ORAL HISTORY INTERVIEWS

JERROLD GREGG

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STATUS OF INTERVIEWS:
OPEN FOR RESEARCH

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Interviews Conducted and Edited by:
Brit Allan Storey
Senior Historian
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JERROLD D. GREGG

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Brit Allan Storey

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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.

While we attempt to conform to most standard academic rules of usage (see *The Chicago Manual of Style*), we do not conform to those standards in this interview for individual's titles which then would only be 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." The convention in the Federal government is to capitalize titles always. 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.

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.

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For additional information about Reclamation's history program see:
www.usbr.gov/history

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Oral History Interviews
Jerrold Gregg

Storey: This is Brit Allan Storey, senior historian of the Bureau of Reclamation, interviewing Jerrold Gregg, area manager of the Snake River West Area Office in Boise, Idaho. The interview is taking place in Boise, Idaho on July the 25th, [1995] at about 6:30 in the morning. This is tape one.

Would you tell me where you were born and raised and educated and how you ended up at the Bureau of Reclamation, please.

Early Life

Gregg: Okay. Well, I was born on the boot part of the Crow Creek Indian Reservation, which is about forty miles southeast of Pierre, South Dakota. My grandfather had moved on the reservation in 1921. My father was actually born in a log cabin on the reservation. It's a pretty significant area of the Missouri River where it makes a huge boot. Its mentioned in Lewis and Clark's journals.

I went to a one-room country school from kindergarten through eighth grade. When I started school, there were twenty-one kids in a one-room schoolhouse with a wood stove where we hauled water and had outdoor toilets, same school my father went to. I went to high school in Pierre, South Dakota. After graduating there, I went to college at South Dakota State University and got a degree in agricultural engineering and a commission through the R-O-T-C program as a second lieutenant in the Ordnance Branch of the United States Army. I spent two years and six months on the East Coast, and a year and a half in Colorado Springs.

And as I was getting out of the military, I decided that I wanted to put my ag-engineering degree to use, and I got an offer to work for the Bureau of Reclamation. So I started with the Bureau as a drainage engineer at Redfield, South Dakota, on the Oahe Project. I worked there from 1975 to the fall of 1977, basically drilling holes in the summer and designing drains in the wintertime. That was, of course, during the controversy over the Oahe Project.[1] From there, I transferred to Bismarck, North Dakota. Do you want me to just keep going?

1. A unit of the Pick-Sloan Missouri Basin Program, the Oahe Unit proposed transferring water from the Missouri River to the James River basin in central and northeastern South Dakota to irrigate 495,000 acres. In 1976 the Carter "hit list" targeted the project for elimination due to high costs and environmental concerns. The only feature of the Oahe Project completed is the James River Diversion Dam that supplies supplemental water for the community of Huron, South Dakota. For more information, see Adam R. Eastman, "James Diversion Dam: A Feature of the Oahe Unit Pick-Sloan Missouri Basin Program," 2013, www.usbr.gov/history/projhist.html.

Storey: Sure.

Gregg: In the fall of 1977, I transferred to Bismarck, North Dakota, as an O&M engineer in the Operations and Maintenance Branch. I worked in that position for about a year, year and a half, and then was transferred to the I-M-S Section, Irrigation Management Services Section until about spring of 1980. I was at Bismarck since '77, worked in O&M reservoir operations, crop studies, did some planning studies.

From then, 1980, I was promoted to chief of Water Operations at Casper, Wyoming. So my family and I transferred to Casper, Wyoming, the spring of 1980, during one of the big blizzards that they normally have in Casper in the spring. I spent the next three years there as head of water operations, which was pretty complex in the Platte [River] managing the reservoirs, scheduling power, trying to divide the water between Wyoming, Nebraska, and Colorado.

In the fall of 1983, I moved to Socorro, New Mexico, as chief of the Socorro Field Branch, which was a consolidated O&M Branch. I did O&M construction and O&M on the Rio Grande from Platoro, Colorado, clear down to Elephant Butte [Dam] in New Mexico. There were about sixty folks in the office. My boss was Charlie Calhoun, who was the project manager at Middle Rio Grande Project.[2] The project office was in Albuquerque.

In December of 1980 I was hired as the project superintendent for the Central Snake Project Office, which was here in Boise, Idaho, which was a consolidated project office of about seven different projects, the Boise Project by far being the largest.[3] Then in April of '94, I was made area manager of essentially of the Central Snake Project Office in Minidoka Project Office. The two offices were combined to the Snake River area.

Storey: Been here ever since?

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2. Charles A. Calhoun had a long and distinguished career with the Bureau of Reclamation, becoming Upper Colorado Regional Director in 1994 until 2000. Mr. Calhoun also participated in Reclamation's oral history program, see Charles, (Charley) A. Calhoun, *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 2009, in Salt Lake City, Utah, and Denver, Colorado, edited by Brit Allan Storey, 2010, www.usbr.gov/history/oralhist.html.

3. The Boise Project furnishes irrigation water to roughly 225,000 acres of project lands and 165,000 acres under special and Warren Act contracts in southwestern Idaho and eastern Oregon. The project consists of five storage dams, two diversion dams, three powerplants, 721 miles of canals, and seven pumping plants. For more information, see Wm. Joe Simonds, "The Boise Project," originally published 1997, reedited and published 2009, www.usbr.gov/history/projhist.html.

Gregg: Been here ever since, yes.

Storey: Tell me why your granddad and dad were on the Crow Indian Reservation. Excuse me. First question. When were you born?

Gregg: I was born October 24, 1950.

Storey: 1950. Okay. Now, why were they on the Crow Creek Indian Reservation?

Growing Up on the Crow Creek Indian Reservation

Gregg: It was a pretty large reservation with a small number of Native Americans. In the twenties, the government actually opened up some land for settlement, and my grandfather bought some land and then also leased a lot of government land, which is typical of some of the reservations. Its called the Allotment Act.[4] So my grandfather and his older brother had purchased some ranching land and then for years leased land that was not occupied.

Storey: So you were raised on a ranch?

Gregg: I was raised on a ranch, yes. In fact, my brothers are still there. Both my brothers are still on the ranch.

Storey: Any irrigation on your ranch?

Gregg: Yes. When the [U.S. Army] Corps of Engineers and the Bureau built the Pick-Sloan Project, of course they dammed up most of the Missouri, Big Bend Dam flooded most of my grandfather's ranch, created Lake Sharp, and that was completed in about–Lake Sharp was built in 1962. My father and some of the neighbors started irrigating in the mid-1960s, pumping out of the lake and using tow-line sprinklers or center pivots. So now it's a combination ranch/farming operation. But when I was in high school, yes, we had just started irrigating.

Storey: And were you aware of the Bureau of Reclamation in those days?

Gregg: Not when I was in high school. It was kind of ironic, they were planning the Oahe Project, which was a pretty huge project. From where we lived, though, that was a

4. Approved on February 8, 1887, the General allotment Act, or the Dawes Act, allowed the president to break up some Indian Reservations into 160 acre sections and allot them to individual tribal members. For more information, see Our Documents, "Dawes Act (1887)," www.ourdocuments.gov (Accessed January 1915).

couple hundred miles away, we were quite aware of the Corps of Engineers because, of course, the dam–you know, we lived right on the Missouri River itself. I didn't really become aware of the Bureau of Reclamation until I got into college. Of course, South Dakota State is a land-grant college. The Ag-Engineering Department and Civil Engineering Department were doing quite a bit of work for the Bureau, doing drainage work, crop use studies, and so I became aware of the Bureau in college. When I went to Redfield, South Dakota, there was about six folks there and half of them were graduates of South Dakota State. So there was a pretty close tie there between Reclamation employees and the university.

Storey: Redfield was your first job?

Gregg: Yes. That was the field office. The project office wasn't here.

One-Room School House

Storey: Tell me more about your one-room school before we get too far away from this. Did this have Indian kids as well as Anglo kids in it?

Gregg: Yes. When I started first grade, I think there were four Caucasians and the rest were Native American. It was traditionally what–it was a pretty unique situation getting to go to a one-room school that probably most people in the fifties wouldn't have had that chance, but because it was on the reservation and the area was pretty poor, it was probably a room twenty-five feet by twenty-five feet.

When I started, it had a wood stove; we hauled water; it had outdoor privies. There was still a barn on the school grounds. Before my time, kids had rode their horses to school. Of course, when I grew up, we didn't. The parents drove the children to school, but we took turns hauling water. When I first started school, we had the traditional old wood desks that come in halves and they folded up, and when I was about a second grader, we got modern desks. They hired a rural country teacher. She lived on one of the ranches nearby, and you had kindergarten through eighth grade. At that time the schools in South Dakota had not been consolidated, so you had a lot of rural country schools. They had separate superintendent for the rural schools.

Storey: When you say the desks were two parts, you mean that the desk part was on a metal stand with the seat for the person in front attached to the front?

Gregg: Yes.

Storey: And then your seat was attached to the desk behind?

Gregg: Yes. When I started, that's the type of desks they had.

Storey: How did they teach in a one-room schoolhouse? How could you learn anything? It seems so–

Gregg: Its kind of funny. My wife's a first-grade teacher at Garfield down here on Broadway. Teaching methods are sort of going back to that, because what you've done is the teacher talked to groups of children–she taught math–and probably involved first through third graders and, of course, the third graders done a little bit harder work than the first graders, but it was team teaching. And so the older kids helped the younger kids. So all the subjects were handled that way. You had reading where the teacher read to the whole class. So actually the whole class was involved in all of the subjects. She just had to make sure she assigned the work and the older students got a higher level, you know, a more intense type lesson.

But actually, when I was in the fifth through eighth grade, except for not having the ability to take algebra, the country students' schools on the average done better than kids in town, consistently, which is a sad fact, because then they consolidated all the country schools into larger schools.

Now when I started, like I said, there were twenty-one kids in one room, and that was a little bit much. But by the time I got to the eighth grade, there was eight of us remaining. As the ranches and the farms got larger, then, of course, less children. When I started, there was a school in each township. Each township had its own schoolhouse. So they were probably ten miles apart. Then in the sixties they consolidated them into, first, larger country schools and then finally now most kids are bused forty or fifty miles into a nearby town. Where we lived, we were fifty miles from town, so we didn't get in–and town was Pierre, which was the capital, a town of about 10,000 people. Half of the roads were gravel, and so it was a half a day's endeavor just to get to town.

Storey: So how did you get to high school?

Gregg: The first year my mother rented an apartment. I had a cousin my age, so my mom rented an apartment and we went in on Sunday and stayed there until Friday and then we'd come back to the ranch. Next year my aunt rented an apartment and did the same thing. And so most of the country kids there, the folks would get an apartment or house in town and then board out.

Storey: You mentioned that your brothers are still on the ranch.

Gregg: Yes.

Storey: Why did you decide to leave?

Joining Reclamation

Gregg: I was drafted when I was a sophomore in college, and so I decided to go through the R-O-T-C program. After I went through college, the ranch wasn't big enough for three of us, and I really was interested in doing other things, and so that's when I decided to go to work for the Bureau.

Storey: Yes. Did you apply to anybody else besides Reclamation?

Gregg: I applied to Rainbird, the irrigation company that makes the Rainbird sprinklers. A position that I applied for came up before I could get out of the Army. The time I got the offer with Reclamation, I had an offer with the V-A [Veterans Affairs], and really there were only those three folks. I was lucky enough to get on with Reclamation right away as an entry-level engineer.

Storey: Had you learned about Reclamation in college?

Gregg: Not a lot. I mean, I knew that they were building, of course, the Oahe Project and the Garrison Project,[5] but really didn't know very much about the organization, not until I got in to
Huron.

Storey: Let's see. You said you were at Colorado Springs. I presume Fort Carson?

Gregg: Yes, Fort Carson.

Storey: What were you doing there?

5. The Garrison Unit proposed to divert water from Lake Sakakawea, formed by Garrison Dam, a Corps of Engineers structure, on the Missouri River, to irrigate almost one million acres in east-central North Dakota. Similar to the Oahe Project, the Carter "hit list" targeted the Garrison Unit for elimination. For more information, see Wm. Joe Simonds, "Jamestown Dam and Reservoir Unit Garrison Diversion Unit Pick-Sloan Missouri Basin Program," 1996, www.usbr.gov/history/projhist.html.

Gregg: I was an ordnance officer in the Fourth Mechanized Infantry Division. I was in a maintenance battalion, and our job was to repair all the heavy equipment, so I got a lot of experience in large equipment, tanks, preparing tanks, and A-P-Cs. I was both in the maintenance and the–[supply]

Storey: The A-P-C is–

Gregg: Armored personnel carriers, all the large track-type vehicles and trucks and jeeps. I was both involved in maintenance and the procurement side, ordering parts and engines and stuff like that.

Storey: And then you went off to Redfield, South Dakota?

Redfield Field Office

Gregg: Yes. Of course, Redfield was about 120 miles from where I grew up. Its kind of like going back home. We had our first child at Redfield, my wife and I. I got married when I had one semester to go in college there at South Dakota State. My wife finished her junior year. She got her speech pathology degree while we were in Fort Carson. She commuted to Pueblo and got her degree, and then we went back to Redfield, where our first child was born.

Storey: Pueblo to Southern Colorado–

Gregg: Yes. Southern Colorado University, Southern Colorado College then.

Storey: And what were you doing in Redfield?

Gregg: I was hired as a drainage engineer. Part of the Oahe Project, of course, was to bring water from the Missouri River over to the James River Valley, and initially irrigate about 200,000 acres. Real heavy soils over there. If the project would have been built, soils wouldn't have naturally drained, and so we were doing investigations and designing the huge complex of underground drains, plastic drains, four-to six-to eight-inch drains.

And so like I said, in the summertime we were split up into crews of drainage engineer and a technician, and we would actually go out into the farmers' fields and drill, oh, twenty to twenty-five feet down and classify all the soils, log it, sometimes do some permeability tests to see how porous the soil was. In the wintertime, we would actually come back into the office and actually design the drains, and we would design the section of drain, and every so often the chief of drainage out of Denver would come

check our work. That was Ray Winger, who is quite a character, if you've ever had the chance of meeting Ray or talking to him.

Storey: No, I haven't.

Gregg: And that was in the old days in Reclamation when we had a chief engineer, chief of drainage, head of construction.

Storey: Tell me more about Mr. Winger.

Drainage Works

Gregg: I'm not an expert on drainage, but I heard most of the methods were developed in Holland when they expanded their land base and built the dikes and, of course, built the windmills to actually pump the water out of the land so they could farm it, and that's the static type of drainage design. Works pretty well in a very humid-type situations.

Of course, Reclamation works in the West. Reclamation builds large irrigation projects where you have large continuous blocks of land, and so the drainage methods that we use are somewhat unique to other agencies in other parts of the world. Ray Winger, when he first started his career, was involved with some other folks by the name of Maierhofer, and I can't think of the other folks that actually developed the mathematical formulas for our drainage models. Maierhofer was in Denver. Part of their research was done on the Oahe Project and the glacial till areas. They call them glacial tills because about 100,000 years ago, a glacier come through there and totally mixed all the soils up.

So they had developed these models, and, of course, now we have on computers, that are very dynamic mathematical models. Our drainage model tries to simulate the rising and falling of the water table. I don't know how that works; its pretty complicated. A lot more complicated than the S-C-S's methods[6].

Ray had spent some time in the field and then ended up in Denver and ended up as a chief drainage engineer. He was responsible for the technical standards and making sure that all the drains were installed to the Bureau's methods. He was an excellent engineer, but also more or less, like a lot of folks back in those days, was pretty autocratic and ruled with an iron hand. You done it his way or you didn't do it at all. He was really a neat person to work with, but it was kind of exciting for me coming in as a new engineer and you had somebody here that would fly out all the way from Denver to

6. SCS is an employee-owned environmental engineering and construction firm.

sit down and review your work, telling what you did right and what you did wrong, and willing to argue with you if he didn't think you were doing it right.

Reclamation's Engineering Expertise

That was one of the things that struck me about Reclamation was that when I started at Redfield, I was put on a rotation program and Reclamation had developed a way to do almost everything. It amazed me when I went to planning, that there was a Reclamation way to fold maps, and that's the way you done it. You didn't fold it any other way; there was the Reclamation way to fold a map. And I think over Reclamation's history, it was the first company or organization to build large-scale irrigation projects, and I think in the early days a lot of things were developed by excellent engineers and staff. They pioneered a lot of different designs and methods, and so a lot of the methods that we have brought forward are home-grown, and I don't think you find that in too many other institutions.

Even you go to our dams, you will see gates and valves that are unique to Reclamation, there is no other organization. I mentioned the drainage models we used are unique to us. I think some of the soil classification methods we use are unique to us. I really think that permeates the organization. If you look at our processes or designs, most of them were developed within Reclamation and passed on from one set of employees to the next.

Storey: And in the process they just become standard.

Gregg: They become standard. You look at this project office here, several of the commissioners started here as engineers on jobs and become project superintendent, went on to different jobs. Some of the first regional directors came from this office, started the first region here in Boise in 1937, that was R. J. Newell.[7]

Storey: Newell?

Gregg: Newell, yes.

Storey: Yes. But not any relation to Frederick Newell,[8] I think?

Gregg: I'm not sure. I don't think so. I don't know. I'd be curious–

7. The Pacific Northwest Region was created in 1943 and headquartered in Boise, Idaho. Robert J. Newell became the region's first regional director and served in that position until 1949.
8. Frederick Haynes Newell was Reclamation's first chief engineer and then Reclamation Service Director.

Storey: Yes. We'd have to look it up to figure–

Gregg: Gil [Gilbert G.] Stamm started here as a project manager and ended up as commissioner. [Harry W.] Bashore worked as construction engineer on the Owyhee Project, was commissioner.[9] So a lot of your folks that started in the field ended up in management positions, and I think they institutionalized a lot of those methods and procedures that they had developed. That's my guess.

Storey: Tell me about the Reclamation way of folding maps.

Gregg: I don't know if I can even remember, but I know that just stuck in my mind of someone in planning. The head of planning was here and sitting down and explaining to me that this is how they wanted the maps folded, so that the legend was on the outside and it was so many inches wide and so many inches tall, and so when you had to fit in a report, it fit in just a certain way.

Storey: Do you remember who that person was?

Gregg: I can picture him, but I can't remember his name. At that time, the Oahe Project, at that time, had over 300 employees. That was before WAPA [Western Area Power Administration]. That's when they had the power transmission and the power marketing. Both the Bismarck and the Oahe Projects had about 300 employees. They were huge offices.

Storey: But you mentioned the Oahe Project was never really built? Did I hear that correctly?

Carter's "hit list"

Gregg: No. When President [Jimmy] Carter become president, that was one of them that had a lot of controversy with Fish and Wildlife because of the potential damage to the wetlands, or perceived damage. It was one of those on the hit list, and so it didn't get funded.[10] Actually what was built was part of the pumping plant that was tied into the

9. Gilbert G. Stamm was commissioner of the Bureau of Reclamation under the Gerald Ford administration from 1973 to 1977. Harry W. Bashore was commissioner of the Bureau of Reclamation under the Franklin D. Roosevelt administration from 1943 to 1945.

10. Jimmy Carter served as President of the United States from 1977 until 1981. After his election in 1976, within a few weeks of the beginning of the administration, an internal discussion document accidently fell into the hands of a reporter. The document proposed cancellation of a number of water projects considered environmentally or economically unsound. This proposal came to be known as Jimmy Carter's "hit list." This happened while Commissioner Daniel P. Beard worked in the Carter administration, and he discussed his perspective on the issue in

(continued...)

Oahe Dam. Part of the canal, part of the Blunt Reservoir and then the project was stopped, and now its essentially in mothball.

Storey: We don't deliver water?

Gregg: No. We never delivered a drop of water. Garrison, on the other hand, was probably, from the initial phase, was probably a quarter of the way done: Lake Sakakawea built, pumping plants built, and McClusky Canal. They are delivering small amounts of irrigation water, but mainly both projects have turned into rural water supply systems, which is a big benefit.

Storey: You were there for about two years, right?

Gregg: Three years.

Storey: '75, '76, and '77, yes.

Gregg: Yes. I was there when it was very controversial. The farmers and the environmentalists were essentially at each other's throats. The project was very controversial.

Storey: Did we ever actually build drainage systems?

Gregg: We actually built some test ones, but we never built the ones that I was working on. That would have come after some of the irrigation development.

Storey: You mentioned that you went as deeply as twenty-five feet. Would drainage systems actually be placed that deep?

Gregg: No, but most of the drains would have been between six and eight feet, but you needed to find out where the soil lens became so impermeable the water wouldn't go any lower. So that was what we were trying to find out.

Storey: So you were looking for that.

Gregg: Yes. You were trying to find out how permeable the soil was all the way down to about twenty to twenty-five feet.

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10. (...continued)
his Reclamation oral history interviews and in "The Passage of the Central Valley Project Improvement Act, 1991-1992: The Role of George Miller," an Oral History interview by Malca Chall, 1996 for the Regional Oral History Office, Bancroft Library, University of California.

Storey: Tell me about your rotation program.

Engineer Rotation Program

Gregg: Of course, back then, funding from Reclamation, I think vacillated widely from freezes to RIFs [Reduction in Force]. So I came in right after the Army in '73. It wasn't a rotation program where a lot of the folks went to the regional office, you went to Denver. My rotation program was essentially during the summertime when we weren't doing the drilling. During the wintertime, I would go down to the project office and work in different sections.

Storey: The project office–

Gregg: In here. I got to be on the survey crew in January. We would go out and survey the James River in January. I remember having to chop through the ice, which is thirty-six inches deep, so that we could take depths off the James River. They were surveying up and down the James River to look at whether they needed to channelize or not. So I spent a month with the surveyors out there in South Dakota in January. It got to twenty to thirty below.

I spent time in planning, engineering. Jerry Brunskill [phonetic] was the chief of drainage in Huron. He had worked for Reclamation and then quit and run a John Deere dealership in Murdo, South Dakota, and after the project office was closed down in the early eighties, he went back and runs a ranch in Murdo. My boss in Redfield was Rod Tekrony who is now head of drainage in that part [Denver Office]. One of the construction folks I worked for was Lynn–I can't think of his name. He just retired as a construction engineer out of Alamosa. Most all of the other folks retired.

Garrison and Oahe Project Offices Unique to Reclamation

The Oahe Project and Garrison was, I think, unique in Reclamation at that time. There were homegrown offices. Not a lot of people wanted to transfer there from other parts of the Reclamation. A lot of the folks, like Oahe Project, a lot of folks come from the South Dakota schools and went to Bismarck. Most of the folks come from North Dakota State, the university. So they were somewhat ingrown offices.

Storey: And when they were disbanded, then–

Gregg: Well, the Oahe was. They kept a few people up here [at Pierre] for a long time. I think they still have one person. But the Huron office was closed and the Redfield office was

closed. Of course, in Garrison they still have folks in Bismarck, I think folks in McCloskey.

Storey: A couple hundred, I think maybe, in Bismarck now.

Gregg: Now, of course, they have combined both states into the Dakota Area Office.

Storey: Do people tend to retire?

END SIDE 1, TAPE 1. JULY 25, 1995.
BEGIN SIDE 2, TAPE 1. JULY 25, 1995.

Storey: I had just asked you whether you had a sense of whether people retired when these offices were closed down, or what.

Moved to the Bismark Office to Get Operation and Maintenance Experience

Gregg: I think that a lot of people that were eligible retired. Construction folks who tended to be more mobile, of course, moved on to other projects. When I left, of course, the project wasn't being closed down. I decided that I wanted to get some other experience in Reclamation, and so I had decided to lateral up to the Bismarck Office to get some O&M experience. So the office actually phased out, it was five, six years later. I believe a lot of the, like I said, the folks that could retire did, or took the early out. Construction folks moved on, and that was the same time that Department of Energy was created, and so the power and the transmission sections and the contracting folks went over to WAPA.[11] So they stayed there in Huron and in Watertown.

Storey: And that was in '77?

Gregg: Yes. That was in '77. So that took probably 40 percent of the office. They took a lot of Reclamation folks, when that happened all over Bureau, they took a lot of Reclamation folks with them.

Storey: Yes. But you didn't consider going?

Gregg: Well, at that time I was in Bismarck in O&M. Backing up a little bit, both under the Oahe Project and Garrison, there were some small O&M projects that had been built and they were operating in Oahe. We'd built some small M&I dams on the James River,

11. In 1977 Congress created the Department of Energy, and one result of the legislation was the transferring of power marketing from Reclamation powerplants to the Western Area Power Administration.

operated Shadehill in the northwestern part of the state. Had some small reservoirs in the Black Hills. And in North Dakota it was the same way. We had three reservoirs, the Jamestown Reservoir, Dickinson in western North Dakota, and Heart Butte in western North Dakota.

So I was in O&M, which was a pretty stable part of the Bureau at that time, and that wasn't involved in the Garrison controversy. We were operating and maintaining dams and small irrigation projects, and I was involved to a small extent on finishing up some of the reports, I-J-C reports, International Joint Commission, since Garrison. Some of the return flow went into Canada. We had these big joint studies. And I was involved just on a small portion of that.

Storey: What kind of O&M projects did you typically have?

Gregg: The Heart Butte, the dam I think that holds a couple hundred-thousand acres that delivered water down the Heart Butte River. It was a couple, I don't know, five or six thousand acres of irrigated land. So we operated the reservoir for irrigation [and] flood control. There was recreation around the reservoir. Dickinson was a municipal reservoir water supply for the city of Dickinson. The Jamestown Dam, I think that held three or four hundred thousand [acre feet of water].

So the O&M shop, it was kind of a neat experience because you got to wear many hats. So we had a few field maintenance people that had done the maintenance under your direction. They got to do the reservoir forecasting. We went out and actually measured the snow, computed the inflow. We coordinated the Review of Maintenance with Denver and the Regional Office, received Safety of Dams inspections. We had also a lot of cooperative studies going on with the universities who were planning for eventually building the Garrison Project, so we had a lot of cooperative farms where the university was doing studies for us on crop use and how much water it took, and were responsible for working with the professors and the contracts to do that.

Storey: So we actually provided money for them to do this for us?

Gregg: Oh, yes.

Storey: Was that a lot of money? Do you remember?

Gregg: I think in the forties, fifties, maybe in the fifties, sixties and seventies, yes, that was a lot. Of course, both the Garrison and the Oahe were billion-dollar projects.

Storey: I've forgotten what the term is for the number of acre feet you apply to an acre for crops.

Gregg: The duty of water?

Storey: Yes, the duty of water. So they were under contact determining the duty of water for the potential areas on the Garrison Project?

Water Studies for Oahe and Garrison Projects

Gregg: Well, both the Oahe and the Garrison, they were doing studies of how much water it would take to grow a quarter-section of corn or alfalfa, wheat. So then our planners could say, "All right, if this is what the crop needs," then they'd figure out what the losses of the system would be so then they could design. It was very critical to have that information so that you could design your canals and drains and laterals, because the larger you make them, and if you overdesign, it becomes extremely expensive.

So actually, Reclamation, I think, pioneered a lot of different consumptive-use studies with the universities. At North Dakota we were working with Dr. Jensen. The Jensen-Haise Formula is used all over the world today, computing crop consumptive use. So we were spending a considerable amount of money with the universities on how much water does a crop need, and new drainage methods. Now, the dollar numbers I don't know. We had co-op farms all over eastern South Dakota and eastern North Dakota, and also S-C-S was tied into those operations. It just wasn't Reclamation.

Storey: How was S-C-S involved? Were they providing money? Were they just cooperating?

Gregg: The theory was that Reclamation would build the canals and drains and provide the water to the farm and then S-C-S needed to work with farmers to design the most efficient delivery system on the farms. Of course, they had a separate source of funding, but we were to take the water so far and then S-C-S was to help the farmers on the farm, and then when it got off the farmer's field and back into the drains, then we picked up responsibility again. Extension Service, of course, did then, and as of today, provided money for research for different crops and harvesting methods. We had a pretty good networks back then with all those agencies.

Storey: Any of the other agencies that we worked closely with like that? I know there's S-C-S. What about A-S-C-S [Agricultural Stabilization and Conservation Service]?

Gregg: In the jobs that I had, I wasn't involved in that. They probably did, but not that I was aware of.

Storey: What kind of water losses did we have in conveying water? Do you remember anything about that?

Estimating Water Loses

Gregg: I think back when I was working on a little bit of the planning on the Garrison Project, I think we were figuring 25 percent loss was optimal. Of course, you know today it would have been–they were trying to get 25 to 30 percent, no more than that type of losses. So they were talking about having the canal systems automated, automated radio gauge, automated check system, [unclear] to the ponds to capture the waste water, line canals, to get to that 25 percent.

Storey: Did they ever get there?

Gregg: Well, they only built part of the system. I think they would have. I think they would have gotten very close. It would have been a state-of-the-art project.

Storey: Now we're talking about Oahe and Garrison again, right?

Gregg: Yes. Both of them were being designed to be automated. They said the canal's line were–in southern Idaho system we have projects, some of the best get close to 30 to 35 percent, we have some that lose 50 to 60 percent of water.

Storey: When you were in O&M dealing with existing projects like Heart Butte, did duty of water and any of those kinds of issues still play in or is that something you determine at the beginning and then its done?

Gregg: Those were projects where the irrigation was a small function–not a small, but there wasn't enough irrigated land to–they were supplemental supply and so there was a small amount of irrigated land associated with all of those projects, and so essentially every year made wise use of your water. They really didn't have enough control of the land base to get into that because in Heart Butte they were serving water to individual ranchers up and down the river. And so if you had a good water supply, you tried to manage the flood and then provide them with waters through the growing season. You released it down the river, commingled it.

Storey: With native water, what did they call it in those–

Gregg: Natural flow.

Storey: Natural flow, okay.

Gregg: So you mix your storage water to meet their needs that summer and you didn't have a lot of control. Compare that to the Garrison Project, we'd had huge blocks of land and we'd have canals and laterals. Essentially your full supply would have come out of the canals, it would have been more critical. I think Heart Butte and Dickinson were built during the thirties.[12] I don't know if they were W-P-A [Works Progress Administration] projects, but they were built during that era.

Storey: I guess I need to ask my question in a little bit different way. When you were working in O&M, did you have construction projects? What kinds of activities were you involved in?

O&M Activities

Gregg: When I was at Garrison, of course, O&M was a very small part of the office. We maintained, like I said, three dams. We had maintained the McClusky Canal and the Sacajawea Pumping Plant that had been built. The big part of the office was construction, actually building features of the Garrison Project and planning. So we were a very small part of the operation. The only construction type we would have done would have been involved with was the Safety of Dams Emergency Spillway construction of the Dickinson, or replacing the valve at one of the dams, it was O&M-type work.

Storey: That's what I am trying to get at. What is O&M-type work?

Gregg: Well, to take Heart Butte, for example, we had a dam tender there. We had two maintenance folks at McClusky. They were about two hundred miles apart, so during the year to schedule of when we would go into the dam and on a periodic basis check the oil levels in the hydraulic systems, replace broken pipes, do painting. If there was any valves to be replaced, you ordered the materials, scheduled the work, had the dam tender take brush off the dams, or sprayed weeds. We actually measured the snow, computed how much inflow was going to come into the dam so we could predict the flood control,

12. Dickenson Dam is the primary feature of the Dickenson Unit of the Pick-Sloan Missouri Basin Program. Constructed in 1950, the dam is an earthfill structure across the Heart River in North Dakota, supplying irrigation water to 400 acres and a municipal water to the city of Dickenson. For more information, see Toni Rae Linenburger, "The Dickenson Unit, Heart Division, Pick-Sloan Missouri Basin Program," 1996, www.usbr.gov/history/projhist.html. Built in 1950 as part of the Pick-Sloan Missouri Basin Program, Heart Butte Dam is an earthfill structure on the Heart River in North Dakota. The dam provides irrigation water to 4,224 acres in Grant County near the city of Glen Ullin. For more information, see Wm. Joe Simonds, "The Heart Butte Unit, Heart Division, Pick-Sloan Missouri Basin Program," 1996, www.usbr.gov/history/projhist.html.

how much water we'd have to release for flood control, coordinated with the Corps of Engineers. There were recreation sites that in the summertime we had to schedule our maintenance people to do that type of work. When I was at Jamestown, we had to cover the outlet valves in the wintertime with tarps so that the gates didn't freeze shut, and I fell off a thirty-foot ladder and broke my hip a few days before Thanksgiving in 1977. So it was that type of work. Painting, sandblasting, repairing components.

Storey: You were in the Bismarck Office. Were you scheduling O&M or were you actually participating in the O&M work? Obviously, part of the time you were, otherwise you wouldn't have been up on the ladder.

Gregg: Most of the time it was scheduling, but it was a lot of field work, I mean to go out to the site and to determine what work needed to be done at the dams and then scheduling that with the maintenance people.

Storey: What about on canals? What kind of O&M work is done on canals?

Gregg: I didn't really get involved in much of that until I got to the Casper Project, essentially, and even there, all of that had been turned over to the districts. But we maintained the weeds, or the algae in the summertime, which would restrict the water flow, using mechanical methods, either chains or chemicals. Reshaping areas where you have erosion. Going back in and lining areas where you're losing a lot of water, grading the roads, repairing the check structures because in canals you have to check up the water surface at certain heights to get the water off the turnouts.

Storey: And you put these check structures in the canals in order to increase the water height.

Gregg: Right. All the old ones, in fact, you see a lot of them in the Boise areas, actually you could put two-by-four boards in, and that's where they get the words "check structure," put two-by-four boards in, raises the water surface that goes out your turnout. So its concrete work on your turnouts, or division boxes, replacing the wooden check boards. In the fall, the districts usually go in and clean out the areas that have filled in with sediment. Reshaped the sides.

Storey: Who was your supervisor in Bismarck?

Supervisors in the Bismark Office

Gregg: The person who hired me, his name was Al Stanke. He was the chief of O&M, started on the project in the forties. That was his first job out of college and he retired there

after I'd been there a couple of years. He was a graduate of, I think, North Dakota State. Then I went to work directly for–when I went to I-M-S for the division chief, who was Jack Knoll, started out there and went to, I think, Grand Junction Office for a while, spent a lot of years in Washington, D.C., and had come back there and he worked there until about two years ago. He was an excellent supervisor.

Storey: How did you spell his name?

Gregg: Knoll. K-N-O-L-L. I think he worked for Reclamation for forty years. John Knoll.

Storey: John. And so he's retired up in Bismarck now?

Gregg: He's retired up in Bismarck. He spent the majority of his career on the Garrison Project.

Storey: Who was the project manager?

Gregg: When I first went there, Warren Jamison had just been hired. The project manager before him had been there a long time and retired, and Warren came from Grand Coulee.

Storey: What was he like?

Gregg: Warren was, I don't know if you know Warren, but he was very intelligent, very nice, very dynamic. He got involved in a lot of the politics. When the Carter administration was trying to shut the project down and because of the–he didn't come from Grand Coulee, I'm sorry, he come from somewhere in Colorado, I think. Warren was a North Dakota native, felt very strongly about the project. Got involved in some of the politics and stood up for the project, and because of that he was moved. He went from there to become a manager of Grand Coulee. From there, got an S-E-S [Senior Executive Service] assignment with Southern Area Power and worked for WAPA, retired, and now he is general manager of the Garrison Conservancy District.

Storey: Back in Bismarck.

Gregg: Back in Bismarck, yes, trying to promote finishing the project. He works for the irrigation district.

Storey: Yes, and his last name again?

Gregg: Jamison. J-A-M-I-S-O-N. Warren Jamison. Back then the project manager at Bismarck and in Oahe were GS-15s, which was pretty rare. You had an assistant project manager

that was a 14, and the project manager was a 15, but since those were such large projects–I think Warren was pretty young when he got that job, about early forties.

Storey: And then he went on to Grand Coulee. I guess it wouldn't be considered a demotion particularly. (laughter)

Gregg: No. But he was very dynamic, very intelligent.

Storey: Good to work with, I take it.

Gregg: Yes. He worked folks very hard. I mean, when I got there, they had been working on the water quality studies, the I-J-C [International Joint Commission] reports, and people had been working very hard for a long time.

I remember one time–I lived in Mandan which was across the river [from Bismark], a railroad town of about 20,000 people, so I commuted with an engineer, Norm Roth was his name. So we were about ten miles from our office. And one day it was a typical blizzard in Bismarck and we hadn't listened to the radio report. We had a pickup and had chains on it and we made it to work. But when we got to work, we found out that the sheriff was on the radio warning people to stay off the roads, schools had been closed, he was closing the interstate, he was closing the roads because it was so dangerous. Now, that's extremely unusual in Bismarck because they're used to blizzards, they're used to snow and it has to be pretty bad.

Warren needed some type of planning report out, so he asked us in O&M to go down and get the drainage trucks, chain them up, and we went around and picked up all the planning folks and brought them to work that day so they could get whatever this report was out. That stuck with me most of my life. But Warren come in, he saw that the O&M folks were there, and he needed this report, and he says, "Well, if the O&M folks can get here, the planning folks can get here." So we went around door to door and picked folks up and brought them to work. The drainage trucks were the Dodge power wagons, three-quarter ton with big, huge twenty-inch knobby tires, or eighteen-inch. So we were the only ones out on the streets driving around.

Storey: Went and got 'em.

Gregg: Went and got 'em.

Storey: You don't remember what the report was?

Gregg: It was one of the–no, it was one of the reports for the Joint Commission, like I said, the United States and Canada, or something.

Storey: You were not the head of O&M when you were in Bismarck there.

Gregg: No, no. I was just a journeyman engineer.

Storey: Did you mention to me who the head is?

Gregg: Al Stanke.

Storey: Al Stanke. Yes, you did mention him.

Gregg: He was at that time chief of O&M. And after I left, one of my counterparts, a good friend of mine, Duane Krogstead, became chief of O&M. John Knoll was the division chief at that time.

Storey: What was Mr. Stanke like?

Gregg: He was really a neat person to work for. He had been there a long time, had a lot of history. He was pretty quiet, didn't get excited very easy. I think he was getting close to the end of his career, and he kind of took me and some of the younger engineers under his wing. He wasn't a controversial type of person, but like I said, he was a good engineer, been there a long time.

Oahe Project was Very Controversial

At that time, the Bismarck office was a pretty dynamic office. They had a lot of construction, high-dollar construction going on, big Planning Division. There was a lot of controversy in the project, it was nationwide controversy, so that followed over into the operations. I can remember going to meetings where [U.S.] Fish and Wildlife people were told not even to speak to us, not even to acknowledge that they'd been to the same meeting with us, the environmental part was so controversial at that time. And so you had in the same office construction, which was very traditional, O&M, which was very traditional, and then the planning and the environmental shops that were embroiled in all the controversy. So there were a lot of emotions.

Storey: When you say it spilled over, did it affect your work in any way?

Gregg: Oh, yes. That's one of the reasons I left. I enjoyed my job, but when you worked in the Bismarck Office, we had a annual RIF. You never knew if the funding was going to be there from year to year, so they had RIFs, and then they turned around and got money and hired people back, and that would put most of the poor folks working with that–

Storey: Yes, but its very disruptive.

Gregg: Very disruptive. The Canadians didn't want the project built. The environmentalists didn't want the project built.

Storey: Why didn't the Canadians want it built?

Gregg: The fear was a lot of the drainages from the Red River and the Moose River went from the United States into Canada. They was afraid that some of the trash fish from the Missouri would get from the Missouri to the central part of the state, to their drainages and get up into their fisheries and ruin the fisheries. They were adamantly against the project. The Audubon Society and a lot of environmental groups were adamantly against the project because they felt that it would adversely affect a large portion of the potholes in eastern North Dakota[13] and for the Oahe Project in eastern South Dakota, which was the bread basket for the migrating water fowl. So the Audubon Society fought the project tooth and nail. So working on both of those, both of them were very controversial. The publics were very divided over whether the projects should be built or not be built.

Storey: And the federal agencies were divided, too.

Gregg: The federal agencies were divided.

Storey: Of course, [U.S.] Fish and Wildlife Service and Reclamation are both Department of the Interior agencies. Were you aware of whether the secretary ever became involved?

Gregg: I know at times the commissioner and the service director would have to get together to decide issues that were so controversial, whether we'd get the this 404 permit or not. I don't remember about the secretary.

Storey: The Fish and Wildlife Service director we're talking about, right?

13. The prairie pothole region extends from north-central Iowa to central Alberta. The landscape is the result of glaciation events of the Pleistocene Epoch when retreating glaciers dotted the area with small depressions called potholes or sloughs. See U.S. Geological Survey, "Wetlands of the Prairie Potholes Region: Invertebrate Species Composition, Ecology, and Management," www.npwrc.usgs.gov (Accessed January 2015).

Gregg: Yes. When I was at Bismarck, I lateraled there as a GS-9 and was promoted to 11. I spent most of my time actually doing real on-the-ground work.

Storey: In O&M we're talking about, right?

Gregg: Yes.

Storey: And then you transferred to the Irrigation Management Services Section.

Irrigation Management Services Section

Gregg: Yes. Well, I didn't get a choice. I went in one day and I think there was a pink slip on my desk that said I'd been RIF'ed out of my O&M position. And I opened up the next envelope that said–and there was no I-M-S Section at that time–I and this other engineer, Norm Roth, became the I-M-S Section.

Storey: Oh. Okay.

Gregg: And the idea was for us to develop–one part was to do the consumptive-use studies to size the reservoirs to determine, as we spoke of before, how much water the crops need so we could help give the planners information to design the canals, and, more importantly, the reservoirs. And also during one of the big controversial sessions over the Garrison Project on water quality, Warren Jamison had said that we could model the whole project on a daily basis, which would have been an incredible feat, to model a project that covered half the state on a daily basis. So I got involved on the task force to develop a computer model to model the whole project, to model the reservoirs, the rivers, the drainage systems. So I spent the rest of my time there working on that with a lot of folks in Bismarck, a lot of folks in Billings Office, and in Denver. That was kind of my first initiation in working in large teams. Rick Gold, who is the deputy regional director in Salt Lake, was the Head of Hydrology in Billings at that time, he was on the task force. I was supposed to bring the O&M and drainage perspective to the team, plus, like I said, Norm Roth and I were the I-M-S Section.

Storey: So how did this team work proceed? Did you do it all in Bismarck?

Gregg: No, it was Bismarck and Billings.

Storey: You spent a lot of time in Billings, then.

Gregg: Spent a lot of time in the project [Regional Office]. We had a project office plane at that time and spent a lot of time flying either on that plane or commercially from Bismarck to Billings.

Storey: And you were there for about three years, '77, '78, '79 and '80?

Gregg: Yes.

Storey: And it was mostly on this one project?

Gregg: Yes. I did spend–well, I worked on O&M, which were some established projects, like the Heart Butte Unit, Dickinson, and then got involved in parts of the Garrison. They were doing a small planning project for a small project called Apple Creek Unit, which would have been right out of Bismarck. I did get involved in writing one of the appendixes. I wrote the O&M appendix for that planning study, so that was my first initiation to planning.

Storey: Did you get a model finally?

Gregg: Oh, yes, they did. Long after I left, they did get the computer model. It was a horrendously big computer model. They did develop it several years after I left. I don't think they are using it.

Storey: But not in the three and a half, four years that you were there?

Gregg: Oh, no. Folks thought it would have been impossible. In fact, when we run the thing, we had to run it at night because it took up the whole Cyber [Computer]. It was incredible. Warren had made a commitment–

END SIDE 2, TAPE 1. JULY 25, 1995.
BEGIN SIDE 1, TAPE 2. JULY 25, 1995.

Storey: This is tape two of an interview by Brit Storey with Jerrold Gregg on July 25, 1995.

[You were saying] that Warren had made a commitment and it was more political maybe than scientific.

Garrison Project Water Model was Politically Motivated

Gregg: Well, in my perception it was, and I don't know if that's correct, but there had been a lot of studies done on what the hydrology was going to be and what the water quality was going to be. We had spent literally millions of dollars with consultants, Harza Engineering, our own Denver staff, to do studies on a monthly basis and the effects of the project, and they were good studies. It was good data. People just weren't happy, depending on which camp you were in, with where the project was going. So they done everything they could to stop it and so they kept throwing out scientific road blocks, "You don't have enough data," or, "Your data is on a monthly basis. You should be looking at it on a real-time basis." And so in one situation Warren said, "Well, we'll just model the whole thing." This was right after Harza had just completed the water quality studies which I think Reclamation spent half a million dollars, and that study really just validated some very expensive long-term studies that the Denver Office had done, and they were good studies. So Warren made this commitment that we would model the whole project on a daily basis which, to me, was more of a political commitment than a scientific one, because you didn't need the data on a daily basis. It was a huge task.

Storey: And you don't need it for operations purposes?

Gregg: I think normally when you build a project, you have a development stage, and that's usually ten years, and you start out–you bring on the irrigation portion in blocks and you learn to operate the system, you develop operating procedures and manuals. No, you didn't. I think you would, in the first couple of years, develop some good procedures to run the reservoirs and the rivers. And the Reclamation had a lot of experience. But to model that, operate it on a daily basis, like I said, the project covered almost half the state, was an incredible project. We took these huge models on estimating consumptive use and drainage and reservoir operation, and wrote this model that tied all these together. To make a run of that program would have filled this room with paper. This room's probably, what, twelve by twenty?

Storey: Yes.

Gregg: But it worked. It kept our critics off our backs for three or fours years. I learned a lot on computer modeling. That was my first that I'd worked with computers ever since I'd been in college, but never on that scale. Actually done some studies on the James River on travel times, water travel times. And Norm Roth and I and others, conducted some actual tests, to test our concepts. If we released this amount of water, it will get to this point at this time. And so it was valuable in that sense. I got to meet a lot of the top engineers at Denver at that time.

Storey: Who actually was doing the computer work?

Gregg: We had a large computer section in Bismarck at that time, the guy that was head of that section, plus Billings. So the computer work was done mostly in Bismarck and Billings. A lot of the technical work, how you tie the drainage model in, how you tie the consumptive-use model in was down out of Denver–Denver and Billings.

Storey: And so then you were providing the data that they were inputting?

Gregg: No. I was helping the computer programmers write the–actually providing them the logic to write the supermodel that would tie all these other ones together.

Storey: And you mentioned you used a Cyber. You had a Cyber in Bismarck?

Gregg: No. No. The Cyber was in Denver. We tied into the Cyber.

Storey: Oh, so you did it over the phone lines, or some way like that?

Gregg: Yes, back then we had the old I-B-M 360s out in the bigger project offices in Billings and they tied into the Cyber with the punch cards. Yes, I guess that was done over the phone lines.

Storey: And all of a sudden you were on this job.

Gregg: Yes.

Storey: Were you happy about that?

"The Perfect Job"

Gregg: No. I had the perfect job as a GS-9 and 11, operating three reservoirs, overseeing the maintenance. Like I said, I wore four or five different hats. My boss give me pretty general assignments, and I had a lot of discretion. I done the coordination with flood control with the Corps of Engineers in Omaha, working with the public. I was a one-person show, in a sense. I had a lot of latitude, a lot of job satisfaction. I got to set my own schedules, when I traveled, where. I went from that to a job where it was highly structured in a team environment, being part of a small cog in a larger operation. I enjoyed my job after I'd been there for a while. That happened in one of the major restructuring, and I didn't have very much seniority, so I came in one day and, like I said, I found the RIF notice on my desk. We didn't talk to employees much back then. We go through that operation today, we spend a lot of time telling employees where we're at,

what's going to happen. Back then you knew things were going to happen, but you didn't know the details 'til they did happen.

Storey: And they just handed you the slip.

Gregg: Yes. Well, it was on my desk. Whoever in personnel come around and just put it on my desk. As I said, I opened it up, and I had been RIF'ed out of my position and, of course, I had been offered a different position, which I was very thankful for at the time.

Storey: And it turned out eventually to be challenging, too.

Gregg: Yes. I learned a lot. It was a good assignment for a while. That wasn't my cup of tea, but I did learn a lot. I learned a lot about the team environment. I learned a lot about hydrology, computer modeling.

Storey: Was it hard to work on a team that was scattered like that–Bismarck, Billings, Denver?

Gregg: I think it was a lot harder then than it would be today because, well, first because of the distance, and secondly, there was so much controversy going on, folks were embroiled in that. Rick Gold had been one of the instrumental players in the hydrology part of the I-J-C [International Joint Committee]. Jack Knoll spent a lot of time making sure the team was going and kept it on track, and I think Warren did, too, on the sidelines.

Storey: Did you have career plans at that time?

Close-Knit O&M Community in Reclamation

Gregg: Well, I knew I enjoyed working with Reclamation and I wanted to stay with Reclamation. I left Bismarck essentially because I want to get back into reservoir operations on a larger operating project. Both of the O&M assignments I'd had on the Oahe and Garrison were pretty small scale. There weren't any of the large Reclamation projects. When the job at Casper come open, it was a pretty good opportunity for me to get to a large O&M project.

Storey: Still liked O&M?

Gregg: Yes. And of course, back then O&M was–in Reclamation, if you really wanted to advance in your career, you were in construction. I mean, O&M was kind of an orphan child when I started in Reclamation. Our money was always second to construction. You didn't advance as fast as construction folks, but this O&M community was real

small. I think there were only fifty folks in O&M in Denver at that time. At each project office, it was a small number of people. But it was a close-knit community. Folks knew everybody, knew all the O&M folks. We worked well together. And so, you know, it brought a lot of job satisfaction from that standpoint. Growing up on the farm and working on the farm, I guess, and then being in ordnance in the military, O&M seemed kind of natural to me. So when I went to Casper, I was head of water operations, not maintenance, but still essentially in O&M.

Storey: Yes. Did you ever think about going over to construction?

Gregg: Not at that time. When I was in Socorro, I actually had done quite a bit of construction as O&M construction, but we built quite a few new facilities, and I enjoyed that, but in my earlier part of my career, no, I didn't.

Storey: That's interesting. Was there anything about O&M that particularly attracted you, that you could identify?

Gregg: I think it was the variety of work and having more control. O&M engineers had a lot more control over their careers and the jobs they were doing than the construction folks. I mean, construction was essentially so large. I had friends that come from construction and O&M, and the complaint I would hear–you know, you're inspector on a fish screen or a pumping plant. I mean, you'd get that small niche where you're over the surveying crew, or you do this. The jobs were so big, at least on those projects, you didn't get a lot of variety.

And in fairness to those folks, I think the construction engineers that were good enjoyed that challenge, enjoyed the technical challenge, and for them, that was great. For me, with O&M, over the year you got to do probably ten or fifteen different types of jobs, and you had a lot more control over your destiny. I mean, construction was very rigid. You had a field engineer, an onsite engineer, a field engineer, a construction engineer, then you had the regional engineer, and you went to the chief engineer in Denver. We didn't have that hierarchy in O&M to that extent.

When I come with Reclamation, we were a quasi-military organization. It was more militaristic in the Bureau than it was in the Army.

Reclamation More Militaristic Than the Army

Storey: Really.

Gregg: Yes.

Storey: In what way?

Gregg: That's one of the things that just from a management standpoint kind of blew me away about Reclamation. I had more authority and latitude as a second lieutenant than I did as a GS-12 in Reclamation. The military believed in giving people assignments, challenging assignments, early on in your career if you were in management and giving you a lot of authority to go through it. With Reclamation, you had to be in an organization a very long time before you got any real authority. It probably took me ten years in Reclamation to get to a GS-12 to have the same responsibility and authority that I had as a second lieutenant at twenty-one in the military. Reclamation, I think at that time we were good managers, but not good leaders. The military was just the opposite. They were good leaders, wasn't real interested in management. When I come to Reclamation, I can remember asking for leave and having to justify what I was going to do on my leave before people would sign off on it. The old-timers were pretty autocratic.

Storey: You mentioned, when we first started talking, that when you moved to the Irrigation Management Services Section, crop studies and planning studies, and about three other categories of things.

Irrigation Management Services Activities

Gregg: We were involved in the consumptive-use studies. We oversaw the–I spoke earlier about being involved with the universities and doing different research for us, so we oversaw those studies.

Storey: That was Irrigation Management Services.

Gregg: Right.

Storey: Okay.

Gregg: And Jerry Bucheim, who was in Denver, assisted us with that. Irrigation scheduling, scheduling of when the crops need water, was real big at that time. We'd done some of that.

Storey: This is trying to anticipate when the farmers would call for water.

Gregg: Right. Going out and actually measuring the moisture in the soil and saying, "You need to irrigate such and such a day with this much a water." Of course, Denver was working on the computer programs to help computerize that, with irrigation districts. That was the second big push on water conservation. Reclamation put a lot of money into that, West wide. Put a lot of money in the Southwest on irrigation scheduling. Scheduling the water from a scientific perspective, instead of–

Storey: Did it take?

Gregg: No. Well, in some parts of Reclamation it did, but those monies were nonreimbursable. When Reclamation started asking the farmers to pay, a lot of them backed off. I think if they would have redesigned the program, it would have been really successful. But Jim Cook made the decision we weren't going to do that anymore, and they just canceled the program, lock, stock, and barrel.

Storey: Who was Jim Cook?

Gregg: He come out of planning in Sacramento, and ended up in D.C. as head of O&M. He had a real grudge against O&M.

Storey: Even though he was the head of it?

Gregg: Even though he was the head of it. There was a lot of controversy over that. But for whatever reason–and maybe it wasn't Jim's total decision–but the program was canceled, which I think was a mistake. I think it needed overhauling. So the program went defunct, and now here a couple of years ago we have resurrected water conservation, and that's one of our leading goals in Reclamation, which it should be. If we're going to be good water resource managers, water conservation ought to be one of our biggest programs.

But back then, I-M-S was very narrowly focused, just looking at when the farmers should irrigate, how much, and we were going to write the computer programs for them to do that. But that's just one small component of water conservation. But we had put all of our eggs into the one basket.

Storey: Yes. And that was the set of eggs, right there, was irrigation scheduling.

Irrigation Scheduling and Water Conservation

Gregg: Irrigation scheduling. Garrison Project, because we were a planning project, essentially, more of our money was going into research, compared if you were in Imperial Valley, where they were spending huge sums of money, and actually going out paying–either hiring Reclamation folks or contractors to actually schedule the water.

Storey: The water that would be conserved, do you have any idea why we wanted to conserve water at that time, thinking back to then?

Gregg: I think in parts of the West, well, of course, the Southwest, where you have an extreme shortage of water, and most of the rivers, even back in the fifties and the sixties were way over-appropriated. There was not enough water to go around. During drought years, you had huge shortages to the farmers, economic loss. For the Garrison Project, the more efficient you could be on your irrigation scheduling, the more, like I said, you could design smaller laterals and canals. The second big concern on the project was water quality. From those silts and loamy soils, the fear was that you would flush all the salts out to the drains and rivers and degrade the water quality going into Canada or going into neighboring states. And so the better job you could do on the irrigation scheduling, the better water quality you would have. That was probably a bigger driving force on the Garrison Project, was the water quality issues.

Storey: Were you involved in those water quality issues?

Gregg: Only from irrigation scheduling. I was not involved in the water quality studies.

Storey: What kinds of things did you run into in irrigation scheduling that helped or hindered Reclamation?

Gregg: I was very fortunate to work with Dr. Jensen, who was a professor at North Dakota State, who was one of the leading scientists in crop water-use studies, and so I learned a tremendous amount on consumptive-use studies and how crops grow, that helped me out personally a lot. So that was a big benefit to me from that standpoint, working with folks like that. There were some very high-quality folks in the Denver Office.

Storey: Before we go on to Mills, I finally remembered a question I should have asked you before. Why did you decide to become an agricultural engineer, and what is an agricultural engineer?

Agricultural Engineering

Gregg: There are a few schools in the United States, there's not many left anymore, that have within the Engineering Department what is called ag engineers. The first two years are essentially the same as a civil, or mechanical, you take the same basic programs. I think it was to provide engineering technology to the farming industry was the early ideas. So when I went to South Dakota State, you could go either into water resources or farm structure or machinery design, plant processing. It just to put a little more emphasis on the agricultural part of the industry.

Iowa State has an excellent program. Cal State does. A lot of other schools handle the same type of training through the civil engineering program. But I had come from a farm, I knew I probably wasn't going to come back to the farm, but I was interested in agriculture and the program was kind of intriguing. I wanted to be an engineer, and so I was able to tie my farming background and desires with the engineering.

Storey: Speaking of the farm, did you do any irrigation while you were on the farm?

Irrigating on the Family Farm

Gregg: Yes. In the sixties, like I said, we'd started irrigation there.

Storey: How did you prepare your fields for irrigation?

Gregg: Well, we used sprinklers, so we didn't have to do the leveling that we do in flood irrigation. But mainly we just plowed and disked and then planted. We used mainly at that time, we had two fields that were gravity, we used gated pipe, still the same type of farming operation, and then the rest of the fields were tow-line sprinklers, the sprinklers that were pulled back and forth with the tractor, a quarter of a mile long. Later on after I had left, most of the farms went to center pivots. But the water was pumped out of the lake, pressurized, and–

Storey: Put into pipe lines to–

Gregg: Put into pipe lines.

Storey: You don't have the flood irrigation much, just the two fields, I guess.

Gregg: Yes. There were just two fields.

Storey: Tell me more about being the chief of Water Operation in Mills. I take that was an upgrade, a promotion, that's what I want to ask.

Chief of Water Operations in Mills

Gregg: Yes, to a GS-12. Do we have time to–how long do you think this is going to take? I may need to have some folks make some reassignments here.

Storey: I think we're at a good stopping point and we can start up with your work at Casper next time. I'd like to ask you now whether you're willing for information contained on these tapes and in the resulting transcripts to be used by researchers inside and outside Reclamation.

Gregg: Sure.

Storey: Okay. Good. Thank you very much.

END SIDE 1, TAPE 2. JULY 25, 1995.
BEGIN SIDE 1, TAPE 1. NOVEMBER 18, 1997.

Storey: This is Brit Alan Storey, senior historian of the Bureau of Reclamation, interviewing Jerrold Gregg on November the 18th, 1997, at about 2:30 in the afternoon at his offices in Boise, Idaho. This is tape one.

You became chief of Water Operations in May, you said?

Gregg: May of 1980.

Storey: '80.

Gregg: 'Til October of 1983. And, basically, my responsibility there was overseeing the Water Operations Section, and we had a Hydrographer Section where we had folks that actually went out and measured the water on the North Platte and its tributaries, accounted for the water in the reservoirs, and then we had a very complex accounting system where we divided the water between Wyoming and Nebraska, Colorado, and then the Reclamation contractors, and most of the water was delivered in western Wyoming and eastern Nebraska on the North Platte Project.[14] We accounted the water through all of the

14. North Platte Project runs 111 miles along the North Platte River from Guernsey, Wyoming to Bridgeport Nebraska, bringing full-service irrigation water to 226,000 acres and supplemental irrigation water to 109,000 acres. (continued...)

reservoirs, Seminoe and Kortes, Pathfinder, worked with the power folks to determine what the releases were going to be, so we helped schedule the power on the project. The project at that time had a control center, the Casper Control Center, that remotely operated the powerplant, and so we worked with them on a daily basis of determining what the water releases were going to be from each of the reservoirs.

Storey: I'm under the impression they just arrived at a compact between, what, Colorado, Wyoming, and Nebraska over the waters of the Platte [River]?

Interstate Platte River Issues

Gregg: Well, in the thirties, during the drought, there were some severe water shortages, and the states sued each other. I believe Wyoming sued Nebraska, or vice versa, and so that went to the Supreme Court and was settled in 1945, the Supreme Court, for the North Platte River, 1945, and that's what we administered when I was there at the project. Now, after I left, the state of Wyoming and Reclamation were going to build another small project in Wyoming and that opened the decree back up, and so they are now back before the Supreme Court to reargue some of the various points in the decree, some of the issues.[15] Of course, now you have an endangered species involved because of the cranes on the Platte River, whooping cranes.

Storey: So it just gets more and more complicated.

Gregg: Yes, it does.

Storey: What were the kinds of issues that would come up between Nebraska and Wyoming and so on, while you were there?

Gregg: Basically, a lot of the times it was who got how much of the water, did they get their fair share of the water. We had some work with the S-C-S to gather the snowpack data, and,

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14. (...continued)
For more information, see Robert Autobee, "North Platte Project," 1996, www.usbr.gov/history/projhist.html.

15. "The North Platte River begins in the Colorado Border County of Jackson and flows north into Wyoming. The North Platte River then goes north to central Wyoming out of the mountains and curves southeast where it exits the state to Nebraska from Goshen County Wyoming. From there it flows east the width of Nebraska where it meets the Missouri river at the Nebraska-Iowa border. The Supreme Court decided in 1945, 1953, and 2001 a new legal distribution of the water of the North Platte River and how it was to be divided between Nebraska, Wyoming, and Colorado. Of the natural flow of the river between Guernsey Dam and Tri-State Dam Wyoming is allotted 25% for use. Wyoming is not allowed to use more than 1,280,000 acre-feet above Pathfinder Dam and 890,000 acre-feet between Pathfinder and Guernsey Dam in any ten year period." See Wyoming State Geological Survey, "North Platte Decree, 2001, www.wsgw.wyo.gov/researc/water-resources/Court-Decrees.aspx. (Accessed January 2015).

of course, every spring, worked up the forecasts of what we felt was going to come into the reservoirs. Annually, in the spring, we met with the two states to coordinate with them what we thought the releases should be from each of the reservoirs. So, kind of on a big-scale picture, we work with the different states to make sure we were on the right track of what the inflow was going to be and what the releases and storage amounts were going to be. And then, on a daily basis, there was coordinating with the states to make sure that they each got what their fair share of the water was.

Storey: This would have been '80 to '83. Did you have a water model or anything for the Platte at that time?

Gregg: The Regional Office was working on a water model, but we didn't operate with one at that time. We had forecasting models, but we didn't have a model of the system, an actual operating model. In fact, all the computations were done by hand, the water accounting was done by hand. It would take a technician about four hours a day of just doing constant computations to do all the water accounting. We had a sheet that was probably, oh, eleven and a half inches by thirty inches that was just filled with numbers. Every day a person had to sit down and fill all the blanks in and do the computations. Now I believe its all computerized.

Storey: And more automated?

Gregg: Yes, they went to a lot more automation, too, at the dams, and the control center now I think operates powerplants clear up into Yellowtail and Canyon Ferry [dams].

Storey: So how many people work then in the water operations plant?

Water Operations Activities

Gregg: It was a pretty small group. There was myself and two hydrographers and a technician in Casper, and then we had a person in Torrington, because we determined the releases in the lower part of the state, and so we had one person down there.

Storey: That would be Guernsey.

Gregg: Guernsey, right. Yes, we had a person in Torrington who actually helped figure the releases from Guernsey to the canals.

Storey: Who was the project manager at that time?

Gregg: Most of the time, when I was there, it was Dave Wild, was the project manager.

Storey: W-I-L-D?

Gregg: W-I-L-D, yes.

Storey: What was he like?

Gregg: He was a pretty good manager. He had been a construction engineer in I think the North Loup Project[16] in Nebraska for a long time, and before that a planner. But he was a good manager. My boss at the time, the division chief, was Chris Christiansen, who had been around Reclamation a long time, had been in Denver.

Storey: Yes, his name's come up.

Gregg: Has it?

Storey: Yes. What was it like being in a project office in those days?

Casper Projects Office

Gregg: Casper was mainly an O&M office, and I think we had a lot of autonomy, I think from the regional offices, you know, we were–on a daily and a yearly basis, operated the dams and the reservoirs. We had a big power function at Casper. Most of the actual O&M of the facilities was done by the power operation and maintenance folks and by the powerplant electricians and powerplant mechanics. But we had a lot of autonomy with the different states, and it was a good learning experience, too, for me. That was the first big O&M project I'd been on. Done a lot of work with the irrigation districts, doing review. We done an annual Review of Maintenance of their canals and laterals.

Storey: As you were operating the Platte system, was there a lot of contact with the regions and their water operations office? That would have been Billings, right?

Gregg: Would have been Billings. In the springtime, we coordinated our forecasts with the Regional Office, and they helped us with that, and then we coordinated a lot with the project office out of Loveland, because they helped us do the forecast, and then we

16. The North Loup Division of the Pick-Sloan Missouri Basin Program in central Nebraska provides irrigation water to 53,000 acres. Project features include Virginia Smith Dam, Kent Diversion Dam and Davis Creek Dam. For more information, see Kevin E. Rucker, "North Loup Division, Pick-Sloan Missouri Basin Program," www.usbr.gov/history/projhist.html.

coordinated our power operations together. So there was some coordination with the Region in the spring and then how we would divide up the natural flow and storage water. And then, after that, they basically pretty much left us to operate the system.

Flooding Events on the Platte

Now, on two of the years that I was there, I believe it was '81 and '83, we had some real big floods, especially '83, and we filled the reservoirs. In fact, we surcharged Seminoe and Pathfinder. So we had quite a bit of help from the regions at that time.

Storey: What does surcharged mean?

Gregg: Surcharge is when you fill the reservoir up to its normal operating surface, there's a space above that that's just for emergencies, so you have a certain amount of space to use, just in flood emergencies, before you actually go over the top of the dam.

Storey: Any property damage or anything during this?

Gregg: There was in '83 in Casper, yes. We had water up into some trailer parks, and we washed out some bridges, and it was pretty scary for a while, because we didn't know when it was going to peak out. Luckily, we'd filled the reservoirs, went into surcharge, and the river peaked and the steps started going down. I don't have it up here, but I have a picture of Pathfinder Dam with the water going over the spillway at that time. Its pretty spectacular. We had quite a bit of water going down the system on the North Platte. I can't remember the figure now, but those were two pretty big years.

Storey: So, when we were in flood status, did that change the way your operation ran?

Gregg: Actually, we went to a twenty-four-hour basis. We had people that were manning the telephones and watching the system twenty-four hours a day during that, I don't know, probably two-week period during the flood.

Storey: Who had to make the tough decisions about flooding Casper and so on? Was that you, was that the Region, the project, what?

Gregg: That was between my boss and the project manager and the regional director. We had to decide how much to surcharge the reservoirs, which the more you surcharged the reservoirs, the less pressure you took off the city of Casper, but the more risk you put your facilities. So we made a decision I think to use about half the surcharge, and then we had to pass the rest.

Storey: This would have been the period about three years after the Western Area Power Administration was founded.

Coordinating Operations with Western Area Power

Gregg: Yes.

Storey: What kinds of coordination did you have with them?

Gregg: Actually, most of our power operations we coordinated with the Loveland Dispatch Center, so anytime that we made any reservoir changes, release changes, we coordinated with them, because since most of the water come through the powerplants, it changed how much power we were producing, so we had to coordinate with the dispatch center.

Storey: But it wasn't a matter of them telling you when to produce water?

Gregg: No, no, because the water was released either for irrigation or flood control or for a minimum instream flow. No, it was the other way around. We tried to do the best job we could at producing power when we were releasing the water.

Storey: In those days, were they doing things like trying to release the water during peak power need times?

Gregg: We did have some peaking. They had built Gray Reef Reservoir below Alcova [Dam], which was a small reservoir, and that was just to allow us to do peaking at Alcova. So we done some peaking there, and a little bit of peaking out of Kortes [Dam], but not too much.[17] They were doing some, but not a lot. The fisheries had become a big issue at that time, below Kortes was considered a blue-ribbon fishery, so we had to be real careful there.

Storey: Tell me more about how the fisheries would affect the way we operated a project.

Affect of Fisheries on Project Operations

Gregg: Well, before we would take fisheries into consideration, we would do wide fluctuations during a twenty-four-hour period for peaking, try to match the peak-load requirements, but if you do too much of that and you vary the river too much, you strand fish and

17. Alcova Dam, on the North Platte River, delivers water to the Casper Canal on the Kendrick Project. Kortes Dam lies between Seminoe Dam and Pathfinder Reservoir and produces power distributed to localities in the intermountain and Great Plains region.

wreak havoc with their habitat. So, over the years, working with the fish and game departments, we had established parameters that we had to go by that we can only fluctuate the river so much during a twenty-four-hour period.

Storey: So you had an operating plan?

Gregg: We had an operating plan, and, actually, every year, after we knew what the inflow was going to be, we developed an annual operating plan, went out and had public meetings with the public, and then during the year, we worked with all the agencies if there were any changes.

Storey: So that would have been coordinated with [U.S.] Fish and Wildlife Service?

Gregg: Fish and Wildlife.

Storey: Is this an operating plan that would also be coordinated with the [U.S.] Corps [of Engineers], or is that a different one?

Gregg: No, it was coordinated with the Corps. It was our operating plan, but some of our reservoirs actually had flood control space. Glendo Reservoir had a form of flood control. So we would coordinate with the Corps, also.

Storey: Let's explore that a little further. In other words, the Corp is only involved when there's flood control space?

Coordinating Reservoir Operations with the Corps

Gregg: Right.

Storey: So if there's no flood control space in one of our reservoirs, then we don't have to operate according to a Corps operations plan?

Gregg: That's correct. We operate according to our own plan.

Storey: Somehow I guess I thought all of our reservoirs had to. That's interesting.

Gregg: Most all of our reservoirs, even if its strictly for irrigation, we do some limited flood-control operations just for public safety, and we develop those plans. But if it was built under any of the Corp's flood-control authority, then, yes, there is a formal flood operating plan.

Storey: That's interesting. Did I get the impression you changed project managers?

Gregg: Right, when I first went there, and I'm trying to think of that guy that was the project manager. He went and become assistant regional director at Sacramento.

Storey: Let's see, in '80, I guess I wouldn't know any of those folks.

Gregg: I'll think of his name. But anyway, I'd been at Casper about six months, and that's when Dave Wild came.

Storey: You mentioned last time, I think, a blizzard while you were there.

Medicine Bow Wind Power Project

Gregg: Well, when I first moved there, yes, in May of 1980, I moved, I think we had nine inches of snow left the early part of May. Of course, Casper got quite a few blizzards, had a lot of wind. Casper was known for its wind. In fact, when I was there, that's when the Bureau had built the wind generators down at Medicine Bow, two big ones and the one small one.[18]

Storey: Was that part of Casper's responsibility?

Gregg: It was, yes, to operate and maintain them.

Storey: So that was out of your office, somebody else's office?

Gregg: Well, our construction folks oversaw the construction, and then the power folks were to operate and maintain them. They weren't operated that long, I think, before they mothballed them.

Storey: Yes, the bearings wore out, I think.

Gregg: The idea was to coordinate with the reservoir system. We would have got involved eventually if they would have continued with the system, but it was to coordinate the wind-generator system with the reservoir systems, and at times when you needed more power and you couldn't release the water, you'd rely on the wind generators, or store more water so you could generate with the wind system.

18. In 1982 Reclamation began operations on the Medicine Bow Wind Energy Project; a joint effort between Reclamation and NASA to test the feasibility of utilizing wind to generate electricity. See James Bailey, "Medicine Bow Wind Energy Project," 2014, www.usbr.gov/history/projhist.html.

Storey: You were delivering water that was used mostly in Nebraska and Wyoming.

Gregg: Yes.

Storey: And who would you be talking to in those two states? Was it the irrigation district, was it the State Engineer's Office, how did all that work?

Water Deliveries in Wyoming and Nebraska

Gregg: Our person in Torrington actually coordinated with the lower reservoirs, with the irrigation districts, and so he would work with them every day and combine or tally up the irrigation orders and then have that released from Guernsey Reservoir, and then the state watermasters would make sure it got to each canal where it belonged.

Storey: Tell me about state watermasters. What's it like working with these guys?

Gregg: By and large, we had a pretty good relationship, I think, with the two different states, the division engineer from Nebraska, and the State Engineer's Office from Wyoming. You know, there were times when there were disagreements over water, but most of the time we had a pretty good relationship with them.

Storey: So Reclamation would release water into the system, and then once we'd released it, it was their job to make sure that it got there?

Gregg: Got to the canals, yes.

Storey: Not our job.

Gregg: Not our job, no. But we all three had to agree every day of what the split was, of who got how much natural flow and how much water was storage water, and so during the irrigation season, that was a big job every day to determine how much water was in the system, how much was natural flow, how much went to Wyoming, how much went to Nebraska, and then how much water went to the Reclamation storage contractors. I think we had about twenty-three storage contractors.

Storey: They were people who were paying for the storage in our reservoirs.

Gregg: Yes.

Storey: What's natural flow?

Determining Natural Flows

Gregg: Natural flow is just the natural water in the river as though our reservoirs weren't there, and normally the first irrigation districts that built on the system had real old natural flow rights in the 1800s. Our reservoir systems were built in the early 1900s, and so we had a later water right. So we relied on filling our reservoirs during the early part of the spring, during flood control, or when there was high natural flow and low demand. Now there's natural flow all year 'round, but, of course, from April through July that keeps diminishing, so the irrigation districts with the senior rights get the first crack at the natural flow, and if there's any left, it goes to the next appropriator and so on down the line 'til its gone. And then, if the irrigation districts still need water, they have to order storage water. So it was kind of our job every day to determine how much natural flow was in the system, who it went to, was there more demand, and then that extra demand was made up from releases from our reservoirs.

Storey: So natural flow would vary.

Gregg: It would vary.

Storey: From year to year, from month to month.

Gregg: From day to day, yes.

Storey: And how would we know that? How would we figure that out?

Gregg: We had gauging stations up and down the river, and we would know from different points what was at each gauging station. We would calculate the losses in the system, evaporation losses, transport losses, and then we would know what we released from our reservoirs. So that's what I was talking about. We had a technician that spent half a day every day doing the computations to figure out how much natural flow there was, how much storage there was on different segments of the river.

Storey: How would we know what the water loss was, the transportation loss, I think you called it?

Gregg: They had established some formulas and assigned some losses, you know, 5 percent evaporation, and 10 percent for this river section, or that section of the river lost water, so that we had some formulas established for different sections of the river.

Storey: I guess I'm sort of used to the mountains where there are hundreds of little streams coming in. I can see where this would get really complicated.

Gregg: Yes, we didn't have, of course, hundreds of little streams, but we had in the North Platte and several main tributaries, and, yes, it was fairly complicated.

Storey: So let's see if I'm understanding this. Up to a certain point, we get to store water during the runoff. At some point, the runoff disappears and we're back to the natural flow regime of the river, and so we have to figure out what the natural flow would be, we have to deliver water to all of the rights holders, until they run out of water, and what then could go to irrigation districts on the basis of contracts. So this is supplemental water, or is it in some cases all the water they ever got, or a combination?

Gregg: We had both types of districts, full supply districts where Reclamation built everything, the canals and laterals, and we held the natural flow rights for them, plus storage. Then we had supplemental supply contractors that were there before Reclamation got to the system, and they had bought supplemental storage. So we had both types of districts.

Storey: And then were there people who had enough natural flow rights that they didn't have to have supplemental storage?

Gregg: No, I don't think there were any districts that could survive just totally on natural flow. That was, of course, a reason for why the reservoirs were built.

Storey: So how many districts would we be dealing with?

Gregg: I think on the North Platte we were dealing with about twenty-three irrigation districts.

Storey: Of different sizes and different rights.

Gregg: Of different sizes, yes, some small districts to some very large districts like Pathfinder Irrigation District.

Storey: Did you have any contact directly with the districts?

Working with the Irrigation Districts

Gregg: We did. Like I said, every year we done a Review of Maintenance on their canals and laterals. We had contacts with them, of course, on a daily basis on what their irrigation needs were so we could make the right releases from the reservoirs. We had contacts

with them as far as the Water Conservation Program and things like that. Pathfinder Irrigation District operated some small reservoirs, Lake Alice and Lake Minatare,[19] and we done the Review of Maintenance inspection on those.

Storey: Make sure they weren't going to–

Gregg: Right, and when I was there, we redone, done some Safety of Dams work on one of the embankments.

Storey: One of the things that people often say is that Reclamation is sort of in bed with the irrigation districts. Thinking back to then, could you characterize what it was like? And then later we can talk about the area office and how its changed and so on.

Gregg: Well, at that time, we did consider the irrigation districts and our power customers our traditional customers. In the early 1980s, I think Reclamation was becoming more and more aware of the demand by the public for environmental concerns, especially fisheries. So at that time it was starting to create some tension between our traditional customers and other parts of the public that were wanting benefits from our systems.

Storey: What about now with the area office, how has it changed, that relationship?

Gregg: I think there was for a while, a couple years ago, I think the irrigation districts felt that we abandoned them, and I think our current commissioner[20] has done a lot to make sure to convince them that that's not true, but I think we have a better balance on the system. We still provide water to the irrigation districts and still generate power, but we provide a lot of recreation benefits. We've done a lot of environmental work. We're here on the Boise [River] system and the Columbia [River] providing water for salmon. The bull trout are up to be listed, so we're doing work on bull trout and steelhead. So, I think, by and large, we have a lot better balance in the system. We have, I think, learned to work with the different publics a lot better. I think we work with ten different watershed councils, but we have local interests on the different river basins get together and form a watershed council, and we work closely with those watershed councils, because they let

19. Lake Minatare and Lake Alice are offstream equalizing reservoirs of the North Platte Project northeast of Scottsbluff, Nebraska.

20. At the time of this interview Eluid L. Martinez was the Bureau of Reclamation Commissioner and served under the Clinton administration from 1995 to 2001. Commissioner Martinez also participated in Reclamation's oral history program, see Eluid L. Martinez, *Oral History Interview*, Transcript of tape-recorded Bureau of Reclamation Oral History Interviews conducted by Brit Allan Storey, senior historian, Bureau of Reclamation, during 1996-2001, in Washington, D.C., and Santa Fe, New Mexico, edited by Brit Allan Storey, 2006, www.usbr.gov/history/oralhist.html.

us know what the needs are for that river basin. So then we try to make sure our operations are compatible with what the public needs are.

Storey: Why did you decide to leave Mills, or Casper?

Transferring to New Mexico

Gregg: I had an opportunity in 1983, a job come open in Socorro, New Mexico, to head up a consolidated field division, and so I applied and I got the job, so in October of 1983, moved to Socorro, New Mexico. That was part of the Middle Rio Grande Project.[21]

Storey: You came to Reclamation, I think, in '75.

Gregg: Yes.

Storey: Then you were two years in South Dakota on the Oahe, three years in Bismarck. Did you have a career plan?

Gregg: I guess at that time in my career I didn't have a formal career plan, but I knew I wanted to get some experiences in different parts of the organization, and one of the ways to do that was to move around and be in different positions. Socorro gave me a good opportunity to get into some of the more maintenance-type work, construction work.

Storey: What's a consolidated field division?

Gregg: There were three or four maintenance offices up and down the Rio Grande that done work on the conveyance channel. That was a channel to take water out of the river and run it down a canal to save water, and they had water salvage drains, and they had consolidated them all into one office. So we had about sixty people. I was a division chief. We done work all the way from southern Colorado down to Caballo, New Mexico. We done work in the Rio Grande itself, actually channelizing the river with dikes and jetty jacks. Then we also, like I said, operated and maintained irrigation drains and the conveyance channel, which is a real large channel that conveys water from Socorro down to Elephant Butte Reservoir. So we had about sixty folks, equipment operators, had dozers and drag lines and trucks.

21. The Middle Rio Grande Project was authorized to rehabilitate Middle Rio Grande Conservancy District facilities and help control flooding and sedimentation along the Rio Grande from the Colorado/New Mexico border to the inlet of Elephant Butte reservoir. For more information, see Andrew H. Gahan, "Middle Rio Grande Project," 2013, www.usbr.gov/history/projhist.html.

Storey: Was the entire office the division?

Gregg: Well, the project office was in Albuquerque, so I think at that time we had four divisions. They had the Socorro Field Division. They had a small field division in Chama, New Mexico, had a Construction Division and then an Operations Division.

Storey: So you were the head of these sixty people.

Gregg: Right, in Socorro, right.

Storey: That's interesting.

Gregg: So, you know, as far as supervisory responsibility, it was quite a jump for me to go from three to four people to sixty people.

Storey: This was a promotion in terms of grade and everything?

Gregg: Yes, it was a GS-13.

Storey: From a GS-12.

Gregg: From a 12 to a GS-13.

Storey: So this was an O&M office?

Gregg: Yes, it was an O&M office.

Storey: Were you operating from O&M schedules, or how did this work? Were you determining what O&M needed to be done, was somebody in Albuquerque, somebody in the Region?

O&M Work Along the Rio Grande

Gregg: On a quarterly basis, I would sit down with the project manager, who at that time was Charlie Calhoun, and the head of the Construction Division was Frank Mastus [phonetic], and Garry Rowe, who's the area manager now, was the head of Water Operations, and we would sit down and determine which projects we would contract out, would go to construction, and then which projects we would do with O&M forces. Then once we made that determination, then I would set down with my folks and work out the schedules, actually when we were going to do the work, and we actually done a weekly schedule. We had our own civil engineer that done a lot of the planning for the jobs.

We relied on the Construction Division to do the design for the work. We done a lot of dike-building and riprap work, and so the Construction Division done the designs. We acted sort of like a contractor.

Storey: This would be the Construction Division in Albuquerque.

Gregg: In Albuquerque, right.

Storey: So you didn't ever see Denver Office design folks.

Gregg: No, not in the ones we done. Now, there were some real large construction contracts going on at the time that the Construction Division worked with Denver on, but we were not involved in those. We also done work for the state of New Mexico. The state of New Mexico had a pretty large fund to build water salvage projects to get more water to the irrigation districts, so we done a lot of work for the state of New Mexico where they would fund us, actually buy equipment and provide the O&M funds for us to go in and build dikes or rehab drains.

Storey: In addition to rehabbing drains and dikes, what other kinds of things?

Gregg: One unique aspect of the office is that's one of the few projects where Reclamation had authority to work in the river. So we done a lot of work in the Rio Grande River. In the northern part up by Santa Fe and through the different pueblos, we done a lot of riprapping different curves of the river. Annually, we went in and removed trees from the middle of the river so the water would flow better and there was less erosion. Down in the Albuquerque to Socorro area, we put in jetty jacks, which we either use steel beams or wooden posts and you take three of them and you bolt them together, they look like a tepee, and then you lace wire through them and then you cable them together, and you put them in the river and they act as riprap to catch the trash, and then the sediment in the river settles around them and forms riverbanks, so we would put in large areas of these jetty jacks. Then there's a lot of salt cedar up on the Rio Grande, so we had mowers and we used dozers to go in large areas on the river flood plain to remove the salt cedar.

Storey: Why do we care about salt cedar?

Gregg: Well, a couple things. It choked out the river, and so it causes problems when we were trying to move water down the river, and it uses a lot of water. It's a phreatophyte and uses a lot of water, and so we would go in to remove it to cut down the water loss.

Storey: When you say salt cedar, you're referring to...

Gregg: Tamarisk.

Storey: Which is an import.

Gregg: Which is an import, I believe, around the turn of the century.

Storey: As a matter of fact, I was down south, there's an old fort out there that's been recently opened up as a state park out there.

Gregg: Sumter.

Storey: Might be Sumter. Just huge.

Gregg: Or Sumner?

Storey: Sumner, whatever it is, yes, huge bottomlands of salt cedar down in there. What other kinds of things?

Gregg: We had a small dredge that we used to clean out the lower part of the conveyance channel and the stilling basins of the reservoirs. Rio Grande transports a lot of sediment, and so we had a dredge that we operated.

Storey: This was down at the upper end of Elephant Butte Reservoir?

Gregg: Upper end, Elephant Butte.

Storey: The river was aggrading there, was it?

Gregg: Yes, it was aggrading that sort of filled up the conveyance channel and their drains, and so we would go in with the dredge and clean it out. When I first went down to Socorro earlier that year, they had brought one of the big Yuma dredges up to clean out the upper end of the reservoir, and I had been there about a month, and that's when the wind come up and sunk the Yuma dredge, and so I was there and part of the recovery team to recover the dredge from the upper end of Elephant Butte.

Storey: Bill Carsell [phonetic] was there, I think.

Gregg: Yes.

Storey: Yes, over from Amarillo. Were you working for Amarillo? You would have been, wouldn't you?

Amarillo Regional Office

Gregg: Right, our Regional Office was in Amarillo. Gene Hinds was the regional director at the time.

Storey: Did you get to know him?

Gregg: Yes, I did.

Storey: What was he like?

Gregg: Gene was a very intelligent person. I think he was a pretty autocratic manager. He pretty much left the O&M projects alone, though. I mean, I saw him probably two or three times in my whole career down there. But, like I said, he was a very smart person. He knew a lot about Reclamation. I think he was fairly secretive and he kept things pretty close to his chest.

Storey: Yes, causes a bit of tension in people under you, unfortunately. What kind of budget were you working with?

Gregg: I had a budget of about four million dollars of both Bureau and state of New Mexico monies, and so I prepared my own budget, submitted it to the project office, and then that was incorporated into the project budget, but I had a fairly healthy budget.

O&M Budgets in Socorro

Storey: So you'd be planning a couple of years in advance.

Gregg: Yes. I had a supply technician that worked for me that also helped do the budgets, Marian Peralta.

Storey: So you would have come in, and your first two years would have been somebody else's budget.

Gregg: Yes.

Storey: How did that work?

Gregg: It worked out okay for me, because I think back then Reclamation's budgets weren't near as tight as they are now.

END SIDE 1, TAPE 1. NOVEMBER 18, 1997.
BEGIN SIDE 2, TAPE 1. NOVEMBER 18, 1997.

Storey: So the budgets worked out fairly well.

Gregg: Yes, it was a good experience for me because it taught me about budgeting. I hadn't done hands-on budgeting before then, so it taught me about the process of how it works.

Storey: What was sort of the rule of thumb? Did you ask for more than you really wanted so you'd get what you needed, or how did that work?

Gregg: No, I think we asked for what we needed, but our budget officer, I think, always made sure that we put in enough that we didn't run short. The project budget officer had been there for a long time, and so I think he had a pretty good idea how much money was needed. Then working for the state, of course, you only had to project a year in advance, and if you run short, you could always go back and work with them. So I think it worked out fairly well, working off the state budget and the Bureau budget. We could kind of balance our work according to the budget.

Storey: What about Charlie Calhoun? What was Calhoun like?

Albuquerque Project Office

Gregg: I really enjoyed working for him. He was a good manager and taught me a lot, I think, about management and leadership, took a real personal interest in how things were going. I think Charlie and Roger Patterson[22] were early leaders in Reclamation in caring for employees and being interested in them. At the time I was in Socorro, Roger Patterson was project superintendent at El Paso.

Storey: You worked directly for Charlie?

Gregg: Yes, I worked directly for Charlie.

22. Roger Patterson was the first regional director of the newly formed Great Plains Region in 1989 and went on to become regional director of the Mid-Pacific Region from 1991 to 1999. Mr. Patterson also participated in Reclamation's oral history program, see Roger K. Patterson, *Oral History Interviews*, Transcript of tape-recorded Bureau of Reclamation oral history interviews conducted by Brit Allan Storey, senior historian, Bureau of Reclamation, from 1994 to 2000, in Sacramento, California, and Lincoln, Nebraska, edited by Brit Allan Storey, 2011, www.usbr.gov/history/oralhist.html.

Storey: So he had these four division chiefs under him.

Gregg: Yes.

Storey: Only one of whom was in Albuquerque?

Gregg: No, they had a construction and they had a water operations and administrative officer in Albuquerque. I was in Socorro, and then he had a small–

Storey: The one up in Chama.

Gregg: In Chama.

Storey: So you had sixty folks. How many do you suppose there were in the project office, do you happen to know?

Gregg: I think at that time there were probably about 130.

Storey: So you had about half.

Gregg: I had about half.

Storey: Of course, that's a big chunk of the Rio Grande River there that you're talking about.

Gregg: Right. I think Socorro now is probably down to twenty-seven people. I think they're doing a lot more by contract than when I was there.

Storey: Did you have any crises while you were there, any floods, any droughts, anything like that?

Crises on the Rio Grande

Gregg: Well, the first crisis is when the dredge sunk. I'd been there about a month, and that took us about three, four months to get that cleaned up. Then the next one was that Elephant Butte that next year was going to fill, and that's the first time it had filled and spilled since, I believe, 1943, and the channel below Elephant Butte had silted in and grown in with trees and wasn't able to handle the flows necessary. So we spent a lot of time, both construction folks and O&M folks, clearing out the channel between Elephant Butte and Caballo [Dam]. That was a pretty big project that Charlie and Roger coordinated.

Storey: Yes, I was going to say that would be in the El Paso Office, right, the responsibility?

Gregg: Well, it was a combination of both, because I believe the Middle Rio Grande [Project Office] still had responsibility for the river section between Caballo and Elephant Butte. So both offices went together and handled the work, so it was a joint project.

Storey: Any tensions because of that joint oversight responsibility?

Gregg: Well, Roger and Charlie had a real good relationship, so I think that there could have been, but there wasn't. I think those two really worked well together. My counterpart, who was head of Elephant Butte, was Jim Wedeward, and he and I got along real well. So we did a lot of work together, so there really wasn't any tensions. We get along very well.

Storey: So he was at Elephant Butte.

Gregg: Yes.

Storey: He was responsible for the reservoir and the dam.

Gregg: For the dam and the reservoir and Caballo, and some of the tributaries to the Rio Grande.

Storey: Well, I guess I have to show my ignorance. Caballo's not a town?

Gregg: No, Caballo's a reservoir below Elephant Butte. It's a storage reservoir.[23]

Storey: And then he had the river below Caballo?

Gregg: He had the river below Caballo.

Storey: I believe El Paso operates Elephant Butte.

Gregg: Right. At that time, they were separate project offices. The Rio Grande Project was run from El Paso. Now they're combined into one area office. At that time, Roger Patterson was the project superintendent at El Paso, and Charlie Calhoun was the project superintendent at Albuquerque.

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23. A feature of the Rio Grande Project, Caballo Dam and Reservoir are on the Rio Grande 25 miles downstream from Elephant Butte Dam. The dam is an earthfill structure 96 feet high and 4,590 feet long, and has a capacity of 343,990 acre-feet of water. Water discharged from the Elephant Butte Powerplant during winter power generation is impounded at Caballo Dam for irrigation use during the summer.

Storey: You mentioned salt cedar. What about cottonwood? Did we do anything actively with cottonwoods at that time?

Rio Grande Invasive Species

Gregg: Well, actually, they were trying to promote the growth of cottonwoods, because they had some environmental benefits, where salt cedar didn't, and the shape in the cottonwoods would actually control the salt cedar. So we were experimenting with the Fish and Wildlife, Bosque del Apache,[24] to actually plant some cottonwoods.

Storey: How does one plant cottonwoods?

Gregg: They just go out and drill some holes and stick 'em in.

Storey: Trees.

Gregg: Trees, yes, young trees.

Storey: I mean, little sprouts or whatever.

Gregg: Yes, saplings. We did not remove cottonwoods.

Storey: I know at different periods I've heard of them being removed.

Gregg: Right.

Storey: But I've never run across it yet. What about other kinds of vegetation?

Gregg: There was quite a bit of Russian olive up and down the river. You get away from the river, of course, you get up in the desert part of the country and there's a lot of greasewood. Didn't have any sagebrush down there to speak of.

Storey: Yes, I wouldn't think that would cause problems in the river channel.

Gregg: Yes.

Storey: Any other kinds of things you were doing?

24. Bosque del Apache is a National Wildlife refuge in southern Socorro County, New Mexico administered by the U.S. Fish and Wildlife Service.

Gregg: Like I said, we done removed trees from the river, built the dikes, put in the jetty jacks. We did, like I said, go in and restore some of the drains. We did do some work on a couple of the refuges where we helped the Bosque del Apache restore some of their drains so they could provide crops for the whooping cranes and sandhill cranes. We did restore the water system of the La Jolla State Refuge. Since we had a lot of construction equipment, we done some drag line work for other entities. That's basically about it.

Storey: That's a long stretch of river. What is that, a couple hundred miles?

Gregg: I think we worked in about 250 miles of the river.

Storey: Did you have trouble getting access to parts of it?

Getting Access to the River

Gregg: Most generally, no. I was either on government land. The pueblos, of course, we worked through four different pueblos. We had to stop and make sure we had permission to work on the pueblo and make sure we had good coordination.

Storey: What was it like working with the Indians over those kinds of issues?

Gregg: We had a pretty good relationship with them, and it worked out, when I was there, fairly well. We didn't have any incidents. They had had some before I came there, some problems with some of the pueblos, and it was just a matter of making sure you understood their culture. I had a foreman that worked with them a long time, and we always made sure that he stopped before any of our equipment got there, and had checked in with the governor of the pueblo and got permission, and so that always helped.

We worked through two different national wildlife refuges, the Bosque del Apache and the Sevilleta, which is north of Socorro, and we had good working relationships with those folks, too.

Storey: You wouldn't have been involved in water deliveries or anything there?

Ensuring Water Deliveries

Gregg: No, only except operating the conveyance channel, and when I was there, I think it operated a year or so where we actually took water out of the Rio Grande and put it in the conveyance channel, and it held about 2,000 c-f-s [cubic feet per second]. During

the springtime when we had flooding, we had twenty-four-hour operations where we had to make sure that our dikes didn't break. The town of Socorro was actually lower than our dikes, and so we had levee patrols.

Storey: But you didn't have any ditches to maintain or anything like that?

Gregg: Just the conveyance channel, and then some drains that we were rehabbing for the state. Actual canals and drains was operated by the Middle Rio Grande Conservancy District.

Storey: What happens to drains that requires rehab on them?

Gregg: In that part of the country, a lot of times they hadn't maintained them and the salt cedar had taken over, and then they had silted in. So we were systematically going in and clearing out salt cedar with drag lines, reshaping the drains, and then a lot of times placing riprap on the invert of the drains so they maintained their shape. So that was a big program that we had going on. We actually crushed the rock, graded the gravels in small riprap and shape the drain, and then placed the material on it.

Storey: How was that kind of work done? Did everybody live in Socorro and commute out, or how did it work?

Gregg: Right. My crews were on the road a lot, and so they would either be around Socorro or as far away as north of Santa Fe, so then they lived in motels during that time period.

Storey: We actually used our own labor, our own equipment?

Gregg: Our own labor, our own equipment.

Storey: So what happened next?

Coming to the Central Snake Project Office

Gregg: Well, in December of 1987, I got the job as project superintendent for the Central Snake Project Office in Boise, and so I transferred up to Boise at that time.

Storey: Where we're sitting.

Gregg: Where we're sitting.

Storey: Did you choose Boise purposely, or was this another opportunity, or what?

Gregg: It was an opportunity. The project superintendent at that time, before I came here, was Neil Stessman, and he got the job of being project superintendent at Bismarck. He had left, I believe, in April of 1997. I actually got the job in the fall and moved up here in December of 1997.

Storey: What did the Central Snake Project Office entail at that time?

Gregg: It was a consolidated office, and we actually maintained the reservoirs on the Boise [River] system, Anderson and Arrowrock and Boise Diversion Dam, and then coordinated our operations with the Corps of Engineers, because Lucky Peak is part of the system, and that's a flood-control reservoir. We have Cascade and Deadwood and Black Canyon [dams] on the Payette River, and we operate and maintain those facilities. We had three powerplants, one at Black Canyon, one at Anderson Ranch, and one at Boise Diversion Dam that's in inactive status. So we had facilities where we actually operated and maintained, and powerplants. So when I first came here, we had a power division, power O&M. We had a lot of recreation sites around the Cascade and Black Canyon that we had park rangers, and we actually operated and maintained the recreational facilities. We had water operations. Then all of our facilities in eastern Oregon, such as Owyhee Dam on the canal system and the Vale Project[25] and the Baker Project,[26] Burnt River Project,[27] had been turned over to the irrigation districts to operate and maintain, but we had an oversight role with those projects. So we covered the Reclamation projects in southwestern Idaho and then eastern Oregon.

Storey: But not Minidoka.

Gregg: Not Minidoka.

Storey: Cascades, I mean, not Ca–what's–

Gregg: Jackson and American Falls.

Storey: There's another one up there.

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25. Located in east-central Oregon, the Vale Project supplies irrigation water to 34,993 acres. For more information, see Timothy A. Dick, "Vale Project," 1993, www.usbr.gov/history/projhist.html.

26. The Baker Project consists of two divisions (Upper and Lower), providing supplemental irrigation water to over 25,000 acres in east-central Oregon. For more information, see Wm. Joe Simonds, "The Baker Project," 1997, www.usbr.gov/history/projhist.html.

27. Consisting of a storage dam (Unity Dam) and reservoir, the Burnt River Project provides supplemental irrigation water for about 15,000 acres. For more information, see Wm. Joe Simonds, "The Burnt River Project,"1997, www.usbr.gov/history/projhist.html.

Gregg: Walcott? Palisades?

Storey: Yes, Palisades is what. I got the D-E-S right. [Laughter]

Gregg: Yes, Palisades. At that time, that was a separate project office.[28]

Storey: Well, you went from sixty people to how many?

Gregg: Actually, at that time, I think the project office there was about sixty people, about the same number of people, but a broader range of responsibilities.

Storey: And a promotion?

Gregg: Yes.

Storey: To a 14?

Gregg: To a 14.

Storey: What kind of adjustments was it necessary to make moving from a division chief to a project office manager?

Broad Responsibilities Encountered at Boise

Gregg: I think you get more involved with–I had a limited involvement with the public in Socorro, I mean, I did work with–Socorro was a town of about 8,000–I did work with the news media there and one irrigation district. You come to Boise, you worked with thirty-some irrigation districts, different federal agencies, and the public at large. So it was a lot broader responsibilities, a lot more involved in the politics, too.

Storey: In what way?

Gregg: Just, you know, in your operations and making decisions and release out from your reservoirs. When I come up here, '87 was the first year of a drought, and so people were reacting to that. Our reservoirs didn't fill that winter, and '88 was another drought year.

28. A multiple-purpose project in southeastern Idaho, the Palisades Project provides irrigation, power, flood control, recreation, and fish and wildlife benefits. Palisades Dam, on the south fork of the Snake River, supplies supplemental irrigation water to about 670,000 acres, while its powerplant furnishes energy for irrigation pumping, municipalities, and rural cooperatives. For more information, see Wm. Joe Simonds, "Palisades Project," 1995, www.usbr.gov/history/projhist.html.

So a lot of my time was spent working with the irrigation districts and the publics on water releases and trying to balance the irrigation, but yet still have enough water for the minimum flows, like through Boise in the wintertime. We had one of the worst droughts here since the thirties, and actually that stretch from 1987 to 1994, we had a series of about seven drought years in a row. But its just a broader range of responsibilities, more responsibility to deal with the public.

Storey: Let's talk more about the drought, though. For instance, does one irrigation district that we provide water to have priority over another, and so on? How do we decide who gets what?

Dealing with Drought Situations

Gregg: All of the districts have contracts with us for so much water, and, of course, our reservoirs didn't fill, so a lot of them were looking at 50 percent supply, or 60 percent supply. So we spent a lot of time working with the districts and the watermaster, keeping them informed of how much water they had. Some of our districts made it all the way through the year with a full supply, and some of them ran out of water in July, but they each had a contracted amount that they had to live with.

Storey: I'm not sure I know what you mean.

Gregg: When we built the reservoirs, we contracted with the districts for so much space. So, if a district had a hundred-thousand acre feet of space in the reservoir and the reservoir only filled 50 percent, then that district only had fifty thousand acre feet of water that year, and when it run out, they were out of water. They had their natural flow plus that amount of storage.

Storey: So the percentage of water could vary from reservoir to reservoir?

Gregg: Right. Some reservoirs had a better fill than others. The older reservoirs have an older water right, so they fill first, and then you went to the next reservoir. So, yes, districts had different supplies.

Storey: So I can see where it would get very political.

Gregg: Yes. In the first couple of years, the districts went through a series of wet years, and so the first couple years hit them pretty hard, because I don't think they knew how to operate in the drought mode.

Storey: Were there any interesting pressures, conflicts that came up between districts or anything?

Conflicts and Challenges

Gregg: We had conflicts between districts. We have some good watermasters, the state has some good watermasters, so that really helped, but, yes, we had conflicts between districts, more conflicts within districts between water users. Out here in the Boise Project I think one year they had to call out a S.W.A.T team, because a guy didn't think he was getting the right amount of water, and went out and threatened the ditch rider. So they had to call the S.W.A.T team on him.

We had a lot of pressures because we didn't have enough water to maintain our normal winter instream flows, and so the fisheries were affected, and the public was very excited about that. So a couple years that we had done a lot of work with the public and Fish and Game, trying to round up as much water as we could and letting the public know how much water we had and why the releases were down.

Storey: Yes, that's quite a way to start in a new office. This, of course, is one of the oldest projects.

Gregg: Yes, Boise was one of the original 1902 projects, so it was essentially built from 1905 to the early teens.

Storey: Do you see any unusual O&M things coming because of the age of the project? Did you see anything coming over the horizon?

Maintaining Older Projects

Gregg: We had to do a lot of work to some of our reservoirs, Arrowrock [Dam] was an example, where they were still using the 1914 crane to lower people over the side. We replaced that. Done a lot of work on upgrading their valves. When I first came here, the needle-valve program was going on where Reclamation was replacing all of the needle valves, and we had three dams with needle valves that we had to replace with newer-type gates.

Storey: Arrowrock?

Gregg: No.

Storey: Arrowrock has Anson, doesn't it?

Gregg: Anson valves, which were older than needle valves, but they don't have the safety problems that a needle valve does. We had them at Deadwood, Agency Valley, and in Owyhee [dams]. So when I got here, that was one of the first things. I worked with irrigation districts, negotiating the repayment contracts for those.

Storey: Yes, I think they just removed the last ones this year at Hoover. Twelve-foot valves, a little different than some of these down here, I imagine.

Gregg: Yes.

Storey: What about the infrastructure, the headgates, and those kinds of things?

Gregg: Most of the irrigations districts have been having a program over the years where they've been replacing a lot of–at least the more progressive districts have been replacing the checks and the division boxes and the turnout structures.

Storey: And the drops and all of that. All of things nobody realizes are there.

Gregg: Right. A lot of the districts around here, over the years, every year they pipe some of the smaller laterals. They take the smaller open laterals and put them in pipe systems to save water, and it saves money on maintenance, too.

Storey: How much oversight do we exercise over things like that? Its really our system, up to a certain point at least.

Reclamation Oversight

Gregg: Right, for the full-service districts like the Boise Project where there's five irrigation districts, we own title to those facilities. So we work with them, and they, by and large, use our standards in the system. Here in the Boise system, a big part of our job, because of the urbanization, is all the crossing agreements and license agreements that we get into because of all the new subdivisions and roads that are going in cross our facilities. So we have a couple of realty folks here that that's all they do is work on right-of-way agreements.

Storey: Do we have issues with people dumping water into our canals from streets and parking lots and whatever, and causing water-quality problems and things?

Gregg: Yes, Boise and the Payette both have water-quality problems on the lower part of the system, and Judge Dwyer, our federal judge here, a year ago ruled that there's 966

streams in Idaho that are water-quality limited, so there are advisory groups working on each of the systems trying to identify where the pollution is coming from and what it'll take to clean it up. But that will affect us down the road, yes.

Storey: How do we oversee that kind of thing?

Gregg: I think its so large, that probably working with the state D-E-Q [Department of Environmental Quality] and these advisory or watershed groups, at least from first start off from a voluntary standpoint and see if that works.

Storey: A lot of coordination.

Gregg: A lot of coordination. Wherever we can, we try to prevent people from dumping into our drains, and we don't allow–we don't knowingly take in wastewater into any of our drains. But the project was here before the city was developed, and our open drains are the storm drains for a lot of the smaller towns around here. So we end up with a lot of the storm runoff, and with that comes the pollution.

Storey: If you came in '87, I think I'm thinking correctly, John Keyes would have hired you.

Gregg: Yes. John Keyes was the regional director and is the regional director today.[29]

Storey: Tell me about him.

Gregg: I really like working for John. He's a good engineer, a good manager, a people person, very concerned about people and real good to work for.

Storey: You were here seven years, I think, and then the office evolved. What kinds of things dominated your time in those seven years? This is an O&M office also, is that right?

O&M Activities

Gregg: Yes, it would be considered an O&M. I talked about the needle-valve program. In 1990, we done one of the early resource management plans at [Lake] Cascade. We hired a contractor in this office, and the Region worked for about a year developing the

29. John W. Keys III served as regional director of the Pacific Northwest Region form 1986 to 1998, and went on to become Bureau of Reclamation commissioner under the George W. Bush administration from 2001 to 2006. Mr. Keys participated in Reclamation's oral history program, see John W. Keys III, *Oral History Interviews*, Transcript of tape-recorded Bureau of Reclamation Oral History Interviews conducted by Brit Allan Storey, from 1994 to 2006, in Denver, Colorado; Boise, Idaho; Washington, D.C.; and Moab, Utah, edited by Brit Allan Storey, 2008, www.usbr.gov/history/oralhist.html.

resource management plan. There were a lot of contentious issues at Cascade on recreation and wildlife, and between recreational uses, and we hired a contractor, EDAW,[30] to assist us with that, and really developed a good process, had good public involvement and developed an excellent resource management plan. In fact, it was considered, I think, the blueprint for the rest of Reclamation for resource management plans. In fact, we won that award for public involvement from environmental groups.

Storey: The Association of Environmental Professionals.

Gregg: Also at that time, when I first came here, we were developing a lot of recreational sites around Cascade, rehabbing old recreational campgrounds, building new ones, rehabbing the recreational sites at Black Canyon [Reservoir]. Had a big recreation program actually in running campgrounds and recreational facilities and then rehabbing facilities, that was a big part of the office.

Storey: You said you did the resource management plan at Cascade.

Gregg: Yes.

Storey: Have you done one subsequently?

Gregg: Right after Cascade, we done Owyhee, and then the Region went from there and worked with the Minidoka Project[31] on the American Falls resource management plan.

Storey: How useful do you find these?

Resource Management Plans

Gregg: We found it very useful, because before we had a lot of issues on different types of recreation. How much were you going to develop the facilities for recreation? What kind of uses were you going to allow? This was a way, with the public, to make those decisions of what was best for the resource and then put it there in black and white. What areas were you going to set aside for wildlife, what areas for fisheries, what areas for developed recreation? Yes, you really can't operate without them.

Storey: But my impression is that Reclamation has found them very expensive.

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30. EDAW is a landscape architecture firm.

31. One of Reclamation's earliest projects when construction began in 1904, the Minidoka Project supplies irrigation water to more than one million acres in eastern Idaho along the Snake River. For more information, see Eric A. Stene, "Minidoka Project," 1997, www.usbr.gov/history/projhist.html.

Gregg: Yes.

Storey: So expensive they don't want to do it, I sort of gather.

Gregg: Well, there's still resource management plans being done in Reclamation, but not as fast, I think, as folks thought, well, we'd get them all done in a couple years. Cascade, I think we spent over $700,000 on that resource management plan. A lot of the cost was public involvement, plus data-gathering that will last us in subsequent plans for cultural resources and archaeological review in sites and stuff like that. So I think the subsequent plans won't cost us near as much, but, yes, they are expensive. I think all of the offices are working on them, but its at a slower pace than we originally thought.

Storey: How many areas are there probably that need resource management plans, do you have any idea?

Gregg: My guess would be, out of all of Reclamation's facilities, we've probably got resource management plans for a quarter of them. Some of our reservoirs have the land surrounding them as B-L-M [Bureau of Land Management] or Forest Service, so they have a management plan, but I don't know, we're probably at a quarter to 30 percent, just guessing.

Storey: How about in your area?

Gregg: We're probably about halfway done. In the next several years, we'll be working on three more.

Storey: What kind of public involvement are we talking about here–a lot, medium, little?

Gregg: Lot, lot. When we done Cascade, for over a year we had an advisory group that we met with twice a month, and then every couple months, we'd have a public meeting to let folks know what we're doing and where we're at.

Storey: And you would do that up near Cascade?

Gregg: We'd do some in Cascade and then some here in Boise, because a lot of the people that own summer cabins at Cascade live here in Boise, so it took a lot of time.

Storey: Summer cabins?

Gregg: Yes.

Storey: How about year-'round homes, too?

Gregg: There are a lot of year–I think there's seven thousand cabins and homes around Cascade.

Storey: Just that one. What kinds of issues does that raise for Reclamation?

Gregg: We get somewhere between three hundred and four hundred thousand summer visitations to Cascade alone, and so the lake has water-quality problems. So we have a lot of conflicts over uses and . . .

END SIDE 2, TAPE 1. NOVEMBER 18, 1997.
BEGIN SIDE 1, TAPE 2. NOVEMBER 18, 1997.

Storey: This is an interview by Brit Storey with Jerrold Gregg on November 18th, 1997.

Do we have any situations in your area like Canyon Ferry where we have people on leaseholds or anything like that?

Reevaluating Rates on Leaseholds

Gregg: We have leases around Owyhee Reservoir. We have two areas where we lease out sites for summer cabins. We recently, here a year or two ago, went through the process of evaluating what the rates would be, and there was a significant jump in the leases.

Storey: How did that go?

Gregg: That's one area where the resource management plan had helped us. Prior to that, we had went through the process on the resource management plan and went through the whole process, and I think those leaseholders understood that they were using public land and that was a privilege, and that, you know, the rest of the taxpayers expected them to pay fair-market value. So we didn't have near the problem that they did at Canyon Ferry, and I think a lot of resource management plan helped us in that regard.

Storey: Like at Owyhee, how many leases do we have, do you have any idea?

Gregg: I'd guess there's probably fifty or sixty.

Storey: Are we issuing any new leases?

Gregg: No. In the fifties, they let people just go wherever, and they had people building all up and down the reservoir, and so in '64, the Park Service come in and done an inventory and done a study for us and recommended that we set up two sites. So at that time, everybody was given an opportunity to move their summer cabin and get a lot in two of these different sites. They're like subdivisions. So they're confined to those two areas. I doubt in the future we'll ever go beyond that.

Storey: I think the tendency in the federal government has been to remove all of those in holdings, but do we have a technique for doing that?

Gregg: The review was what we used to determine whether we were going to continue them or not, was resource management plan. The one that we done in the early nineties for the next ten years, that use is compatible. There's enough recreation sites around the reservoirs for the rest of the public. So we decided, during that process, to continue them. But every time we do a resource management plan or update the plan for Owyhee, we'll reevaluate that.

Storey: That inholding issue is an interesting one. What about concessions? Do we have any concessions in your area?

Gregg: We have a concession in Owyhee.

Storey: Do your contract people negotiate that, the Region? How does that work?

Concession Agreements

Gregg: The concession agreement was negotiated a long time ago and didn't have a lot of teeth in it and a lot of control. So, unfortunately, we've got a situation where we've got a concessionaire that's not doing a very good job. Its allowed some uses that are not compatible with their concession agreement, and so we're in the process now of trying to cancel that concession agreement. It just hasn't worked out very well.

Jim Badawsen [phonetic], who's head of our Recreation Section here, has worked on the task force in Reclamation to develop the new concession management policy. I think any new concessions we do will, of course, come under that policy. I think, in the old days, we had let folks have possession of the site for thirty years, and, of course, in the new era, we won't do that.

Storey: Do you have any specific examples of the kinds of things they're doing that are outside the concession agreement?

Gregg: They have subleased lands for folks to have trailers there, which is not allowed in the lease.

Storey: So we're protected, then, by our lease.

Gregg: By our lease, but its not written real strongly. I mean, its been a very difficult process, and we're about halfway through it, trying to cancel the concession agreement.

Storey: Is that your problem, or the Region's problem, or a combination, or how does that work?

Gregg: Well, we've been working with the Region and the Solicitor's Office on this for quite a few years now.

Storey: It takes a few years.

Gregg: Yes.

Storey: Well, the area is quite large. Do we have people outside of Boise who work for us?

Managing a Large Area

Gregg: The Central Snake was combined with the Minidoka Project in 1994, become the Snake River Area Office, and so we actually start at Jackson Hole and go clear to Washington. There's about thirty folks here in this office, technical and administrative folks, and then we have about thirty folks in the Burley Office. Then we have two large O&M offices–or three–one at Palisades, so they operate the powerplant and the dam there. We have powerplant electricians and mechanics, about twenty folks there.

Same way at Minidoka Dam. We have powerplant electricians and maintenance men, and they operate the powerplant, the dam, and then we have some traveling maintenance crews that do work at the other dams, like American Falls and Ririe, and like Ririe and American Falls we have one dam tender in Jackson. Then at Black Canyon is our other place where we have a powerplant plus a dam, so we have a field O&M office. Then at Black Canyon we have a control center. It used to operate Black Canyon and Anderson, and now we're upgrading it to include Minidoka and Palisades. It will be all remotely controlled from one place.

Storey: Where's Black Canyon from here?

Gregg: Its over by Emmett. Its about thirty miles northwest of here.

Storey: Does supervising all this require a lot of travel for you?

Gregg: Yes, it kind of goes in spurts, but either going to Burley or eastern Idaho or eastern Oregon, so probably 50 to 60 percent of my time, I'm on the road.

Storey: I heard "several powerplants." Does that mean unions?

Working with the Unions

Gregg: Yes.

Storey: What kinds of issues come up with the unions?

Gregg: Well, of course, we used to do annual wage negotiations. The last several years we have signed three-year wage packages. When President [Bill] Clinton first signed an executive order on partnerships, our office was one of the first ones to jump into a labor-management partnership, and that's been very successful. We won the Bureau's partnership award the first year after we'd had our partnership for about a year, so we have a formal partnership here with the union. That's been very successful. It helps us deal with a lot of issues that we would have dealt with through grievances and unfair labor practices before. Now we deal through a partnership. We have three or four management folks and three or four from the union that sit down once a month and talk over issues and decide how we're going to solve them. So that's been very successful for us. We have a real good relationship with the union.

Storey: Is it only one union?

Gregg: Yes, I-B-E-W, International Brotherhood of Electrical Workers.

Storey: For all those different powerplants. That's pretty nice, I guess.

Gregg: Right.

Storey: I've heard theses stories about electricians can't do carpentry, can't do this, can't do that, kind of issue.

Gregg: You may have heard those stories at some of the bigger facilities before, like at Grand Coulee or Hoover [dams], but we've never had that problem here. The trades have their jurisdictions, but we have a small office and folks are pretty close-knit, and so they, by and large, work together fairly closely. So they usually work on projects together, you

know, overhauls, or their maintenance work. Once in a while we've had that, but not near what you have at the larger facilities. We have a real strong work ethic with the folks here, and our union president, who's a powerplant operator, has a real strong work ethic, so that's always worked out very well for us.

Storey: Yes, that's great.

Gregg: When I first came here, the park people were all G-S [General Services], and so at times we would have controversy of what the G-S folks could do and what they couldn't do. About three or four years ago, the Region went in and done a classification and decided they should be wage-board folks, and so they were converted to wage board, settled a lot of those problems.

Storey: I guess I don't know what we're talking about. What's the difference between wage board and general services schedules?

Gregg: Here in the Northwest, our wage-board folks, of course, are like powerplant electricians, powerplant mechanics, maintenance men, considered blue-collar workers, but under law they can negotiate their own wages, which is supposed to be on a fair-market value or what the prevailing wage is in the area. We do have a contract that determines our working relationship.

Storey: So this was extended to the people who did the recreation, our recreation facilities.

Gregg: Right. They were converted from G-S to wage board.

Storey: So then they became unionized?

Gregg: They become unionized. In our Region right now, or at least in the Regional Office and this area office, the white-collar workers are not unionized. They are at Grand Coulee, but they're not here.

Storey: When did the salmon issue start heating up?

Dealing with the Salmon Issue

Gregg: It really started about 1990. I believe that was the year that the National Marine Fisheries listed some of the stocks threatened and one stock, the sockeyes, as endangered. So that come about right during the middle part of the drought, and that put pressure on us to go out and find water for flow augmentation for salmon. So we have

quite an operation every year to lease water from irrigation districts or buy water, but we've actually bought some storage water back from districts, but they've been a little bit conservative when they contracted with Reclamation.

So we bought back space. We lease water back on an annual basis. The biological opinion requires us to provide 427,000 acre feet a year during the migration period, and so we have a head of the Water Rights and Flow Augmentation [Section]. Rich Rigby is head of that section in the Regional Office. He does the leasing and purchasing of the water, and then my folks have to determine how to release that water every year when its called for, work a lot with Idaho Power, since they have a lot of facilities on the Snake River. So that's quite an operation every year.

Storey: So the Region's responsible for acquiring the water?

Acquiring Water for Salmon

Gregg: The Bureau is, and, yes, the Region's taken the role of trying to lease it or buy it, and then since its coming from our reservoir, its our responsibility to try to get it where its needed at the right time.

Storey: That involves water–well, it doesn't involve water deliveries, because you're sending it down the river.

Gregg: Right, but we need to work with the watermaster to get it through the system. Some of the water Idaho Power releases, SHIC [phonetic] releases when its needed, because of the limitations in our facilities, and then we backfill the system, backfill the water to their system. They will release it out of Brownlee Reservoir, which is west of Boise here, when its called for, which means releasing it at a lot higher flows than we could. Then during the summer, or during the summer and winter, then we replace that water to their system.

Storey: So it does affect you, but it doesn't affect you in the sense that it costs you a lot of money out of your office.

Gregg: The money that's used to rent and purchase the water for salmon come from–most of our construction budget in this Region has gone to providing water for salmon, so it comes out of the Region's budget.

Storey: Construction money? Why construction money?

Gregg: It was determined that that was nonreimbursable money, and really that was the only place when they first started for the money to come from, because the O&M money was all tied up in operating and maintaining the facilities. Also, construction money is used, of course, to build fish screens up on the Yakima Project, too. Its not all to buy water, but–of course, now we have the new programmatic budget. I guess there's no more O&M or construction money.

Storey: Do you see any results in the salmon effort? What is it, we're releasing 427,000 acre feet, is that it?

Gregg: Yes.

Storey: Something like that. Are you getting salmon up here?

Issues with Mitigating the Salmon Problem

Gregg: Well, of course, the salmon are blocked at Hell's Canyon. I guess I think it'll be a long time before we see any results, and then this biological opinion expires in 1999. They have to redo it, and so the agencies will have some big decisions. There's a big controversy on whether the Corps of Engineers ought to remove its dams, four dams on the lower Snake River. That's one theory. Or should we continue barging smolts around the dams. So depending on what option is picked, it, I think, will affect us of how much flow augmentation water we provide.

Storey: I gather that this water supply is causing some tensions with the state of Idaho and with the Engineer's Office maybe, and some other folks.

Gregg: Yes, especially when we first started, there was a lot of tension, and it started during the drought, and there wasn't enough water to go around. I think the irrigators saw it as a threat to their livelihood. Idaho, the legislature, has passed a law that allows us to rent water and run it through the water banks on an interim basis, and that expires in 1999. So I think Idaho has kind of adopted a "wait and see" attitude. I think John's done an excellent job of working with the governor and the state folks to make this happen.

Storey: How about you? Do you get pulled into this in dealing with these folks, too?

Gregg: Right. Like I said, every year, when we have to decide where we're going to lease the water from and how that affects our operations. Now, this is the fifth or sixth year that we've done it, so it gets a little bit smoother every year, a little bit easier. On the Payette [River] system, we work with the Watershed Council and sit down with them and try to

tell them how much water we have to move, and we try to blend in the salmon flows to match the recreation needs. Of course, that salmon water is on top of the irrigation deliveries, but we work with the Watershed Council and determine how much water comes out in the summer and then how much–some of the water we deliver in the wintertime we backfill. Idaho Power releases it when its needed, and then we backfill it. So we work with the Watershed Council, and that helps a lot.

Storey: Do you have other environmental issues around and about in your area?

Other Environmental Issues

Gregg: You mentioned water quality. Water quality is one of them that's really looming on the horizon. We're doing some studies on the drains here in the Boise area to try to get prepared for that, and then Lake Lowell. We have other endangered species. We have snails in the Minidoka area from American Falls down below Walcott. So every year we're working with the Regional Office and by contract going out and doing snail samples to determine where the colonies are. We have bald eagles at most of our reservoirs, and so we have to manage for that. The bull trout is proposed to be listed, and so that will affect our operations on the Boise and the Payette [rivers] and the reservoirs in eastern Oregon. Boise is growing by leaps and bounds, so our recreation demand is growing, so that's putting more and more pressure on our facilities. We have water-quality problems at Cascade. We're working with the city of McCall to get their treated effluent out of the river. In fact, this year Senator [Dirk] Kempthorn got two and a half million dollars in our budget to help them build an offsite treatment facility. That's kind of a wrap-up of, I think, our current environmental issues.

Storey: How did the evolution occur from a project office to an area office, and why, say, this one instead of Minidoka, and so on?

The Evolution from a Project Office to an Area Office

Gregg: I was on the CPORT team,[32] on the commissioner's team that, when Dan Beard come in and wanted to change Reclamation and get us more involved in natural resource and the environmental issues.[33] And I give credit to Dan Beard of, actually, I think, saying that

32. 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*.

33. Daniel P. Beard served as commissioner of the Bureau of Reclamation under the Clinton administration from 1993 to 1995 and participated in Reclamation's oral history program. See Daniel P. Beard, *Oral History*

(continued...)

the front-line offices need to be more involved more than just the traditional O&M of their facilities. That's kind of, in a lot of places, what we were doing. We were operating, maintaining our dams and our canals, but not getting involved in the environmental or the water-resource needs. So that's kind of where the idea from an area office come from. Dan wanted to make sure that all of the area in the West was covered. He had toured different places, and the project office said, "Well, we're responsible for this area, but not for this," and there were some big environmental needs or water-resource needs in those areas. So that's where the idea of the area office came, to make sure that we covered the Western seventeen states, and that we would go from project offices to water-resource offices and have more decision-making at the local offices.

This office was picked because John Dooley [phonetic] had been the project superintendent at Minidoka, and when we were going through the reorganization, he had transferred into the Regional Office to take a position, and so there was no project superintendent at Minidoka. So when they combined the two, then I was made the area manager for the two offices. So we went, I think, from six project offices in this Region to four area offices, one of them being the power office at Grand Coulee. Grand Coulee and Hungry Horse were combined into one office. There's an area office on the Snake River, and then there's the Upper Colombia Area Office, which covers the old Yakima and Columbia Basin Project. Then western Oregon and western Washington is covered by a small area office out of Portland, the Lower Colombia Area Office. So we created a new office there.

Storey: So all of a sudden in '94, you got handed more responsibility and twice the area.

Gregg: Yes.

Storey: More or less.

Gregg: More or less. This office and the Central Snake and Minidoka were what I call twin offices. We were under the same union contract. We were on the same river. We operated a similar type of O&M project, so we were pretty close. So it wasn't, I think, as big a transition as it was combining the Yakima and the Ephrata office. It made sense for us in a lot of respects, because we could afford a safety officer. Instead of a collateral duty safety officer, we could have a full-time safety officer, and we could have a concession specialist, archaeologist. So we could hire some positions that we couldn't

33. (...continued)
Interview, Expanded Second Edition, 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., edited by Brit Allan Storey, 2009, www.usbr.gov/history/oralhist.html.

afford before. We put all power operations under one control center. We combined the union. We had two offices under one contract, so we combined all that into one, so it made our workings with the union a lot smoother.

Storey: What other kinds of adjustments had to be made as we evolved from a project to an area office concept? How do you figure out, for instance, what's the Region's and what's yours?

Adjustments Made in the Region as a Result of the Reorganization

Gregg: We went through, I think, about a year in this Region trying to sort that out, what the area office should do and what the Regional Office do. I think what helped this Region is when we reorganized we created what's called a Board of Directors, and so the four area managers, the regional director, deputy regional director, head of personnel, head of finance, and the head of resource and management make what's called a Board of Directors. We meet about every other month, and so that really helped us, I think, sort things out to maintain a corporate sense of things, but there were some turf issues that we spent some time sorting out.

Storey: What kinds of issues?

Gregg: Like in planning, do we maintain centralized planning in the Region like we had, or do we move it out to the area office? Does the area offices have design and construction capabilities, or do we maintain that in the Region? So planning we decentralized and moved out to the area office. Design and construction we left in the Region. Of course, Reclamation was going through a lot of change, and this Region had been very stable for forty years, and we were going through a lot of change. I think the employees were really concerned. I think people were overly concerned. I think folks were concerned they were going to lose their job, or their job was going to move here. Actually, when it all ended up, it really didn't adversely affect employees that much. Very few employees were moved out of the Regional Office.

Storey: A few people retired, I think.

Gregg: A lot of people retired, and so we made changes that way.

Storey: This was a Dan Beard creation. What did it do to the reorganization? What did it do to our relationships with the stakeholders, so called, with the irrigators and the other water users?

Reclamation Reorganization Impacts on Relations with Water Districts

Gregg: I think the irrigation districts were really afraid of Dan Beard and resented him being commissioner, and I think were really afraid of a lot his ideas, even though a lot of them were coming down the road before Dan Beard came here. I think if Dan Beard wouldn't have reorganized the Bureau, I'm not sure we'd be here today, because we weren't prepared to deal with a lot of resource issues, water-resource issues, and he got us ready for that. I think this commissioner, with his background being state engineer, has helped calm a lot of our traditional customers. So we've got better relationships, and they, I don't think, view us as some kind of monster that's going to try to put them out of business. But we've also now, I think, working with a lot of other groups that we didn't before on degree, you know, environmental groups, to the degree that we are working with them now, with cities, with water city councils.

Storey: Any other changes under Commissioner [Eluid] Martinez from Commissioner Beard?

Gregg: I think Dan made the necessary changes that needed to be made, and I think Commissioner Martinez has given us the room to implement those, and, you know, kind of taken some of the political heat off us. He also emphasized water conservation, which was needed.

Storey: If you read people like Marc Riesner[34] and so on, they tend to believe that some of these farmers on the upper Snake [River] are using a lot more water than they really need to use and that there isn't any built-in incentive to conserve water. How is water conservation working in your area?

Water Conservation Efforts

Gregg: Well, we're getting started. We have a water conservation specialist. We have done a lot of work with districts on putting in measuring devices throughout the Snake River. Automation is becoming very popular, and we've worked with a lot of districts on automating their head gates, their larger check structures. So I think, over time, there's an economic incentive for those districts to be better stewards of their water. Well, it kind of fits hand in glove with our need for water for salmon. Right now we're paying something like ten dollars an acre foot to rent water. So farmers, there's an economic incentive for them to save water. They can lease it, or they can save it and use it the next

34. In 1986 Marc Riesner released *Cadillac Desert*, a critical study of water development in the American West. See Marc P. Reisner, *Cadillac Desert: The American West and Its Disappearing Water* (New York: Penguin Books, 1993).

year. So there's getting to be more of an economic incentive, and that's what's going to cause change.

Storey: So the money passes through to the person who would have used the water, is that right?

Gregg: You mean from the water bank?

Storey: Yes.

Gregg: Well, in Idaho in 1976, they passed a law allowing what's called water banks. So within a river basin, a group can form, and the Water Resource Board approves their rules and regulations. What it allows them to do, and Reclamation's been a part of this, because most of the storage water is from our reservoirs, if somebody has more storage water than they need in a year, they can put it in a water bank, and somebody else can lease it back out. So that's been going on since 1976 from ag user to ag user. When the salmon issue come along, and we needed water for salmon, then we become a major lessor of that temporary storage water. Say this past year, we probably rented 250,000 acre feet of water from the water banks. There's three of them, one on the Payette, one on the Boise, and one on the upper Snake. So the watermaster gets an administrative fee, and then the rest of the money goes back to the district to put the water in.

Storey: To the district. Not to the water user.

Gregg: Not to the water user, because our contracts are to the district. Of course, the farmers benefit, but, yes, it goes back to the district.

Storey: Any places where you see that the reorganization maybe needs adjustment or something, isn't working as well as it could or should?

Measuring the Success of the Reorganization

Gregg: I think every now and then we're going to have to all reassess, I think, between Denver and the Region and the area offices of who's doing what and how we're doing business, and make some adjustments. By and large, I think its worked. At least from my perspective, I think Reclamation's working fairly well right now. We have healthy budgets. I think most of our offices got meaningful work. I think we're doing what our constituents want us to do, so I think its working fairly well. But I do think there are going to be some minor adjustments from time to time.

Storey: When the area was created, did you get an increased staff out of that?

Gregg: We increased by about ten positions over a couple years, not a huge–

Storey: That's above and beyond what was already in the project offices.

Gregg: Right, we increased by about ten positions.

Storey: So that would be maybe, what, 10 percent?

Gregg: About 10 percent. We didn't make a huge change.

Storey: And you like it, I take it?

Gregg: Yes, I like it. I think its working fairly well. I think we can do a lot. We're spread out. That's our biggest challenge in this area office, is geographically we're spread out all over southern Idaho. So communications have got constant challenge with us.

END SIDE 1, TAPE 2. NOVEMBER 18, 1997.
BEGIN SIDE 2, TAPE 2. NOVEMBER 18, 1997.

Storey: One of the things that happened in '94, there was a lot of talk about doing more with less, and then a couple of years later, it became, what are we not going to do. How did you find that this worked?

Reclamation's Reluctance Toward Change

Gregg: I think that's probably one of the areas that Reclamation kind of failed in, is that I don't think we were very successful in doing less. We found it extremely difficult here to give up things that we don't need to be doing anymore, or we have a higher priority of things to be doing. It just seems like no matter what the issue is, there's some constituent group or somebody internally wants to hang onto that. So I think that's one area that Reclamation could do a better job in, is what are our priorities and what are we not going to do anymore? I think there are some areas that we don't need to be doing anymore.

Storey: Such as?

Gregg: Crop reports. I think title transfer was an initiative to try to get us out of operating and maintaining the canal and lateral systems, and that has not went very far. I think we've only done two or three title-transfer initiatives.

Storey: Any in your area?

Gregg: We have two that we're working on now, but they're going very slowly.

Storey: Which ones are those?

Gregg: The Burley Irrigation District in eastern Idaho, and then Nampa-Meridian here.

Storey: Why are they going so slowly? You would think the farmers would say, "Yes, yes, yes, we want it."

Gregg: They are, but then there's all the things that you have to do, all the rules and regulations. You have to go through NEPA [National Environmental Protection Act] and cultural resources. I think the districts see this as an opportunity to get things that they couldn't get before, so they overreach a little bit. I think our organization's a little bit fearful of these, and so people apply the rules a little bit tighter than they normally would. We've been working on Burley for over a year now, and its just going very slowly. I think we'll get there, but it's a very slow process. Then Congress didn't do anything to cut out any of the red tape, so that hasn't helped any.

Storey: Interesting. What else should we be talking about? What have I missed that occupies a lot of your time?

Gregg: How about if we cut it off here today and pick up tomorrow.

Storey: Yes, we could do that.

Gregg: Okay. I've got a public meeting I got to get ready to go to tonight.

Storey: Okay. Let me ask then if you're willing for the information on these tapes and the resulting transcripts to be used by researchers.

Gregg: Yes.

Storey: Good. Thank you.

END SIDE 2, TAPE 2. NOVEMBER 18, 1997.
BEGIN SIDE 1, TAPE 1. NOVEMBER 19, 1997.

Storey: This is Brit Alan Storey, senior historian of the Bureau of Reclamation, interviewing Jerrold Gregg, on November the 19th, 1997 at about 2:30 in the afternoon in his offices in Boise, Idaho. This is tape one.

I think today maybe we ought to talk about S-R-3, which stands for Salmon–

Gregg: Snake River Resources Review.

Storey: Where did this come from and what is it?

Snake River Resources Review

Gregg: Well, we started it in 1995, and we were getting a lot of demands for data on the Snake River, or requests to do studies, or requests to do impact studies of, say, providing more salmon water, and we really didn't have the data, the basic data, or the planning tools to accomplish that. So that's when we made the decision to do the Snake River Resources Review, and we projected it would take about five years to complete that, to get a good handle on collecting the data, working with the state organizations and Indian tribes and other entities that are out there doing work. So, collecting the basic data and then developing the different planning tools that we could use to analyze various scenarios. What will come out of it is a computerized decision support system that'll help us do a better job of operating the system. So we're about halfway through it.[35]

Storey: What kinds of factors are going to be taken into account?

Gregg: It'll look at different components of the Snake River, cultural resources, fish and wildlife, water operations, economics. So then we'll be able to look at various parts of the Snake River, ask this decision support system different questions, like what would be the impact if we released another million acre feet for flow augmentation. It would then provide us what the impacts to our system would be, what the economic impacts would be. If we get into another drought, it'll help us maybe make better decisions of how we move water through the system. So that's kind of what we're looking at right now. It's a pretty big endeavor. It goes all the way from Jackson Hole, Wyoming to Brownlee Dam.[36] We're putting about two-million dollars a year into this.

Storey: Over five years.

Gregg: Over five years.

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35. The Snake River Resources Review sought to focus on "the operation of the Snake River system for traditional uses such as irrigation, flood control, and power and to identify potential tradeoffs of the uses when considering other demands on the river system." For more information, see Bureau of Reclamation, "Snake River Resources Review (SR^3) Blueprint," Boise, Idaho, June 1996.

36. Brownlee Dam is an Idaho Power Company structure located on the Snake River on the Oregon/Idaho border.

Storey: Is this a project of the area office, the Region, a combination?

Gregg: It's a combination. Eileen Salenik is the team leader, and she has three folks in the regional office that work on this full time, and then they have about ten work groups. That's made up of Regional Office folks, folks from the area office, and then, of course, we're relying on the Technical Service Center in Denver to do a lot of work for us. So it's a combination of both, but the team leader or the project leaders are in the Regional Office.

Storey: Seems like a pretty big task to get your arms around.

Gregg: It is a pretty big task, but the biological opinion that we're operating under for salmon expires in 1999, and we'll be asked some pretty big questions at that time, both us and the [U.S.] Corps of Engineers. Hopefully, we'll have the tools to answer those questions. It has really been a long time since we've done any active planning on the Snake River. There was a lot planning done in the fifties and the sixties, and a little bit in the seventies, and then there was just a wide gap. So we really found ourselves with not-up-to-date data, our computer models were out of date, we didn't have any decision support systems. So that's what we're working on, and we're really trying to make this a partnership with the states and tribes and local entities. We're not trying to reinvent the wheel. We will use a lot of G-I-S on this.

Storey: But at that meeting last night, I heard some concerns being expressed by the irrigators about making all this information available to people.

Water Users' Concerns with the Review

Gregg: Yes, the irrigators have been concerned. Of course, they're faced with–you know, when we go out to get water for flow augmentation, it comes from them. The Nez Perce is working on their water-rights claim, which they have essentially claimed all the water in the Snake River. Through the Snake River adjudication, all the water users are having to adjudicate the water claims, and so the irrigators have some fear that if we develop this tool, it could be used against them. We've tried to work with them to tell them, "No, that's not the case." We'll have a tool and better data to make decisions. We're still going to be making those decisions whether we have this or not, but hopefully we'll make better decisions. But there is a lot of apprehension.

Storey: What about other groups? Are there other groups that are concerned about this process?

Gregg: It think it varies. I think the irrigators have the most concern. I think the state agencies are really glad we're doing it, because they're in the same box that we are, of being asked these questions and not having the right data and not having the planning models. So this is going to be a boost to them, too. The tribes have been very active in this process, because they want to make sure that we do a good job on the cultural resources and how we affect their water rights.

Storey: You've been here now, what, fourteen years, more or less.

Gregg: It'll be ten years in December.

Storey: Oh, I'm sorry. I'm going back to Socorro.

Gregg: Ten years.

Storey: Back to '87. Have there been any floods during that time?

Flood Events

Gregg: Well, actually, yes, there's been several. '96, we had some fairly good-size floods. This last year was really record floods. We started out actually on New Year's Eve of having a large flood on the Payette [River]. I think it was third highest peak on record. We had flows in excess of 35,000 [cfs] going past Black Canyon Dam, flooding on the Payette, and we had two or three times where we had real large peaks on the Payette.

On the Boise [River], we had upwards of 150 percent snowpack, and we started making large releases upwards around 7,000 c-f-s, which is near flood stage, or is flood stage, in January, and maintained those large releases all the way through June. So we prevented some real huge flood damages on the Boise. We would have had some peaks upward around 29,000 c-f-s if we wouldn't have had our reservoir systems, which would have put water in most of downtown Boise.

On the upper Snake [River], we had somewheres around 150 to 160 percent snowpack. We drained Palisades Reservoir by May, actually emptied it, Jackson was half-empty, and in June and July, that's when the peaks hit us, and we had our largest ever releases out of Palisades Reservoir. Flood stage is 25,000 c-f-s, and we were releasing up to 43,000. We prevented a lot of flood damages, but there was still a lot of damage all the way down the system. So this was a huge year.

Storey: How did you prevent damage?

Gregg: At Palisades and Jackson, we prevented it by releasing water early and getting the reservoirs down, so we took the peaks off. We weren't totally able to control the flood. We would've had to have a couple more reservoirs the size of Palisades, but we were able to take the peaks off. Instead of having 43,000, if our reservoirs wouldn't have been there, we'd have been up to 56,000 c-f-s. So we took that peak off that would have went through Idaho Falls and some of the smaller towns. It got high enough where it washed out sections of the interstate, couple of small towns had water in the towns. So there were damage to a couple hundred homes.

Storey: These are reservoirs you control out of this office?

Gregg: Right, out of this office and Burley, and, of course, we worked a lot with the Regional Office.

Storey: How does that work? Who makes which decisions when?

Decision Making during a Flood Event

Gregg: Well, actually, we have an operating plan that we put together at the beginning of the year, and we update that monthly as we get our forecasts, and bimonthly as we get into the flood season. But when we get into the big flood releases, the Regional Office and this office and Burley, we were making conference calls daily, making decisions of how much we were going to release and when, and contacting the news media. So we were on the phone daily with the regional director and the head of Water Operations in the Regional Office. We were swamped with media calls for probably a month. We had the congressional delegation out, and we flew them up and down the river to show them what was going on. So this was our big record flood this year on all three river systems: the Snake, the Boise and the Payette.

Storey: As I understand what you're saying, you're releasing water from the reservoirs in order to increase your storage capacity when you do get the flood. Is that what I'm hearing?

Gregg: We were trying to make sure that when the peak hit that we still had some storage capacity so that when the peak hit our reservoirs, then we weren't full and having to release that peak down the system. So normally, in a normal-sized flood, you're able to release enough storage so you can store all of that. Well, we had more water than we could store. Like I said, we had emptied Palisades, and we would have had enough water, I think, to fill it three times. So we emptied, it filled up again. Flood stage below Palisades is 25,000. We had to get up to 43,000. But, still, if our reservoir wouldn't have been there, the natural flow would have been up around 56 to 60,000, so we did

take off that peak. We ended up having to go into surcharge both at Palisades and in Jackson, so we just squeaked by.

Storey: Yet I can imagine that there were irrigators driving by Palisades who were saying, "What are you doing with my water?" [Laughter]

Gregg: Yes. When we first emptied it, there was a lot of concern, are we going to fill again, and stuff like that.

Storey: Anybody in particular?

Gregg: No, just some of the irrigation districts, some of the managers called us and was concerned, but I think as soon as the snowmelt started, then I think they understood the gravity of the situation.

Storey: And then you have all these competing interests going on, you know, the political things. It must keep you rather busy when something like this is going on.

Gregg: Yes, the one group I guess that was happy–I guess not maybe happy, but wanted to see the large releases, ever since we built Palisades there haven't been large flows in that section of the river, and so the cottonwoods haven't been regenerating, so the group that's been advocating for years for us to make large releases did see those releases this year. Now, we don't know if that'll regenerate the cottonwoods or not, but it takes flows up in that range to move the silt around and then for the cottonwoods to regenerate.

Yes, we spent a lot of time with the public trying to explain what we were doing, and it affected the fishing and the guide business below Jackson and Palisades for quite some time, because at the real high flows, the fishing's not good at all, and there's a lot of outfitters that their whole livelihood is on their ability to guide through the summer, and they lost about half the summer.

Storey: I think I was at the point yesterday of asking you what we should be talking about that we haven't talked about so far. What about drought? That's the other end of the spectrum from flooding. Have we had any of that while you've been here?

Dealing with Drought

Gregg: Right. When I first came here, we went through actually a period that was equal to the drought of the thirties, which most of our systems was designed to prevent. We actually had a string of about seven years, and about three of those were real critical years, real

severe years where we had irrigation districts that were only able to deliver half their water. Farmers had to idle lands in order to irrigate other lands through the whole season. We had some districts, like the Vail Irrigation District west of Ontario, Oregon, that run out of water in July in one year and August the next year. So it's a struggle for the irrigators. It was a struggle for us to get water for salmon. Then we struggled to have water to release at most of our reservoirs. We have instream flow requirements, we release water during the winter for the fisheries, and water quality, we struggled to maintain those. Our reservoirs were either empty at the end of the season or very low, so it affected the fisheries. It was a tough period. It was hard on the fisheries, it was hard on water quality, it was hard on the irrigators. I guess in 1994 was about our last year, but it went from '87 to '94, with three years being real bad. Couple years we literally emptied the reservoirs at the end of the season. We just had some minimum pools left in them, and that was it.

Storey: Do you have any sense of how much the Reclamation projects improved the situation over what it would have been with just natural flow?

Gregg: Oh, yes, most of these districts would have been out of water in June. They wouldn't have been able to grow any crops, but with the system we were able to store enough water, and they could idle some land. There was some economic loss, but the farmers didn't go out of business either. I mean, they were able to, like I said, store some water and idle some land and irrigate their other lands throughout the season. No, in those dry years, we'd have been out of water in June, and it'd have been a pretty bleak picture, and for recreation, too. We've got quite an industry of white-water rafting and kayaking, and without our reservoirs, there would have been nothing there either.

Storey: Once again, I think yesterday I was starting to ask you what we should talk about that we hadn't talked about.

Commissioner's Program and Organizational Review Team (CPORT)

Gregg: Probably one that I don't know if we talked about it or not, but in '93 I had the opportunity to be on the CPORT [Commissioner's Program and Organizational Review Team] team when Dan Beard first came, and I and six others spent nine weeks in Denver trying to put together a document of where we thought the organization had been, and some recommendations for the future. That was quite an experience for me. We had a good team, spent a lot of time with the commissioner and Donald Glaser,[37] and put

37. Donald Glaser served as Assistant Commissioner Administration and Liaison (1989-1990); Assistant Commissioner Program, Budget, and Liaison (1990-1991); Acting Assistant Secretary of the Interior for Water and (continued...)

together a report that the commissioner used some of it to frame his Blueprint for Reform.[38]

Storey: What kind of dynamics were going on? I guess everybody must have known you were on CPORT.

Gregg: Yes, we tried to keep an open dialogue with all the employees that was going on at that time. I think at that time the organization was ready to change. I mean, a lot of the ideas that we put in the report weren't new ideas. They'd been around, and other reports had been around before, but I think the organization had went through a lot of change efforts with the strategic plan of 1987, or the *Assessment '87*,[39] and one in '89, and there was one previously in '85, and then Commissioner [Dennis] Underwood had us doing the strategic planning.[40]

So I think the organization was ready, and we got a lot of input from folks throughout the whole organization of what they thought Reclamation should be, and I think the folks in Reclamation really deeply care about the organization, and so we got a lot of good thoughts. I think there was a lot of fear at that time, too, then, I mean, a big change and a lot of concern. I think there was a lot of concern in our report about different parts of the organization being phased out or whatever. But, yes, that was kind of one of the parts of my career I look back to as really interesting at the time. After that, I come back and was on the team that developed the reorganization plan for this Region. So I went from CPORT to the P-N [Pacific Northwest] team, and we put together a plan for John Keys, the regional director, of how we thought this Region should look like.

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37. (...continued)
Science (1993); Deputy Commissioner (1993-1994); Regional Director Mid-Pacific Region (2008-2012). Mr. Glaser participated in Reclamation's oral history program, see Donald R. Glaser, *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 2013, in various locations, edited by Brit Allan Storey, 2014, www.usbr.gov/history/oralhist.html.

38. Reclamation published Commissioner Daniel P. Beard's *Blueprint for Reform: The Commissioner's Plan for Reinventing Reclamation* in 1993 as one of the vehicles for his reorganization of Reclamation in 1993-1994. Another of the vehicles was the "Commissioner's CPORT team report–"Report of the Commissioner's Program and Organization Review Team" which Reclamation also published in 1993.

39. *Assessment '87* marked a dramatic departure for Reclamation by recognizing that the construction era had ended, and that Reclamation needed to discover new and innovated methods of conserving and better utilizing water in the West. For more information, see *Assessment '87: A New Direction for the Bureau of Reclamation* (Washington, D.C.: U.S. Department of the Interior, Bureau of Reclamation, 1987).

40. Dennis B. Underwood served as commissioner of the Bureau of Reclamation under the George H. W. Bush administration from 1989 to 1993, and participated in Reclamation's oral history program. See Dennis B. Underwood, *Oral History Interview*, Transcript of tape-recorded Bureau of Reclamation Oral History Interviews conducted by Brit Allan Storey, senior historian, Bureau of Reclamation, from 1995 to 1998, in Los Angeles and Ontario, California, edited by Brit Allan Storey, www.usbr.gov/history.oralhist.html.

Storey: What were Dan Beard and Don Glaser saying to you in these meetings over CPORT? What was the tenor of all this?

Gregg: I think the commissioner had the vision of, you know, he wanted us to be a water resource management agency, not a construction agency, not an O&M agency, but a resource management agency where we solved a lot of the problems that were out in the West. I think his feeling was that there were a lot of problems, water-quality problems, environmental problems that only Reclamation had the ability to solve and that we should be working on those and putting our budget towards those and not necessarily being so tied up on our infrastructure. So he kind of set the vision for us. Then Don Glaser was our advisor and spent a lot of time with this when we get down to the nitty-gritty of different areas of policy and politics and kind of working with us to make sure we understood the bigger picture and get us over the rough spots. But besides that, both of them let us kind of do the work on our own, I mean, kind of laid it out for us what they wanted and by when, and spent nine weeks locked up in several rooms in Denver, working on it. It was quite a bit of work.

Storey: Who were the other people on the team?

Gregg: There was Mike Whittington, who was the team leader, who was planning officer out of Billings; Carol DeAngelis, who was the 400 Chief out of Salt Lake. Curtis Smith, who was head of personnel in Sacramento; Pat Fischel, which was R-D Secretary in Salt Lake; and then we had a construction engineer out of Phoenix. That was our team. So we had a pretty broad cross-section of folks. [41]

Storey: So then you had your report, the so-called CPORT. Commissioner's Program and Organizational Review Team, I believe.

Gregg: Right.

Storey: As you look back on it, how much of it got into the reorganization, how much of it didn't, those sorts of things?

Gregg: I'm amazed, when I look back on it, how much change was implemented. There was a lot of commotion when the report come out. I think there were a lot of things that we put in the report that folks were thinking about, but had never been put in black and white, but a lot of its been implemented, I don't think just because it was in the report. I think that Reclamation was ready. The area office concept got implemented. Denver

41. CPORT Team consisted of Mike Whittington (team lead) Carol DeAngelis, Davis Huss, Pat Fischel, Jerry Gregg, Curtis Smith, and Susan Hoffman.

went through a major reorganization, instead of having direct oversight in policy and other things and more of a technical service office. I think the whole organization streamlined itself. It was the first venture into water resource management. So I think a lot of this got implemented. I think it was just kind of our team and the report was there at the right time, you know, and it was maybe the catalyst that got us into the resource management area, and then I think everybody else has carried it forward. You could have probably used a two-page outline and done the same thing.

Storey: Speaking of Denver, does this office use Denver a lot, or how does that work for you all?

Denver Office Assistance to Area Office

Gregg: Yes, we use Denver quite a bit in our powerplants. We're just finishing the Minidoka Powerplant. They're rebuilding. We built a brand-new powerplant, 20 megawatt powerplant to replace an older one and then rehab two units out of the original powerplant. There were seven units at Minidoka Powerplant. The first five units were built around 1905. We have retired those and replaced them with a brand-new powerplant, and then the two older units in the powerplant we have rehabbed. So we just finished that this year. Of course, we used Denver for the design and construction help and in the construction management. We use Denver a lot when we're having trouble with our powerplants, to have folks come out and do troubleshooting.

S-R-3, of course, we use Denver a lot. We have a lot of folks, modelers, economists, wildlife folks that are working on that. Arrowrock Dam on the Boise was built in 1915, its got twenty Anson valves and five sluice gates that are getting to the end of their useful life, and so this year we'll have Denver, they'll do the design for us to replace those twenty Anson valves and five sluice gates with ten clam-shell gates. So this year they'll be doing the preliminary designs for us. So, yes, we do rely on Denver, and we've had, I think, a pretty good relationship with Denver. We're doing two Safety-of-Dams projects, one on Deadwood Dam and one on Warm Springs in eastern Oregon, and, of course, we're using Denver for that, for those projects.

Storey: How do you see the flattening of the structure working when it came out of CPORT and the reorganization?

Effects of Streamlining the Organization

Gregg: Well, in this office, essentially we eliminated, in the Wage Board arena, we eliminated our foreman II and foreman III and went to work leaders, so we have a facility manager and then about thirty employees, say, at Palisades or Black Canyon [dams], and then the

work leaders. Here in the Boise and Burley office, we eliminated the branch chiefs and went to team leaders and the group managers. Its working. We're struggling. I think the one to fifteen is pretty tough for supervisors, where folks used to have three or four people to supervise, now they may have from ten to thirty. So I think we're struggling with that. I think the whole organization is struggling with that. I think its going to take us a while to find that happy medium.

You know, I think parts of empowering employees was a good thing, and I think that's working, but trying to find that right balance between empowerment and having a team leader and then a supervisor, I don't think we're there yet. I see that throughout the whole organization.

Storey: We talked about Region versus area office yesterday, I believe. One of the things that I watched while I was in Denver was people would be going around and they'd say, "What's this water resources management stuff? I don't understand what they're talking about." Did you have that kind of thing going on here in the area office?

Defining Water Resource Management

Gregg: Probably not quite as much, because, you know, we were doing a lot of things in water quality and salmon issues were here. I guess we spent about a year trying to figure out what that meant, but I think after we sorted out what the area office was going to do and the Regional Office was going to do, things just kind of fell in place. We got a pretty healthy budget, and we we're doing things from water-quality projects to resource management plans, to finding water for salmon. So I think the light bulb kind of dawned on us. There was a lot of things we were already doing, and other things we were just getting our foot into the door. I think the whole Bureau, a lot of what's driving what we're doing is endangered species. Every part of the Bureau you go in, they're involved in the endangered species. In the Platte [River], it's the cranes; in the Colorado [River], its several different species of fish and the flycatcher; here, it's the salmon and bull trout; Sacramento, its various fisheries. So I think E-S-A [Endangered Species Act] is really driving a lot of what the Bureau does all over the West.

Storey: What else should we talk about? You have made how many moves? Oahe, Bismarck–

Gregg: Casper.

Storey: Mills, Socorro, and here. Five moves in your career. Until you came here, on the average of three to four years. Did that affect your family?

The Effect on Family Moving Through Reclamation

Gregg: I was in the Army for two years prior to that and moved three or four times in the Army in a span of two years. Yes, I think there's some pros and cons to that. My family got to see a lot of the West and different cultures, which I think was very positive, but it was hard on the kids, too, of giving up their friends, and my wife and I, too, giving up your friends and moving somewhere else. That's probably why we've tended to stay here a little bit longer than any other place, because the kids were in junior high and high school, and that's a tough time to move.

END SIDE 2, TAPE 1. NOVEMBER 19, 1997.
BEGIN SIDE 1, TAPE 2. NOVEMBER 19, 1997.

Gregg: I guess if I'd had it to do all over again, I would still make those same moves. Its been good for my career, not necessarily good financially, especially when we left Casper. We left after the oil industry bottomed out, and so you couldn't hardly give a house away. But, no, we've enjoyed moving around the different parts of the West.

Storey: Anything else you want to talk about?

Gregg: I can't think of anything.

Storey: Good. Well, let's close this down. I'll ask you again whether you're willing for the information on the tape and the resulting transcript to be used by researchers.

Gregg: Yes.

Storey: Good. Thank you.

END SIDE 1, TAPE 2. NOVEMBER 19, 1997.
BEGIN SIDE 1, TAPE 1. AUGUST 11, 2009.

Storey: This is Brit Allan Storey, senior historian of the Bureau of Reclamation, interviewing Jerrold D. Gregg, Jerry Gregg, on August 11, 2009, in Building 67 on the Denver Federal Center. Mr. Gregg is the area manger in Boise, Idaho.

Well, its, Mr. Gregg its been since 1997 that we last talked. And . . .

Gregg: Don't you have to put the tape?

Storey: Yeah. (Gregg: Oh.) There's one in there. (Laugh)

Gregg: Oh. I see. Okay.

Storey: And, that was three years after Dan Beard's reorganization, the reorganization that changed the structure of the regions and passed a lot of activities down to the area offices, and given this amount of time I wonder what kind of perspectives you have on that now?

An Evaluation of Dan Beard's Reorganization

Gregg: Well, ninety, first of all 1997 was a big year in Pacific Northwest. We had a huge snowpack. We had record floods on the Boise [River], and on the Snake River. In fact, we had near a hundred-year runoff on the upper Snake, and out of Palisades [Dam] we hit 44,000 c-f-s [cubic feet per second]. We flooded out part of the interstate. Same way on the Boise. I mean, we essentially emptied our reservoirs, and then refilled them, and then still had huge, huge releases. And so, our reservoirs done what they were supposed to do, and that was a big effort between the Region and the area offices. (Storey: Uhm-hmm.)

I think since '97–well, one of the things I want to point out is that people I think had a misconception that a lot of decision-making authority moved out under the reorganization to the area managers and that, I don't think that's–the perception was bigger than the truth, because when I was a project superintendent I reported to a regional director. When I was an area, when I'm, as an area manager I report to a regional director. And, big issues that are political or complex we always sit down and discuss and, you know, "Who's going to sign the letter?" or "How are we going to handle it?" So, to me that didn't change so much, but what did change, and unfortunately, you know, at the time the area manager concept got hyped a little more than it should have, but we moved a lot of resources out to the area office that used to reside in the Regional Office, centralized. Planning, the planning function was one, some of the recreation, the ability to do the on-the-ground E-S-A [Endangered Species Act] and NEPA [National Environmental Policy Act], and those functions moved out, because our customers wanted to be close to, if they were going to do planning work, or issue boat dock permits they wanted to be close to that person. And so, I think over time the different regions and area offices have matured and, you know, kind of the relationship and who's going to have what staff. And, that's what I see today is that we've kind of continued down the line. You know, we've continued to, our budgets have continued to decline. We've lost, across Reclamation, we're still losing staff, still losing numbers. And so that, that change is still happening, you know, through

Managing for Excellence, and now the COG [Continuity of Government] process. I think Reclamation is continuing to adjust its F-T [Full-time] numbers, and where we're going to have what services.

Storey: Uhm-hmm. So, what's happened to the area office in this?

Creating a Balance between Region and Area Offices

Gregg: I think in our Region, I'll speak for the Pacific Northwest Region, I think we've pretty well stabilized what resources we're going to have out in the area office versus in the Region. Now, the new C-O-G process, or Team 12 concept, may change that over time, but, you know, essentially we centralized design in the Regional Office years ago. You know, in the area offices we have what I consider the bread and butter resources, you know, the natural resource specialist to do Crossing Agreements, to do boat dock permits, to do the water operations. In the Regional Office we have the higher level skills that we can't, we can't afford to have in area offices, (Storey: Uhm-hmm.) you know, the water quality experts, people that do the big hydrologic modeling, you know, and do reservoir operations oversight. And so, I think in our Region, anyway, we've, I think we've come to that balance, at least for the time being. Now, every year we, as we do our budgets we look at that. And in our Region, and I think its true across Reclamation, we work as a team and we work very closely together. So, I don't see any conflicts, you know, at least at this time. (Storey: Uhm-hmm.) I think we work very closely together.

A lot of our work, of course, comes down to T-S-C [Technical Service Center] in Denver, and then the new, kind of the new thing for us all the security issues and adjusting to that, you know. We have the S-S-L-E [Safety, Security and Law Enforcement] organization here in Denver, Safety, Security, and Law Enforcement, and I think that's probably causing more change across the organization than anything, because we're just not used to doing some of the things that now that we have to do for security. (Storey: Uhm-hmm.) And, we do have law enforcement. Unfortunately, we asked for law enforcement authority for years and years, then we got it, now we're having to adjust. (Laughter)

Storey: Now we're having to do it, huh?

Gregg: Yes. We're having to do it.

Storey: Well, what happened to the staffing levels in the area office? First, I gather, you increased in size after the reorganization?

Gregg: Right.

Storey: In your area office?

Gregg: I'll use the Snake River [Area Office]. I think we went from about 115-120 F-T-Es [Full-time Employees], probably up to about 140, it peaked out about three or four years ago. We consolidated. So, we peaked out, and one of the big changes, of course, was moving planning out of the Regional Office to the area office, and then some of the E-S-A [Endangered Species Act] habitat work, we moved a lot of folks out in the field to do habitat for salmon. A couple of years ago our leadership team, the Board of Directors, made the decision to consolidate that all in one group, one management group out of the Regional Office and so the field people were moved out of the area offices into that office. So, I, we've . . .

Storey: That's the salmon recovery?

Gregg: Right. The salmon recovery. Its called the Columbia-Snake River Office. And so, they do the habitat work on the ground, help write the bi-ops [Biological Opinions] for the federal Columbia [River] system. So, I lost about four F-T-Es that went into that office, and so did Yakima. So, we're down to about 140 F-T-Es and have leveled off there. (Storey: Uhm-hmm.) So, it kind of went up, peaked, dropped off a little bit, and I think we'll be at that level or a little bit less for the future. Because like I said, the budgets are declining. We have, facing aging infrastructure. Probably a third of our budget in the Region goes to E-S-A, E-S-A activities, either developing biological opinions, or implementing terms and conditions at all of our facilities. So, there's a lot of budget pressures right now. (Storey: Uhm-hmm.) So, I think that will control F-T-Es more in Reclamation than anything. Its just, we're going to have to make tough, smart choices but tough choices on where the money's going to go, and what resources we're going to have on staff and what we're going to contract out. (Storey: Uhm-hmm.) And, we're not going to be able to do all the things we've done in the past. I think that's handwriting on the wall. We're going to have to quit doing some things to maintain, you know, have money to do the O&M [Operations and Maintenance] work on our aging infrastructure. We have to do the E-S-A activities to keep our projects functioning.

Storey: How about Safety of Dams stuff?

Safety of Dams Activities

Gregg: I'm just finishing up, we're just finishing up one at Deer Flat, replacing one of the major outlets at Deer Flat Caldwell. I think that's going to be an important program in the

future. I think we've got a, I mean a world-renown Safety of Dams Program. Its matured. There's not enough money to do all the fixes in the time frame we'd like, so I think those are going to be stretched out, and, of course, that money kind of conflicts with the security issues. (Storey: Uhm-hmm.) Right now I have three dams, Palisades, Deer Flat, and Anderson Ranch that we're looking at vehicle restrictions and modifying possibly the tops of the dams for security issues, and that money comes out of all the same pot. And so, you know, we as an agency have to do a good job of prioritizing that. Security, Safety of Dams, and then of course on the O&M side the aging infrastructure. (Storey: Uhm-hmm.)

Right now, for me, we're trying to replace the concrete spillway at Minidoka Dam, which was built between 1905 and 1908. Its come to the end of its useful life. That's a $66 million project. The water users pay forty-two percent. Uncle Sam pays the other fifty percent, which eventually the power users will repay, but that still comes from appropriated funds and it just doesn't fit in the budget with the budget targets we have, and I think those kind of issues are going to be more and more on our plate. How do we fund those big-ticket items? And, of course, now with Senator [Harry] Reid's bill passing on canals, and where rehab of canals and urban areas could be funded up to sixty-five percent by the taxpayers, that's going to be even a bigger challenge that the agency's got to wrestle with.

Storey: Because they say we have to pay sixty-five but they don't give us any more money?

Gregg: Well, the bill says that the United States can pay up to sixty-five percent, just like Safety of Dams where the taxpayer pays eighty-five percent. Of course, that's just a bill that was passed last year. Its recently new and I, I don't know if the administration has made a decision how they're going to fund it or if they're going to fund it. (Storey: Uhm-hmm.) But, of course, one of the big programs that we have going on now is canals in urban areas, and that we're currently, Reclamation wide doing an assessment of that. That was part of the president's bill on the stimulus. Ten million dollars was set aside to assess canals in urban areas, like the New York Canal. (Storey: Uhm-hmm.) The first ten miles of that hangs over the city of Boise. Those are not engineered levees and so we will be doing a special assessment and then a decision's going to have to be made. "Is that safe enough to fit, you know, some kind of risk, you know, some kind of risk standards that we set for the public?"

Storey: Yeah. And I . . .

Gregg: And if not, "Are we going to do something? And if we are, does it fit under this program where the United States if going to fund part of it, or are we going to expect the water users to pay a hundred percent?"

Storey: I suppose Reid was, Reid's bill resulted from the failure at Fernley?

Gregg: Yes.

Storey: Yeah.

Gregg: The failure of the Truckee Canal?

Storey: And, of course, a failure at Boise could be a lot worse problem? (Laugh)

Gregg: Yes, and actually it did fail in 1955, and you know, again those, New York Canal was built between 1905 and 1909 and then lined in 1912 to 1917. It was built when the canal was out in a rural area and its taken material from the upstream part of the hill pushing it on the downstream and making a canal. And, those canals have a pattern of failing from, for different reasons. Now we have a large population living below them, and are we going to do something about it, or are we going to go in and make modifications to the canal? That's going to be a big issue, I think, for the next ten years in Reclamation.

Storey: And a big-ticket item?

Gregg: Potentially a big-ticket item.

Storey: Are we seeing support from Congress for special projects? We aren't getting it, are we? Too much? If our budget's staying the low . . .

The Uncertainty of Congressional Support

Gregg: I think there's some–yeah. I think with the stimulus and everything what's going on right now, those issues are so big I think these issues are maybe right–from my perspective, you know, from way out in the Northwest–they're big issues but there's bigger issues that are overshadowing them. But, I think these issues will come to the forefront, you know, (Storey: Uhm-hmm.) here in the next three, four years.

Storey: So–go ahead.

Gregg: Well, I mean, because this not only affects us, it affects the Corp of Engineers and the levees, and their levee programs, and that become an issue in New Orleans after the Katrina Hurricane. And so, I think the safety and the risk factor for these type, this type of infrastructure is going to be an issue for the United States, how Congress decides to deal with it remains to be seen yet.

Storey: And how they fund it?

Gregg: And how they fund it, or if they fund it.

Storey: Right. What kind of water years have we had since '97 then?

Conjunctive Management Issues

Gregg: In the Pacific Northwest and on the Snake River we've had some real serious, we've had real highs and real lows. Ninety-seven, again, was close to a hundred-year event, you know, kind of the type of event you design your facilities for. So, we've had some big years and then we've had a string of real dry years. I mean real, you know, fifty percent of normal in 2001 and 2003. And so in Idaho, and of course in a drought year the surface folks are impacted, but we have the conjunctive management issue of all the groundwater wells in eastern Idaho. (Storey: Uhm-hmm.) The Snake River aquifer is one of the biggest in the United States, right behind the Aguala–Ogalala Aquifer. There's over close to two million acres that are irrigated from that. Its declining, and cities depend on it, dairies, and there's just not enough water. And so, there's a big series of court cases in state court on that issue, surface versus ground water. And, Idaho passed a conjunctive management law, developed rules, and now there's various calls being made by the surface water folks, because the groundwater pumping affects the surface water in the Snake River, and also Idaho has, I think, the largest trout production in North America. Down in the Hageman area there are a lot of fish farms that grow trout (Storey: Uhm-hmm.) for commercial production that rely on spring water, and they're affected by the groundwater level.

Storey: And some of them have very early priorities, I think?

Gregg: They have very early priorities. They are suing in state court. In fact this year, just two weeks ago, the director of Water Resources ordered 10,000 acres of groundwater pumping to be shut off, which is, because he didn't feel that the groundwater pumpers had developed a sufficient mitigation plan for their pumping. (Storey: Uhm-hmm.) And so, that's a big issue. And so, like I said, we've had a series of wet years and a series of real dry years and those have had an impact on the system, as a whole. Ironically

enough, the state of Idaho, the legislature two years ago appropriated $1.4 million for us to look at raising Minidoka Dam, not just rebuilding the spillway but raising it five feet for 50,000 acre feet of additional storage water. So, T-S-C is now doing that engineering analysis. They've appropriated $400,000 to look at rebuilding Teton Dam,[42] or a storage facility in the Teton Basin.

Storey: "They," who?

Gregg: The Idaho legislature. And so, because of these drought fears and the critical nature of the groundwater issue the state–and normally, you know, in the past Reclamation brought the money to the table to do planning and that, and the Idaho state budget is real tight, but its such a big issue that the legislature, in the economic times that we're in, essentially appropriated $1.8 million for Reclamation's expertise to look at these two issues.

Storey: Oh. So, so the Teton thing there's, there are no federal funds in there?

Gregg: We're trying to get some money out of our planning budget to match the $400,000 that the legislature appropriated, then we'll probably be able to get thirty to forty percent over the next two or three years.

Storey: Good. I had misunderstood. I thought (Gregg: Yeah.) it was a federal appropriation?

Gregg: Pardon me?

Storey: I thought it was a federal appropriation?

Gregg: No. It's a state.

Storey: The Teton?

Gregg: Teton is–the legislature appropriated $400,000 of state money to match some planning money that we have. (Storey: Uhm-hmm.) On Minidoka they're paying the full freight, the $1.4 million. It's a hundred percent state funded to do that planning study. So.

Storey: Good. So, it sounds busy. Tell me what part we have in all of this activity that's going on around conjunctive use? Do we have a part in that?

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42. Teton Dam was the primary feature of the Lower Teton Division of the Teton Basin Project in eastern Idaho. In November 1975 Reclamation completed construction of the dam. On June 5, 1976, the dam failed causing billion of dollars in property damage and 13 fatalities.

Reclamation's Concerns with Groundwater Pumping

Gregg: Yes. We're involved because of, since the groundwater pumping affects the gains in the Snake River we have, of course, large reservoirs on the system, Palisades, American Falls, Walcott. We have water rights, Reclamation, Section 8 of the 1902 Act requires us to have water rights. The state started twenty years ago to adjudicate all of the water rights on the Snake River because of the Swan Falls Agreement, in a nutshell. Idaho Power had some old plants on the lower part of the river with early priority rights, and the state was issuing all these groundwater permits and the customers of the utility sued and said, "You're not protecting our rights and you're driving our costs up because Idaho Power now has to go buy more power for, to meet the demand to replace that hydropower generation that's lost. So, the state and Idaho Power had to sign the agreement in the '80s called the Swan Falls Agreement.[43] One part of that would be that all of the water rights on the Snake River would be adjudicated. So, there's been this massive program, because that covers two-thirds of the state of Idaho. It's the largest water rights adjudication in the West, about two-thirds of the way through it.

So, we have water rights for our reservoirs and our projects, and of course they are being challenged as we go through the system and through state court. Also, the groundwater pumping affects our storage rights. Because, if the gains above our reservoirs, like American Falls, are reduced we have less water for our contractors. So yes, we've been involved in the court cases. We've been involved in the negotiations for settlement, you know, agreements. And then on top of that is the Indian water rights settlements. Fort Hall was settled in 1990 with the Shoshone-Bannock, and of course they got very senior rights on the river. The Nez Perce Agreement, which they claim the whole Snake River, was signed I think in 1994, which essentially the flow augmentation that we provide, the four hundred, up to 487,000 acre feet a year, is part of that settlement that was ratified in that agreement, and that helps us meet our biological opinion for anadromous fish.

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43. In the Swan Falls Agreement between Idaho and the Idaho Power Company, the "Idaho Power Company agreed to subordinate its water rights at Swan Falls and 10 other hydropower facilities to all upstream water uses in existence at the time of the agreement. The State agreed to increase the minimum stream flow rights at Murphy Gage by 600 cfs in the summer months and 2,300 cfs in the winter. The result was a minimum stream flow of 3,900 cfs from March to November, and a 5600 cfs minimum stream flow for the rest of the year. This provided the Company with some assurance that the State would work to preserve the water levels in the Snake River on the basis of its own right. Idaho Power Company agreed to not contest the State's authority to place the Company's hydropower water rights in excess of the minimum flow in a State controlled trust. The trust resolved a conflict between the State and Idaho Power Company about how to ensure that water would be available for future development." For the complete text of the Swan Lake Agreement, see Idaho Department of Water Resources,"Overview of Swan Falls Agreement," www.idwr.idaho.gov (Accessed January 2015).

Storey: For the salmon (Gregg: For the salmon.) and the steelhead, I suppose?

Gregg: For the salmon. Pardon me?

Storey: Steelhead also?

Gregg: Salmon and steelhead. Yes.

Storey: Yeah. Hmm.

Gregg: And then, of course, we have a biological opinion for resident species, a separate biological opinion for bull trout, snails in the mid-Snake. Of course, now eagles have been delisted. But, so the water supplies have, there's no, no water left in the system. Its all been spoken for. At the same time you have Boise, before the economic downturn, was the seventh fastest growing area in the nation, and so you have urban growth in a lot of our areas, and you know those folks need water, you know, for lawns, for potable water. And so, there's getting to be very intense pressure on our water supplies, (Storey: Uhm-hmm.) and doing a better job conserving water or being more efficient.

Storey: So, who's doing what in Reclamation? What's the Region doing? What's the area office doing in all of this? How do the responsibilities "fall out," as it were?

Regional and Area Office Responsibilities

Gregg: Well, I think I look at the area offices at the front line, the first line office. Okay? So, you know, we're responsible for working with the irrigation districts that we have repayment contracts, we deliver water to. We have ninety districts in the Snake River. There's twelve projects above Brownlee, twelve Reclamation projects.

Storey: Excuse me. Could I get you to relocate your microphone, onto your tie maybe?

Gregg: Okay.

Storey: I wondered why I was getting such a weak signal. (Laugh)

Gregg: Oh, okay. Is that working better?

Storey: Yeah.

Gregg: Okay. So, in the Snake River above Brownlee, which is, Brownlee Reservoir, which is a Idaho Power reservoir just outside of Boise, there's twelve Reclamation projects and we serve water to 1.8 million acres in Idaho and eastern Oregon. The area office is really the frontline office to work with, you know, the contractors, the constituents, for irrigation, Cascade Reservoir for recreation, you know. We've got a lot of intense amount of recreation around the facilities. We issue the boat dock permits. We work with the state, who manages our rec facilities. The Regional Office, of course, is, provides oversight. They provide technical services that we can't afford to keep in an area office. So if you kind of divvied up the work, the area offices, whether its mine or the new Cascade Columbia one, which is, you know, the old Yakima and the Uphrata projects, to me we do the bread and butter type stuff in water operations, moving water out of the reservoirs, delivering water, generating power, issuing land leases or boat dock permits or crossing agreements. We do, two-thirds of my staff are powerplant electricians, powerplant mechanics, and so up to a certain level we do the maintenance on the dams and the powerplants. Then, so maybe that's fifty to sixty percent of our workload.

Then on top of that we have the bigger projects. So, we're redoing the biological opinion for the Lewiston Orchards Project,[44] which is on the Nez Perce Reservation. The judge has remanded the biological opinion for the upper Snake, along with an F-C-R-P-S [Federal Columbia River Power System] for the Columbia/Snake River system. And essentially, those are bigger, more complex, need more complex skills, they're political in nature. Those are usually a team then between the Region and the area office, and then sometimes Denver Office. So, the bigger projects like that. Or, we are doing the security, looking at security enhancements at thee of our dams, potentially closing off the top of them. That's being done by a team between the Regional Office and the area office and S-S-L-E [Safety, Security and Law Enforcement]. So, for those project in our Region, a number of years ago we developed what were called "Activity Managers," and so the Regional Office has a group of activity managers and if there's a project that includes the area office, the Region, and Denver, or T-S-C, we assign an activity manager that makes sure that we have the coordination. Because really, if you think about it the more complex or the bigger, bigger issues anymore, you need a team of folks to do it and they're going to be across the organization, and I think that's what the COG process is trying to get to to refine that a little bit.

Storey: And what is COG?

44. The Lewiston Orchard Project, in western Idaho, consists of Webb Creek Diversion Dam, Sweetwater Diversion Dam, feeder canals, three small reservoirs, a domestic water-treatment plant, a domestic water system, and an irrigation distribution system that supplies water for 3,792 acres. For more information, see Jedidiah S. Rogers, "Lewiston Orchard Project," 2013, www.usbr.gov/history/projhist.html.

Gregg: Uhm, to be honest–its out of Team 12, out of Managing for Excellence, (Storey: Uhm-hmm.) and its trying to do a better job of saying, "What is the critical skills we need in Reclamation, such as, you know, dam design, embankment design, or pumping plant designers? Where are they at and how are we, before we contract things out how are we going to do a good job of utilizing those?" And, I can't remember exactly what COG stands for. So, I know they're meeting here today, but it's a team across Reclamation that's going to, at least for what we consider critical skills, mainly design and construction, (Storey: Uhm-hmm.) trying to manage. Because, we know we can't have, we have reduced, we have reduced F-T-Es and they're probably going to go down in the future because of budgets. And so, that's to do a better job of where those critical skills are.

But, to get back to our region, we developed what are called activity managers. They're usually GS-11s, twelves, and thirteens, and for these type activities that go across area office and the Regional Office lines, these folks then coordinate to make sure everything gets done. That, you know, Minidoka Spillway, we're doing the Environmental Impact Statement. We have an activity manager leading that. The area manager is still responsible, and the regional director, for the final product, but we've got people from T-S-C working on that, we've got contractors working on it, we've got people, staff from the area office. And so, these activity managers then make sure that the work is done on schedule, watches the budget, (Storey: Uhm-hmm.) makes sure we've got all the permits, and is responsible for delivering the product at the end of the day. (Storey: Yeah.) And so, in our Region that's been very effective.

Storey: How about on these water issues, the conjunctive use issues? How does the responsibility split out?

Regional Responsibilities on Water Issues

Gregg: What's kind of involved in our Region is the regional director had two special assistants, one, Rich Rigby that used to be head of our contracts in R-R-A [Reclamation Reform Act],[45] and then Tino Tefoya, he used to be my deputy, that really helps coordinate that.

45. Enacted in 1982, the Reclamation Reform Act adjusted Reclamation law to the realities of modern agricultural economies. It raised the individual acreage limitation for receiving federal irrigation water at the non-full cost rate to 960 acres for individuals and legal entities benefitting twenty-five or fewer persons, while establishing a smaller entitlement for legal entities benefitting more than twenty-five persons. It also removed the residency requirement and allowed owners of excess acreage, who had already placed their lands in a recordable contract, a 10-year grace period to sell those lands, but in the meantime, still receive project water. The act addressed discrepancies in water delivery contracts to ensure that eventually the price for irrigation water would recover all operation and maintenance costs. The law also permitted those who wished to remain under the old law to do so. Finally, the leasing restriction with regard to the pricing of water also applied to those lessees who became

(continued...)

Rich Rigby had worked a lot on the Nez Perce agreement, was Reclamation's representative on all of the teams. And so, we've kept that kind of structure, because a lot of the stuff, of course, in courts we have to have Justice represent us. The Solicitor's Office is involved, both at the Boise level and at the Washington D.C. level. And so, they're really high profile issues. And so, the regional director has two special assistants that helps coordinate those activities. Does a lot of the staff work, but then again there's staff in the area office that does, you know, a lot of the research. Because, in all these court cases when you go to court there's a tremendous amount of research. I have a person on my staff that used to, was a historian by nature and I'm trying to make a water rights specialist out of him. (Laugh) (Storey: Uhm-hmm.) But, he does a lot of work on going back to these old contracts, water rights, digging up the information. And, I have staff in the Burley Office, a water rights person, that does a lot of that. So that when we go to court we have all the information. We help the Solicitor's Office and the Justice Department on their briefs. So . . .

Storey: Finding it?

Gregg: Yeah. Again, it's a lot of, a lot of work, because, of course like the Boise, Minidoka projects, they were started in 1903-1904. The early projects, very complex. I mean, a tremendous amount . . .

END SIDE 1, TAPE 1. AUGUST 11, 2009.
BEGIN SIDE 2, TAPE 1. AUGUST 11, 2009.

Storey: Talking about water rights.

Gregg: It's a very complex issue. Right now we're negotiating with the state and Idaho Power on our power rights, because the state of Idaho, since 1928, has subordinated hydro power rights to all existing irrigation and future irrigation. Well, some of our rights are, predate that 1928 change in the Idaho constitution and the state's trying to subordinate our power rights, because it affects groundwater recharge and future development. And, in their view it would limit groundwater recharge, which they see as a major tool to solve the conjunctive management. And so, we're in court and we're in state court over that issue. We're also negotiating with them to see if we can negotiate a settlement. When you do that its very complex because you really have to go back to the beginnings of the project in 1903 and come forward, and there's been numerous contracts with space holders, with the state, numerous changes in the water rights, and so its very intensive.

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45. (...continued)
subject to who became subject to the RRA at set acreage levels.

Storey: Uhm-hmm. A lot of historical research? (Laugh)

Gregg: Yes. A lot of historical research.

Storey: Interesting. So, how's the study on Teton coming along?

Teton Study

Gregg: Its just getting started. Its extremely controversial before we even start. Trout Unlimited, that sued us the first time, is, I would say, nervous about it. There's some people that were still, that were flooded in the 1976 event that are still around that are nervous about it. But, the state and the water users see the need for more storage. Personally I, you know, the legislature give us enough flexibility that its just not a study of rebuilding Teton Dam itself. We do have the flexibility to look at new storage in the basin. And, if you go back to the Bureau's studies in the '60s the were a lot of small off-stream storage that were looked at and then we landed on Teton. I think with the cost, you know–I don't want to pre-judge the study–but with the cost of new infrastructure, new dams are very expensive. And, unless you have some functions that can pay large dollars for the capital O&M, like flood control or municipal water, I think you probably are going to be, if its going to be water for ag supplies, looking at smaller off-stream facilities. That's going to be more cost effective, but we'll see as the study progresses. (Storey: Uhm-hmm.)

On the Boise Valley, we really need more water for municipal growth. We need about 80,000 acre feet for the next twenty-five years. One of the things that we may look at is raising Anderson Ranch Dam five feet. (Storey: Uhm-hmm.) And that, to me, would be the most cost effective. But, small facilities, I think, are going to be, you know, in the 20,000 or 50,000 acre foot range. They're going to be much more cost effective than building the dam, the reservoir that holds 400,000. (Storey: Yeah.) Because, on the Boise the Bureau looked at a dam called Twin Springs just above Arrowrock [Dam], well as early as 1910, and again a lot of, a lot of folks want to see that built for irrigation and flood control, but you're probably talking about a billion-dollar reservoir, or $2 billion. That's pretty tough to get something like that through Congress these days. (Storey: Yeah.) The Corp of Engineers did get authority to do, on the lower Boise [River], a feasibility authority to look at flood control issues. And so, we will participate with them in that.

Storey: So, we've got these two planning studies, one on Minidoka, one on Teton . . .

Gregg: Teton.

Storey: Teton or an alternative?

Gregg: Plus the . . .

Storey: Let's see.

Gregg: Plus the past governor, who was our past congressman, got feasibility authority to look at new facilities on the Boise and the Payette [rivers]. That hasn't been funded yet, but I assume that will happen.

Storey: Uhm-hmm. So, we've got $400,000 for Teton? How long is that study planned for, or how much time does it take to spend $400,000? (Laugh)

Area Planning Studies

Gregg: We just completed two years ago an appraisal-level study on the Boise and the Payette for about that same amount of money. And so, for that amount of money you're going to be at an appraisal level to probably narrow down some sites, future sites, to go into feasibility. Because, a feasibility study, you're probably, to do it according to the federal guidelines that the Bureau and the Corp of Engineers operate under, you're talking five to twenty million. I mean, Black Rock and Yakima we just finished. I think that was an $18 million study. (Storey: Uhm-hmm.) So, for that $400,000 you're going to be able to do a fairly focused appraisal study, probably a two-year time frame, that would say, "Here are some potential sites. This is the needs. This is who needs the water," and in this case I think its going to be the state, for conjunctive management issues, "and these are some potential sites," and then decide to go forward on a feasibility study. (Storey: Uhm-hmm.) That's about what you can do.

Storey: And?

Gregg: And, we can do that because there was a lot of information the Bureau gained in the '60s and '70s through its Planning Program. So, we're going to build off of what's already there. (Storey: Yeah.) If you were starting from scratch you couldn't even touch it for that.

Storey: Yeah. The prep work for Teton (Gregg: Yeah.) is what we're talking about?

Gregg: That's right. Yes.

Storey: Yeah. Interesting. But, (Gregg: Well, just . . .) 1.2-1.4 for Minidoka now?

Gregg: Yes. And that's, that is essentially not a, the state wanted us from the–essentially, we're doing the engineering part at a feasibility level for them. Will the dam structurally take an additional five feet? Plus, what would it . . . The spillway replacements about $66 million. I'm wildly guessing that if you're going to raise it another five feet that's a quite a bit bigger structure. You're talking about a $200-$300 million endeavor. So what essentially the state's paying for is at a feasibility level the engineering work. Not any environmental work. Not, you know, not any right-of-way work, because we would flood out part of the Minidoka Refuge, that we would affect the, Interstate I-84 for all of that. So, they're funding part of a feasibility study to see if they want to go to the next step.

Storey: Hmm. Interesting. Everybody's looking for water nowadays, aren't they?

Gregg: Everybody's looking for water. Yes.

Storey: So, I guess basically the Snake system is over-appropriated or its fully appropriated?

Searching for More Water

Gregg: Its fully appropriated. Yes. In a dry year, above American Falls, if we weren't moving storage water from Palisades to American Falls there's enough natural flow rights to dry up the river. So. And then, of course, again the surface water folks, a lot of the irrigation districts that we have contracts for that have early natural flow rights are making calls against the groundwater pumpers. (Storey: Uhm-hmm.) The city of Idaho Falls, Pocatello, Boise are all growing metropolitan areas. They need more water. In fact, there is a proposal I saw the other day for a $50 million pumping plant and pipeline out of the Boise, or out of the Snake River to add thousands of new homes in the desert between Mountain Home and Boise. They're going to have to get new water somewhere. And then, of course, there's the E-S-A pressures. We've got bull trout on the Boise, the Malheur, the Payette. We've got anadromous fish.

Storey: Uhm-hmm. Of course, back in the '20s Idaho was looking to Yellowstone Lake to provide this? I doubt they're doing that any longer? (Laugh)

Gregg: That's right. We had plans to build a dam in Yellowstone Park, to take water out of Red Fish Lake and pipe it through the mountains.

Storey: Hmm. Interesting.

Gregg: So, I think there will be major changes in the future in water.

Storey: So, I assume that the water that these communities need is going to migrate from ag? Is that already starting, or is it not feasible because of Idaho law? Or, how does this work?

Gregg: In the Treasure Valley its, what we're kind of, we're not to the crunch point yet. Most of Boise proper gets its water from a private company. It started out as the Boise Water Corp in 1890, I believe. They were bought out by United Water out of France, and so they are a private purveyor of water. Most of their water comes from ground, deep groundwater wells. They have some surface water, but we have done studies that show for normal growth of the valley, in their growth area, we need ninety, 80-90,000 acre feet in the next twenty-five years, of new surface water. They have been looking, they've acquired a small amount of surface water. They don't have the same power, I don't believe, as a city, to condemn water, since they're not a–I don't think they do. They probably could through the city. But, they definitely need new water. Most of the growth outside of Boise, like Meridian and Nampa, there's intense growth, they're tapping into deep groundwater. Pretty soon they will hit a limit and I think they're about to that point, like Tucson hit, where they cannot pump any more deep ground water. They will need surface water.

Part of the issue has been pushed out, because irrigation districts have been real proactive in the last five to seven years as new subdivisions go in on, a lot of it on agricultural land, they keep the water, they build dual systems and they provide pressurized irrigation for the lawns. And so that has helped, I think, delay the issue. But, eventually they will have to be, we will have to, the valley essentially will have to acquire that 90,000 acre feet of surface water. They're either going to have to condemn ag water or build a new reservoir to capture on the Boise. The annual runoff's about two million acre feet. We can store half of that. The irrigators use about two-thirds of the water supply. So, there's a chunk of water that goes down the river every year. Within the confines of what we have to do for endangered species and all the Indian water right settlements, the municipal users are going to have to acquire some water, (Storey: Uh huh.) and its not going to be cheap water. It'll be either building a new reservoir or taking ag land, totally drying the ag water up and converting it to potable water.

Storey: But, a lot of this growth is on ag land?

Gregg: A lot of its on ag land. That's, like I said that's being, the needs are being met today. I don't think they will be ten years from now. So, you have that growth. But then you have a lot of growth where people, they want to build homes on the desert land where there's no water, period, and that's going to be a much tougher issue.

Storey: So, some of the ag water is just flowing to the urban area? Am I understanding this correctly?

Local Improvement Districts

Gregg: Well, the irrigation districts have been very proactive. And so when a subdivision goes in they have said, you know, "Create a, what's called L-I-D, Local Improvement District." The developer then is required to put in a pressurized system for the outside water, and the district provides that.

Storey: Oh, I see.

Gregg: So, they keep their tax base. Watering your lawn in Idaho is considered irrigation and so they don't have to change their water right. And then the utility, whether its either United Water in the Boise proper, or the city of Meridian, or the city of Kuna, is responsible for providing the potable water.

Storey: But still, if I'm understanding the way this works, most farmland's going to use more than an acre foot of water a year?

Gregg: Maybe three.

Storey: Sometimes, I guess, on potatoes a lot more? (Laugh)

Gregg: A lot more.

Storey: And so, if you put say four houses on an acre, I don't know what, you know, sizes are, you're only using one acre foot or so, or two acre-feet of water, and you've got a lot of surplus water. Where's that going?

Gregg: Well, the districts claim there's no change in use. I–they claim the demand's the same.

Storey: Interesting.

Gregg: The only way I can understand that, from being an engineer trying to balance things out, because you do have a lot more blacktop than you did before, is that you had 160 acres of alfalfa, normally you probably didn't irrigate every square inch of that to the amount that was needed. Some of it got over watered, some of it under watered. Now, when you put in small lots, and these are very, you know, the new lots are–I'm on the older subdivision. I have a 100 x 100 foot lot. Well now, a lot of homes are on two-thirds of that size. (Storey: Uhm-hmm.) You have a smaller area. You have a sprinkler system. Every inch of that is getting irrigated, probably over irrigated. Urban people tend to over irrigate. So, I think that's part of the equation. And then, I think, there's more water

probably going down the drains than used to, (Storey: Hmm.) and there's more return flow down at the lower end of the system.

Storey: So, there's . . .

Gregg: But, you would think at some point there would be some extra water in the system.

Storey: So, it's a transfer but it isn't a real–it isn't a transfer in the sense of who's providing the water? Uhm-hmm. Interesting.

Gregg: Not to this point, but there's going to be a point where there's not enough water for the potable side, or putting subdivisions on desert land where there's no water, (Storey: Yeah.) and that's coming, because Boise, again, will continue–it's a great place to live. We've got a lot of computer industries there. And, people on the coast are moving inland. Salt Lake, Denver, all of these cities are growing at a tremendous rate. It will take off again, and so that water need will have to be met somehow.

Storey: Yeah. And, Reclamation's going to be in the middle of this, I suppose?

Water Marketing

Gregg: Yeah, because we have the buckets. Idaho does have a, you know, a water bank system, a leasing system, which essentially was ag to ag. And then when we got into the flow augmentation business, you know, we, our Regional Director John Keys was very adamant and that was codified in the Nez Perce agreement to be from willing buyer, willing seller. So, Reclamation's out there every year leasing large quantities of water for flow augmentation, and releasing that from April through July.

Storey: For the salmon?

Gregg: For the, yeah, to flush the juvenile salmon downstream. But, the market is going to, I think, continue to grow. Idaho Power suddenly realized that they can release–I mean, we're paying right now $14 acre foot for flow augmentation water, which five years ago that was enormous, but that was what was negotiated in the agreement. In fact, it starts at $14 and by the year 2034 I think it goes to $23. Idaho Power in the drought years had been offering between $30-$60 acre foot for water to leave in the river for power generation. Its cheaper for them to do that than buy coal-fired energy. (Storey: Uhm-hmm.) So, they have become a player in the market. The cities are now starting to get into the market for municipal water. So, I think the market is really going to take off in our area, like in the Reno area, you know, and parts of California.

Storey: But our flow augmentation would also benefit the power company, right?

Obtaining Water for Flow Augmentation

Gregg: At certain times of the year. It doesn't from April to early July, because that's during–in a good year–in a dry year, yes. In a good year, no, because we're in flood control and there's excess water. Their really peak demands is late July through August for irrigation pumping and air conditioning, and then again in December through February for heating. So, that's their critical periods that they need extra, extra water.

Storey: So, we have a group in the Region that's doing, they're obtaining water for flow augmentation?

Gregg: Yeah.

Storey: Does that affect the area office and its ability to provide water? How does this interact with your ability to provide your contractors with their water?

Gregg: Well . . . we can't, we decided a long time ago that we would not just go and take water, even though the Justice Department says we could. We would be in court on the taking. So, we have so much water, about 120,000 acre feet of uncontracted space that we've dedicated to flow augmentation. We have to get the rest from contractors that have, when they, they were pretty conservative when they contracted for storage space and they got enough for two or three years of carryover. So, we had quite a leasing program. The upper Snake folks wanted surety. So, we developed what we call the "colored chart," which is a matrix of carryover for the end of the year and a forecast on April. And so, in real dry years we don't get anything and then it ratchets up to where they provide up to 210, 235,000 acre feet, about approximately half. Payette, we were pretty generous on the amount of storage that those folks contracted for. And so, in moderately dry to good years they are a good, we rent about 70,000 acre feet of water, plus provide 95,000 of ours. On the Boise we bought back from one of our contractors, two of our contractors, 40,000 acre feet.

So, we are very, an aggressive player in the market and essentially our contractors know if they don't work with us that's their E-S-A, that's their E-S-A insurance. If we can't reliably provide the 487, and we can't in every year, and Judge Redden has noted that, but if we can't make that system work then our biological opinion will probably be overturned at some point. And so, the contractors really work with us to make sure, to the best of their ability, that we get the 487, or in really drought years we get as much as we can. (Storey: Uhm-hmm.) That's essentially took all the flexibility out of the Snake

system. I mean, if we didn't have that commitment we could take care of all the M&I needs for the next twenty years. So, essentially there's no flexibility in the system left. We haven't completed all of the requirements for terms and conditions for bull trout and snails on the mid Snake [River]. That's an unknown. We don't know how the conjunctive management issue is going to play out. That will have an impact on the system. You have the urban growth. So, all of those are tensions in the system. We have, our contractors, we've done a lot. Well, I think in the last ten years we're provided about $2.5 million through our water conservation program, which our contractors on the upper Snake have matched for measuring devices, pipeline systems. And so, you know, they are working on their system to become more efficient to help meet these needs. But that, those E-S-A, meeting the contracts we have, urban growth, and the hydro power system, which our region has the lowest power rates in the nation, because of hydro power, are all going to be tensions that as we move forward into the future that are going to have to, we're going to have to work those out. (Storey: Uhm-hmm.)

Conjunctive management, again, I mean its just not irrigators that rely on that. Its whole cities that have their water supply that could be affected. A large amount of dairies have moved from Oregon and California to Idaho because of not, you know, urban growth in those areas have pushed the dairies out that come to Idaho. I think we're the fifth or sixth leading state for milk and cheese production in the nation. So, it's a huge industry. They rely on a lot of groundwater for the dairy. I mean, we're talking about 3,000, 4,000, 7,000-cow dairies. They are factories, in a sense. Those folks will all, potentially all could be impacted by the, how the judge, state judges rule in the Idaho Supreme Court on these conjunctive management issues. So, its really, I mean agriculture is the number one economy in the state of Idaho, and that's all in play now.

Storey: And Reclamation's in the middle of it?

Gregg: We're in the middle, because we hold the buckets, again.

Storey: Uhm-hmm. And they want us to build more buckets, bigger buckets? (Laugh)

Gregg: Bigger buckets. Yes.

Storey: Well, Minidoka already irrigates about a million acres, doesn't it?

Issues in Raising Minidoka Dam

Gregg: Minidoka Project, which includes the Palisades Project, provides water to 1.2 million acres, from . ..

Storey: So, what's the purpose–go ahead.

Gregg: From Shoshone Falls on up, all the way up into Wyoming. (Storey: Uhm-hmm.) Of course, we have Jackson Reservoir that's in Wyoming.

Storey: So, what's the purpose of raising it five more feet?

Gregg: Minidoka Dam, like Walcott, is at the lower end of the system. It's the lowest Reclamation reservoir. There's a small private reservoir below us, Milner, and so in the winter time, in good years, there's enough gains that usually there's–at least, we need to do the studies to see if the water is actually there–but physically there's water there, the excess water that we release. Okay. So, the state's view is, if you raise the dam five feet you could store some of that. The unresolved issue is we have a rare species of snails, really small snails, the ones that can fit on the top of a pencil, right below Minidoka Dam called Snake River physa, that are in the river channel, and we can't dry that up. We have not, we had Utah valvata [snail] below American Falls, in Walcott, below Walcott. We have found enough of those where Fish and Wildlife's going forward with the delisting, but we just recently found this rare species called Snake River Physa that are unique species of snails and the only place they're found on the whole Snake River, which is 1,000 miles long, is eleven miles below Walcott Dam, below Minidoka Dam.

Storey: An eleven-mile stretch?

Gregg: An eleven-mile stretch. (Storey: Yeah.) So, there will be a certain amount of water that we have to keep to keep those watered all the time. So, the question is, and part of this study we're doing for the state, is some hydrologic modeling. Is there enough storable water above that that you can fill that 50,000 acre foot bucket? And then they want to use it for groundwater mitigation. The state does not want to dry up any land, any ag land. So, they're really pushing hard on other, they've had a very complicated public process led by C-D-R [Collaborative Decision Resources] out of Boulder [Colorado], called the "camp process," of all the things that they're going to need to do over the next ten years, about a two hundred, all the, if you look at all the things that are in there, all the tools, including recharge, and new storage, and all of that, it's a $200-$300 million investment over the next ten years, minimum of $10 million a year. They're hoping that raising Minidoka will be one of them that's cost effective, and that they can implement. But, the state's policy so far is they do not want to–because they could, essentially they could through the water right process essentially dry some land up. They do not want to do that. And so, they're looking at managed recharge, new storage, converting some groundwater pump land back to surface water use to hopefully stabilize the aquifer so that this issue can be, you know, can be stabilized. (Storey: Uhm-hmm.) So that, part of

our study will be to do the hydrologic modeling to see, "Is that water there and would you be able to use it?"

Water Use on the Minidoka Project

Storey: Of course, let's see, if I recall I drove through the Minidoka Project a few years ago now. A lot of that's alfalfa?

Gregg: For the dairies. Yes. (Storey: Yeah.) And that area, potatoes, potato country, sugar beets, alfalfa.

Storey: Uhm-hmm. Comparatively, a pretty low-value crop?

Gregg: Not anymore. Not with the dairies.

Storey: Not with the dairies there?

Gregg: No.

Storey: That conjunctive . . .

Gregg: Yeah. The dairies have put a demand for alfalfa so last year alfalfa was selling for $120 a ton, (Storey: Uh huh.) which is, you know, when those guys are getting five, six tons to an acre its getting up there and competing with sugar beets. Now, this year the prices have dropped. No, alfalfa hay prices have really escalated because of the dairies.

Storey: Yeah. That's interesting.

Gregg: I mean, if you look at a 4,000-cow dairy, it takes a lot of feed to keep that many cows fed year round. (Storey: Uhm-hmm. Interesting.) Some of these folks have built their own wastewater treatment plant, in a sense, to treat the effluent from the dairies. Its amazing. I went through, with Senator [Larry E.] Craig, a couple of years ago on a dairy tour and these, the dairy where they do the calves or the vet works is like a hospital. I mean, you run 4,000 cows through there that, I think, on average they keep them a year and a year and a half. And so, they've put up, they've really changed the equation. There still is some wheat and barley, but its mainly used as a rotation crop.

Storey: Its interesting though the way the politics interplays with the water rights issues, because we don't want, you know the politicians don't want to dry up any land?

Gregg: That's right.

Storey: I assume because their constituents are out there? (Laugh)

Gregg: Correct.

Storey: And yet the water rights issues are playing into it. So, they're trying to finesse the water issue?

Gregg: Well, and see, the local legislators the rural one's right and they're divided because they have constituents that are surface water users and groundwater users. They're not in neat little boxes, because the groundwater folks come in and all of the land that hadn't been served because it was too hilly, or didn't want to come in to an irrigation district, they filled in all of the checkerboard for the surface systems. And so, in all of these counties or legislative districts those legislators have got both constituents. And so they're, they don't want to make either one mad.

Storey: Yeah. Interesting. (Laugh)

END SIDE 2, TAPE 1. AUGUST 11, 2009.
BEGIN SIDE 1, TAPE 2. AUGUST 11, 2009.

Storey: This is tape two of an interview by Brit Storey with Jerry Gregg on August 11, 2009.

I had just asked how the water year is this year.

2009 Water Year

Gregg: Actually, for all of my basins except for eastern Oregon it was average or above average. But this year I'm, you know, its probably starting to make me a believer in global warming. We had a really wet spring and above-normal snow pack, but a really wet spring, and then a couple dry months, and then August in Boise was one of the wettest on record. So, both the Boise, the Boise, the Payette, and the upper Snake [rivers] we filled the system above average, you know, had some flood control operations, and then you just go forty miles to the west and on the Malheur and the Owyhee [rivers], the Owyhee probably was a sixty to seventy percent runoff. The reservoir got two-thirds of the way full. The Malheur, the runoff was less than fifty percent. We will be emptying reservoirs next week. (Storey: Uhm-hmm.) And so they, it, it was just the way the system, we're really affected by the jet, jet stream. The way that system come in a lot of our precip come up from the south and it scooted a little bit to the east and then just

missed those two river basins. And so, they're really hurting, but the rest of them are doing, they're doing pretty good.

Storey: Yeah. It must be sort of frustrating to manage that kind of thing? (Laugh) I know, I was there a few years ago and they were talking about how runoff had been and it had all come at once kind of thing. (Laugh) Tell me more about S-S-L-E and what kind of budget the area office is devoting to it.

SSLE–Safety, Security, and Law Enforcement

Gregg: Well, of course the security funding is changing because Congress, here two years ago I think, changed the allocation. So, some funding at the area office level if you have like Grand Coulee, and Shasta, and Hoover [dams] have guards are funded from nonreimbursable funds that come through S-S-L-E's budget. And, you know, Grand Coulee has a huge guard force. I don't have guards in my facilities. So, any of the upgrades we've made, some of its come from S-S-L-E, some of its come from O&M. So, you know, what I have at my facilities, which since you tie it into a computer, you have to credit, I have some cameras and motion detectors that are tied into my control center at Black Canyon [Dam]. That, I mean most of the monies for that come from my O&M budget, but we are looking at some major changes to three of our dams: Deer Flat, both the upper and lower embankment, Anderson Ranch, and Palisades for security. That money's coming through S-S-L-E.

So, S-S–the money's budgeted to the Commissioner's Office and then they have approved these projects, both the decision document to do vehicle restrictions for those three dams, they're earth dams, that don't have a lot of freeboard. And a vehicle, loaded with explosives, like the Oklahoma City event, could, when we have high water, fail those facilities. If you're a truck on top of the dam, have an explosion, and the water's high, mother nature will do the rest. And so, we are going through the process now of making changes at those dams, putting in security gates. You know, the State Department certified gates that will stop a five-ton truck at fifty mile an hour, we're putting those in so at Threat Level Red we would close them, close off the facility.

And, making other modifications to the facilities. At Anderson Ranch probably for interim decision we'll put a double row of Jersey barriers down the center of the dam and fill it full of rocks and that will protect the facility enough. Because, we're also, the Safety of Dams folks are looking at the core of Anderson to make sure that it will take, sustain a moderate sized earthquake. So, they're doing the drilling, we're doing the drilling now and over the next two to three years do the analysis. Palisades we'll probably do the same type of interim fix because we have a huge landslide over on the

left abutment that if it goes will close off the road. And so, we don't know if that's, and then that's a, you know, a county artery and it goes to a Forest Service campground. So, we'll probably do the same Jersey barrier type scenario there. Lake Lowell is a little dicier. The upper embankment we closed off during the Safety of Dams event, built a new road into the refuge headquarters, so we're just going to put the security gates in and close them and they'll remain closed. But, the lower embankment's a county road that gets over 4,000 cars and trucks a day. That one's going to be tougher. Its not wide enough or high enough to do the Jersey barrier solution and so the alternatives range from putting in the gates and just closing it and forcing the traffic off the dam, which is not going to be politically . . . it'll be a lot of, (Storey: Fun?) yeah, it'll be a lot of consternation from the locals to widening or raising the dam, which you go from $2 million to $30 million.

Storey: And relocating the road sounds like its not feasible for some reason?

Gregg: Well, you can. I mean, that is one option, one alternative. That's a $15-$20 million option. Just move the road off the top of the dam to below the dam.

Storey: Okay. I don't understand this Jersey barrier thing. What do you gain by putting up a, as I understand it, a parallel set of Jersey barriers and rock fill in between?

Gregg: Because then if you have an explosion on either side there's still part of the earth remnant left and your facility wouldn't fail.

Storey: I see. Okay.

Gregg: Yes.

Storey: It protects enough of the dam to prevent failure?

Gregg: Right. Because if you have a failure its just like a big inverted cone, and you want to make sure that you have enough dirt above the high water mark that water doesn't start running over.

Storey: Uhm-hmm. Okay. But, Lower Deer Creek. Deer Flat?

Gregg: Deer Flat. The lower embankment. Deer Flat has three embankments.

Storey: Causes a problem?

Gregg: Causes a problem because it was built in, well this is the hundredth year. We're going to have a celebration in September. It was built and completed in 1909. It just has very little freeboard at all. And so that, that, and its not wide enough for the Jersey barrier, so that's not an option there. So, you either have to widen it to move the traffic off to one side or the other or raise the dam nine feet, which is extremely expensive, or just move the road off. (Storey: Uhm-hmm.) So, we're in the middle of the NEPA process right now. I hope to have a E-I [Environmental Impact]/FONSI [Finding of No Significant Impact] done by December, do the design over the winter, and then next fall be into some, whatever, if we're going to do some construction.

Storey: Hmm. And this dam, I assume, threatens something, if it fails?

Gregg: The cities of Nampa and Caldwell.

Storey: Oh, okay. I've not been out to Deer Flat.

Gregg: Yeah, the lower embankment, right now there's not a big population in the floodway, but there's some proposed developments. The upper embankment there's 35,000 people in the floodway. One of the challenges on the security end is people think we have the ability to predict where a terrorist is going to attack and say, "Well, they're going to go to the Mall of America. They're never going to come here." Reclamation's looked at it as, "We have a vulnerability." Just like we look at Safety of Dams. We can't, we don't know when somebody's going to do harm to us. I mean, you know, we really can't predict that and so we have this engineering weakness and we're going to, you know, we're going to take care of maybe not all of that but to a certain level of risk we're going to engineer out that vulnerability. And, that's how we look at it. (Storey: Yeah.)

So, its not only people at risk but its also, if we lost that embankment, we would lose the ability to provide–first of all, its got a national wildlife refuge over the top of it, Deer Flat Refuge. So, one of the first ones, it was one of twenty-one that Teddy Roosevelt created in 1909. With the stroke of a pen he created twenty-one refuges at Reclamation reservoirs.[46] But also we'd lose the ability to irrigate 60,000 acres of prime farmland. (Storey: Uhm-hmm.) And, if you lost the dam it would be a three to five year process to rebuild it. So, there would be a huge economic impact.

46. On February 25, 1909, President Theodore Roosevelt issued Executive Order 1032, creating national bird refuges on Reclamation Service reservoirs at Salt River, Arizona; East Park, California; Deer Flat and Minidoka, Idaho; Willow Creek, Montana; Carlsbad and Rio Grande, New Mexico; Cold Springs, Oregon; Belle Fourche, South Dakota; Strawberry Valley, Utah; Keechelus Lake, Kachess Lake, Clealum Lake, Bumping Lake, and Conconully, Washington; and Shoshone and Pathfinder, Wyoming.

Storey: One of the things that's happened since we last talked is we've gotten a new office up there for the area?

New Office Building for the Area Office

Gregg: Yes. We built a new office with the U-S-G-S [United States Geological Survey]. Its on ten acres that used to be part of Fort Boise, and in the 1950s it was carved off for the B-L-M [Bureau of Land Management] state office, and that moved a number of years ago. So, U.S. Geological Survey was in the same situation we were. We had the office building on Broadway that was the construction office for Arrow Rock Dam. And, you know, it didn't meet the seismic requirements for the federal government and we had essentially outgrown it. So, we went in with the U-S-G-S and built a new office building (Storey: Uh huh.) in 2003.

Storey: So, we manage it and everything? Or . . .

Gregg: We jointly manage it with the U-S-G-S. We both do certain things. So, it's a co-shared building and we have fifty-five percent of the space. They have the other forty-five. They have a building manager that oversees the maintenance. We provide the receptionist. We do the contract services. So, and we're on the same complex that the regional lab is and the regional drill crew. So, we're right downtown next to the Federal Veterans Administration. (Storey: Uhm-hmm.) Its on land managed by U-S-G-S but it's a Reclamation building. The whole, just the–because we went back to Congress and got authorization for a new building and the U-S-G-S didn't, so we had to–so, it's a Reclamation building, and they have forty-five percent of the space. (Storey: Yeah.) So, we manage it together and its been very effective. (Storey: Good. Good.)

In fact, were going to have the commissioner and the R-L-T [Regional Leadership Team] meeting there in, at the end of the month. We didn't get it LEED [Leadership in Environmental and Energy Design] certified when we built it.[47] We're going back to do that, but it meets all the requirements of a LEED-certified building. And, the building materials we used were, the city of Boise has a pretty extensive geothermal system, so we're on geothermal heat, and its just been a very comfortable building. We had some, we contracted through G-S-A [General Services Administration] and so they subcontracted to a local design firm, Hummel in Boise, that's been there since the 1880s.

47. "LEED, or Leadership in Energy & Environmental Design, is a green building certification program that recognizes best-in-class building strategies and practices. To receive LEED certification, building projects satisfy prerequisites and earn points to achieve different levels of certification. Prerequisites and credits differ for each rating system, and teams choose the best fit for their project." For more information, see U.S. Green Building Council, "LEED," www.usgbc.org/leed (Accessed January 2015).

They did the design work for us. Really done an outstanding job. And, we had a planning team from U-S-G-S and the Bureau that helped design the building. Our old building the windows opened, so our employees wanted windows that opened. And so, we have, we tried to get as many of the employees as we could on the outside of the building so they would have windows and they would have windows that opened, and its been very effective. So, it's a very comfortable building.

Storey: Now, you said it qualified as a LEED building?

Gregg: Yeah.

Storey: What's that?

Gregg: That's the certification from the, I think its E-P-A, on, you know, being a green building.

Storey: Oh. And its L-E-A-D?

Gregg: L-E-E-D [Leadership in Energy and Environmental Design].

Storey: Okay.

Gregg: And, I don't know what that stands for. But . . .

Storey: Okay. I can look that up (Gregg: Yeah.) online. Its not a problem. One of the things you mentioned was the Nez Perce settlement?

Nez Perce Water Rights Settlement

Gregg: Yes.

Storey: And, I think you said about 1994 or so?

Gregg: Yes.

Storey: But, what I'm remembering are a cluster . . .

Gregg: 2004.

Storey: Oh, 2004?

Gregg: Let's see, yes, 2004. I'm sorry, (Storey: Okay.) 2004. It was signed in 2004.

Storey: Yeah. I was remembering a cluster of news stories about that (Gregg: Yeah.) and wondering if it had taken that long?

Gregg: So, [Secretary of the Interior Dirk] Kempthorne[48] signed it as governor and . . .

Storey: The legislature had to ratify it though?

Gregg: Pending Congress.

Storey: Yeah. And they had a lot of concern, as I recall?

Gregg: Yes. It was 2004. I'm sorry.

Storey: Oh, okay. Interesting. And that took a lot of water that Idaho felt it was entitled to? Or . . .

Gregg: It really memorialized the flow augmentation. The tribe had essentially claimed the whole Snake River. (Storey: Uhm-hmm.) And so for giving up those claims, because they would have had an 1855 priority date, which they would have owned all of the Snake River, they give that up for memorializing the 487 [thousand acre feet] through 2034, plus some other, some, a financial, you know, $90 million settlement, plus some things on the Clearwater and the Salmon River.

Storey: Uhm-hmm. So . . .

Gregg: But, it was a big, it was a big water right settlement.

Storey: Yeah. And so we're, the government is saying, "We will do flow augmentation to this 400,000-plus acre feet level?

Gregg: Right.

Storey: And they're hoping that's going to solve, or help solve the salmon problem?

Gregg: Part of it, but now they have not signed onto the F-C-R-P-S [Federal Columbia River Power System]. So, they have essentially bought off on the biological opinion for the

48. Dirk Kempthorne served as Secretary of the Interior under the George W. Bush administration from 2006 to 2009.

upper Snake for anadromous fish, which is providing the 487, (Storey: Uhm-hmm.) willing-buyer/willing-seller under Idaho law. They have not bought off on the new F-C-R-P-S biological opinion, because they still believe in removing the lower, the four lower Snake Corp dams.

Storey: They want those Corp dams pulled out?

Gregg: They want them pulled out. Some of the other tribes in the new bi-op, the B-P-A [Bonneville Power Administration], and the Bureau, and the Corp signed a $900 million agreement for habitat improvement as part of the new biological opinion for F-C-R-P-S that will be paid out of power revenues. Quite a few of the tribe signed onto that, the river tribes, Stevens Treaty Tribes,[49] to be part of that to improve habitat for salmon and then they saw that as a benefit. The Nez Perce in the state of Oregon did not. (Storey: Okay.) So, the Nez Perce . ..

Storey: And you said . . .

Gregg: The Nez Perce support the upper Snake [River] bi-op but oppose the F-C-R-P-S bi-op.

Storey: Okay, and you said "Stevens"?

Gregg: Stevens Treaty.

Storey: Stevens Treaty? Okay.

Gregg: Yeah. They were . . .

Storey: That's another one I can look up.

Gregg: Yeah, they're the tribes that had, they were given perpetual rights for salmon out of the Columbia River. So, I'm not real familiar but I think its 1855 or something like that.

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49. In 1855, Washington governor Isaac Ingalls Stevens "presided at treaty councils with Indians west of the Cascade Mountains between December 25, 1854, and February 26, 1855, and with tribes east of the mountains between May 21 and October 17, 1855. The Indians generally agreed to move onto reservations, ceding more than 100,000 square miles of their historic territory. In exchange they received promises of land, buildings, cash and education. Also, the tribes reserved certain rights for themselves, particularly regarding fishing. For Indians of the central Columbia Basin, the bands confederated today as the Nez Perce, Umatilla, Warm Springs and Yakama tribes, that particular right is established in Article III of the Treaty of Walla Walla, which was signed June 9, 1855, and remains in effect to this day." See Northwest Power and Conservation Council, "Indian Treaties," www.nwcouncil.org/history/IndianTreaties (Accessed January 2015).

Storey: Uhm-hmm. Good. So, when you say a third of your area office budget, as I understand it . . .

Gregg: A third of the Region's budget.

Storey: Goes to E-S-A?

Gregg: Uhm-hmm.

Storey: That's mostly to the salmon water, the augmentation water?

Funding Salmon Habitat Rehabilitation

Gregg: About a third of that. We get about $15 million, $15-$18 million a year for Columbia/Snake river. So, about a third of that is releasing water. The rest of it goes to habitat projects in Idaho, Oregon, and Washington for salmon. (Storey: Uhm-hmm.) You know, taking small irrigation diversions and putting fish screens on, you know. Leasing water in other states. So, all of those type projects. That used to be the budget we had for essentially planning and construction, if you look at it. Our Region gets about $75 million a year of appropriated monies. We have a Direct Funding Agreement with B-P-A for our power O&M, but for our other facilities and other projects, you know, we get about $75 million. About $15 million of that, to $18 million, is tied up on–well yeah, its more than that. Because Columbia/Snake is fifteen and then we get another $4 million for just E-S-A. So, about $20 million a year out of this $75 million budget is going to endangered species. And, I think you'll see that's true of all the regions. (Storey: Uhm-hmm.) Endangered species and maintaining the requirements of the law has taken up a lot of Reclamation's budget, and that's just reality today.

Storey: Yeah. Now, you have Black Canyon, American Falls, there's a Palisades powerplant I believe?

Area Office Powerplants

Gregg: We have five powerplants and a control center. So, we have powerplants at Palisades, which is the biggest one. That's 175-megawatts. Then we have three powerplants at Minidoka Dam, from 1926, 1941, and then the new Inman powerplant. We have a powerplant at Anderson Ranch, Black Canyon, and then a small one at Boise Diversion [Dam], (Storey: Uh huh.) and then we have our control center.

Storey: But, is Boise Diversion producing power?

Gregg: Yes.

Storey: Oh, okay.

Gregg: We rehabbed that. B-P-A, after the energy crunch of 2001, they paid us, put up $6 million and we rehabbed it. Yes. So, (Storey: Okay.) its an operating powerplant.

Storey: And so, B-P-A is direct funding this?

Gregg: Yeah. They direct fund our O&M. We started that in 1995.

Storey: And that's because they're our marketing?

Gregg: They're our marketing. And, Southern Idaho, which our, my system's under the–B-P-A, of course, used to be under the Department of Interior. (Storey: Uhm-hmm.) In 1963, we consolidated our power operations, under what's called Southern Idaho. We're a separate system. We're not connected to the Columbia River System. And so, Southern Idaho is a separate system. About twenty percent of the power is used by irrigation districts that have, that have contracts with the United States for pumping, irrigation pumping. So, like A-N-B, Minidoka, Black Canyon, part of their projects there's a requirement to either pump from wells or pump up to a higher level. And so, they get power at cost. The other eighty percent then Bonneville Power markets to utilities, you know, local co-ops, cities, etcetera. And so they're, by law, by Reclamation law in our contracts, required to pay our operating costs. So, like Palisades, you know, the finance gets real, real tricky, but its multipurpose. Its got flood control benefits, which are nonreimbursable. We get that money from Congress. We've contracted most of the storage to irrigators. They pay part of the cost. And then, we have a power function. And so, the powerplant that's all paid, you know, we have a five-year agreement with B-P-A where they directly pay for our operations and maintenance, and then capital costs. They're looking at putting in new turbines, stainless steel turbines, which will increase our efficiency, then they direct fund that too. So, we get that money directly from them, its rate-payer money, and then we go to Congress for the other money, and then we go to the irrigators for some of our money. So. (Storey: Uhm-hmm.) But, in 1995, to take pressure off our budgets, you know, we were the first region to do that. Now, the other regions are doing the same thing, (Storey: Yeah.) you know, with Western Area Power [WAPA].

Storey: But, of course, the Congress doesn't like it when they don't control all the money? (Laugh)

Gregg: That's right. So, there's conflicts there, plus you have haves and haves-not. B-P-A looks at it more from a business standpoint. They're willing to invest, you know, they want reliability. And, of course, now we have the new NERC [North American Electric Reliability Corporation] /WECC [Western Electricity Coordinating Council] requirements, you know, for reliability of the transmission system. That'll have big impacts on us. But, B-P-A looks at it more from a business standpoint. So, they'll say, you know, "Over the next two or three years we want you to upgrade all your, you know, transformers, or all your circuit breakers." Well Congress, we go back, you know, on a yearly basis and then, you know, politics gets involved and you're not quite as sure. So, on the power side we're able to make more decisions like a business would. On the other side, of course, it's a little more difficult. But, you've got to match those up. (Storey: Uhm-hmm.) And so, my budget, our budget folks and finance folks, it's a challenge. Because our water users are on a calendar year. We're on a fiscal year with Congress, from October to October, and then B-P-A usually will, they're on an October to October fiscal year but they, they like to have projections five years out. (Laugh) So, its becoming a fine art.

Storey: So, it gets to be complex?

Gregg: Yes.

Storey: Now, is that handled in your office, or is that handled in the Region?

Budget/Power Related Activities

Gregg: The Region has the centralized budget function. We have budget officers, I have a budget officer in both Boise and Payette. Or, I mean Boise and Burley to make sure we put our budgets together and keep track of our expenditures, but directly relating to the Region then, you know, consolidates that and puts our budget requests forward to Washington D.C., (Storey: Right.) or to Bonneville. So, they directly meet with Bonneville. So, you know, the Region has a budget staff of probably seven or eight folks, and then about ten folks in finance. Because, you know, we sent out thousands of billings a year, you know, repayment on our contracts, either for construction, or construction and O&M. (Storey: Uhm-hmm.) So, those are centralized functions.

Storey: And they keep track of all that?

Gregg: Yes.

Storey: They know when its all due, (Gregg: Yes.) and when the bill's supposed to–(Gregg: Yeah.) you don't have to do that in your area office?

Gregg: We don't have to do that, but because of, you know, the irrigation district's budget is getting tighter, and even on the power side its really getting tight, we need to keep our customers appraised of what's going on and so we have to do a lot of interface with the Region of when the bills go out, and we work up a justification of, you know, what's in the bill, why are we billing you for this. Because when you get the bill, the centralized bills from the federal government you just get a bill saying, "You owe $500,000," you know. Most irrigation managers don't like that. So, we work out a, you know, a two or three page letter and break it down into different categories for them to meet their needs. (Storey: Uhm-hmm.) So, you know, when Mark Limbaugh was watermaster on the Payette he was really proactive with Family Farm Alliance, where Reclamation did a better job of explaining its bills to its customers. And so, we've been very, very active in that in the last ten years.

Storey: Interesting. I'm interested in these wildlife refuges. How are we doing?

Gregg: I'm going to need a restroom break.

Storey: Pardon me?

Gregg: I'm going to need a restroom–we're doing fine. I'm going to need a restroom break pretty soon.

Storey: Well, we're only scheduled until ten, right?

Gregg: Ten. Right. Right. I can go that far.

Storey: Okay. Did I hear you correctly say that all of the wildlife refuges that [President Theodore] Roosevelt created were on Reclamation projects?

Roosevelt's National Bird Refuges

Gregg: No. But, in 1909 he created twenty-one of them. I ought to go back and look, because I have that. We've got a copy of the document hanging up on our office wall. He created twenty-one of them. Most of them were on Reclamation projects: Minidoka, Salt River and, you know, Deer Flat.

Storey: Interesting. Yeah, I want to, I want to check that.

Gregg: If you'd like a copy of the memo, because we went back and got a copy, a copy of the original.

Storey: Well, if I don't–it isn't in the blue books?

Gregg: No. Its an Executive Order.

Storey: Oh, okay.

Gregg: That was under the Antiquities Act of 1906, when Roosevelt done all that. (Storey: Yeah.) Yeah, its just a, it's a one-paragraph, or two-paragraph Executive Order.

Storey: That's interesting. I'll send you an email and ask for it (Gregg: Yeah.) if I can't find it.

Gregg: Yeah, we'll send you a copy. Because, John Martinson from my office went back and got a copy of it from the State Department, I think, or from the Archives in D.C.

Storey: Uhm-hmm. Interesting. What else should we be talking about? Have you had an personnel problems?

Reclamation Needs to Plan for the Future

Gregg: Oh, you know, I mean when you have people you always have personnel issues. I think an issue before Reclamation now is, you know, planning for the future. I'm getting close to retirement. I assume you're probably getting close to retirement. When I started with the agency we hired a lot of young people. I mean, there were a lot of people on the Engineering Rotation Program where we were hiring out of, out of high school or college and they stayed with the organization all the way through their career. And, of course, Reclamation doesn't, we're not, we didn't do like B-L-M and Forest Service in the '70s. B-L-M went in and consolidated all their different acts under FLPMA [Federal Land Policy and Management Act]. So, in Reclamation to be an effective, you know, staff person, or manager, you really need to know our history and our culture. And, more and more we're hiring people from other agencies, you know, people from the military that have military experience that bring in good skills, or we're hiring people from the Forest Service, and I really see them being at a disadvantage because they don't know what the 1939 Act is[50]. (Storey: Uhm-hmm.) They've never read the 1902 Act.

50. In 1939, Congress passed the Reclamation Project's Act, which "legitimized the power production and municipal water purposes of Reclamation dams and projects. In planning future projects, Reclamation had to consider multiple-use purpose; repayment contracts were ties to crop income; certain benefits such as flood control and navigation were nonreimbursable; extended project repayment to forty years, with a ten-year grace period to

(continued...)

They don't know what the Fact Finders Act was all about. And so, I really see, Reclamation I think is going to have to spend more time and be more intentful on these newer managers, of giving them at least a basic level of the history and what are the blue books, or the green books, the appropriation books. Because, a lot of the stuff Congress put in appropriation bills. A lot of my project authorities are not in the blue books. They're in the green books. I have a complete set. I bet you there's not many people in Reclamation that do.

Storey: I haven't been able to get one. (Laugh)

Gregg: The Regional Office has a set, the paralegal there does, and I have a set. But from, you know, so you really need, I really think Reclamation needs to be more intentful on that. I think we've done it here and there, and what the different acts mean. I know some folks here in Denver in the Policy Group come up and give some presentations, but I think we really need to be more intentful of training the next group of folks. You know, we, in our Region, tried to hire step-and-skip students and get some young people in the organization. I think the other regions have, but I just really see a big change coming along and (Storey: Yeah.) we think we need to meet that. And, with the new retirement system people are much, sometimes more mobile, you know, leaving the agency than when I started, you know. I in the old system.

Storey: Since they're on Social Security they can move around more?

Gregg: Yeah. Well, we've lost employees to Idaho Power. They're willing to pay more. They're willing to pay our engineers a third more than we are, you know. They're redoing their FERC [Federal Energy Regulatory Commission] licenses for all their big dams. We're not competitive with them. We're not competitive with some of the big design firms. And so, we have to then provide something else to, to, you know, keep people, (Storey: Yeah.) and I think that's something else, is we have the opportunity to work on large dams and get that experience. We have the opportunity to work on powerplants, or be on the cutting edge of endangered species issues, and I think that's what we've got to offer young people, but we're going to have to make sure they understand our culture, our history.

Storey: Yeah. That's always a problem. People don't realize that where we are now is a result of all that back there. (Laugh)

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50. (...continued)
establish farms before payments began." See William D. Rowley, *Bureau of Reclamation*: *Origins and Growth to 1945*, Volume I (Denver, Colorado: Bureau of Reclamation, U.S. Department of the Interior, 2006), 363-4.

Gregg: Yes.

Storey: Let's see. I think I've asked you most everything that I wanted to.

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Storey: So, unless you have anything to add, let me ask if–oh, you know, we haven't talked about the regional directors. John Keys was regional director, of course.

Working for John Keys

Gregg: He hired me.

Storey: Yeah.

Gregg: I worked, I was in Socorro. I was head of the Socorro Field Division working for Charlie Calhoun. And so, John Keys hired me in December of 1987 as a project superintendent, and we went through the change under the Dan Beard administration. I became an area manager. So, John essentially hired me again.

Storey: But he hired you from Socorro, down here (Gregg: Yeah.) in New Mexico?

Gregg: Yes. He hired me.

Storey: But, this is when Charlie was working in the, in Albuquerque?

Gregg: He was project manager in Albuquerque. (Storey: Yeah.) So, so John, yeah, like I said John Keys hired me in December of 1987.

Storey: So, how was he to work with as a regional director?

Gregg: I mean, you, of course you've done the oral history on John. He was a fantastic person. I mean, he was a people person, very energetic, very involved. The water users just, and the constituents just loved him. I mean, you know. The challenges were you had to keep up with John. He went at 150 mile an hour and if you didn't keep up with him he was out, he liked to go out and meet, meet the constituents and help them solve their problems and if you didn't provide him all the facts on the issue sometimes it put him out there where sometimes the agency, you know, it was a challenge to meet some of the requirements he wanted to meet. (Storey: Uhm-hmm.) And so, you had to really work

hard to keep up with John. But, he always tried to find the win-win, and he worked real hard at it. And, I think that's why the water users really just worshiped him in a sense. So, and then after that Bill McDonald become our–well, we had an interim, Steve Clark was acting, and Bill McDonald become our regional director and Bill's a great person to work for, very smart. Bill looks at it a little bit more from the process side. Bill's an attorney, you know, natural resource background and an attorney. He was assistant commissioner here in, for resources (Storey: Uhm-hmm.) in Denver, spent time in Sacramento, but a very, very smart person and very good to work for. I enjoy working for Bill.[51]

Storey: Well, you know, John was very familiar with your operations?

Gregg: Yes.

Storey: Did that have any affect when he was commissioner, that you didn't see when, from other commissioners?

Gregg: Well, I think that's, I think that's kind of a trait of all of us. When Commissioner Martinez was commissioner, of course he had been the state engineer in New Mexico, and I think when an issue from New Mexico come up on the queue he, it got his attention a little bit more than other places in the organization. You know, a little bit. I mean, its tough being commissioner. I think when issues come up in the P-N [Pacific Northwest] Region, John, you know, he knew the issues, he knew the constituents, he probably gave it a little bit more attention. He and Bill had a great working relationship though, but so I think that helped. But, I think you always tend to kind of, (Storey: Uhm-hmm.) you know, you just don't sever those ties, you know, in a sense. I mean, I probably do the same thing with some of my managers.

Storey: Did you know John before he selected you for the position up there?

Gregg: I had met him once or twice. No. When I was in Casper, head of Water Operations, Roger Patterson was head of the old 430 Branch and the Lower Missouri Regional Office here.

Storey: Here in Denver?

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51. J. William McDonald served as assistant commissioner Resource Management (1990-1994) and regional director for the Pacific Northwest Region from 1998 to 2010. Mr. McDonald also participated in Reclamation's oral history program, see J. William McDonald, *Oral History Interview*, Transcript of tape-recorded Bureau of Reclamation Oral History Interviews conducted by Brit Allan Storey, senior historian, Bureau of Reclamation, from 1993 to 2011, in Denver, Colorado, edited by Brit Allan Storey, 2014, www.usbr.gov/history/oralhist.html.

Gregg: In Denver. So, I knew Roger real well. And then he went on to be project manager at El Paso, and then some years later I become the head of the Socorro Field Division. And so, I knew Roger and Charlie real well, but I didn't know John. And so, when I applied for the job I had talked to Roger Patterson some about, you know, what the job was. (Storey: Uhm-hmm.) And so, no I really didn't know John. I had met him, I think, once or twice.

Storey: What about Bob Johnson as commissioner? Did you have any contact with him?

Gregg: Yes. He was out, of course, for the 75th Anniversary of the Owyhee Dam and helped us celebrate that, and that was really, and John came out for that. That was a fun event. Yes, over the years when John, or Bob was regional director I had been on, you know, interacted with him at managers meetings and, a lot of respect for Bob, a very smart person. Didn't, he didn't get involved in too many of my issues when he was commissioner. I mean he did, as commissioner per se, you know, political issues. He and Bill, you know, I'm sure had a lot of discussions on like the biological opinions and (Storey: Yeah.) a few things like that. But, I didn't really spend a lot of time, with him personally on those issues.[52]

Storey: Well.

Gregg: Our Region, to the extent possible, has tried to keep the issues in our Region and then tried not to kick them back to D.C., unless we absolutely have to. I mean its just how our Region's always operated. (Storey: Yeah.) Of course the F-C-R-P-S is back there and its very political. But, with . . .

Storey: F-C?

Gregg: Federal Columbia Power System. That's all the federal dams on the Columbia, the Corp and the Bureau dams, you know, Grand Coulee, and Hungry Horse. (Storey: Yeah.) So, that's, Southern Idaho is the system, the power system on the Snake and the F-C-R-P-S is the system on the Columbia River. It includes the Corp, and the Bureau, and B-P-A.

Storey: Hmm. Good. Well, let me ask if the information on these tapes and the resulting transcripts can be used by researchers inside and outside Reclamation?

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52. Robert W. Johnson was regional director of the Lower Colorado Region from 1995 to 2006 and served as commissioner of the Bureau of Reclamation under the George W. Bush administration from 2006 to 2009. Mr. Johnson also participated in Reclamation's oral history program, see Robert (Bob) W. Johnson, *Oral History Interviews*, Transcript of tape-recorded Bureau of Reclamation Oral History Interviews conducted by Brit Allan Storey, from 1994 to 2008, in Boulder City, Nevada, and Washington, D.C., edited by Brit Allan Storey, 2011, www.usbr.gov/history/oralhist.html.

Gregg: Yes.

Storey: Great. Thanks.

Gregg: Okay.

Storey: Appreciate it.

END SIDE 2, TAPE 2. AUGUST 11, 2009.
END OF INTERVIEWS.