I wanted to be in the water business.
- Storey: And you graduated from Norton High School?

---

2. (...continued)

(see *The Chicago Manual of Style*), individual's titles are only capitalized in the text when they are specifically used as a title connected to a name, e.g., "Secretary of the Interior Gale Norton" as opposed to "Gale Norton, the secretary of the interior;" or "Commissioner John Keys" as opposed to "the commissioner, who was John Keys at the time." Likewise formal titles of acts and offices are capitalized but abbreviated usages are not, e.g., Division of Planning as opposed to "planning;" the Reclamation Projects Authorization and Adjustment Act of 1992, as opposed to "the 1992 act."

The convention with acronyms is that if they are pronounced as a word then they are treated as if they are a word. If they are spelled out by the speaker then they have a hyphen between each letter. An example is the Agency for International Development's acronym: said as a word, it appears as AID but spelled out it appears as A-I-D; another example is the acronym for State Historic Preservation Officer: SHPO when said as a word, but S-H-P-O when spelled out.

- Webber: Norton Community High School, that's right, the Norton Blue Jays. At least it was not a controversial name like some of the others.
- Storey: What about your father and your mother? What did they do?
- Webber: Well, that's interesting. My father ran off after World War II on his own, and I was probably about 4 years old. He had been a farmer, but he didn't own any land there. And his parents, my grandparents, lived around a little town, they were farmers, and my mother's parents were also farmers there. Dad ran off to in World War II. I guess that was in the early 40s, and anyway he came back. I remember him coming back and having a discussion with Mother, and he decided he wanted to go somewhere else. So essentially, my mother raised me from the time I was about 3 or 4 years old, and she was a school teacher. She taught country school. She started me in the first grade when I was 5 years old, . . . and we lived, I remember, out in the country, [in] a little old farmhouse with some other people. And we had the bedroom and that was where we lived, and it was about a mile so. . . . The people we were staying with, their house, they had a couple of kids in school, so Mother, and the two kids, and I would walk to school. It was sort of a babysitter for me, too, of course. She took me along, but she thought beings how that I was there, I might as well learn something and she . . . the young girl that lived in the same house with us; she was in the first grade. So she made me do the same work that she made the young girl do, so I essentially started in the first grade when I was 5.

And then Mother . . . We moved to town. She quit teaching, and she just worked terribly hard all of her life. I've been very proud of her. When we moved into the town, why I guess I was in the third grade. And my mother had made me study so darn hard. I was a pretty

smart kid, and so the third grade stuff in the town was a lot easier. So I skipped a third grade. So that made me two years ahead of what normal kids would be. I sort of I hated that when I was a kid in the high school, because I was interested in athletics. But I was so darn little, I got the suit kicked out of me in football, and so forth, because I was so little. Mother, well, she's a whole story in herself. She started a restaurant business, and that didn't work. But she's now 85 years old, and still does volunteer work, taking care of the old folks up at the old folks home there, but she's quite a woman. Had cancer twice, but she's pretty tough. So, I didn't come from a perfect home life necessarily.

Storey: Well, I take it from what you're saying, you didn't have any brothers or sisters?

Webber: That's right, only child.

Storey: But you had a lot of family in the area?

Webber: Yeah, that's right, a lot of uncles and aunts and then my grandparents. Matter of fact, my mother and I lived with my grandparents for a brief time, right after my father went off to the Army. And they were farmers out there, and hard workin' folks, and had a tough time making a living.

But I have to throw in . . . I've been using this comparison here lately, that my generation, and that of course is in the 40s, is probably the last generation that didn't necessarily have electricity in their house. We did not on the farm, didn't have running water in the house, you carried water, and no sanitary facilities; bathrooms and that. My generation is probably the last that experienced those kinds of conditions. At that time, there were a lot of other people who lived under the same conditions, but we didn't think it was so bad.

But we didn't know any better. I had an interview with the Chinese television here not too long ago, and I was telling that story that when you don't have those things, and you see that you can get them, whether it's irrigation for your farm, or power, you'll do darn near anything to get them. And that's the way we were in this country. We farmers, I think, if somebody could build them a dam, and they could put water on their farm, and make some money, and have a decent house: boy, that was a big deal! Well now see, my children have never experienced not having the ability to flip the light on, or they've never had to go out 100 yards, or 50 yards, to the well and carry water in. So you take all of those things for granted, if you've always had them. But if you haven't had them, they're pretty darn important. And so I go to China, for example, and I go out in the countryside, and they don't have anything. I mean, they are the way we were in western Kansas back in the 40s. So you know, there are a lot of people against dams, of course now, but boy, if you didn't have that power and so forth, you'd think a dam is pretty good. It's interesting how our values change over the years.

Storey: I think that's true. I lived out in the country for a little while, and we had to heat the water for our baths. That sort of thing.

Webber: Oh sure, oh yes. That's right.

Storey: We had indoor plumbing.

Webber: We heated the water, and by the way, this old adage about Saturday night baths, that's the truth. Didn't go through that ritual on the farm every night, to haul water in and heat it on the stove, and take a bath. You did it once a week, or twice a week, and that was about it.

Storey: And then sponge baths or something in between?

Webber: Yeah sure, washed your face, and cleaned off a little bit in between, but the big bath with the hot water and all the soap was usually a Friday night or a Saturday night for a little kid like me. And they had those big, round, tubs and I fit in there pretty good, as I remember. But, of course, adults took baths in those tubs, also.

Storey: Now which was it, your maternal or your paternal grandparents that you lived with?

Webber: My maternal, my mother's folks lived on the farm. And actually, my paternal grandparents, gosh, my grandfather passed away. He was a farmer, very young, I'm not sure I was even born yet. My paternal grandmother, however, she lived quite a few years back there and a pretty ripe old age, too.

Storey: And when were you born, Darrell?

Webber: I was born December 16, 1934. And my parents, my dad, I guess, was renting some land he had to farm that had a whole one, little old, one-room house, according to Mother. It was torn down many years ago. But that was during the dust storms, of course, in the plains, and she tells the story of wetting sheets or blankets, and putting them over the windows, because the dust would just come in around the windows and permeate the entire house if you didn't have that. So she said, when some of those dust storms came, that's how they would wet those sheets or blankets, put them over the windows, and that would catch the dust as it came in around the edges.

Storey: Yeah, my mom remembers that kind of thing. She was born in Leota, Kansas.

Webber: Oh, yeah! Major metropolitan area.

Storey: Yeah (laughing), and moved into Colorado a little later. Well, what was your first

assignment at Reclamation, then?

### **Training at Reclamation**

Webber: In the hydraulics lab, we had a rotation engineering program, which we continued all these years. Great program, I think, and I came in, and I started over in the hydraulics lab and it was research. I had a little research project, it was only about a 3- or 4-month assignment, and that was before we had computers. And so, I had this research project, and I had to read the pressures of around, . . .oh, it was a model of an irrigation turnout design. And we didn't have computers in those days, and you had to read all of those damn pressures by hand, by measuring the height of the water in a little tube. And that was boring as all get out, as far as I was concerned. And that was my first crack at research, and I decided I didn't think I wanted to do that when I grew up. So I did my research assignment, which was 3 or 4 months, and then I went on to something else.

As I recall, I went on to the structures group. This is all part of my rotation assignment, and that was kind of fun. Oh, by the way, my major was in the sanitary option of civil engineering, which was water treatment, sewage treatment, and so forth. To tell you the truth, I don't remember why I decided to take that option. But when I went to work in the structural and architectural group here, Glen Canyon Dam was being designed and just about ready for construction. And they were laying out the townsite for Page, Arizona. And so they found out that my background was in sanitary engineering, the sanitary option of civil. And so, my job was laying out the streets, and the sewer lines, and helping with the design of the water treatment plant. So I thought that was kind of fun. Have you been to Page, Arizona?

Storey: No, I never have.

Webber: Well, I've got to tell you a story about that. The town of Page was laid out to take advantage of the contours of the land. And instead of having the traditional checkerboard square blocks, we would run the streets around the contours and so, the blocks were kind of irregular shaped, and so forth. So anyway I had a little bit to do with that, I was a junior engineer. Years later, when I was assistant regional director in Salt Lake City, I had my first visit to Page, Arizona, went down in a Bureau of Reclamation plane, and the public affairs guy picked me up at the airport. And he was taking me in the evening down to the hotel. So this is my first visit to a city that I had helped lay out and had something to do with the design. And that's how an engineer, by the way, gets their kicks is to go see something built that they have designed, you know. So I was excited to get in this town, and so we're going around these curved streets, and so forth. And I said to the driver, the PR guy that picked me up, I said, "What do you think about the layout of this town?" He said, "God, I think it was laid out by some drunk." He said, "I don't know who did this, but it's terrible" (laughing). Anyway, I never did tell him, after he said that, I'd had a hand in laying out the city of Page, Arizona. But anyway, it was kind of funny, and that's what I worked on when I first got into the design area.

And then my next assignment, I was supposed to be a bridge designer, and I don't know how they decided that. I think they needed some bridge designers at the time. But they didn't, when they hired me at least, but they didn't have enough work. So, the bridge group, which was headed up a guy named Bob Glover, no that wasn't it, forget that name, I'll think of the correct one. He was a world renown bridge designer, but there wasn't enough work, so they kept sending me other places. So we used to have an organization here called the Technical Engineering Analysis

Branch, and what it was, it was sort of a small collection of whiz kids. They were probably the best of polymathematicians, and one of the fellas who headed it up was a guy named John Parmakian. The whole world now uses John Parmakian's textbook on waterhammer.<sup>3</sup> Anyway, John was the head of that, and I worked in there. The skeleton staff, or the permanent staff, was probably no more than five or six. But that group were the whiz kids of the Bureau, and the problems that were state-of-the-art problems that didn't have solutions, that everybody, all the design groups, took those problems to that group because they were so . . . well, they'd had a lot of experience. They were not young folks, necessarily. Anyway, I had an assignment in there, and I guess that assignment one thing it taught me was how little I really knew. And those fellas, there might have been one or two Ph.D.s, but for the most part, they were practical designers who had made and studied various areas like waterhammer, and some electrical circuit stuff, that I didn't understand.

### **Spells Computers**

And there was one guy there, his name was Francis Swain. Fran Swain, during World War II, had worked on the design and construction of the Whirlwind II computer at MIT. He was a very bright fellow, don't remember, I'm not so sure he wasn't a civil engineer. I don't think he was electrical, now that I think about it. Anyway, there was one guy in there that knew how to spell computer, and that was this guy. And so, lo and behold, when I was working there, I remember, my wife was pregnant with our first son that we had at the time, and I'll tell you why that became important. Anyway, the

---

3. John Parmakian, *Waterhammer Analysis* (New York: Prentice-Hall, 1955).

Bureau had no computers, and the only computers there were at the time had vacuum tubes. And there was an insurance company downtown that had an old IBM 650 computer. And the only time we could get on the computer, which was at the insurance company, was at night. Like, we'd get on, go down at 8 o'clock, or something. Well, there was no training courses, and essentially, the only training was an IBM manual that they published to go with the computer. So I worked with Fran Swain, and became intrigued with computers.

Meanwhile, my wife and I went back to see her parents during 4th of July holidays, or something, and she ends up delivering our oldest son prematurely back there, so I had to leave her there. And as I recall, I couldn't afford, . . . we still didn't have much money, and I couldn't afford to drive back and forth, because she had to stay there a few months until our son got big enough to bring home. And I remember I rode the train back and forth to western Kansas, and I'd read this computer manual. I remember when I was reading, I thought, "Gosh, I'll never understand this stuff." Well, I became intrigued with computers, and I became the second person, I guess, in the Bureau that knew how to spell computer, or knew how to use one. After I got off rotation, Fran Swain invited me to come and work with him permanently. And to be asked to come and work in that Technical Engineering Analysis group where all the whiz kids was, or I shouldn't say whiz kids they were older fellows, was a real feather in anybody's cap, and so I was pleased with that.

And I spent from that time . . . I had some other assignments in the late 50s, after I started. I'd say I became a full-time employee there in the 60s. The computer, of course, growth was phenomenal, and I stayed in that business mostly developing computer programs

to solve engineering problems. So I had really a broad range of exposure, from hydraulics problems, to structural, to electrical, and everything. That was a lot of fun for a young kid, you know. (Storey: Uh-huh) And I stayed with that and, oh gosh, I guess in about 65, we got big enough that we formed a branch—the Engineering Applications Branch. And I became head of that at a fairly young age. And then in about 1972, we had started doing payroll, and some of the administrative things on computers also. About 1972, my compatriot and mentor, Fran Swain, passed away from cancer. And so, I took over the Division of Data Processing at that time, which was . . . oh, it wasn't very big. I guess it was, maybe, 50 people or something. And I stayed with that, . . . and I think probably I had to be one of the younger division chiefs at that time. I'm not sure how old I was, but I wasn't very old, and I became responsible for all the computer stuff in the Bureau. And we installed a big computer center in 1975, and after we did that, that was kind of the end of the challenge for me.

### **Federal Executive Training**

And so I pulled out, and went on sort of a sabbatical, I guess you'd call it. It was a training program that was sponsored by the White House, and the old Office of Personnel Management, and it was called the Federal Executive Development Program. Bear in mind, I spent all those years from 57 up until say 75 in the computer business. I guess I had been . . . at one time, I went on a Bureau training program and I spent time at Grand . . . we were building the Third Powerplant at Grand Coulee Dam, and that was under construction. I spent some time in the Boise Regional Office, but those were generally training assignments, and no more than 6 months or so, and I'd spent some time in Washington as a trainee. And then I got this . . . this was probably a, I guess it

was neat . . . it seemed like it was a pain, at the time, because it was a long-winded. I could essentially do what I wanted. And I ended up spending a number of months working for the Fish and Wildlife Service and the Bureau of Land Management and, back in Washington, some assignments over on the Hill, on the congressional side of things. That was the good news, the bad news was, I was gone away from home quite a bit.

Storey: That was the Department of the Interior Management Program?

Webber: No, I was a candidate for that, but then they announced this other program, which was broader than that, so that you didn't just stick with the Department of the Interior. (Storey: Uh-huh) You could go anywhere you wished really, and spent time at the Federal Executive Institute, which is down in Charlottesville, Virginia. And at that time, they had a 7-week course. And you just haven't lived until you've spent seven weeks in Charlottesville, especially in the summertime, where it's very hot and humid. But anyway, it was called the Federal ...

END SIDE 1, TAPE 1. AUGUST 17, 1993.

BEGIN SIDE 2, TAPE 1. AUGUST 17, 1993.

Webber: . . . So anyway, that training program we had a lot of . . . and I did this for about a year and a half. I, like I say, I worked for a number of agencies. I tried to work as much here in Denver as I could to be with my family, and my sons at that time were in high school: the important time for the old man to be around, you know. (Storey: Yeah) And I remember the Fish and Wildlife Service wanted to do a Service-wide study of the computer situation, evaluate it, and see where they needed it. So they found out that I knew how to spell computer. And so they said, "Gosh, we'd like to have you be on this team." And I said, "Well,

okay, but I tell you there's going to be some strings attached." I had one of my sons was a very good athlete, and he was a high school senior, I think, and he was captain of the basketball team. And I said, because this assignment was going to visit every . . . we were going to visit every area, or regional office of Fish and Wildlife. And they were scattered from Alaska to Florida, I had to go to all of those. And I said, "Well, I have the Arvada High School basketball schedule here in my pocket. I'll go on that team, as long as I can be in Denver, Colorado, when my son plays basketball." And so that whole team, we revolved around the Arvada High School basketball schedule, and I didn't miss a game. I used to go from the airport right to the gymnasium sometimes, but I was kind of proud of that fact, and so was my son, of course. Because I always showed up for his games.

Storey: This was in the 70s still?

### **Assistant Regional Director**

Webber: Yup, mid-70s, 75, and let's see, well, no that was like 75 and 76. I was on that program about a year and a half. It was interesting. Then they decided I would . . . I was so overtrained, I ought to go to work, and I was appointed to be the assistant regional director in Salt Lake City, Utah. I had, let's see, both boys were in college at that time, and so I commuted. My wife stayed here in our house, and I . . . you could buy a . . . they called them the peanut fare tickets on the old Frontier Airlines; I think they were \$39 apiece. So I'd buy a bunch of those, and so I would fly from Salt Lake back here on Friday night, and spend the weekend, and Sunday night I'd fly back over. Did that off and on for a year and a half. During that period, I guess, I worked for a couple of regional directors over there, and then I was transferred back to Denver as an assistant regional director,

because we used to have a regional office here at the Federal Center. It was called the Lower Missouri Region, or back in the old days, we called it Region 7, before we named them. And so I was assistant regional director there, about from 79 on up to 81, or so.

Storey: And what do assistant regional directors do?

Webber: Oh, they ran the region pretty much operationally, depending on your boss. The regional directors had a lot of political responsibilities. They had to keep the constituents happy like the farmers and the politicians. And so, depending on how the regional director operated, the assistant regional director usually ran the shop.

Storey: I notice, for instance, the CPORT Report<sup>4</sup> says we'll send some of these S-E-S's out of the Denver Office can make them an alter ego.<sup>5</sup> And it sounds like what you're describing to me is what they're proposing to re-institute now, maybe.

Webber: Well, not really, there's a difference between being an assistant regional director and being an alter ego, evidently. I mean, I guess you could be both. But the only unique thing about that, that I saw was, and I heard about that proposal, is that we would take some of our S-E-S slots and probably give it to a young employee, and have him go out and work with the regional director, and support them, and do whatever an alter ego does. Meanwhile, the normal assistant

---

4. The "Report of the Commissioner's Program and Organization Review Team" which Reclamation published in 1993 is commonly known as the CPORT (pronounced "see port") report. It was one of two major 1993 documents produced during Commissioner Beard's reorganization of Reclamation. The other document was Commissioner Daniel P. Beard's *Blueprint for Reform: The Commissioner's Plan for Reinventing Reclamation*.

5. Reclamation's Senior Executive Service

regional directors are not S-E-S positions, they're usually GS-15s. So I would assume they would go ahead and try to run the shop. It depends on how the regional director wants to operate it really. And they were all different, I mean we are all different. And I worked for Joe Hall over here in the Lower Missouri Region, and then he left, and I worked for Billy Martin, who was a regional director.<sup>6</sup> And then in, let's see, about 82, I was transferred to Amarillo, Texas, as the regional director. So I commuted again, although we had made a down payment on a house, and the boys were grown, and so forth, and that wasn't a problem. But I had been there a few months and I guess we called them assistant commissioner at that time for engineering and research was going to retire, and go to work for the World Bank, or something. And so the commissioner at that time asked me if I would like to come back up here to this job. I said, "Well, I've always wanted to be a regional director, now I am one and I'm happy in Texas." However, I'd do what the company wanted, so he ended up transferring me. I was only there about 6 months, and transferred me back here, and I came in here and announced to everyone that I had never been in one job more than 4 years at a time, and my Lord, I've been here 10 years in this position. So it's certainly beyond time for me to get out.

Storey: Was this Ireland who went to World Bank by chance?

Webber: No it was not Ken Ireland, I know Ken Ireland. This was Rob Bishop, and his picture's out here. He was in this job for not very long, a couple years, maybe. Something like that.

---

6. Billy E. Martin, *Oral History Interviews*, Transcript of a tape-recorded Bureau of Reclamation Oral History Interviews conducted by Brit Allan Storey, Senior Historian, Bureau of Reclamation, from 1994 to 1996, in Sacramento California.

Storey: You said you'd always wanted to be a regional director. Did you pick that up early in your career at Reclamation, right away in the 50s and 60s? Or is that a little later?

### **Becoming a Manager**

Webber: No, it was a little later, I really wasn't into details. I don't . . . the only thing I ever designed was a timber bridge, which was (laughing) what they gave all rotation engineers to design. Well, plus the design of the water treatment facilities, and so forth, but I didn't enjoy that detail work that much. And I became intrigued with management when I got my first supervisor's job in the mid-60s, and then with the computer, because the computer stuff was growing. And I thought working with people, and getting people to perform, and do good things, and provide opportunities, that's how I got my kicks. And I love management, and I tried to take every management course there was. And I think if you talk to Marcia Barnes, the lady who's responsible for training here, at one time I had the record of the fattest training folder that they had in personnel, because I had taken so much training. And I did, I tried to every bit that I could, because you come out of school as an engineer and engineers are not usually, . . . their background does not lend itself to management of people. I mean, you deal in details and accuracy, and this kind of thing, and people are a whole lot different. You have to operate with a lot different philosophies with people.

I just found it intriguing, and I got my kicks out of getting projects done through, and along with, people, as opposed to getting my kicks out of designing a bridge at Glen Canyon, for example. My colleagues that did that are very proud of what they did. That's one thing that you can do when you're an engineer is when you're a designer, you can go out and look

at something. You can take your grandkids, and your father-in-law who said you wouldn't amount to anything, and say, "Lookee there, I designed that." And that's kind of a neat thing. So that's kind of how engineers get their kicks. But I was a little different. I enjoyed working with people, and getting things done through people, so and like I say, I was probably the most overtrained person around. Kept trying to train me and it never did work, so they just gave up.

- Storey: Seems like it worked pretty well (laughing). Did you find that your interest in being trained just sort of led you to management, or was it a very purposeful thing on your part? Did you just fall into your jobs?
- Webber: No, it was deliberate on my part. I, let's see, I guess when I first became a supervisor, I had no training whatsoever. Our training around here was strictly technical, back when I first came onboard. We did have some engineers downtown to do graduate study in engineering, and so on, very little. I was a member of the first management training class we had here at the Bureau, and I believe that was 1965. It was kind of put together, in-house, by our own staff; . . . I just, I don't know what drew me to that. I guess, well one thing, if you're able to get people to do projects for you, in the way you want it done, that's a tremendous challenge, first of all. You have to challenge them to do what you wish them to do, and you want them to be happy while they're doing it. And so you can't be a Simon Legree otherwise, they'll tell you to take the job and do something with it. And so I guess I was challenged by that. I remember this was the first training class we put together in 1965, I loved every minute of it. I learned some new things on how you deal with people, and to sit down and reason with them, negotiate with them, what the basic functions of management are, and things like that. I was intrigued by that.

And I was not intrigued by sitting at that time sitting at a drawing board and designing something, you know.

Storey: Now, if I'm remembering correctly, you were with the computer side of our business for about 15, 17 years?

### **Managing the Computer Division**

Webber: Yes, from let's say from 59 or 60. Let's say I was a trainee for close to 2 years, a rotation trainee so from 60 until 75, 15 years, yes.

Storey: About 15 years . . . in a period when computers underwent many radical changes, what kinds of issues were you facing as a supervisor, and in the computer field, in dealing with that change in technology, the change in Reclamation's perceived needs?

Webber: Oh, that was a great time, especially when I got to be the senior guy. Most of the engineers around here, well, first of all, they had tremendous credentials. They were the best in the world at what they did. And they had built Hoover Dam, and Grand Coulee Dam, and Glen Canyon, and they had a hell of a lot to be proud of. And they really thought these new-fangled gadgets were just a fad. And one of the chief engineers, he ended up being sort of my mentor as I grew up, but I remember I would invite him down to see a new piece of equipment. And that was when plotters, we were first able to plot things automatically, and at that time, we used to plot what we called cross sections to determine earth work boundaries, and so forth. However, we had a vendor brought in a new plotter, and the demonstration program that they used was they plotted the outline of a bathing beauty. you know, a young girl in a bathing suit. Well, I remember, it was a big mistake. But I invited the chief engineer, which is what my position was called at that time, down to see this

plotter demonstration. And unfortunately, he came down, and the equipment guy was demonstrating with this thing, plotting out this picture of this bathing beauty. And he took one look at that, and he said, "I knew that thing wasn't any good, even before I even came down here." He said, "Look, that's all it's going to be able to do," you know. So he didn't understand, and so I had to get the demo guy to demonstrate something like plotting a bridge, or something.

But it was . . . there was a lot of, . . . there was a handful of liberals, they called them liberals at the time, who were willing to give up the slide rule, and their desk calculator, and try new things. One of the pioneers here, I worked with him, who was a dam designer, he programmed the first computer program to do what we call trial load analysis, which is a very computation-heavy process to analyze an earth or concrete dam. And he developed a computer program to do that. To do a trial load analysis was to get 10 people in a room with calculators going, day in and day out, for weeks depending on the complexity of the design. And this guy wrote a computer program, you know that did it in like hours, and he was not a young fellow my age; I was young at the time. He was a crusty old guy, but he had foresight and interest in computers. Because computers and new technology is usually associated with the younger generation at the time.

Storey: What was his name?

Webber: Loyd Scrivner (repeated) great guy, nicest guy in the world, and I don't remember he was technically, he was just top notch. He wasn't a supervisor, necessarily, but a few guys like him and then I used to get my mentor. I called him my mentor, he's passed away now, he was the chief engineer, his name was Barney Bellport. Barney was a crusty old construction guy, and let's see, he, when we built this building that

we're in here now, I believe he was the first chief engineer to sit in this office. And he came in from the field, and I remember, he drove an old 41 Ford every day to work; this was in 1967 (laughter). And anyway, Barney, he would come around, and take a tour of the building. And he'd come by the computer shop once in awhile, but every time we'd want a new piece of equipment, why at that time I wasn't the head of it, I guess I was a branch chief. And so he and I got acquainted, and every time a requisition would come up for some new equipment, why, he'd put a note on it. And something, in effect, that says, "What in the hell does Webber want to buy now?" You know, because he never understood what computer stuff is all about. So I'd have to come up here, and explain to him just what we were trying to do. So as a result of that, we got to be friends, because usually the only reason you came to this office was to get chewed out. And the 14th floor, in those days, in the 70s, in the late 60s, was where the all-powerful big wheels worked. And a lot of the supervisors, in those days, didn't hand out a lot of accolades. They didn't pat you on the back too much, but you sure got chewed out if you didn't behave. But for some reason, I got along very good with Barney, and we became friends, and remained friends until he passed away in California here in the last few years. I'd always go see him when I was in California. But he was a crusty old guy that really didn't think computers would ever amount to anything in the world. But he'd put up with them, and I managed to convince him that we weren't all nuts, you know.

So anyway, to give you an idea how as we get older we get a little more set in our ways, and so forth. When I was head of the computer business, I was able to lure some of the top engineers in the Bureau to come and work for me, which wasn't too surprising. I was young at that time a lot of these young, bright

---

kids that we had around here were intrigued with computers, and so forth. Anyway, a lot of my . . . because I moved up fairly fast in the organization, a lot of the supervisors, managers in the design areas, and so forth, first of all, didn't think computers were here to stay. And I managed to lure away some of their whiz kids. And I remember I was . . . we had a fellow there, he just passed away in the last few years, a fellow named Jack Hilf. Dr. Hilf had got his Ph.D., I think, at CU here. And he was a very capable fellow, he left his mark here in the Bureau and some fine, fine efforts.<sup>7</sup> But anyway, I was able to, I guess, lure about three of his whiz kids away from him, because I paid them a GS-12 salary. And at that time, a GS-11 was sort of a journeyman level for a designer. It has since moved up a grade or so, but anyway, I managed to lure away some of his whiz kids. And he called me, and wanted to talk to me, and he just chewed me out. He said, "You know, these guys have masters's degrees in mathematics, or engineering whatever, and they're going down, and they're going to waste all their time down there with those computers." About the only rebuttal I could think of was that, at that time, the management attitudes were that, and I ended up calling it a union, and I told him that too, and that made him madder. But you didn't get promoted unless your boss either got promoted, or retired, or died. And so anyway, I remember Dr. Hilf and I had this confrontation, and he was chewing me out because I'd hired three of his good guys. And I said, "Well, you know, if you'd run this place so

---

7. Dr. Jack W. Hilf: Bureau of Reclamation Chief of Division of Designs; Fellow in the American Society of Civil Engineers; Member of the executive committee of the U. S. Committee on Large Dams; Awarded the Department of the Interior Gold Medal for Distinguish Service. Dr. Hilf was the author of numerous books on dam construction techniques and soil studies: some include *Compacting Earth Dams with Heavy Tamping Rollers* (1955); *Controlling Earthworks during Construction* (1950); *A Rapid Method of Construction Control for Embankments of Cohesive Soils* (1959).

it wasn't like a union, well, you might keep these guys, you know." But that was really the situation: If you were a real bright guy, and there wasn't a slot for you ahead of you, why you weren't going to get promoted. And there was also an emphasis on, well at the time it wasn't a bad idea, there was an emphasis on keeping an organizational unit whole, and together to work, and there was very little cross fertilization. Let's say a concrete powerplant designer going over to concrete dams, for example, didn't have much of that cross pollination. Now, if you left your home base, you were a traitor, because you really needed to stay wherever your slot was. Well, anyway, we had some differences in management philosophies. So, as a result, I got three young guys who ended up being real superstars for the Bureau later on. But I had my problems, because I was sort of the young kid on the block, messing around with the systems, but it's been fun.

Storey: Did you get into the Service Center work at that time?

Webber: No, the Service Center came quite a bit later (repeated). I got out in 75, let's see, the Service Center started when I came into this job, which was in 1983.

Storey: But were you, for instance, doing payroll and those kinds of functions out of the computer office?

Webber: Out of the computer? Yes, yes, and we did it our own system.

Storey: So that kind of automation was in process.

Webber: Sure, that was in process, right, in the computer division. And we ended up having a division. We had administrative applications group, and an engineering applications group.

Administrators worked on the inventory stuff, and the payroll, and that kind of thing. The engineering group worked on solving the engineering problems.

### **Designing Software**

Storey: And what kind of problems did you have with hardware, and software, and that sort of thing?

Webber: Well, the doggone hardware would go out of date so fast, that was a real big problem. Gosh, during my tenure, we bought an old IBM 650, which was the one we used back in the 60s. We had that installed, and then we bought a Honeywell 800, and had that installed. And then we went to a control data, a fancy one, and that's when I left in 75, essentially. But what would happen is, we would have an old IBM 650, and we'd find the Bureau Standards up in Boulder had a newer computer, which was a lot more powerful. And so, the 650 was so slow, we'd leave administrative applications on the old 650, and we'd jump in the car every morning and drive to Boulder and use the fast computer. So the problems were just keeping up with technology, it just changed so fast. And after we . . . the first remote terminals, for example, were coming on in the early 70s. And we had a computer here that was an old Honeywell computer, and we could see the future of connecting all of our regional offices into one computer center. So that was the last thing I did really in the computer business was to, and I became a division chief in 72 I guess, when Mr. Swain passed away. And then from 72 to 75, we obtained this big control data computer, and tied all the regions in, and everyone had terminals, and this kind of thing. So just keeping up with technology was tough, really tough, in the computer business.

Storey: And what about software? Were you creating your own, or using . . .?

Webber: Yeah, the application software, we were. The operating systems, we didn't get into that. But manufacturers would provide those pretty much but, oh no, we did the applications software. We had people around here that we had to be careful that we didn't make some of our people not expendable. And so, when somebody like my old buddy Loyd Scrivner, who became the expert on the trial load analysis, he would make sure that he had a couple of young bucks working with him that could carry that on when he left, and so that's the way we'd do so many things. The analysis now, that we do with automation, is just topnotch and the best in the world. And that's because of some people who have devoted their time to making sure that we are always upgrading our applications and so forth to be faster, and do more things than we did in the past. So, we've still got some real pioneers around here, earthquake analysis, for example. There's people that have developed programs that are used all over the world. Pretty proud of them.

Storey: Any other areas like that where Reclamation is leader?

Webber: Leader? Yes, we're the world leader in dam safety, and that is mainly because of the efforts of my colleague, Neil Parrett here. Neil is about my age, as a matter of fact, and he got started in dam safety back a number of years ago in the Washington Office of the Bureau, actually, and then he transferred out here. And in dam safety, we're the ultimate in the technology of analyzing our structures, our old structures, or in designing new fixes for dams, so that we can fix them. And we have dam safety seminars and conferences, and they're international conferences. People come from all over the world for them. So yeah, we've managed to make a pretty good name for ourselves, I think. And I'm really proud of them, they just all are outstanding.

END SIDE 2, TAPE 1. AUGUST 17, 1993.

BEGIN SIDE 1, TAPE 2. AUGUST 17, 1993.

Storey: This is tape two of an interview by Brit Storey with Darrell Webber, August 17, 1993, in Mr. Webber's office.

. . . If you want to go backwards.

### **Looking Back**

Webber: Well, let me just . . . I tell this story to a lot of people, because it involved my mother, who I'm very proud of, and back in western Kansas. One time she had three jobs. She worked as a bookkeeper, after she'd quit teaching school, worked as a bookkeeper in a clothing store. And then in the evenings, her favorite job was waiting tables at a restaurant. Along the highway, it was a pretty nice restaurant; main east-west highway, and a lot of people from Denver would travel that highway, and stop in this little town. Anyway, so she would . . . she was a friendly person, and so she'd go wait tables, or greet them at the table, and strike up a conversation as she was wont to do, and asked them where they're from. And if they said they were from Denver, why she'd say, "Well, you probably know my son." Then she'd tell them her name, you know, and I don't know how many million and a half or two million people, whatever we have here in Denver. But anyway, she'd always pursue the thing, and she happened to get a couple one evening. And yes, they were from Denver, and she pursued the business about her son, and it turned out that the man, the husband of this couple, had worked for the Bureau of Reclamation. And she said, "Well then, you surely know my son." And he said, "Well, I'm not sure." And he said, "I used to work in the research laboratories," and the guy used to work in our shops, I guess, over in the labs. And he evidently remembered me from when my first assignment was in the research

laboratories in the hydraulics part. And he said, "Yes, I think I remember Darrell." He said, "The reason I remember him is, every day he came to work in a white shirt and tie, and he was about the only one in the whole research laboratory that came to work in a white shirt and tie." And I did. And I thought, well now, that's something to be remembered for, but anyhow it kind of is a segue to some of my feelings.

When I got out of school, I was very proud of the fact that I had a profession: a recognized profession. And to me, being a farm boy from western Kansas, a professional person wore a suit and tie, for the most part. That's how, I guess, I figured you distinguished us. And so, I had done that, of course, not when I was on construction, or something like that. But I have done that throughout my career, I've always worn, generally, worn a suit and tie. Well, in these more liberal days of young people, and so forth, and their dress code, why, I've always been somewhat uncomfortable with it. But some of my more liberal, older friends, they must all be Democrats, I don't know, but they have convinced me that there was not a darn thing I could do with it, and that if I issued any edict that said everybody had to wear a white shirt and tie, why, we'd have an uprising here. But I got to tell you, the dress code we call it around this building, or we have called it for years, and I guess we used to have a dress code, I don't remember. But I always felt that if you dressed and looked like a professional, you handled yourself like a professional, as a result of that, and we looked like a better, a little classier outfit. Because we have people coming into this building from all over the world, and top executive designers, and foreign diplomats, and I get very embarrassed when somebody comes in cutoff jeans or something. But anyway, I . . . one of the [unintelligible] I got on a kick here, one time, where I, and I still bring

my lunch to work once in awhile, especially if we had meatloaf the night before, I like meatloaf sandwiches. But I used to have brown bag sessions in the conference room, or anybody's conference room, and so I just had the secretary call and say, "Hey, anybody that brought their lunch today, Darrell brought his lunch. If you'd like to come over to the conference room and sit down, why, he'd have lunch with you and we can talk about whatever you want to talk about." So anyway, I remember, nearly every time the dress code would come up somebody would say they understood I didn't like the way people dressed, and so on. I said, well, you know, I told them the story about the cleaning lady we used to have here. She was the supervisor, and I would work here late in the evenings and so, they'd come in and she'd come around and check. And she was a heavy-set, black lady, and we became very good friends. She's now moved away, but I still get Christmas cards from her, and she used to come in here and just give me the dickens because our employees looked so bad. She said, "Why do you allow them to come to work wearing old holy jeans, and so forth?" And I said, "Well, they tell me that I'm infringing on their rights." Anyway, she'd give me lectures about this, so I would share this at our brown bag sessions: I'd eat lunch with the employees. Well, I remember somebody said, "Well, you know, clothes like that white shirts, ties, and slacks and so forth, are expensive clothes." And so I said, "Let me tell you, that is not true." And I have a daughter-in-law that likes to go to garage sales and the flea market. Well, she drug me off to the flea market one time, and they sell clothes at those flea markets for a little or nothing. I mean, you can buy a pair of slacks for \$2 and a white shirt for \$1.50 and ties. And so, I was telling this group, I said, "Well, I don't buy this business about it's being too costly." I said, "You can go to a flea market, or a garage sale, and buy clothes and

they're just fine, you know.” Anyway, it was interesting. Word got around that I bought all my clothes at the flea markets.

Storey: (laughing) Of course.

Webber: As a result of that story, after it got told many times. But anyway, that's kind of the kind of things that I dealt with here over the years. And it's amazing how rumors get started. I try to maintain a fair sense of humor, and I'm always making some off-hand remark that's taken wrong. So I end up apologizing a lot as I go through life. But I've had a good time.

Storey: Don't we all.

### **International Activities**

Webber: I probably ought to talk about the international scene a little bit, if that's appropriate. (Storey: Yes!) I've really been fortunate in my 10 years here, our international program has picked up considerably. Of course it died an awful lot during the Second World War, and it was during the 60s before I became involved. We had teams throughout the world in the Nile [River] Basin, in Africa, and then it kind of tapered off. However, I had an interesting happening with the Chinese. It turns out that back in the 40s, that my predecessor here, Dr. [John “Jack” L.] Savage many times removed, probably four or five times removed. When he retired, he went to China at their invitation to look at the site for the giant Three Gorges Dam on the Yangtze River. Well, right after that World War II, the Chinese had managed to survive the Second World War with the Japanese, but then Communism Mao Tse-Tung chased Chiang Kai-shek out of the country, and so they closed the doors. Meanwhile, in those early years, there were quite a few [Chinese] engineers who came and trained here in Denver, Colorado, in the early 40s. And of course, when they started

opening up China then, later in the early 80s, I was visited here by an entourage of, I don't know, five or six Chinese. And the group was led by a woman who was the Minister of Water Resources in China, and her name was Madame Qian.<sup>8</sup> Anyway, she was quite a lady; found out later that she was one of Mao's followers, and one of his key lieutenants. But she was an engineer, and she came here and sat in that chair in 1983, and said, "I would like to renew the technical relationship between the Bureau of Reclamation and China that we had back in the early 40s." And I said, "Well," and things were starting to open up in China for the westerners, and so that was in 83 and in 84 or 85 . . . 84. We signed our first 5-year agreement to provide them technical assistance on this major dam. That also opened up our further activities in Southeast Asia that I've been fortunate to be a part of, and so, as many of our staff here, and the Chinese think the world of us.

I've got to tell a story that was really . . . right after I had been to mainland China, I was invited to go to Taiwan. And Taiwan at that was one of the wealthiest countries in the world and I guess it still is. The Taiwanese really knew how to make money. And they were growing fast in that small island, and their water supplies were pretty shaky. And so they had a lot of dams on the drawing board. Anyway I went there the first time, and I was met at the gate at the airport by a fellow who turned out to be the president of a big engineering firm there. And so we got in late at night, he took me to the hotel. The next day, he picked me up, and we went to his office, and it was a high rise building, in Taipei and went up to the top floor,

---

8. Madam Qian Zhengying served as China's Minister of Water Resources and Public Power, see "Officials from Mainland China and Hong Kong SAR to Deliver Faculty of Engineering Distinguished Lecture at HKU," March 8, 2004, [www.hku.hk/press/news\\_details\\_4958.html](http://www.hku.hk/press/news_details_4958.html)

and we went into this big conference room. It had the biggest round conference table I think I've ever seen. There must have been, oh, I don't know, 30 or more engineers there. So these big double doors open, and I walk in, and they all stand up, and start to applaud (laughing). So I looked over my shoulder to see what they were clapping for. Anyway, it turned out, and they were all older gentlemen, it turned out that those engineers had at one time, and this would have been in the 40s, trained at the Bureau of Reclamation here in Denver, Colorado. (Storey: Really?) And they worked for this company over there, and I went around, and I shook each one of their hands. It was a very emotional thing for me, because, I mean, they thought so highly of the Bureau. And anyway, I went around, and I shook each of their hands, and they told me what years they had spent here, and what they had studied, and so forth.

So that's one of the many experiences I've had since I've been in this job. It just had such an impression on me, because the organization is held in such high esteem by people from foreign countries, and not only the undeveloped countries, but the developed countries from England and France, and so forth. They come and visit our laboratories and so forth, so it's really been proud to be associated with it. And I've been going around here, because I'm about ready to retire. I've been going around meeting with the staff, and thanking them for their help over the years. I bring up the fact that when I've been I guess the emissary for the Bureau of Reclamation, I go to these foreign countries. As far as they're concerned, I guess I'm next to God himself, because I represent the Bureau of Reclamation. And our expertise in things that we've done in this country have just made such an impression on the rest of the world that they think we're pretty darn good. And that's a lot of fun when

---

you can do that. It's better than going and getting rotten eggs thrown at you, or something in a foreign country. But I never experienced that, only a great deal of respect have I experienced when I visit overseas.

Storey: What other countries do you call to mind that we worked a lot with?

### **Egypt and Southeast Asia**

Webber: Egypt. Right after I came to this job, Egypt had asked us to assist them, because their turbines and generators at Aswan Dam were going to pot. Aswan was designed and built, essentially, by the Russians. I'm not sure when, probably in the 60s, I guess, probably started. And so they were getting funding from U-S-AID<sup>9</sup> to replace their turbines, and rewind their generators, and that happened in the early 80s in about just before I came onboard. We have had a tremendously good relationship with Egypt. We are sort of aids, technical consultant I guess, because U-S-AID put up the money for Egypt to rehab the turbines, and the gates, and just modernize the facility in general, and that's been a great relationship. Anyway, that started about the time I came onboard in about 82 or 83, and we're just about to finish that. So we've had someone in Cairo all of these years; not the same person. Usually the fellows go over there for a few years' assignment, 2 or 3 years, and then we've had staff out at Aswan Dam constantly over the last 10 years also. I've never been there. I've been in a lot of countries, but I've never been there, even though we've worked over there a lot. However, this October, the International Committee on Large Dams, which I'm a member of, is having its meeting in Cairo. So my wife and I are going to visit Egypt for the first time soon after I retire. So

---

9. United States Agency for International Development

that's going to be great, I'm anxious to see that dam. It's a big dam. And I'm anxious to see our employees over there too, because there'll still be some in Cairo and some in Aswan.

Southeast Asia is probably, well, I shouldn't, we have technical experts in Pakistan, some of our engineers are used as consultants in India. Southeast Asia, however, Thailand, Indonesia, Malaysia, we've done work there since I've been in this job. In Malaysia, we've helped them with the construction of two dams, and I've been associated with at least one of those. They wanted us to assist them with a third dam. However, it was kind of interesting. We had a difference of opinion with them, had nothing to do with engineering. It had to do with attaching our employees to the embassies. We like to have our employees to have sort of like diplomatic immunity, and be attached to the U.S. embassies in those countries. Malaysia, because of some instances over there of drug abuse by, I think, some of the military young folks, they no longer allowed the foreign nationalists to be attached to the embassies. So, because of that, we are not advising them on this one dam. We have pulled everyone out of Malaysia, but we're still held in high esteem. I just hope that the new administration that we can continue this program, but I think it's kind of shaky.

Storey: Wouldn't those assignment in Southeast Asia be sort of dangerous for our employees, or am I just carrying this impression?

Webber: No, they have not been, and I think if you . . . Well, I go to those countries, and I read their English newspapers, and so forth. And they're not much different than here. They'll have some crime in the streets, as we do, but it's no different than what we have. They have drugs. Malaysia, as I mentioned, is very strict on drugs. I mean, you're caught with drugs there,

and you're executed, and they don't mess around. That's why we were not going to send someone there; not that our employees would use drugs. But just having drugs found on your person, or something, there are no trials if drugs are involved. So no, I usually . . . most of those countries have a very active American community, where you live or an international community. I remember in Malaysia, where our engineer who was the project manager, was located. There were brand new condominiums, very nice, with swimming facilities and things for the kids, and the area was inhabited by Frenchmen, and Brits, and all. It was an international community, most everyone spoke English, and I went to a picnic there. I remember a potluck dinner, I guess, and it was great. And our employees that moved to those countries, and some of them take their children, I don't think any of them have ever regretted it. I've never, and now that I think of it, I'm not sure, oh, I guess maybe we did have one couple that the fellow's wife didn't like it. I don't even remember which country, and so we had them come home and sent someone else. But for the most part, our employees that have gone on international assignments thought it was one of the greatest experiences in their lives: and their children also.

Storey: What about like in Africa, and Australia, and South America. Do we have anything going there?

### **Australia, Africa, South America**

Webber: Not Australia, although we send people down there. They like to have our experts come down and give them lectures on various things. Australia's getting quite advanced, you must remember, matter of fact, when I came to work here in the 60s or late 50s, we were just finishing a massive educational program for Australian engineers. When I was a rotation

engineer, there were still a few Aussies that were here being trained. And they were training them to design and build the Snowy Mountain Project in Australia. That was an interesting phenomenon: They sent their young engineers over here, trained them, they went back home, and they established this Snowy Mountain Hydroelectric Association, or something. It was a government organization, and they built this project, which is very similar to our Colorado-Big Thompson Project. It takes water from one side of the Snowy Mountains, and diverts it through tunnels to the other side, and provides both power and irrigation. So anyway, those guys were here when I came, I got acquainted with a few of them. I remember every night after work, they'd go to the bar and drink beer: they were the biggest beer drinkers I've ever seen in my life. They went over, successfully designed and built that project, and then made that government organization, which was sort of like the Bureau, they made it a private company, or I should say, a pseudo-public/private company. They allowed those engineers to go throughout the world, and market their services, and I recall, they had an office in Malaysia when I was there. And I went and visited with them. They were an international caliber engineering organization, and they spread it out throughout the world. During the early 80s, business was booming in many of those countries in southeast Asia, and they were doing very well. They were backed by the [Australian] government. They essentially had to charge for their services, and make their own way, but the government, if they got in trouble, would back them up. They did pretty well until the early 80s, about the time I came, and they started falling on hard times. And so I think they've kind of cut back on their international activities, but we trained all those guys back in the 60s. And the U.S. ended up competing against them.

South America, we have had a pretty big program in Brazil. Matter of fact, oh over the years, I've been here, we have probably had at least a dozen of our engineers leave the Engineering and Research Center here, and go to Brazil to live and work. And they are planning, and now are constructing, a large irrigation project down there, I guess similar to our Central Arizona Project. Anyway, it's a very large scale. I've never been there, would like to go some time, but yes, we get around (repeated). And not much in Europe. Europe is very, well, Europe is consolidated. Their technology is pretty good, and it's old, and other than rehabilitating things, they've built about all the dams they're going to build, and so forth.

Africa is something else, man. I went to school with a friend from Ethiopia, and I remember at the University of Kansas, the poor kid his English wasn't very good. And he had a heck of a time getting through school, so some of us sort of befriended him, and we'd studied with him for tests, and help him out. And always wondered what happened to the guy. He went back to Ethiopia when we got out of school. Anyway, by a set of circumstances here recently, through some of my staff coming to talk to me about doing some work in Ethiopia through the U.N. or something, I said, "Well, if you're dealing with someone in the U.S. from Ethiopia, see if your," and they had some fellow here in town who was from Ethiopia, I said, "Ask him if he knows this guy." And I remember his name very well, it was Tilahun Wubneh, W-U-B-N-E-H.<sup>10</sup> And this is the kid we helped through school, and I had corresponded with him awhile, and then, I'm not a real good letter writer. So I lost all track of him for 30 some years. I went out of town, I

---

10. Tilahun Webneh author of *International Roads Link Africa* (1972).

came back, came to my desk, and here's a note that has the name of my friend and his telephone number in New York City. And I was so surprised, and shocked, and so I called New York, and I called that number, and there was my old college mate. He works for the United Nations, in New York City, and just recently, this has all happened in the last 3 or 4 months, just recently, I was in Washington, D.C., and he traveled down by train to Washington, and we got together, and had lunch, and I was so happy to see him. It was like seeing your kid brother after 35 years. Ethiopia is starting to stabilize again. He had a terrible situation. He was an engineer for the highway department in Ethiopia, and they had the civil war. And he got married, had a couple children, and was looking after his parents. And it became so dangerous for him that he took his parents, and his family, and escaped by the dark of night out of Ethiopia, and managed to come to the United States. He's had a heck of a life; it was fascinating to hear his story. Anyway, I'm sure he and I will keep in touch now, because he's still working for the United Nations development program. And it was just like seeing a long-lost brother, when I saw him. We had a great time, had lunch in Washington, and I call him once in awhile . . .

END SIDE 1, TAPE 2. AUGUST 17, 1993.

BEGIN SIDE 2, TAPE 2. AUGUST 17, 1993.

Webber: I think Ethiopia is stabilizing again, and when I hear him tell of their problems there . . . when I retire, I intend to do some volunteer work. And certainly, I don't want to put myself in danger, but just to be able to help a country like that, I'd be willing to do some volunteer work if they'd pay my expenses and go over and help them out because, well, we see the unrest in Africa in the paper all the time, and it's very sad. It's a very sad situation.

- 
- Storey: But I take it, we don't have much going in the way of active participation over there.
- Webber: No, and I think it's because of the instability of the whole continent practically. Even South Africa, which is very settled, with a lot of whites, there's a lot of unrest down there. And I have a number of engineering colleagues that live in South Africa, they belong to the International Committee on Large Dams, and I think it'd be a heck of a way to live but I guess as professionals, it's not too tough for them.
- Storey: What kind of hoops does Reclamation have to go through when we become involved in relations on the international level?

### **Reclamation and Foreign Aid Organizations**

- Webber: It's really not too tough. The State Department is always involved. If they're not involved, we may get a letter, for example, from a country, let's say I know someone in Somalia or Ethiopia. I may get a letter, and if it's from somebody in a government agency that works for a government agency, they'll say, "Can you come and give us a technical lecture?" or, "We'd like to talk to you about technical support," whatever. And our international activities office in Washington, the commissioner's office, they deal with those kinds of things. If I get the letter, I would send it back there. They would check with the State Department. The State Department would give us . . . and by the way, we, all of those countries are required to pay for our services. We don't give them anything. We do not donate any of our services. A lot of people think we have a budget to do that, but we don't. And so the State Department, if we have good relations with the country, if they have the money to pay for our services, we'll write a letter back and say yes, we can have two people come over and give you lectures on roller compacted concrete, or whatever. And we get

their agreement to pay the expenses, and that's how it happens. So the barometer we use is always the State Department.

We do not do anything in any country without State Department support and blessing. And for the most part, the State Departments like to have us there, because we have an interesting phenomenon in this democracy we have: we keep the public and the private sectors as far apart as possible. That is very unique, as compared to a socialist country. For example, in China, we may hire, because we are consultants to China under this agreement, we may hire some private sector people to help out as consultants, if we don't have the in-house expertise on something, and that's okay. And they go and spend a week, or whatever, and they get paid. But we cannot go, let's say, with a private company, Bechtel or Harza, or whatever, as a partner, and go into China and say, "Okay, we will help you design and build this dam." The private sector can go themselves and do it, but we cannot go with them. That's much different from the Canadians, or the Brits, French, Swiss. There, in order for the private companies to get the business in China, they will go and, in many instances, the government will help subsidize some of the marketing when they go into these countries. But not in the U.S. We make it a big point to keep the public and private sector separate. It's kind of interesting, the Corps of Engineers has some legislation that allows them to sort of be partners with private companies, if the private companies put up the money. That's the good news. The bad news is the Corps of Engineers, because they're a military supported organization, sometimes the foreign countries don't want them, because of the military association. So that legislation really hasn't been that successful for the Corps. We would like to get a similar situation for Reclamation, but we've not similar legislation that would allow us to sort of be partners with

private sector companies, but that's not happened. And I suspect that will not happen with this administration.

Storey: Now, for instance, when our people are attached to embassies, or consulates maybe, I don't know, they travel under diplomatic passports?

Webber: We do not have diplomatic passports, we have official passports. The U.S. has three kinds: diplomatic, official, and tourist. The diplomatic are black, the official are red, and most all of us travel under [inaudible] with an official passport, not a diplomatic passport. So . . .

Storey: But I understand that the preference is that you use a blue passport.

Webber: Well, it depends on where you're going. If you're going to Taiwan, Taiwan is not recognized as a nation for various political reasons. And so when I go to Taiwan, I usually travel with both of my passports, but there, I use the blue one which is the tourist passport. So other than Taiwan, I don't remember. I'm going to Egypt, but I'm going as a tourist, because I'll be retired, so I'll use my blue passport for that. Yeah, I think I'm finished with the use of the official passport. I don't remember that it bought me a whole lot, when I think about it, but going as a representative of the Bureau of Reclamation meant a lot. We are always met and dealt with in a very special manner, with a great deal of respect, and so forth. That association with the Bureau of Reclamation was really neat, and I've enjoyed every minute of it. We're not allowed to take gifts, or anything, but just the fact that they respect us so much and do everything they can to please us, you know. Usually, we're guests of their government. Some of them are pretty poor, so you don't stay in a first class hotel, and that kind of thing. Matter of fact, in China, it gets pretty basic sometimes. But still, we're treated very, very

well so . . .

Storey: I know you mentioned earlier that Reclamation does not have a budget to support the international activities, or the activities abroad. Are there, however, other agencies in the federal government which do support our assistance to those countries, like you mentioned U-S-AID earlier?

Webber: Yes, U-S-AID is probably a good case in point. However, the reason we are there is to assure U-S-AID that their money is being spent wisely, okay. So, I was talking about Aswan Dam, for example, that's U-S-AID funded, and they're plowing a lot of money into the upgrading of those facilities. And our people are over there essentially as inspectors to see that the work is done properly.

Storey: In effect, we're representing the U.S. Government's interests?

Webber: That's exactly right, exactly right. To ensure that that money is being spent wisely. Now that's a little different than a situation, let's say, in Pakistan, where the Pakistanis are getting their money from who knows where: possibly, the World Bank or the U.N., or whatever. And we're their sort of consultants, and yeah, I guess we're looking out for the financial folks, but we may very well be paid by the Pakistanis. Who knows, maybe they take that money from the U.N., and give it to us, I don't know. But U-S-AID is a little different, and we worked with U-S-AID in Thailand, also. And that was a deal where U-S-AID wanted us to sort of manage a project down there, and it had to do with cloud seeding, precipitation enhancement. And part of the drill was in the northern part of Thailand. They wished to do some cloud seeding, and U-S-AID said, "Okay, we'll loan you the money for that, but we want the Bureau of Reclamation to be sort of like the project manager to be sure

---

it's done properly." So there are different schemes, as far as the funding and our people's role . . .

Storey: Do we have a lot of relationships, for instance, with the World Bank? And I think there's one called the World Development Bank?

Webber: Yes, quite a bit. Our engineers are asked a lot by the World Bank to be on review boards, for example, and because the U-S. is the major contributor to the World Bank, there's a good reason for us to be there: the U.S. representative on those boards. Usually, those review boards are international in nature. There may be two or three or four engineers, and if it's a big project, there may be Bureau of Reclamation personnel on that board to look out for the World Bank's interest, in addition to the other fellows. So we don't have a corner on the market, let's put it that way. But yeah, we are sort of the technical watchdogs for quite a few international organizations.

Storey: Could you name a few of those?

Webber: Oh, a little bit with the United Nations Development Fund, that's an international organization. The World Bank is an international organization, [U-S]AID is not. There is a Southeast Asian Bank. We have done some work to help protect their interests in the past, but not since I've been here. But historically, we did. Let's see, there's some others I can't think of them now, but anyway there's three or four.

Storey: You mentioned the International Council on Large Dams.

### **Bureau of Reclamation Professional Affiliations**

Webber: Yeah, International Committee . . .

- Storey: ... Committee on Large Dams as one of the activities. What other kinds of professional activities do you see Reclamation routinely being involved in through your activities?
- Webber: Probably the biggest participant we have . . . the most participation by the Bureau of Reclamation in the American Society of Civil Engineers. Matter of fact, I just scheduled, I will be attending annual meeting. And the reason being that most of our staff, historically, have been civil engineers. The kind of work we do are civil structures: dams, powerplants, bridges, roads. Those are all civil engineering areas. Our staff have been very involved over the years, and still are, on committees for the American Society of Civil Engineers. That's not to say that we don't also have a big role in ASME, which is American Society of Mechanical Engineers. And so there's also a conference that I just attended last week in Nashville, Tennessee, called Waterpower '93.<sup>11</sup> For those of us in the hydropower business, they have dams and powerplant, that's probably the single most popular conference. And so far, it's been held in the Western hemisphere: Canada and the U.S. We hosted it here in 1991, happens every 2 years, and the Bureau of Reclamation was sort of the host agency; we held the meetings downtown. Last week in Nashville, Tennessee, it was hosted by the Tennessee Valley Authority. And as I recall, the Canadian Conference that I was chairman of one of the committees, that was at Toronto or Ottawa or somewhere, that was sponsored by the Canadian Power Industry. So we are involved in most all of those. We now also have considerable involvement in environmental organizations, and there are a million of them sprouting up. And then, don't

---

11. *Waterpower '93: Proceedings of the International Conference on Hydropower, Nashville, Tennessee, August 10-13, 1993* (New York: American Society of Civil Engineers, 1993).

ask me the names because those are our research staff, and I'm not sure what all of them are. But as the values change in this country, we also are spending a lot more time paying attention to environmental issues, not only here in the United States but also internationally. We helped the Chinese with the fish in the Yangtze River, and several things like that. So we, matter of fact, we've been criticized and I'm not sure how long we can continue to be as actively involved in international, and even domestic associations, such as American Society for Civil Engineers, because we do put a great deal of emphasis on training and attendance at these professional meetings.

Storey: Could you tell me a little bit about your involvement with ICOLD and U-S-COLD?

Webber: Well, I'm intimately involved with both of those organizations because, let's see, I've been off . . . about 2 years ago, I was President of the U-S. Committee on Large Dams. The International Committee on Large Dams was first kicked off, I believe, in 1938 or 39, in Europe. The headquarters of the International Committee on Large Dams is in Paris. It has grown over the years, and Reclamation, even back in those days, had a representative that attended all the international committee meetings. And then as countries developed their expertise, and of course, Reclamation was right up there, because in the 30s we were dealing with Grand Coulee, and Hoover, and so forth. Each country would form their own committee, and it was just that, initially, and it was called the U-S. Committee on Large Dams. It was a committee that met and deliberated, developed positions that the U.S. might use in the international issues, as it relates to large dams. But then, they opened the membership to essentially anyone, just like any professional organization. U-S. Committee on Large Dams has, oh gosh, I think about 1,200 members in the U.S.: it's not a small outfit.

Reclamation has had members on the committee. The committee consists of about a dozen engineers. You are voted onto the committee by the entire U-S. organization, all 1,200 members, and so, the Bureau's had a representative on that committee for many, many years. I'm not sure. I became president in 1989; presidency is only for two years. Every third year, the International Committee on Large Dams has a congress, it's called a congress, that is a big meeting that draws a few thousand people throughout the world, and papers are presented on the latest technologies throughout the world as it relates to dam construction and design. In 1988, the U.S. hosted the congress. That was the year before I, I was vice president that year, and we had, oh gosh, I think there were like 3,500 representatives attended from throughout the world. And we've been a major player in that organization, because that's been our business historically. I'm not sure that a Bureau person has been the . . . oh sure, they have. Rich Cramer, who just retired from the Bureau. He was president, I forgot, back in the early 80s, and then I was the president in 89 and 90. So Bureau people have been president of the organization. Now, not only do we have an annual meeting in the U.S. at the U-S. committee, but then there's an annual meeting of the international committee. And every 3 years, they have a big congress which lasts for like, two weeks, with a lot of technical papers. And the next congress will be held in Durban, South Africa, in 94. This year, they call it an executive committee meeting. It's only two days of lectures and two days of committee meetings, and that will be held in Cairo, Egypt.

Storey: But any member can attend? It isn't just . . .

Weber: Sure, sure, No, it's not a select few. If you have the money, and you can get to the meeting, you can attend. You may not be able to . . . there are

only certain people that can vote, for example, we have our representatives that are allowed to vote on certain committees. For example, I'm the vice-chairman of an international committee on shared rivers, like we're trying to develop, for example, the Columbia River as a Canadian and U.S. and the Rio Grande as Mexico and so forth. They're all kinds of ground rules throughout the world on shared rivers, so we're trying to get the best of all agreements so we can provide some guidance to developing countries on how they might establish agreements, and international agreements on how they jointly use rivers.

Storey: Well, I would like to pursue this, however, my 2 hours are up, and I know your time is scheduled tightly, so . . .

Webber: Well, I don't know as it's that tight. It's getting close to quitting time, plus I'm going to retire, so I don't work quite as long as I used to. I used to be here until about 6 o'clock, but I'm trying to cut back.

Storey: Yeah, I'm trying to do it, too. I don't get to retire in the process. Is it all right to use the interviews, the tapes, the transcripts that will be developed from these tapes for Reclamation's History Program, and for other people who are interested in Reclamation's history to do research?

Webber: Oh sure, I have not said anything that I . . . that isn't the truth, as I remember it. And yeah, you know, I'm kind of a history buff and I guess maybe—well, in your case it didn't come with age. In my case, it kind of came with age. I have a greater interest in history now that I used to, but I think it's very important to know where we've been, and how we've done things, and how things have evolved. For one thing, you can learn some lessons that, hopefully, you don't make the same mistakes twice.

Storey: ... You don't do the same thing twice, that's right.

Webber: That's right. So anyway, yeah, this is kind of fun for me, too, because I have never thought of myself as being a big history buff. But as I've gotten older, I have become much more interested in, and sensitive to, my family history. And you know, I guess when you're younger, you're working hard and you don't think about those things until you get a little older. But I'm very interested, and I intend to try to leave . . . my wife says it's going to clutter up our house . . . but I would like to leave my grandchildren at least some kind of a document that tells them what I know about our family, if nothing else. So I'm thinking of writing a letter to my grandchildren, and just documenting whatever I can think of about our family.

Storey: One of the things I started a couple of Christmases ago was interviewing my mother-in-law and father-in-law. Now, I think I've got 10 or 15 tapes.

Webber: Do you?

Storey: Yes, but my father-in-law just died on July 8. And my wife is so glad we started doing it.

Webber: No kidding. That's great.

Storey: Because he talked about his youth, and all that kind of stuff. Well, I appreciate it, and I'll see you tomorrow at 9:30. Thank you.

Webber: Is that the schedule? Okay. ...

END OF SIDE 2, TAPE 2. AUGUST 17, 1993

BEGINNING OF SIDE 1, TAPE 3. AUGUST 18, 1993

Storey: This is Brit Storey interviewing Darrell Webber, the Assistant Commissioner for Engineering and Research of the Bureau of Reclamation,

September 18, 1993, at 9 o'clock in his office in Building 67, on the 14th floor, at the Denver Federal Center.

Let's just go ahead, and talk about the things you've been thinking about overnight.

### **Vacationing at Reclamation Facilities**

Webber: All right. I jotted down, I thought maybe some of the funnier things that have come up over the years might be of interest. Back when my children were small, young boys in grade school, I guess, or junior high, the Bureau put out an announcement that any employees who happened to be vacationing in the area of any of our facilities should feel free to contact the project managers, or whoever, and get a tour of the facilities. And I thought that was kind of a neat thing, and so my family and I were visiting the Southwest, and we made arrangements. I called ahead to Hoover Dam, and also Glen Canyon Dam, to stop by, like to have a tour. And the commissioner had directed these folks to give us special attention and a private tour, as opposed to the tourist-type tour. So I was rather pleased, and so was my family, and we had a fellow taking us into the guts of the dam, and the powerplant, and the whole thing. And it was a big deal for my young sons, of course. Anyway, at Hoover Dam, that's generally a really dry dam. When we build a dam, we put drainage galleries in the dam so that water that seeps into, all dams have seepage of one kind or another, even if they're concrete. And, of course, the abutments the rock that it's keyed to also has seepage. So we put in drainage galleries for the most part, which are small tunnels that run transversely through the dam. And some, of course, go into the abutments—the rock abutments, which hold the dam. Hoover doesn't have much leakage, and these drainage tunnels it's like a little sidewalk in a little tunnel about as high as your head. So

you can walk through it, and then down the sides of it are little gutters where the water, you know. So anyway, Hoover is very dry and my wife was very impressed, that's the first time she'd been inside of a big dam. So then, as I recall, we were camping on that trip, and so then we drove on up the Colorado River and went to Page, Arizona, where we had just finished construction of the Glen Canyon Dam. And Glen Canyon Dam is keyed into red sandstone, which is not near as watertight as the rock at Hoover Dam. So we had a similar kind of tour and we went up into the galleries, and the water was running up over the curbs in the drainage galleries, and my wife was really quite concerned about that. She thought that it was really a pretty leaky dam (laughing) and so, anyway, she made a big issue of it.

We returned to Denver, and during those days, we had an organization here called the Technical Engineers Club, I believe that was the name of it: Reclamation Technical Club was the name of it. And it was sort of a part social . . . we'd have dinner once a month, as I recall. Or once every 2 months, we'd have dinner, and we'd have some kind of a program. It wouldn't be too heavy, technically, because the ladies were always invited. Anyway, I recall, I think I was president back in the . . . some time in history. But it so happened after we'd returned from that vacation, and visited those two dams, we went to one of these Reclamation Technical Club dinners. And so my wife and I were sitting right across the table from a Bureau employee whose name was Dr. George Rouse. George and his wife were sitting across from her. George was quite a character. He was kind of like a banty rooster, and he had an opinion on most everything. So during the course of dinner, my wife brought up the fact that we had toured the dams and, of course, she expressed her concern about how much water was going down through the drainage galleries at Glen

Canyon. I didn't know this at the time, but George evidently back when the decisions were being made on the design of Glen Canyon Dam, George felt that that sandstone, after the water would seep through it for a few years, would start breaking down like, and become soft and pliable. Anyway, her observation about it leaking started him on a long lecture and tirade about how the Bureau had goofed up in building a dam at that site, and not taking more precautions. So we heard that for the rest of dinner from George. He found a new audience to vent his wrath against the Bureau. But anyway, let's see, that was probably in the 60s, and so I've been down there fairly regularly over the years, and it's standing up very well (laughing). I thought that was kind of interesting, that George got into that, my wife still talks about how wet it is inside of Glen Canyon Dam.

### **Louis Puls and John Parmakian**

And speaking of Glen Canyon Dam reminds me of Louis Puls. Louis, when I came to work here, was the chief designing engineer, brilliant fellow, and he was essentially the head designer and was responsible for design of Glen Canyon Dam. And Louis was quite well known, and ended up being my neighbor up here in Arvada after he retired, and he was quite a fellow. Unfortunately, right after he retired, his wife passed away, and so I think he had ideas of getting remarried. He built a new house fairly close to our house, and so this was after he'd been retired, and I became his neighbor. And I used to go down and visit with him, because he was such an interesting fellow, and his background was tremendous. He had ridden the rails. He had hopped freight trains across the United States. He came from the east coast to the U.S. some place, and had ended up, as I recall, going to one of the universities in California, and he was just a brilliant guy. But

he just took off on his own when he was a kid, and after he got out of high school and he hopped freight trains to get across the country; so he told me those stories, and I find that very interesting. Louis was, as I say, the father of the design of Glen Canyon, which was our first double curvature arch dam. Well, it was not a double curvature, but it was a thin arch dam. Thinner than we had ever designed before, and there was a book written about that. I don't recall the title, it was fairly recently. What is it? (Storey: *A Story that Stands Like a Dam?*) That's right, *A Story That Stands Like a Dam*.<sup>12</sup> Anyway, Louis' name is mentioned in there, because he was, in the early days when they were trying to figure out where to put the dam, he was the key figure. Gosh, when he moved as my neighbor, he had just retired and he was on retainer to the Mexican Government. He was very well known throughout the world, so he did a little work internationally, and gosh, he lived to be I think in his 90s. And he just passed away within the last year or two. And so, he was quite an institution, and I used to see him every morning after he retired. I'd go to work, he was taking his walk around our neighborhood—his morning constitutional, I guess; anyway, he did pass away.

Another story that I tried to think of some of the funnier things that have happened through my career. I first went to work . . . we were in the old Remington Arms Plant building, of course at that time. And at that time, it was building 53, and it wasn't the best place to work. There was no air conditioning, and it got pretty hot, and we had these big windows up in the top that could be opened. But if you opened them to get a little breeze, why then, the birds would fly in. And of course, we were in there, the

---

12. Russell Martin, *A Story that Stands Like a Dam: Glen Canyon Dam and the Struggle for the Soul of the West* (Salt Lake City: University of Utah Press, 1990).

drawing boards, making drawings and so forth. The birds would make deposits on our drawings, once in awhile. At night, when we would go home, why we always had to lay a piece of linoleum, or kind of a cover, over our desks. But the gist of the story was the fact that it got hotter than the dickens in the summertime. And so, I still wore my white shirt and tie to work. But some people stripped down to about as far as they could go, and this was while I was a rotation engineer.

I happened to come to work the same day that three young engineers from New York City came to visit. I remember we went into personnel, and had our fingerprints taken, and all of that, and we were assigned. And I mentioned before about this technical engineering analysis group, that was sort of the blue ribbon group, that took on most of the problems that other people couldn't handle. Anyway, we had the rotation assignments, and I happened to be going through my rotation assignment a few months [at] the same time. One of those three New Yorkers was a young lady just gotten out of school. Well, you know, New Yorkers were a lot more liberal, of course, than most of us out West. And so, her attire was fairly skimpy, even by the standards in those days, because of the heat and so forth. And she would wear sandals to work most every day, which open-toed sandals and so forth, and that wasn't so bad. But she didn't always . . . it didn't appear that she always washed her feet every morning before she'd come to work, and she'd have these sandals on. Her desk was right outside the office, and you could see between offices, there were partitions—bottom part was metal and the top part was glass. Anyway, this young lady had her desk right outside of John Parmakian's office. John was the fellow that I mentioned yesterday that was the head of this bunch of whiz kids, and he was the guy that wrote the book on waterhammer. Well, John

was the ex-military type. I think he'd been in World War II. And he was like a colonel or something like that, and he always wore a suit and tie to work, and the whole thing. Anyway, this young lady was planted right outside of his door, doing her assignment. And John lasted a few days with her sitting there. And it wouldn't have been so bad except . . . and she wore skirts. But she'd take off her sandals, and put her feet up on the desk, and her feet were dirty. And John took that for a few days, because I happened to be . . . I wasn't sitting by her, but I was in the same general area. After a few days, he came out and he, as a retired colonel, or whatever he was in the military, he proceeded to give that young lady the biggest dressing down I think I've ever heard, if for no other reason than to do something about her personal hygiene. But she didn't last long (laughing). Matter of fact, those three New York graduates none of them I don't think stayed more than about 4, 5 years. Anyway, John was . . . he was really something, and he was spit and polish, and retired military, and also one of the world's best authorities in his field.

### **Management Philosophies**

I mentioned a little bit earlier about the management philosophies in the organization. It started out in the early days, as most all companies did, as being a very autocratic organization, and it was like a military, generally. And so, there was no management training to speak of. The training we had was strictly technical. But I do remember the first management training that was instituted was, I believe, in 1965. And at that time, I think, I was a branch chief, and there were even two division chiefs. The head of research was in this management training, so we really . . . none of us that were in supervisory positions. And the only ones that got in supervisory positions, at that time, were generally engineers, with the

possible exception of maybe the head of personnel, or something. But the place was run by engineers, and it was run with an iron hand. And the chief engineer, the guy that sat in this office in those days, approved everything. I was talking about Barney Bellport being kind of a crusty old guy, that was the construction fellow. If you wanted to get a new typewriter for your secretary, or something, and it didn't matter how far down in the organization you were, you had to get Barney's approval to do it. And so he ran, and we all ran, a pretty tight ship in those days. We did have coffee breaks, but generally, everyone worked at their own desks. There was gambling on the job, by the way I learned, I was party to that. Every two weeks, they'd bring our checks around and so, as I recall, we put a quarter in the pot. And we'd use the seven numbers on our checks to see how good a poker hand we could get out of that, and that's how we'd get the pot for that payday. Yeah, that was the gamble.

Storey: Oh, that was the payday?

Webber: Anyway, that's about as wild as it got around here. The rest of the time, it was pretty straight arrow, and we didn't mess around a whole lot.

Storey: How has it changed?

Webber: Well, we have our checks sent to the bank now. So we can't gamble our checks.

Storey: What about in terms of management, though?

Webber: Oh, it's changed considerably (repeated). I delegate. There are many things that go on here that I don't necessarily have a hand in. Design decisions, for example, and I'll talk about the politicizing of the organization in a little bit. As I said, all of the supervisors were engineers, generally, and the top man approved nearly everything. Like I said, if you wanted to get a

new typewriter for your secretary, you had to get the chief engineer, as this office was called: the chief engineer's office then. And so, everything went right to the top to get approved. That's changed considerably. I don't, unless there is some issue on design that may have a negative impact, or is controversial, I don't get involved in it. Those folks that are designers are much more capable of making those decisions than I am, and I trust them, and they're the best in the world. But the chief engineer for all those years, up until approximately 1969, had come up through the ranks of designers. Or they'd been on construction, and construction was very important to have in your background. And that still holds, as far as I'm concerned, although I did not have it in my background. But anyway, the place was run like a military installation, really, and the top person ran it with an iron hand. And there was little trust displayed in employees, let's put it that way, in those days. But that's the way businesses were run in those days, also, so I guess it really wasn't that unusual. But it wasn't bad, we all liked it. First of all, we were darn happy to have a job, most of us in those days, in my generation. Most of our parents were . . . they were not wealthy, and so we had to have a job just to feed our families. Now, that's not necessarily the case any more. You can still get fed in this country, and not work. But the work ethic was very important, I think, for all of us.

As I recall, I believe there was a union, certainly of the technicians that we had. And also, the union included some engineers, because I happened to know one of the fellas who was the president of the union when I came to work. They were fairly active, most of the technicians belong and number wise, I'm not sure what we're talking about, maybe a couple hundred or something like that. Didn't have too much power, however, the unions did not. They would work on such things as working

conditions, and so forth, because working in those old open buildings wasn't the greatest. But I'd say the union gave some folks an opportunity to vent their wrath, and communicate with management, but I'm not sure they had much power at the time. The union still exists, I think it's the what the American Federation of Technical Engineers, or something. But I did not join when I was young. Coming from my conservative background I thought, well, we didn't know what unions were in western Kansas, but I was just glad to have a job. I wasn't going to make any noises and complain about things, because I was happy to be working. Matter of fact, I knew two engineers who were president of that union at the time and they became good friends of mine, but I never did join up.

I imagine that when we had our first management course in the Bureau in 1965, and I happened to be in that because I loved management and dealing with people. And we kind of had a little . . . I guess I might have been looked upon as one of the liberals around here at that time. I'm sure I'm looked upon as the old conservative now. But at that time, I was fairly liberal [and] wanted to learn more about managing people. And that was our first supervisor's training program in 65, and over the years, we've expanded considerably. However, I did learn within the last couple of years that our first level of supervisor's program had sort of died away, and I was kind of shocked at that. And I said, "Well, how do our engineers, as they're coming up through the ranks, how do they get trained for their first supervisory job?" And essentially, I guess it was on-the-job training, so we did re-institute that first-line supervisory training program. And we just graduated, within the last couple of weeks, our first class from that, young engineers. We had a nice lunch, and I gave them their certificates and so forth, and a little mug. But generally, we

have spent a fair amount of money on management and supervisory training over the years. And I think that's probably good. Hopefully, we've ended up being better managers, but you couldn't beat the old military style for getting work done.

Storey: So if training is one of the things that's changed over the years, how about things like E-E-O? And, you know, you mentioned a woman coming to work about the time you did . . . women in the professional staff, and those sorts of things.

### **Equal Employment Opportunity Program**

Webber: Well, we didn't know how to spell E-E-O, needless to say. Women had a tough time, I think, certainly going up through the organization. That young lady from New York, as I mentioned, she didn't last very long. Gosh, I think you could count on one hand the number of female engineers and/or engineering technicians that we had. Even in the drafting group, we had a big drafting organization, those folks were technicians. We provided the training for that there for years. I don't recall ever seeing a woman in the drafting office. That's changed dramatically, for a number of reasons. For one thing, back in those days, the upbringing of most everyone was that the young girls were taught that the female's place was in the home, taking care of the old man and raising little kids. And that's the way it was, when I got out of school, and only in the last, oh gosh I guess 20 years, has that attitude changed very much. And my favorite story that I tell, particularly when I'm talking to women's organizations, is that when I was going to high school, I could never get higher than third in my class over the years. And the reason was, there were two young girls in my class that were just smart as all get out, and I couldn't get better grades than they did. So I had a heck of a lot of

respect for the intelligence of the young ladies. It's kind of ironic, though, both of those young girls that were in my high school class, when they graduated from high school, got married, and started having kids and never did use their intellect, I guess. But that's kind of the way girls were brought up in those days, and it was probably a terrible waste of talent. Until in the last 15 or 20 years, that of course has changed. And I think (inaudible). In engineering school at the University of Kansas, I remember when I was going, I'm not sure how many totally were in the engineering school. I'm sure there were a few hundred. There were two young ladies in the entire engineering school . . . school that was in the mid-1950s, so they just . . . it wasn't the thing to do, probably, as far as their mothers were concerned. And, of course, kids have gotten more liberal over the years, and they don't pay that much attention sometimes to parents any more, and so they go on to school and kind of do what they wish to do. But no, this was a male organization, male dominated. Probably if you talk to the ladies we have around here, they probably still would say that we're male dominated. However, it's interesting to note that out of the, what do we have now five assistant commissioners, one is a woman, and we have never had a female as the commissioner yet, but who knows. That may occur.

E-E-O . . . I recall when I was young, and working here, that there were some Hispanics in the drafting shop and, as I recall, as technicians, some technicians. I remember, matter of fact, he's still a very good friend of mine, there was a black fellow who worked in the mail room. And his name was Mike Gaskett, and Mike is still alive and doing well. He's a friend of mine, I haven't seen him, lives over in East Denver, and I had, well I guess over the years, I've had most of the blacks that have been here. And there was a big hiring of

blacks right soon after I graduated, and professionals. Not a lot, don't get me wrong. There again probably throughout the whole Bureau of Reclamation, you could count on one hand the number of blacks that we might hire out of engineering school. Now the current deputy commissioner is a black, Larry Hancock. He was . . . oh, he came to work in the early 60s as opposed to late 50s for me. And there was a conscious effort made, I guess now that I think of it, even in the 60s for the hiring of black engineers. And particularly from the historic black colleges and universities that are located in the South. And we do a lot of recruiting there now. And so as far as blacks are concerned, yes, we did some things and well, as you well know, my current deputy here, Felix Cook, he's black. He's probably about my age, graduated a little later than I did. But we do have . . . there are few black females, however, that have been hired over the years, particularly as engineers. I've noticed in the last few years there has been a slight increase in the hiring of Asian Americans and as you know . . .

END SIDE 1, TAPE 3. AUGUST 17, 1993.

BEGIN SIDE 2, TAPE 3. AUGUST 17, 1993.

Webber: The Asians who have emigrated to this country in the last few years are just outstanding students. Their work ethic is great, and we have hired some of those. One of our best designers, right now, is a fellow named Harry Jong, and Harry's been here quite awhile. He was one of the first Asians that was hired, and he's just outstanding. The young students in the high schools and colleges now, the top students in many cases, are Asians and I think it has to do with their work ethic. They haven't become lazy, like some of the rest of us, over the years. They've had to work very hard if they emigrated to this country. And their parents make them work hard, and it's really an interesting phenomenon.

Storey: As you think back over the years that you've had in Reclamation as a manager, have there been concerted efforts to diversify the work force with women and so on?

Webber: Yes, but only recently. I would say the greatest efforts have occurred . . . I've been in this job ten years. I would say only in the last five years have we really gotten serious about it, and tried to recognize the diversity of the work force in this country. And we do a lot of recruiting in minority colleges and universities around the country. Prior to that, I guess I would have to say, it was not a mainstream initiative of the organization like it is now. It wasn't the mainstream. Now, for example, our new commissioner who has just come onboard has made statements that he expects to see a culturally diverse organization from top to bottom during his tenure, which will probably be 4 years, at least. So that's pretty heavy. I mean, that's a directive that probably will be followed, no question about that. But we really haven't taken it that seriously up to this point, to tell you the truth. Certainly, I'd say the last five years is when we have taken it seriously.

Storey: Yet, you have people for instance like Trudy Germann, in ACER.<sup>13</sup> And I believe she's a branch chief.

Webber: Trudy is a branch chief. She's only become a branch chief in the last few years. I would say that she certainly did her duty on the boards, as we say, as a designer quite awhile before she was promoted into a supervisory position. No, I wouldn't, it's very difficult to defend our organization as far as being liberal and recognizing the cultural diversity. Haven't done too bad, but we haven't been outstanding. We've not been a pacesetter, I don't think, compared to

---

13. Assistant Commissioner Engineering and Research

some other organizations, and particularly in the private sector. It's really been a big deal in the private sector. And, for example, the local, what is it U-S West, it used to be AT&T here in town, they had a great cultural diversity program long before we did. So, we have a ways to go. Why don't we take a break and talk about politics?

Storey: Okay.

### Politics

Webber: Well, I probably ought to talk about at least my version of the politicizing of the organization. I talked about how the place was pretty much run like a military installation; decisions were made at the top. During that era, when I came to work in the 50s and 60s, there was a commissioner . . . his name was Floyd Dominy [1959-1969].<sup>14</sup> As I recall, Floyd was an economist out of the mid-West, Nebraska or something. Anyway, he worked very effectively on the Hill back in Washington, and had a lot of influence. Irrigated agriculture was the theme of the day then, and Floyd was instrumental in getting the money for us. Essentially, he ran the political side of things, and the chief engineer here ran the technical side of things. And they both . . . well, I think they had, in my days when I came onboard, there were three chief engineers: McClelland, Bloodgood, and Bellport that I worked for in my early years. And they had come up through the ranks, and essentially ran all the technical stuff from Denver. The regions were set up on the river basin boundaries, and their job was to see to it that we had whatever facilities we needed in the field to get the jobs done. But most all the technical shots were

---

14. Floyd E. Dominy, *Oral History Interviews*, Transcript of tape-recorded Bureau of Reclamation Oral History Interview conducted by Brit Allan Storey, Senior Historian, Bureau of Reclamation, April 6, 1994 and April 8, 1996, at Bellview Farm in Boyce, Virginia.

called from here.

Anyway, Dominy was quite a colorful character. And I won't tell all the stories about him, because I'm sure somebody will write a book about that some day. But he was quite an interesting guy. Didn't meet him very many times, I think I met him twice. He would be out here for a banquet, or something like that. And I remember whenever I'd met him, he'd had quite a few under his belt at the time. But he gave his best speeches, I think, when he probably had a few drinks under his belt, and he was a good speaker. And he commanded a lot of respect. Also, during his tenure, we began our international program in a big-time, big-scale during the 60s and, let's see, he lasted until about 69, I guess, as commissioner. But he was very successful in getting appropriations for the Bureau, and of course, all of us out here in the West liked that. Kept us busy and, as one chief engineer would retire, why, another would be appointed. And as I say, McClelland who, as I recall, was an electrical engineer, was the chief when I came to work. He had, as I recall, worked on Hoover Dam, and also Grand Coulee, during their designs. And then, after McClelland, was Grant Bloodgood. Grant was an old construction stiff, who had worked on a number of big dams in the West. And then Barney Belleport, who sort of ended up being my mentor, was also a construction type. But then, as I recall in 69 or so, I believe there was a change of administration and, as a result, Floyd Dominy was replaced as the commissioner. And lo-and-behold, an engineer came into the job, and his name was Armstrong [1969-1973].

Mr. [Ellis L.] Armstrong had, at one time early in his career, worked for the Bureau. And as I recall, he then went to work on the St. Lawrence Seaway, or something like that. But obviously, he had a few political connections and ended up becoming the commissioner. So

we had our first, like I say, Dominy, I think, was an economist, so we had our first engineer. I shouldn't say first. Since I have been here, we had our first engineer become the commissioner, and, of course, egos being what they are, it's tough to have an engineer commissioner and also an engineer chief engineer. That really didn't work very well. And I think Commissioner Armstrong decided that the chief engineer had a little bit too much power, and sort of diluted the decisions that could be made in the Denver Office. This is my recollection. I do recall a newspaper article in the *Denver Post*, about 69 I think, that said: the headline was, "Chief Engineer gets wings clipped." And that, essentially, meant that the new Commissioner Armstrong was going to take a little broader view of managing the organization than his predecessor Floyd Dominy had. And I don't remember that I was impacted a whole heck of a lot. I went on my first Bureau management training program in 69, I believe it was. And I spent time at the Third Powerplant, in Boise, as I mentioned before. So then, at that time, is when I started learning what really makes the Bureau tick, and how politics works, and this kind of thing. So Bellport who was sort of my mentor at that time, after he got his wings clipped, he didn't last very long. He retired. I think he was eligible to retire, and became a consultant, and ended up consulting throughout the world. And as I say, only died in the last few years, in California. He was then replaced by a fellow named Harold Arthur.<sup>15</sup> Harold Arthur was a designer here when I came in the late 50s, and he had been out in the region, and had experience as a, I believe, he was an assistant regional director, or something, so he came back in. The name chief engineer was

---

15. Harold G. Arthur, *Oral History Interview*, Transcript of tape-recorded Bureau of Reclamation Oral History Interview conducted by Brit Allan Storey, Senior Historian, Bureau of Reclamation, during 1994 and 1995, in Denver, Colorado.

---

done away with by Commissioner Armstrong, and I believe it was called the assistant commissioner and chief engineer, or something like that. So that's when the first assistant commissioner title came up, it was back in 69 or 70. And so over the years, this guy wound up to be the assistant commissioner for engineering and research and the chief engineer title, essentially, was taken away, . . . generally by Commissioner Armstrong, back in those days. And then, that Commissioner Armstrong, was followed by another engineer, an engineer from Idaho, named Keith Higginson [1977-1981].<sup>16</sup> He was an engineer also. I don't recall of changes he was . . . the commissioner during a Democratic administration, as I recall, and that must have been the Carter administration, I believe. He also appointed a deputy commissioner at the time, and that was the first deputy commissioner that, I believe, the Bureau had ever had. He also was an engineer, and he was an engineer from Montana or Wyoming. He didn't stay very long for some reason . . .

Storey: His name was?

Webber: I'm thinking (laughing). I can't remember what it was now.<sup>17</sup> He wasn't there long. The Washington scene wasn't for him, and he was kind of from the Cowboy State. He was sort of a cowboy, and we didn't hear much from him while he was here. I'm not sure what impact he might have made. I didn't have anything to do with him at the time. And then, as I recall, we had some engineers then as commissioners. And I don't know as they were any more

---

16. Keith R. Higginson, *Oral History Interview*, 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.

17. Orrin Ferris was named Deputy Commissioner in 1978, see Thomas Hughes, "Introducing Orrin Ferris," *Reclamation Era*, 64:4 (1978): 20-2.

successful than Floyd Dominy. But, of course, they probably didn't play poker with the congressional committees as well as Floyd Dominy did, either.

And then, the next commissioner, we had was a pharmacist from Boulder City, Nevada. His name was Bob Broadbent [1981-1984]. Bob knew how to spell Bureau of Reclamation; he had run a drugstore in Boulder City, which was a Reclamation town. And I think he was there when the town was turned over to local government,<sup>18</sup> because let's see, Grand Coulee, Washington, and Page, Arizona, and Boulder City, Nevada, were all government-owned communities for many years. They've since been turned over to their local government. Anyway, Bob Broadbent was a pretty slick politician. He, of course, was my favorite because he appointed me to a senior executive position (laughing), but he had nothing to do with the engineering or technical side of the house. He left that all up to us, and he just thrived on the political side of it. He loved politics, and he stayed there during most of Reagan's first term. And then he went back, and he now lives in Las Vegas. I think he's the manager of the airport, or something, in Las Vegas now, and I talk to him once in awhile. And he's a political animal, and he loves politics. And that's when I became assistant commissioner for engineering and research was during his . . . so that kind of goes through the Commissioners over time. Like I say, Bob Broadbent was a pharmacist.

The next, Dale Duvall [1985-1989] was

---

18. Boulder City, Nevada was incorporated in September 1960, see Harold N. Corbin, "Hoover Dam Town Takes Over," *Reclamation Era*, 46 (February 1960):19-20.

the next commissioner.<sup>19</sup> Dale did know how to spell construction. He was an accountant, I think, and he used to work for a construction company. So that was his claim to fame, but he also was very politically active in the Reagan administration. So that sort of runs the gamut of the various commissioners we've had over the years, at least while I've been growing up in the organization.

Storey: What about Dennis Underwood?

Webber: Dennis Underwood [1989-1993] was not with us very long. He was an engineer, matter of fact, I believe he was a civil engineer.<sup>20</sup> He had been with the Corps of Engineers for awhile, and he came during the Bush administration. He was in the job acting; seemed like it took quite awhile to get him confirmed, but I'm not sure that that meant a whole heck of a lot. I think it was just that during that administration, it took a lot of them a long time to get confirmed over on the Hill by the Congress. But Dennis had never managed a big organization before he came. He was a member of the Lower Colorado River Control Board, or something like that, and he went back to Washington. And what he accomplished while he was in office was that we published a Strategic Plan for the Bureau of Reclamation, that was sort of his baby. And then he has since, of course, after the recent election, been replaced by Dan Beard [1993-1995].

### **Cultural Changes for Reclamation**

---

19. Dale C. Duvall, *Oral History Interview*, Transcript of tape-recorded Bureau of Reclamation Oral History Interview conducted by Brit Allan Storey, Senior Historian, Bureau of Reclamation, January 26, 1993, Washington, D.C..

20. Dennis B. Underwood, *Oral History Interview*, Transcript of tape-recorded Bureau of Reclamation Oral History Interview conducted by Brit Allan Storey, Senior Historian, Bureau of Reclamation, from 1994 to 1998, in Los Angeles and Ontario, California.

Let me talk about the evolution starting, and it has to do with politics, and it also has to do with changing values in this country. The big dams were built in the 50s and 60s, and started tapering off in the 70s a little bit, and also in the 80s. The environmental movement started coming on strong from the late 60s and the 70s, also, and dams became a bad word in this country—and are now. Like I think I mentioned before, our value system had changed considerably. No one had to worry about the lights being there, and the water, and the cheapest food in the world, and so forth. We . . . and I came into this job in the early 80s, during the Reagan administration. It was quite obvious that we could see the end of the road of the dam-building era. It was quite plain, and we knew that we were going to have to change our ways of doing business, we were going to have to downsize. When I came to work in this position in 83, I had about between 1,100 and 1,200 on my staff for Engineering and Research. And that has gone down over these 10 years to about 800 or less. So we recognized that that work load is not there. Gosh, we had study teams. I happened to be on one of the first study teams; I believe that team was appointed in 86, roughly. It was made up of, I was the . . . I guess I was the only senior executive on that study team, at that time. And my colleagues were all young gunners, who are now regional directors or assistant regional directors, or whatever. And we did a study trying to identify as best we could the future, as we saw it. That started in 86, the administration changed let's see, I guess again, and we did another study in 87. I think it was called *Assessment '87*.<sup>21</sup> And that had another team working, so we've just been studying the heck out of our future for the last 6 to 8 years. We all knew that the values

---

21. United States Department of the Interior, Bureau of Reclamation, *Assessment '87: A New Direction for the Bureau of Reclamation* (Washington, D.C.: Department of the Interior, 1987).

were changing. We all knew that dam construction was probably a thing in the past. A lot of alternatives will be looked at now, before any more large dams are built in this country. I personally feel that some will be built because I think in another 10 to 20 years, we will have goofed up our . . . we will have polluted our groundwater so much that we're going to need some more surface water supplies. But that will be some time before that occurs. And anyway, we are going to have to change our ways. This new administration with Dan Beard as the commissioner sees that, and they are going to make some drastic changes, I think.<sup>22</sup>

The Bureau has kind of been like a family over the years, and there's been a great deal of pride in the organization. And just to think, as I've told you, just working for the Bureau made you special. If you went overseas to some foreign country, or if I go to a meeting some place, everybody knows the Bureau, and what we've done. And I mentioned, they have a luncheon club here every month. It's hard for us to swallow that pride, and say that our mission has been accomplished, but it has . . . it has been accomplished, and we need to change. I would hope that there are some needs in this country, and there are, such things as the hazardous waste cleanup area, that the Bureau can fulfill a role. We know how to get things done. We know how to design things, we know how to build them, we know how to operate them. Other than the Corps of Engineers, there aren't very many public organizations in this country that know how to do that. I don't want to take anything away from the private sector. The private sector has built some fine structures over the years. However, they have a profit motive,

---

22. Daniel P. Beard, *Oral History Interviews*, 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..

and we have always been neutral. Our services are solicited because we are neutral, particularly by China, for example. But the Bureau's future is really up in the air right now in, where are we, August 1993. It's going to be interesting to see whether the federal government will try to redirect the efforts of the Bureau, at least the engineering and construction arm of the Bureau, redirect them to other national needs such as hazardous waste cleanup. Or whether we will just let the organization sort of dwindle away, become an operating and maintenance organization. So those are the big questions in everybody's mind. This is a time of tremendous unrest here in the Denver Office, the old chief engineer's office for our employees. They don't know what the future's going to hold. So it isn't the greatest place to be right now if you're a young, up-and-coming engineer because you really don't know whether you're going to have a job longer than the next few months. So that's kind of where we are now.

Storey: How has Reclamation's role in the government changed between when you entered Reclamation and now in terms of, you know, the amount of budget and all those sorts of lateral issues?

Webber: Well, we had a charter when I came to work, and we were in the middle of satisfying that charter. The charter was essentially to make the deserts bloom west of the 100th Meridian. And we got started in the 30s, the big stuff got started in the 30s, and it reached its zenith probably in the 50s and early 60s, and then it started tapering off. And the budgets didn't change that much, but we have to consider inflation, of course. I was interested to learn that, not too long ago, somebody had a list of the budgets over the years. We very seldom had a budget greater than one billion U.S. dollars. We're down to about 400 and some million now, as I recall. But for the most part, even

during the . . . and I'm sure inflation has a great deal to do with this, but during the boom days, the budget wasn't much more than a billion, I guess, and usually like \$800-\$900 million. It wasn't anything like the Corps of Engineers, but the Corps of Engineers is many times greater sized than we are, and have a lot more different responsibilities than we do, also.

It's interesting how politics plays a role in an organization's evolution. We . . . our constituency, let me also make a comment about a government organization has to have a constituency. It has to have a portion of the population that wants something from it. Our constituency were the farmers in the western United States. Also, the small towns in the western United States that grew as the farms became more prosperous and so forth and so on and cheap power became available. Well, that constituency was very powerful in the Congress back in the boom days, the 40s, 50s, and 60s. No one has ever criticized the Bureau when we would close an office, for example, because we'd finished a project. We went, built the project, turned it over to the local people to operate, and moved on. The Corps of Engineers has an interesting phenomenon occurring now. They also have fulfilled a great deal of their charter. They fixed up the flood ways in this country, which was one of their big missions, and they had offices all over the country, the whole 50 states actually. And now politically they can't . . . the politicians won't let them close some of those offices, even though their workload or their charter has been satisfied. And they're frustrated as all get out, the Corps is. My friends in the Corps, who are in management positions like myself, they have people sitting in offices that don't have enough work to do. But the local congressmen there don't want to close those offices, because they would be losing some of their constituents at least those tabs. So that's an interesting

phenomenon that, if you have a constituency in this country, and you're in an agency that has that constituency, you're going to do pretty good. But our constituency, since the desert has bloomed in the West, has no power. Farmers are being criticized now for overproduction, for subsidies, and so forth. But you have to remember back in the 30s and 40s, everybody was really pretty hungry, and food was expensive. You raised your own or, if you bought it in the cities, it was expensive. Now we have overproduced, and food is cheap, so we say, "To heck with the farmers, we don't need them any more." So it's interesting how those values change.

Storey: Well, you mentioned earlier that the managers in Reclamation are aware that Reclamation has to change. And that awareness, I think if I understood you correctly, became most evident in the 80s, even though there was maybe signs of it earlier. But one of the problems with change often is that we're so close to it that we don't see it happening, because it's incremental, and the little pieces go by. So maybe over a period of 5, 7 years, there are a lot of things going on. But we haven't recognized and, in our own mind . . . and I'm wondering if you could reflect on ...

END SIDE 2, TAPE 3. AUGUST 17, 1993.

BEGIN SIDE 1, TAPE 4. AUGUST 17, 1993.

Storey: What has happened?

### **Reclamation's Transition**

Webber: Oh, there's the number of employees. I'm not sure what our high mark was in the Bureau. We now have about 7,500 employees. I think our numbers got up into the 15,000 plus level in our hey-days, but we have closed many offices. When I came to work, we had seven regions, for example. We now have five regions, and that

---

occurred just, let's see in the late 80s. When we did our studies, I would guess in 87 to 89, we closed two regional offices. When I had my brief tenure as a regional director for 6 months in Amarillo, Texas, it was quite obvious that that region was going to have to be closed down, because we had done our jobs. There were no projects left there to support those regions. We've never had too much trouble closing construction offices. I mean that follows. Once you've built something, it's done, it's turned over to the operation maintenance folks, and you know how many people it's going to take to operate and maintain it. The construction guys, they all hit the road and look for the next job. But then when you get up to a project office, which may have a few construction offices subordinate to it, it's a little harder to get those offices closed. They hang on for quite awhile, and then of course you get to a region, why it's even tougher. So we really have closed a lot of offices certainly during my tenure, even if you don't count the construction offices. And that's sort of a given, there's no need to have construction people hanging around, unless they want to go to work in operating the project. And so they go on to the next job, but closing project offices is tough.

When I was in Region 7 here in Denver, as assistant regional director, we had two project offices: one in the state of Nebraska, and one down south here in Pueblo, Colorado. Those had been big project offices, we had a lot of dams in Nebraska. We built under the purview of that one office in McCook, Nebraska, and it needed to be closed bad. And I had two bosses while I was in the regional office, I was the assistant regional director, and one of the bosses, he didn't want to close it. He didn't want to go out and be the bearer of bad news. And the second regional director that came in that I worked with, we talked about it. And he said, "Yeah, there isn't any question,"

and we closed the project office. It just was not necessary.

Storey: That second regional director was . . . ?

Webber: Billy Martin. And Billy also, during his tenure, closed the regional office here. We combined the Denver region and the Billings, Montana, region and combined them, and made the regional office in Billings, which was in my opinion in retrospect was a mistake. We've got Billings now that has all of the area from Canada to Texas, and east of the Rocky Mountains or the Continental Divide is in one region. It's a big region, and for God's sake, we've got the regional office clear in the north end of the thing. So if you want to go to visit your project in Texas, you've got a long ways to go. But anyway, it would have been better to close the Billings office, and made the headquarters here in Denver for geography purposes.

But those things happen, and they have happened over the years. But the Denver Office has hung on the longest. We don't want to quit, we don't want to admit that our mission has been fulfilled. It represented the guts and the . . . well, the organization, the technology, we're technicians. That's what we do, we build things, design and build things, and the construction on the organization has slowly gone down as the projects have disappeared. But here, in the Design Center, we have scratch marks on the rug as they drag us out the door (laughing), because we don't want to admit that that work load is going away. But we have gone down, as I say, just in my organization since I've been here by about 300 people or so, and so . . . but it's getting very serious now. We have a little bit of dam safety technical work that remains to be done, and that will last a couple or three more years I think, and then we're going to have to go down drastically. I think this new

administration is going to make us go down drastically, and very quickly. And that probably isn't too bad. I hate to say that for my colleagues whose jobs may be abolished, but I guess as a taxpayer, I'd have to say we better start trimming back pretty quick.

Storey: Do you see a continuing need for the Denver Office, or am I hearing you think that you think it may have outlived its usefulness?

Webber: Well, from an engineering and scientific point of view, it possibly has outlived its usefulness. And I hate to say that because I love it. We . . . you cannot maintain your expertise unless you do work. If you're a bridge designer, you have been a bridge designer, if all of a sudden you don't have any bridges to design, you're going to be outdated. You're out of the mainstream in six months or a year, easy. Now we do need to maintain some expertise for some of the things that are unique about our projects. For example, we have Grand Coulee Dam has the biggest units, not the biggest in the world, but they're close. That requires unique talents that we have here, but maybe it would be better to move those folks here that have those talents to Grand Coulee, so they're setting there right next to those big units. Same way with large turbines, maybe, and we do need some experts for large turbines. But maybe they would be more appropriate at Hoover Dam, where they're right next to the big turbines, and they can go back and forth between Grand Coulee and Hoover, or whatever. So there's not much of an argument for maintaining it here, when you come right down to it. I think this administration's going to look at decentralization out to the regions. I'm not sure that we need the regional offices in their current form. This administration wants us to become water managers, and I don't think it takes a whole lot of engineers, necessarily, to be water managers. So I think there will be a downsizing throughout the Bureau considerably,

and I think 5 years from now, we won't recognize the old Bureau of Reclamation hardly at all. But one thing about . . . old men like to tell old tales. And we can go, I can take my grandchildren to Hoover Dam or down here in Pueblo at the dam we have there Pueblo Dam, and say I had a hand in building that. And that's how we get our kicks, we're easy to satisfy. Well, anything else, for fun?

Storey: Yes, I'd like to go back to the International Committee on Large Dams and the U.S. Committee on Large Dams, if we could. Are they just strictly professional organizations? Do they ever serve anything like advisory capacities, or anything like that?

Webber: No, strictly professional organizations.

Storey: . . . A way to exchange information and to network.

Webber: That's right, to network and to share technology, and they have no money to speak of to do research. They have generally lived off of the Bureau of Reclamation, and the Corps of Engineers, over the years because we've also done research. Some of the universities are involved but not near to the degree that the Bureau and the Corps have been involved. I don't know, there are going to be big changes there, too, I think, because although there will be some smaller dams probably built and dam safety, there will be some dam modifications made in the U.S., probably at some level fairly constantly over the next few years. I suspect that the size of the organization, I suspect that firms, engineering firms, who specialize in dam construction, and so forth, are going to have to go overseas to do that. At least to find the work, because the political climate is just not going to accept dams here for a number of years—new dams that is.

So now, the International Committee on Large Dams, I think, will be a thriving organization for a number of years. There are a number of developing countries who need that organization and the technology from the developed countries to help them out. And so, those U.S. companies that managed to do work overseas, and that's where they're going to have to their dam design work, overseas, I think they will still play a pretty big role in the International Committee on Large Dams. But the thing that's been unique about the Bureau and the Corps is our research projects—we can try new things. And that's important that you have a chance, and you have some money, to try new things. If you're in a private company, you ain't got the money to do research, your stockholders aren't worried, and, as a result, if you can't do research you're going to take a conservative approach and do it the way it's been done before. It's a lot work. That photograph over there, for example, behind my desk shows a labyrinth spillway. It's the biggest currently, and probably will be for some time, the biggest labyrinth spillway in the world.

Storey: And where's that?

Webber: That's in New Mexico at Ute Dam. We were able to do that because of our hydraulics research lab across the street. To build an elaborate spillway of that size, and it's much greater than the second largest, required a lot of testing and research; trying new things to be able to design and build that thing with confidence that it was going to be a good, top, operational spillway. Now a private company probably never would have done that. They would have used some other technique, but we did that incidentally, at the request of the state of New Mexico. It was one of their dams, and they wanted us to help them, and they needed a bigger spillway to pass the floods. And

generally, as I recall, the use, and the design, and construction of that spillway saved the state something like 30 million dollars, as opposed to what would have been required if we had not built or designed that kind of spillway. But the reason we could design it was because we could try some things over in the laboratory, and prove that it was functionalist. It's kind of a you can't have everything.

Storey: Yeah, but the hydraulics . . . or the laboratory, what do you see for its future?

Webber: Well, I don't know, it's gradually changing and getting an environmental bent. Another valuable office over in the laboratories is the Electric Power Research. Those guys are a bunch of loose kids. They have done some really big money-saving things, and just are great. You've got to have funding to continue that. Now if the utility companies, for example, will come up with, Western Area Power or Bonneville Power, will come up with money to maintain this power research group that we have over there, I would say it will survive. If they don't, if there isn't a big demand for their services, I'm not sure that the Bureau's going to keep it. Same thing about our Hydraulics Laboratory; Hydraulics Laboratory is very popular now, we're having cities come to us and irrigation districts come to us to do new things. Private engineering companies come here because of our capability. But I'm not sure how long we can live off of those kinds of customers, or if we will be allowed to continue those activities.

Storey: The other side of the issue.

Webber: Yeah, that's right, the other side of the issue. So our materials group people that have developed the concrete, new things in concrete and soils construction over the years, I think probably have a pretty grim future. We do some

---

environmental work, and that's getting a lot of press now. However, as you probably know, the new administration is proposing a new National Biological Survey, something like that, to kind of consolidate the biological services from the Park Service and the Fish and Wildlife, and the Bureau, and BLM, and so forth. And so that may be where our environmental folks may migrate to. The future's very . . . not real secure right now, if you're an employee for the Denver Office or the Bureau.

Storey: And it's always hard to see into the future. But let's move back to your . . . it was deputy regional director positions, right? In Salt Lake, you mentioned that you were there for, I think, about a year and a half. What were the major issues that you were dealing with there?

Webber: Environmental.

Storey: Environmental? Such as?

Webber: Such as the construction of Jordanelle Dam. Well, I take it back, Jordanelle Dam was both environmental and technical. That dam was part of the scheme of the Central Utah Project, which was a project that had been allocated . . . authorized many years ago, and was gradually being built. And there was a geologist over there in the Salt Lake area who did not work for the Bureau, but he really raised a ruckus, said there were a lot of mines around there. He said that a dam couldn't be built there that would be stable, and stand up, because of the geology. That slowed things down; in addition, the environmental movement in Utah, which is a very conservative state, I didn't think was very strong at that time. They managed to stop quite a bit of construction over there. So when I was there in, when was it, 78, 79, thereabouts. Also in the West slope of Colorado, the Ridges Basin Dam as part of (what's that project)

Storey: The Dallas Creek maybe?

Webber: No, Dallas Creek end up being built, but there's a controversial project there now, and it was just as controversial in 78 and 79. So that gives you, it has not been built. The project has not been built, it's been studied. We were studying it, and arguing environmental issues, in 78 and 79. And here we are in 1993, and those issues are still not resolved.

Storey: Are we talking Adams Supply?

Webber: Adam's Supply, I'm sorry, yes. When I was in Salt Lake, we were dealing with Adams Supply.

Storey: Almost 20 years later.

Webber: Going on 20 years, that's right. Isn't that something?

Storey: The politics of it . . .

Webber: That's true and I . . . although, if you're a dam builder, on the positive side is the fact that there's some Indian issues associated with that to provide water supplies for Indians. And the tribes are very excited about the project. But it has no kindly opposition by the environmental community, so I don't know whether it will happen or not. So even back, that's right, in 78, 79, when I was in Utah, we were wrestling with that same problem. So it takes a long time, if ever.

Storey: And who was your regional director then?

Webber: Well, it ended up being Bill Plummer. Bill Plummer then moved, I believe, from there to Lower Colorado in well after that, 69 or 70. And he has since left the Bureau. He did not retire from the Bureau. It was interesting, Bill Plummer was the assistant regional director in the Denver Region here, and he was appointed

regional director in Salt Lake while I was the assistant regional director in Salt Lake. And then I transferred back over to his old job as assistant regional director here in Denver, so we kind of did a switch. And I was happy to get back to Denver, of course.

Storey: And what were the major issues while you were the assistant regional director, here in Denver?

Webber: Closing offices. Those two I told you about: the McCook, Nebraska, office and Pueblo, the Fryingpan-Arkansas Project office. Those were the big issues, and we probably let them go longer than we should have. But it's tough to do that stuff and, you know, some managers . . . we all enjoy the good things that come with the job. But when it comes to closing out offices, and getting rid of people, we get real soft-hearted, sometimes, so it's hard to do.

Storey: How about dealing with constituents?

Webber: I kind of enjoyed it when I was in the regions. I've been fairly successful and, I believe, I established credibility with the constituents. Well, I came from a farm background. I wasn't like some city kid didn't know how to deal with them. They have very little power in this country now, very little. For example, on the Anderson Power Project, the irrigated agriculture part of that is one of the big things that's being criticized, and those farmers down there that would benefit from that, they can't round up much support other than their local congressman or senator.

A highly visible thing in this country now, however, is the Native American issues, and that project does have a . . . one of the constituencies is an Indian tribe. So and there, in the Native American area, is a challenge for the Bureau, if this administration wants to take it on. The Indian tribes really, in my opinion,

really need assistance in helping them deal with the water resources. And we're doing some of that now, but it's on a fairly small scale. But it's going to need, like I said, not only is the Bureau of Indian Affairs but the Environmental Protection Agency, and the Department of Energy who has hazardous waste. Those areas need our kind of help. Now whether the administration will elect to allow the Bureau to do that is unknown to me.

Storey: Reclamation has traditionally, of course, built dams and delivery systems for the water. But once it's delivered, do we do anything in regards to our constituents about the way they use the water, and those sorts of things?

Webber: Yes, yes, we do. In their contracts, it's pretty much controlled, it's not necessarily a problem, but there's a fair amount of irrigation water that has been changed to municipal and industrial water. And we don't care about that necessarily, that's their business and besides that, we get to repay the project. We get more money from the municipal and industrial water than we do from irrigation water see. So, no, they have . . . our projects, of course, as you know, are to be repaid by the constituents and the beneficiaries of the projects. We're being criticized, because we didn't hold their feet to the fire, maybe hard enough, but historically. But there's a tremendous amount of irrigation water that, when the project was built, that water was allocated to irrigation. And that irrigation is no . . . they may be trying to grow surplus crops, and the market has disappeared for them. But on the other hand, the big cities in California are expanding, for example, and so, they need a lot of M&I [municipal and industrial] water, so and it works out.

Storey: Your career has pretty much paralleled the development of the major environmental concerns in this country. Can you reflect over

---

how that's changed, and what it's meant for Reclamation?

### **Reclamation and the Environment**

Webber: Yeah, yeah, let's see. The word environment never came up until the late 60s and the 70s, mainly because of those values I told you about that started changing. As our tummies got fuller, and the food was cheap, and the power was cheap, we started worrying about endangered species, for example, which on the West Slope in Colorado is a major issue now, and the Columbia River is a major issue. Prior to that, nobody ever worried about it, matter of fact, it's interesting. You probably know that Colorado River squawfish, I believe, the Fish and Wildlife [Service], years ago, used to poison the streams to kill those things. They were trash fish, and we find out that they are an endangered species. And so, what has happened is, we spend a lot of money not designing a project, but doing environmental studies, to see if it will pass all of the tests to be acceptable environmentally. Tremendous amounts of money.

This . . . the Dows Creek Project over on the West Slope, my God! that's what we were doing in the late 70s. We were doing environmental studies then. When I was in Salt Lake, we subsidized, or we gave, I don't remember the amount of money, \$100,000 or something in that order, to the Fish and Wildlife Service to do studies of the endangered species on the Colorado River. Because Fish and Wildlife had an office there in Salt Lake, and I was a party to that first agreement we had. And I think it was a 5-year study, and we were going to I don't remember what maybe \$100,000 or \$200,000 a year, whatever. And at that time, at the end of five years, we'd know everything we needed to know about the endangered species in the Colorado River. I learned just within the

last year, now that was in 1978 that that happened, and last year in 92, what is that, 24 years or 14 years? We're still giving Fish and Wildlife money to study the endangered species in the Colorado River. So it's become a field in itself that we pay the Fish and Wildlife to keep studying the darn thing. And I don't know when they'll ever decide when we've done it enough, but that's indicative of change of our visions in this country. What started out as a study to justify building a dam, which hasn't been built, we're just studying the dickens out of it. Because that's what this country wants to do.

Storey: Well, you've mentioned that change of vision in the country several times. Has Reclamation had a similar change of vision that adjusts to that?

Webber: Oh sure, oh yeah. My gosh, we have, I don't know how many, environmentalists on our project office staffs, our regional staffs, we have whole organizations. Back in 78, we had two people in the Salt Lake office in the Environmental Office. I would guess now, I don't know how many there are, many more than that, plus an entire staff down in southwest Colorado. And in the assistant commissioner for resources management office here, we have, I don't know how many, environmental engineers on the staff. Over in our laboratories, we had a guy named Jim LaBounty was one of our first environmental engineers, and gosh, he has a whole staff over there now. So yeah, I'd say it's made a heck of an impact and we've changed. We have not changed as fast as the environmental community probably would like us to have changed. But we have changed considerably.

Storey: . . . Did you have anything else you wanted to say?

Webber: No, I think I'm about out of gas.

END SIDE 1, TAPE 4. AUGUST 17, 1993.

BEGIN SIDE 2, TAPE 4. AUGUST 17, 1993.

### **Conclusion**

Webber: . . . straightforward and easy to explain. It was started before I came here, but it allows a new engineer to come in here and for the first year or, some of them may go for a year and a half. But I think we try to limit it to a year, a new engineer can go work in whatever office they wished. It usually was a 3-month assignment. And I don't know whether private industry has that or not or whether the Corps of Engineers has it. But it's been tremendously popular. You go and work in an area and . . . like I worked in hydraulics laboratory. My first assignment was 3 months and that's where I decided I didn't want to be a researcher. And then I spent some time in this bunch of whiz kids, the Technical Engineering Analysis group, and I spent some time in the Structural and Architectural group, I worked on the layout of Page, Arizona. And after all that, I elected where I wanted to go to work, which was in that whiz kid group working with Fran Swain on computers. And other engineers do similar things, and I think it's kind of neat. Back in the old days, we always had plenty of work in most every office, and I'm sure that an office hand if he has a lot of work tries to lure the trainees as they come through and say, "Hey, buddy, when you get off of rotation, why don't you come to work here and we'll be good to you," and whatever. But no, I, that's probably one of the most popular things ongoing. It was here when I started, and we still have it.

Storey: Just a few more things. When you look at people who fill management slots and supervisory slots in your organization, what kinds of characteristics are you interested in? From your point of view?

Webber: The ability to deal with people to make decisions. At this level, the division chiefs, which is one level below, spend a vast majority of your time dealing with people problems as opposed to technical problems. The technical experts are usually at the branch chief level, and some of the big branches that are maybe even a little lower than that. That's where they have the technical decisions are made. If it was up the division chief, he spends so much time on paperwork, that how the government runs. And I'm not a big complainer about the paperwork, I think we overdo it, but as a taxpayer, I guess I'm glad we have constraints on us. But yeah, managing people, motivating people, chastising people if they need or if they're not performing properly. Anybody can manage a growing organization where everybody's happy as a lark. You find out what you're made out of when you've got to reduce the size of the organization and you've got to deal with unsatisfactory performance. That's when you find out whether a person's a manager or not. Because it's no big deal to manage an expanding program; you have all the resources you want. You got money and people and the whole thing. You forget about the poor performers, because you're so darn busy getting stuff done. You're having a great time. If all of that work load goes away, you have to start reducing things, that's when you earn your money.

Storey: That's when it gets tough.

Webber: Really gets tough. That's right.

Storey: Well, I think I'm down to one last question. And that is, of the people in your organization, who do you think I ought to be interviewing and talking to for the Oral History Program?

Webber: Oh, gosh.

Storey: I've already picked out Neil Parrett's name, for

sure.

Webber: Neil has a good, short term.

Storey: And I've got Rich Cramer.

Webber: Yeah. Rich is retired now. You know, you need a construction guy, I think. My first love is construction, and if I'd had have been single, I'd have probably stayed on construction. I did a rotation assignment on construction and a training assignment.

Storey: That was the Grand Coulee assignment?

Webber: Yeah, that was the training assignment. Then I was also on Vega Dam on construction with that in western Colorado when I was a rotation engineer. But, construction is very neat and we have a guy here that worked on I believe he worked on Glen Canyon and that's the head of our construction, Bill Fraser. Bill has been around the barn a few times and he knows the business. And he's probably the best construction guy we've got in the Bureau, and we got some good ones. He's a great negotiator to deal with contractors, he's got a lot of good skills, and he's got a lot of experience. So you might want to consider him. Because if you have Parrett, you're going to find out about Neil's strengths and knowledges in the Dam Safety Program, which he has really been the father of pretty much. He's been involved in it nearly since we started, back a number of years ago. So, yeah, Parrett would be good, Bill Fraser would also be good. Research might be good, I've been very proud of the research program. There's so darn many young guys over there. Jim Graham, may be a good candidate for that, in research. Jim has been in research, I think, most of his career. He was out in the region he moved out to the region in the Sacramento office for awhile and ended up coming back to research. Very good.

- Storey: Others? I don't have to limit it to four or five, I can take 10, 20, 30.
- Webber: You need somebody that's been around awhile, and has had a lot of experiences. And those are the ones, there, that have been with the Bureau a long time. We have some other fellows, Steve Markwell who he hasn't been with the Bureau that long, he was with the Corps of Engineers first and then has come with the Bureau. He actually, what he does, but as far as the history of the organization, I think you have . . . those three would be real winners: Jim Graham, and Fraser, and Neil, I think. Neil is kind of a young pup, as far as the Bureau longevity. He was with the Corps of Engineers before and then I believe he went to work for the Bureau in the Washington office. He hasn't been with the Bureau that long but boy, he sure know the Dam Safety Program. He's the father of that program and it's one of the best programs we have.
- Storey: Well, I really appreciate your talking to me. Once again, I'd like to ask you if it's all right to use the tapes and the transcripts for research by the Bureau and by outside researchers.
- Webber: Sure, I thought about that. I made some comments yesterday about the management of the organization, but that's the way I saw it at the time. And so that still stands.
- Storey: That's what we're looking for.
- Webber: And I tried to be honest and candid and my opinion is just that. It's an opinion. So, sure, I think it would be good. I would like to see copies of it, some time.
- Storey: Well, I plan on doing that. It's going to take a little while. As I told you, and at that time, we will ask you to sign a written release, releasing the information so that it can go into the National Archives.

Webber: Sure. Got you.

Storey: I really appreciate it.

Webber: Okay.

Storey: Did you have any comments or anything you'd like to talk about?

Webber: No. I didn't prepare a whole lot for this. I did do a little thinking last night about some additional things to cover. But it's been kind of fun, and like I've been telling the staff here, as I go around saying good-bye to them. You know old men like to tell old stories. And I'm no exception, I enjoy history. And hope to do a little of that with just my own family.

Storey: Well, thank you very much.

Webber: You bet!

END SIDE 2, TAPE 4. AUGUST 17, 1993.  
END OF INTERVIEW.

## Appendix

C:WEBBER.BIO 10/25/89

### BIOGRAPHY

#### DARRELL W. WEBBER

Darrell W. Webber, Assistant Commissioner - Engineering and Research for the Bureau of Reclamation, began his career with Reclamation in 1957. During his tenure with Reclamation he can be credited with overseeing the agency's research program, dam safety program, the accomplishment of all designs and specifications for major features of water projects authorized for construction, the staff expertise on geology, construction, and construction contract administration for Reclamation's five regions in the 17 western states and foreign activities.

Darrell, a native of Kansas, received his bachelor of science degree in civil engineering from the University of Kansas in 1957. He has completed graduate work in engineering mathematics and management from the Universities of Denver and Colorado, Colorado State University, and Colorado School of Mines. Positions he has held with Reclamation throughout the years have been Chief, Engineering Applications Branch, Data Processing; Chief, Division of Data Processing; Assistant Regional Director, Upper Colorado and Lower Missouri Regions; and Regional Director, Southwest Region.

---

**BIOGRAPHY****Darrell W. Webber**

Mr. Webber is the Assistant Commissioner - Engineering and Research for the Bureau of Reclamation, Department of the Interior, located in Denver, Colorado. His responsibilities include the supervision of the agency's research program, dam safety program, the accomplishment of all designs and specifications for major features of water projects authorized for construction, staff expertise on geology, construction, and construction contract administration to the five regions of the Bureau of Reclamation. He is also responsible for policy formulation for design, research, geology, and construction activities of the Bureau of Reclamation.

**EDUCATION**

B.S. in Civil Engineering - University of Kansas - 1957  
Graduate work in engineering mathematics and management - University of Denver, University of Colorado, Colorado State University, and Colorado School of Mines

**CAREER HIGHLIGHTS**

Appointed to the Department of the Interior and Corps of Engineers Technical Committee in 1963 to analyze the Passamaquoddy Tidal Power Project  
Appointed to a Joint Canadian-United States Technical Committee in 1964 to analyze the operation of hydropower facilities on the St. John River. The work resulted in a Canadian-United States technical agreement on operational procedures.  
Appointed in 1966 - Chief, Engineering Applications Branch, Division of Data Processing - Engineering and Research Center, Denver, Colorado  
Appointed in 1972 - Chief, Division of Data Processing, with Bureau-wide technical responsibility for all ADP functions - Engineering and Research Center, Denver, Colorado  
Appointed in 1978 - Assistant Regional Director - Upper Colorado Region, Salt Lake City, Utah  
Appointed in 1979 - Assistant Regional Director - Lower Missouri Region, Denver, Colorado  
Appointed in March 1982 - Regional Director - Southwest Region, Amarillo, Texas  
Appointed in July 1982 - Assistant Commissioner - Engineering and Research - Engineering and Research Center, Denver, Colorado  
February 1983 - Negotiations with Government of Malaysia for technical assistance on water projects  
December 1984/May 1985 - Negotiations with People's Republic of China for technical assistance on Three Gorge Project

**PROFESSIONAL ACTIVITIES****Current:**

Member - American Society of Civil Engineers - Professional Activities Committee, Task Committee on Peer Review in Public Agencies  
 Member - United States Committee on Irrigation and Drainage  
 Member - United States Committee on Large Dams - Executive Committee and Vice President, 1988-89; President, 1989-91  
 Member - National Water Resources Association - Energy Water Users Committee  
 Member - College of Engineering, University of Colorado - Advisory Board for Development of Continuing Education Programs  
 Member - Senior Executives Association, Rocky Mountain Chapter - President 1988-89  
 Member - Reclamation Technical Club  
 Member - Denver Federal Center Professional Engineers Group

**Past:**

Member - Colorado Interagency ADP Council - Director 1974  
 Member - Computer Utilization Committee for the Department of the Interior Information Interchange Program - Chairman 1972  
 Member - Arkansas-White-Red Basins Interagency Committee  
 Member - Rocky Mountain Chapter, The Society for International Development  
 Member - Building Research Board, National Research Council - International Construction Study Committee  
 Member - Basic Engineering Department, Colorado School of Mines - Industrial Advisory Committee

**PAPERS AND LECTURES**

Authored and presented papers in 1958 and 1959 on engineering and scientific computer applications - University of Denver  
 Annual lecturer on use of interactive graphics at the Corps of Engineers Executive Seminar 1971-1976  
 Presented paper at 1975 Annual Convention of American Society of Civil Engineers ("Providing In-house Computer Service") - published in ASCE Technical Bulletin  
 Co-Authored and Presented paper at ASCE Waterpower '85 Conference of American Society of Civil Engineers ("U.S./People's Republic of China Cooperation on the Three Gorge Project")  
 Lectures to school, church, and civil organizations concerning Bureau of Reclamation activities  
 Lectures to American Society of Civil Engineers Members on "Peer Reviews of Public Agencies"

**HONORS**

Selected as a participant in the Bureau of Reclamation's Manager Development Program in 1969, with resulting assignments in Washington, D.C.; Boise, Idaho; the State of Washington; and Denver, Colorado  
 Selected as Department of the Interior participant in Federal Executive Development Program in 1976  
 Received Department of the Interior Meritorious Service Award in 1977  
 Received the Meritorious Presidential Rank Award in 1988

## Retirements . . .



**Name:** Darrell W. Webber  
**Birthplace:** Norton, Kansas  
**Years of Service:** 36 years with the Bureau of Reclamation

**Occupation:** Assistant Commissioner - Engineering and Research

**Career:** Darrell has spent the larger part of his 36-year career at the forefront of computer and engineering technology. His innovations have aided professionals and students not only in the United States, but also around the world. The computer bug bit Darrell when he became the second Bureau of Reclamation engineer to work with an electronic computer (with vacuum tubes). Soon, he became Reclamation's computer guru for solving engineering problems. In the early 1960's, he began the first of many international collaborative efforts when he was appointed to a U.S.-Canadian team to perform a study of Passamaquoddy Tidal Power Project in the Bay of Fundy. Following quickly was a study of the Dickey-Lincoln School Hydro Site on the St. John's River.

1969 was the year Darrell was selected for the Reclamation-wide Training Program for Management, which took him across the country to the Third Powerplant at Grand Coulee Dam, the Pacific Northwest Region, and the Washington Office.

Having demonstrated his adaptability, Darrell took the helm of a new computer division at Denver's Bureau of Reclamation in 1972. His pioneering efforts in the area of computer graphics resulted in his guest-lecturing at MIT and Corps of Engineers for a number of years.

Always on the move, Darrell established a large-scale computer center for Reclamation in 1974. Three years later, he was appointed Assistant Regional Director, Upper Colorado Region. Darrell returned to Denver in 1979 to be Assistant Regional Director in the Lower Missouri Region.

In 1982, Darrell was briefly transferred to Amarillo, Texas, but returned again to Denver to his current position as Assistant Commissioner - Engineering and Research.

For the past 10 years, Darrell has instituted many technological advances. Among them are the design and construction of the largest labyrinth spillway in the world, development and installation of the first clamshell gate, and the first post-tensioning of the blocks of a multicurvature, thin arch dam to withstand earthquake loads. He has developed a video tape library of training aids for dam safety and negotiated technical exchange agreements with Indonesia, Japan, Thailand, India, People's Republic of China, Taiwan, and Malaysia.

**Professional Affiliations:** Darrell has been a member of the American Society of Civil Engineers for 35 years. He is a founding member of the Committee on Peer Review in Public Agencies and chaired the committee from 1990-1991. He chaired the U.S. Committee on Large Dams in 1989-1990 and now serves on the International Commission on Large Dams. Darrell is a member of the U.S. Committee on Irrigation and Drainage and on the Advisory Board for Development of Continuing Education Programs at the University of Colorado.

**Commendations:** Darrell received the Department of the Interior Meritorious Service award in 1977 and the Meritorious Presidential Rank Award in 1988. This year he was the recipient of the prestigious Golden Beaver Award for Engineering.

**Family:** Darrell and his wife, Louise, have two sons, Jeff of Missoula, Montana, and Steve of Denver, Colorado, and four grandchildren.

**Plans:** "I intend to discipline myself and spend my waking hours either working for pay, doing volunteer work, or having fun. If the work goals don't pan out, I will just have fun."

**Quote:** "I have a great store of memories from my years at Reclamation and have derived tremendous satisfaction from the efforts of my colleagues and the projects we have completed together. We are a proud and professional organization which is perceived as the best in the world by our international peers and colleagues. To work and travel in a foreign country with native engineers who have such a special regard for the Bureau is the ultimate privilege. Our efforts and the efforts of those who came before us have gone far towards providing food, energy, and safety from floods for millions in the Western United States and throughout the world. To have been a part of such a humanitarian effort has been a tremendous and gratifying experience."

**Name:** Vernon L. Morten

**Birthplace:** Sioux City, Iowa

**Years of Service:** 13; 2 with USNR; 4-1/2 with OCHAMPUS-DOD, 1-1/2 with FAA-DOT; 4 with Corps of Engineers; Fitzsimons Army Medical Center; 1 with Reclamation

**Education:** BA in history; MA in art from University of Iowa; Scholarship Art Student's League, New York; computer graphics and ACAD, Pickens Tech, Aurora

**Occupation:** Illustrator, Construction Division, Drafting Section

**Career:** Began Government career as illustrator in 1973 at OCHAMPUS-DOD, Fitzsimons Army Medical Center. Worked as engineering draftsman and engineering technician at several agencies. Managed graphics and typography business. Taught graphics.

**Achievements:** Convention booth and exhibition designs; FAA public affairs displays; brochures, reports, and business graphics for various agencies.

**Commendations:** Merit step increase, two on-the-spot awards, and several performance awards

**Interests:** Baseball, graphic arts, and travel

**Family:** Wife—Doris, retired teacher; son—Stephen; and daughter-in-law—Ronda

**Plans:** Move to the mountains, travel during the winter

Please see Retirements pg. 6

**Darrell Webber**

*Contributed by Dick LaFord, Civil Engineering Services Division*

Darrell Webber passed away on April 21, at the age of 75. Darrell had worked 36 years with Reclamation when retired in the fall of 1993.

Darrell began his career with Reclamation at the Engineering and Research Center as a civil engineer in the Canals Branch of the Division of Design in 1957.

Prior to returning to Denver with the E&R Center, as the Assistant Commissioner, Engineering and Research in July of 1982, Darrell was the Regional Director of the Southwest Region.