

**ORAL HISTORY INTERVIEWS**

**WILLIAM W. (WILL) REEDY**



**STATUS OF INTERVIEWS:  
OPEN FOR RESEARCH**



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



Interviews conducted–1996.  
Interviews edited, printed, and  
published–2006-2007.

Oral History Program  
Bureau of Reclamation  
Denver, Colorado

SUGGESTED CITATION:

**REEDY, WILLIAM W. (WILL)** ORAL HISTORY INTERVIEW. Transcript of tape-recorded Bureau of Reclamation Oral History Interviews conducted by Brit Allan Story, Senior Historian, Bureau of Reclamation, during 1996, in Denver, Colorado. Edited by Brit Allan Storey. Repository for the record copy of the interview transcript is the National Archives and Records Administration in College Park, Maryland.

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

---

## Table of Contents

Table of Contents . . . . .	i
Statement of Donation . . . . .	xiii
Chronology of the Life of William (Will) W. Reedy . .	xv
Introduction . . . . .	xvii
Oral History Interview . . . . .	1
Born in Wheatland, Wyoming, While Father	
Worked on the Fort Laramie Project . . .	1
Father Retired and Moved Family to Denver . .	2
After One Year at Denver University Transferred	
to the University of Nebraska . . . . .	2
Attending the University of Nebraska Was a	
Family Tradition . . . . .	2
Liked the University of Nebraska Because it Had	
a Good Engineering Program . . . . .	3
Graduated in 1939 . . . . .	3
". . . I garduated . . . on June 6, and on June 17, I	
started working for the Bureau of	
Reclamation. . . ." . . . . .	3
Worked on Field Surveys out of Grand Lake for	
the Colorado-Big Thompson Project . .	3
Transferred to Idaho to Work on General	
Investigation Studies in September 1939	
. . . . .	4
"At that time all the investigations were done	
under the supervision of E. B. Debler . . ."	
. . . . .	4
Worked in the Weiser River Basin and then from	
Boise in Southwest Idaho . . . . .	4

---

Worked in Colorado and Idaho as a Chainman and Rodman . . . . .	4
Corps of Engineers Offered Him a Job as a Junior Engineer . . . . .	5
" . . . not long after I got up to Boise, I was offered an appointment as a junior engineer. . . ." . . . . .	5
Began to Work Primarily in Hydrology Studying the Weiser Investigations . . . . .	6
Worked with Don Huff . . . . .	6
Mann Creek Project . . . . .	6
Studies at Indian Valley, Idaho . . . . .	7
Had to Do Land Classification but Didn't Have Proper Experience and Training . . . . .	8
Southwest Idaho Investigations . . . . .	8
Regional Office Established in Boise . . . . .	8
Fred Nichols Was the Original Head of the Southwest Idaho Investigations . . . . .	9
George N. Carter Becomes Head of Southwest Idaho Investigations . . . . .	9
Vern Otter Becomes Head of the Office . . . . .	9
Charlie Le Moyne Was Assistant Chief of the Office . . . . .	10
Reclamation Office Established in Juneau, Alaska . . . . .	10
Decided to Apply for Hydrologist Job in Juneau . . . . .	11
Randy Riter . . . . .	11
Brother Oliver Calmar (Cal) Reedy . . . . .	11
Moved Family to Juneau in August of 1948 . . . . .	12
In Seattle There Was a Longshoremen Strike That Prevented Most of Their Personal Material from Going up to Juneau Immediately . . . . .	13
Bought a Small House for \$6,125 . . . . .	14
Mary Ehler Gave Voice Lessons to Mrs. Reedy . . . . .	

---

.....	15
"the . . . four and a half-plus years that we spent in Juneau, were the happiest times of our life, just <i>thoroughly</i> enjoyed it. . . ."	15
R. C. Johnson from Salt Lake City Initiated Study of Alaska	16
"Alaska has what they call hanging lakes . . . at high altitude . . . with steep slopes close to sea level . . . high head for the power. . . ."	17
"R. C. Was always a little bit diappointed that he didn't get the job as head of the office. . . . after he'd done all that work . . ."	17
Joe Morgan Headed the Juneau Office	18
Detailed to Boise Because of Lack of Funds in the Juneau Office	18
Returned to Juneau with His Parents Who Came up for a Visit	19
Aerial Reconnaissance of Water Resource Sites in the Fall of 1948	20
Worked out of Anchorage for about Three Weeks	20
Published a Reconnaissance Report on the Work	21
Eklutna Project	23
Lake Dorothy Project	23
Studied the Snettisham Project Which the Corps Later Built	24
Looked at Development of the Susitna River	24
Devil's Canyon Project on the Susitna River	25
Vee Canyon Study	26
Daryl Roberts and Ade Jaskar on the Susitna River Studies	26
Project Reports Were Just Mimeographed	27
Studies in the Fairbanks Area and Rampart Dam	27

---

Environmental Issues and Rampart Dam . . . . .	28
Chakachamna Lake Study . . . . .	29
Applied for a GS-13 Job in Costa Rica in 1953, but ended up in Washington, D.C. . . . .	29
Conscientious Objector During World War II . . . . .	30
Represented Reclamation on Inter-Agency Committees in Washington, D.C. . . . .	32
The Eisenhower Reduction-in-force Resulted in Demotion and Transfer to Denver . . . . .	33
Spent Some Time Working for the Firm of Leeds, Hill, & Jewett . . . . .	34
Upset Ben Powell . . . . .	35
Spent a Year at Harvard, 1956-1957 . . . . .	36
Studied the Washita River Basin . . . . .	37
Book Published with Article Developed at Harvard . . . . .	38
Regional Coordinator in Office Responsible for Technical Adequacy of Reclamation Planning Studies . . . . .	39
As a Regional Sponsor Worked with the Regions in Boise and Salt Lake City, and the Office in Alaska . . . . .	39
Also Worked with the Region in Sacramento . . . . .	40
Returned to the Alaska Office Two or Three Times on Detail . . . . .	41
Offered the Job as Head of the Investigations Office in Denver . . . . .	42
Office Coordinated with the Regions, Reviewed Studies for Technical Adequacy, and Had Approval Responsibility for Studies . . . . .	44
Chief of the Field Investigations Branch . . . . .	46
Ken Schroeder . . . . .	46
Water and Power Resources Service (WPRS) . . . . .	48
Policy, Program, and Political Responsibilities for	

---

Planning Was a Responsibility of the Washington, D.C. Office . . . . .	49
Consulting with Oil Company Consortium Interested in Oil Shale Development . . .	50
Father, Oliver T. Reedy's Career . . . . .	55
Oliver T. Reedy's Career at the U.S. Reclamation Service . . . . .	56
Brother, Oliver Calmar (Cal) Reedy . . . . .	61
Oliver T. Reedy Graduated from the University of Nebraska in 1898 . . . . .	63
Interest in Engineering . . . . .	65
The Reedy Family and Relations at the University of Nebraska . . . . .	66
Erdman B. Debler . . . . .	67
Randy Riter . . . . .	68
". . . Randy would take a little stub of a pencil . . . on the back of an envelope, do a bunch of calculations . . . coming up with an answer that somebody . . . now, they'd do it on a computer, and they'd come up with about the same answer. <i>He was sharp. . . .</i> " . . . . .	69
Applied for a Job Through the Civil Service Commission . . . . .	70
Worked at Grand Lake on the Colorado-Big Thompson Project . . . . .	71
Don Bingham Headed the Survey Crew at Grand Lake . . . . .	72
". . . Don [Bingham] . . . was one of the regional sponsors at the same time that I was. . . ." . . . . .	73
Survey Work out of Grand Lake . . . . .	75
Transferred to Idaho . . . . .	77
Weiser Basin Studies in Idaho . . . . .	86
Studies for Teton Dam . . . . .	87
Palisades Reservoir and Dam . . . . .	87

---

---

Frank M. Clinton .....	87
Studies in the Mountain Home and Bruneau Deserts .....	89
Reservoir Operation Studies .....	91
Creation of the Regions .....	95
Erdman B. Debler .....	96
Fred Nichols .....	98
George Carter .....	99
Vern Otter .....	100
Charlie Le Moyne .....	101
Don Huff .....	102
Randy Riter .....	103
"Randy was a gem. . . ." .....	103
R. J. Newell, Regional Director in Boise . . . .	104
Frank Banks and R. J. Newell Were Originally Named Co-Regional Directors in Boise .....	104
Helped the YMCA Physical Education Director Establish Basketball Leagues for Airmen at the Boise Air Force Base .....	107
Don Price in Boise .....	108
Wanted the Promotion Offered by a Transfer to the Juneau Office .....	109
First Salary at Reclamation was \$1,260/Year .....	110
Earned \$2,000/Year as a Junior Engineer . . .	110
The Move to Juneau .....	111
Stayed at the Juneau Hotel until Bought a Home .....	113
Twenty-five Percent Cost-of-Living Allowance for Juneau .....	114
Did Not Take a Car to Juneau .....	115
Weather in Juneau .....	117
Had to Repair the Ceiling and Foundation of the House They Bought .....	120
". . . I was the hydrologist for the Juneau office, so	



---

I had responsibility for all the hydrologic studies. . . ."	122
They Were Preparing the "Alaska Reconnaissance Report" . . . . .	122
Juneau Office Reported Directly to the Commissioner . . . . .	124
Alaska Investigations Office/Alaska District Office . . . . .	124
Mary Ehler . . . . .	124
Joe Morgan . . . . .	125
R. C. Johnson . . . . .	125
Electrical Engineer Added to the Juneau Staff . . . . .	128
Lack of Good Data Was an Issue for Hydrological Studies in the Juneau Office . . . . .	129
Flood Studies Were One of the Things He Had to Do in Juneau . . . . .	129
Field Work . . . . .	130
Lake Dorothy Project . . . . .	130
Working Out of Anchorage for Three Weeks . . . . .	130
Didn't Need to Go Out into the Field Much . . . . .	132
"Smoke" Thomas Suggested the Juneau Office Look at Willard Inlet in the Panhandle . . . . .	132
Daryl Roberts and Ade Jaskar Did a Lot of Field Work . . . . .	135
Susitna River and the Devil Canyon Site . . . . .	135
Eklutna Project . . . . .	137
Worked with the Soil Conservation Service to Establish Snow Stations Above Eklutna Lake . . . . .	137
Developing the Alaska Reconnaissance Report . . . . .	139
Rampart Dam . . . . .	140
Wood Canyon Project on the Copper River . . . . .	140

---

Snettisham Project Study . . . . .	140
Chakachamna Project Study . . . . .	141
Power Creek Study . . . . .	141
Severe Winters in Alaska Cause Construction Problems for Hydro Projects . . . . .	142
Isolation of Potential Projects Is an Issue in Alaska . . . . .	142
Missed a Chance to Work in Costa Rica Because of Security Clearance Issues . . . . .	143
Transferred to Washington, D.C., for a GS-13, in 1953 to Represent Reclamation on Inter- Agency Committees . . . . .	144
"I wanted to be closer to the field work. . . ." . . . . .	147
"So I was not particularly disappointed when the reduction in force came in June of 1953. . . " . . . . .	147
Worked for Randy Riter in Denver . . . . .	150
Put on Leave Without Pay for Four Months after Returning to Denver "So I wouldn't be showing up as being paid for that period. . . " . . . . .	151
Worked on Special Assignments for Randy Riter . . . . .	151
Regional Coordinator in the Field Investigations Branch . . . . .	152
Regions Were Responsible for Planning Studies. We Were Responsible to Assure Technical Adequacy . . . . .	153
Regions Had Various Planning Offices . . . . .	154
Planning Studies for Echo Park Dam . . . . .	154
Cliffs-Divide Study in Western Colorado . . . . .	155
Other Western Colorado Studies . . . . .	156
Seedskafee Project . . . . .	156
Lyman Project . . . . .	157
Central Utah Project Studies . . . . .	157

---

Rogue River and Willamette River Basin Studies	158
Mann Creek Project	160
Relations Between Denver and the Regions	160
"... I feel that the Denver office had people with a little bit more experience ... they could view it from a different angle ..."	161
"We didn't come down on the regions with a heavy hand without some reason for it ... "	162
Becomes Chief, Field Investigations Branch	168
Recollection of the Failure of Teton Dam	169
Cliffs-Divide Studies	170
At Harvard, 1956-1957	170
Art Maass and Maynard Hufschmidt at Harvard	170
Harvard Program Focused on Using a Computer to Assist in Analyzing Projects	171
Work Group at Harvard Looked at the Washita River Basin in Oklahoma	173
Contributed to the Book <i>Design of Water Resource Systems</i>	175
Staff at Harvard Who Worked with the Program	176
"The computer analysis ... there was no conclusive indication ... that you would get a reasonable answer or close to the best answer for the analysis ..."	178
"There's so much judgment that has to go into these things ... at every step along the way, as well as in the final analysis. ..."	179
Ken Schroeder Moved over to Various Jobs in the Department of the Interior	180
Again Worked as a Regional Coordinator/Sponsor	

---

---

from 1957 to 1966 . . . . .	182
Reclamation Program Conferences of Planning Staff Set Reclamation's Budget Proposal . . . . .	184
Warren Fairchild . . . . .	187
"Talking Turkey in Tucson"—Warren Fairchild's Conference for Planning Staff . . . . .	188
Ellis Armstrong . . . . .	189
Gil Stamm . . . . .	189
Keith Higginson . . . . .	191
Floyd Dominy . . . . .	192
Wilbur Dexheimer . . . . .	192
Leslie N. McClellan . . . . .	193
Grant Bloodgood . . . . .	195
Bernard (Barney) P. Bellport . . . . .	196
Harold G. Arthur . . . . .	198
Robert B. Jansen . . . . .	199
Rod Vissia . . . . .	200
Darrell Webber . . . . .	201
Field Investigations Branch . . . . .	203
Projects that ". . . were duds, should never have been built. . . ." . . . . .	204
Becomes the Chief, Division of Project Investigations, in 1970 . . . . .	206
Branches in the Division of Project Investigations . . . . .	207
". . . Warren [Fairchild] asked me which job I would rather have, the division chief or [head] the Westwide [study] . . ." . . .	208
Wally Christensen and the Westwide Report . . . . .	209
Kenneth O. Kauffman Became My Assistant When the Westwide Study Finished . . .	209
". . . I just thank the Lord that he became my assistant chief, because he was such a good person to work with. . . ." . . . . .	210

---

---

Geoff Bennet Was in the Programs and Reports Branch . . . . .	212
Manuel (Manny) Lopez . . . . .	215
"All my career . . . was in planning. . . ." . . . .	217
How Planning Changed During the Course of His Career . . . . .	217
New Environmental Concerns in the Planning Process . . . . .	218
Public Input into the Planning Process . . . . .	218
New Planning Concerns Extended Planning Time for Projects . . . . .	219
Public Involvement Staff Were Added to Reclamation Offices . . . . .	221
". . . the regions do the specific studies, and we provide the technical guidance and assistance. . . ." . . . . .	223
The Three Levels of Design . . . . .	224
Reconnaissance Studies . . . . .	226
Feasibility Studies . . . . .	227
Basin Reports . . . . .	229
Reconnaissance Study on the Kano Plain in Kenya, 1966 . . . . .	231
Bauta-Toa Vaca Project in Puerto Rico . . . . .	235
Reconnaissance Study in Malaysia . . . . .	237
Nicaragua Study in 1968 . . . . .	239
Work in Niger and Senegal regarding the Niger River . . . . .	241
Social Life in Various Reclamation Offices . . . . .	243
Original Denver Offices in Building 53 . . . . .	246
Design and Construction Staff Offices in Denver . . . . .	248
". . . we were all happy to see the advent of Building 67 . . ." . . . . .	248
Brother Placed the First Shovelful of Concrete in the Grand Valley Diversion Dam . . . . .	252

Appendix A: Standard Form 171, William W. Reedy  
..... 254

Appendix B: William W. Reedy Biographical Data . 263

Appendix C: Small Projects Loan Program ..... 266

**STATEMENT OF DONATION  
OF ORAL HISTORY INTERVIEWS OF  
WILLIAM W. REEDY**

1. In accordance with the provisions of Chapter 21 of Title 44, United States Code, and subject to the terms, conditions, and restrictions set forth in this instrument, I, William W. Reedy, (hereinafter referred to as "the Donor"), of Lakewood, Colorado, do hereby give, donate, and convey to the National Archives and Records Administration (hereinafter referred to as "the National Archives), acting for and on behalf of the United States of America, all of my rights and title to, and interest in the information and responses (hereinafter referred to as "the Donated Materials") provided during the interviews conducted on January 12, January 23, January 30, and February 5, 1996, at the Bureau of Reclamation's office in Lakewood, Colorado, and prepared for deposit with the National Archives and Records Administration in the following format: cassette tapes and transcripts. This donation includes, but is not limited to, all copyright interests I now possess in the Donated Materials.
2. Title to the Donated Materials remains with the Donor until acceptance of the Donated Materials by the Archivist of the United States. The Archivist shall accept by signing below.
3.
  - a. It is the intention of the Archivist to make Donated Materials available for display and research as soon as possible, and the Donor places no restrictions upon their use.
  - b. The Archivist may, subject only to restrictions placed upon him by law or regulation, provide for the preservation, arrangement, repair, and rehabilitation, duplication, and reproduction, description, exhibition, display, and servicing of the Donated Materials as may be needful and appropriate.
4. Copies of the Donated Materials may be deposited in or loaned to institutions other than the National Archives, including the Bureau of Reclamation. Copies of Donated Materials may also may be provided to researchers. The Bureau of Reclamation may retain copies of tapes, transcripts, and other materials.
5. The Archivist may dispose of Donated Materials at any time after title passes to the National Archives.

Date: 1-5-96

Signed: William W. Reedy  
William W. Reedy

INTERVIEWER: \_\_\_\_\_  
Brit Allan Storey

Having determined that the materials donated above by William W. Reedy are appropriate for preservation as evidence of the United States Government's organization, functions, policies, decisions, procedures, and transactions, and considering it to be in the public interest to accept these materials for deposit with the National Archives and Records Administration, I accept this gift on behalf of the United States of America, subject to the terms, conditions, and restrictions set forth in the above instrument.

Date: \_\_\_\_\_

Signed: \_\_\_\_\_  
Archivist of the United States



---

### **Chronology of the Life of William (Will) W. Reedy**

December 22, 1916–Born in Wheatland, Wyoming

1939–Graduated from the University of Nebraska

1939–Survey crew out of Grand Lake on the Colorado-Big Thompson Project

September 1939-August 1948–Worked on investigations in Idaho

- December 1939 appointed a junior engineer

August 1948- Moved family to Juneau to work in the Alaska Investigations Office

- April, May, and June 1949– Detailed to Boise to work on planning projects

February 1953-June 1953–Represented Reclamation on inter-agency committees in Washington, D.C.

June 1953–Transferred to Denver as an assistant to the head of the hydrology branch working on special projects and water supply studies

- 1953–Four months at Leeds, Hill, and Jewett in Denver doing a study on Colorado while on leave without pay.

1956-1957– Harvard M.A. program

1957-1966–Regional coordinator/sponsor in Field Investigations Branch

- 1962–One month detail to Alaska Office (there were two other details to Alaska, but no dates given)

1966-1970 – Chief of Field Investigations Branch

1970-February 29, 1980 – Chief of Division of Project Planning (aka Division of Planning Coordination)

1981-c. 1993–Consultant to a consortium of oil companies working on oil shale development in western Colorado. Started as full time and then tapered off over the years.

## **Introduction**

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

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

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

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

(INTENTIONALLY BLANK)

**Oral History Interview  
William W. (Will) Reedy<sup>1</sup>**

Storey: This is Brit Allan Storey, Senior Historian of the Bureau of Reclamation, interviewing William W. Reedy, who is known as Will, on January 12, 1996, at about 9:30 in the morning, in Building 67 on the Denver Federal Center. This is tape one.

Mr. Reedy, I'd like to ask you where you were born and raised and educated, and how you ended up at the Bureau of Reclamation.

**Born in Wheatland, Wyoming, While Father  
Worked on the Fort Laramie Project**

Reedy: Okay. Well, I was born on December 22, 1916, and I was born in Wheatland, Wyoming. My dad at the time was on the Fort Laramie Project<sup>2</sup> with the Bureau of Reclamation, and my mother and he and the family, I guess, the whole family, went down to Wheatland, where I was born in the hospital. My older brother

---

1. Note that in the text of these oral history interviews information in parentheses, ( ), is actually on the tape. Information in brackets, [ ], has been added to the tape either by the editor to clarify meaning or at the request of the interviewee in order to correct, enlarge, or clarify the interview as it was originally spoken. Words have sometimes been struck out by editor or interviewee in order to clarify meaning or eliminate repetition, and in those cases the density of the font has been reduced to 50% to improve readability.

The transcriber and editor 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.

2. This probably refers to the Fort Laramie Canal on what is now known as the North Platte Project. The canal was built 1915-1924.

and sister had both been born on Reclamation projects, but they were not born in hospitals, they were born at home.

### **Father Retired and Moved Family to Denver**

So I went to Fort Laramie, and after about a year and a half, Dad retired from the Bureau of Reclamation and came down to Denver. At that time he ~~became—well, he~~ went into ~~consulting practice,~~ private consulting practice, which he wanted to try for a couple of years, and then he was appointed senior assistant state highway engineer, State of Colorado.<sup>3</sup>

Here I am talking about him instead of talking about me. (laughter)

Storey: No, that's fine. Go ahead.

### **After One Year at Denver University Transferred to the University of Nebraska**

Reedy: So I grew up in Denver, went to public schools in east Denver, graduated from East High, went one year to Denver University, and then transferred back to the University of Nebraska, which was the family school.

### **Attending the University of Nebraska Was a Family Tradition**

---

3. He was a consulting engineer for about two years in Denver from 1919 to 1921. Then for twenty-nine years he was Senior Assistant State Highway Engineer in Colorado from 1921-1950.

My dad and mother and older brother and sister had all gone there. In fact, Dad had a *long* story about [my nephew;] all [four] ~~of the~~ grandparents, [his father and mother;] and [all] the aunts and uncles [on both sides of the family, by birth and marriage], ~~they~~ all went to the University of Nebraska, so it was the family school.

### **Liked the University of Nebraska Because it Had a Good Engineering Program**

But I was happy to go there [because] I knew they had a good civil engineering [department] college there. ~~so I was happy to go there.~~

### **Graduated in 1939**

Graduated there in 1939, spring of 1939.

**". . . I graduated . . . on June 6, and on June 17, I started working for the Bureau of Reclamation. . . ."**

In fact, I graduated, I think, on June 6, and on June 17, I started working for the Bureau of Reclamation, which, by coincidence, was the date on which the Reclamation Act was signed in 1902.

### **Worked on Field Surveys out of Grand Lake for the Colorado-Big Thompson Project**

I started up on the Colorado-Big Thompson Project, working on field surveys out of Grand Lake.

### **Transferred to Idaho to Work on General Investigation Studies in September 1939**

[I] was there for about three months, then in mid-September, I was transferred to the general investigation surveys up in Idaho.

#### **"At that time all the investigations were done under the supervision of E. B. Debler . . ."**

At that time all the investigations were done under the supervision of E. B. Debler, whose office was located in Denver, and all the field [offices] crews reported directly to him.

### **Worked in the Weiser River Basin and then from Boise in Southwest Idaho**

So I was up there ~~in Idaho~~, working in southwest Idaho. For about three months I was working out at Weiser, on investigations on the Weiser River Basin. About mid-December, we were transferred into Boise, and were working on investigations there. ~~Sometime during that period, I can't remember just when it was, can't remember whether I was still working out of Grand Lake or up in Boise, but I was offered a junior engineer—oh, I was just on a survey crew.~~

### **Worked in Colorado and Idaho as a Chainman and Rodman**

It was chainman and rodman was my appointment with the Bureau at \$105 a month.



Storey: That was at Colorado-Big Thompson *and* southwest Idaho?

Reedy: That was at Big Thompson and southwest Idaho, yeah. All the same.

### **Corps of Engineers Offered Him a Job as a Junior Engineer**

During that time, ~~sometime, I can't remember just exactly when it was, why,~~ I was offered a job as a junior engineer with the Corps of Engineers in Ellsworth, Kansas, as I recall it was on one of their projects there. I was tempted, because I wanted to get a professional rating, *and* it would have been closer to Lincoln, Nebraska, where my future wife was living at the time, but my brother Calmar,<sup>4</sup> who was working for Reclamation under Debler at the same time, he said, "Well, if you are on the register for the Corps of Engineers, you will be very soon for the Bureau of Reclamation, so just stick it out."

**". . . not long after I got up to Boise, I was offered an appointment as a junior engineer. . ."**

So I did that, and not long after I got up to Boise, I was offered an appointment as a junior engineer with Reclamation. So Cal was right. I just had to wait for a few months. And I've been happy ever since. That was good advice

---

4. Oliver Calmar (Cal) Reedy has also participated in the Bureau of Reclamation's oral history program.

that he gave me. So then I was a junior engineer in Idaho.

Now, do you want me to continue on with my career?

Storey: Yeah, go ahead. Go clear through, and then we'll go back and go over it all.

### **Began to Work Primarily in Hydrology Studying the Weiser Investigations**

Reedy: Okay. All right. So I started as a junior engineer there in Boise. ~~I can't remember the date of the appointment. As I recall, it was either [in] late 1939. or early 1940.~~ Got started working primarily in hydrology, working under an assistant engineer by the name of Don Huff.

### **Worked with Don Huff**

We were still working on the Weiser ~~project,~~ Weiser investigations.

Storey: How do you spell Weiser?

Reedy: W-E-I-S-E-R. It should be pronounced "Wiser," just like as in Budweiser, but locally it's called "Wēser," which is probably the way the man pronounced it who it was named for.

### **Mann Creek Project**

So there were several small projects up there that we studied. I worked on the

hydrology for water supply studies for most of those. Only one of them, so far as I know, was ever built, the Mann Creek Project–Spangler Dam.<sup>5</sup> I don't know just what has been the result of that. I assume that it's been a successful project.

Storey: That's M-A-N-N?

Reedy: Mann, right.

Storey: Creek.

### **Studies at Indian Valley, Idaho**

Reedy: Yeah. But one of the most interesting places that we worked was called Indian Valley, which was a very small community. I don't remember what they had. I guess they had a store there. There wasn't anyplace to stay, no hotel or anything close to that. We were doing land classification. So Don Huff made arrangements with one of the families there for three of us that were on the field crew to stay at their house. So the lady of the house fed us, made lunches for us to take out. It was very makeshift the way that we had to sleep there. The facilities there were sort of crowded. They had just had a small baby. But very nice young couple. Then on the weekends, ~~why~~, we'd go

---

5. Built between 1965 and 1967, it was originally known as Spangler Dam and Reservoir. In response to a request of the waterusers, the name was changed to Mann Creek Dam and Reservoir on August 26, 1967.

into Weiser and spend the weekend in Weiser, and then come back out and work there.

### **Had to Do Land Classification but Didn't Have Proper Experience and Training**

I remember I didn't have any experience in land classification. This [was] ~~is~~ before I got the junior engineer appointment. But I didn't have any experience in land classification. The fellow who was working with me was Ed Kapernick, and Ed had to leave for some reason, so I got put in charge of doing land classification there, surveying it, and doing the little soil studies that they did. It was very primitive. The land classifiers now would be horrified at the way we were doing that, but it was very interesting. So that was before I got the junior engineer appointment, but we worked primarily on the Weiser Basin studies.

### **Southwest Idaho Investigations**

I have to recall some of these things. We were called the Southwest Idaho Investigations. As I recall, we pretty much worked on that all the time, working out of the office that was owned and occupied by the Boise Project Board of Control.

### **Regional Office Established in Boise**

In the meantime, in 1944 and '45, the regional office was established. At that time, ~~then~~ we started reporting to the regional director. Previously we'd reported to Debler in Denver,

and he had the main overall responsibility for all of our work there. The first man in charge of the office for the Southwest Idaho Investigations was Fred Nichols.

Storey: This was after the regions were created?

### **Fred Nichols Was the Original Head of the Southwest Idaho Investigations**

Reedy: No, this was before the regions. This was when I first went up there in September. It was Fred Nichols, and he was there for several years.

### **George N. Carter Becomes Head of Southwest Idaho Investigations**

Then George N. Carter was then placed in charge of the study. George Carter had been the resident engineer on the construction of the Kingsley Dam on the North Platte Project in the state of Nebraska. He came out and was in charge of the investigations. As I recall, we stayed right out there, even after the regional offices were established, operating as a field office, but we worked with the regional people, and had continued quite a bit of contact with them. See, The assistant chief under Carter was Vern Otter, who had worked for the State of Idaho, as I recall, on some construction.

### **Vern Otter Becomes Head of the Office**

Let's see. Then George Carter retired, I think, and Vern Otter continued there as the

chief of the office, and Charlie Le Moyne was the assistant chief.

### **Charlie Le Moyne Was Assistant Chief of the Office**

Charlie came from an old Reclamation family. His dad had been, I guess—he wasn't a professional man, he'd just grown up, I guess, herding cattle or sheep in Idaho, but he'd worked for Reclamation on construction jobs. So Charlie came from a Reclamation background, too.

Let me see. Well, we continued to work on the southeast Idaho projects, and that was the primary responsibility all that time, even though we had a change from an independent office to working for the region. Right offhand, I don't recall anything *more* significant during that period of time.

### **Reclamation Office Established in Juneau, Alaska**

Then [on July 1, 1948,] ~~in early 1948, I don't know, it must have been about late spring, 1948,~~ the Bureau [established] was establishing an office in Juneau, Alaska, to do some water resource investigations in the State of Alaska, although at that time it was a territory, with primary emphasis on hydro-electric power. They were looking for a hydrologist. They originally had contacted a fellow who was with a Bureau office out in ~~one of the Oregon offices.~~ I can't remember

which one, and I can't remember his name, but he apparently turned the job down.

### **Decided to Apply for Hydrologist Job in Juneau**

So we saw the continuing advertising for a person to fill the position, and I came home and offhandedly told my wife, Lois, about it, and she said, "Let's go." So I applied. Randy Riter, [who was] ~~who's~~ in charge of hydrology and had been Debler's assistant for all the investigation work prior to establishment of the regions, Randy gave me a good recommendation, so I got the job.

Storey: And, Riter would be spelled how?

#### **Randy Riter**

Reedy: R-I-T-E-R. J. R. Riter, John Randolph Riter, known as Randy. Everybody about the Bureau knew him as Randy. He was a great man. He raised a lot of young engineers that feel a lot of affection for him.

#### **Brother Oliver Calmar (Cal) Reedy**

In fact, my brother Calmar Reedy, Oliver Calmar Reedy, [had worked with] ~~was working~~ for Randy [under Debler] in the Denver office [in the 1930s.] ~~at the time.~~

Storey: How do you spell Calmar?

Reedy: C-A-L-M-A-R.

Storey: He was working for—

Reedy: He was working for Debler and Randy in the investigations office in Denver at the time. He ~~had also, as I mentioned,~~ had graduated from the University of Nebraska, and after he got out in 1932, he worked for the Forest Service for a short time, until he got an appointment with the Bureau, in 1933. So he was working at the Denver office of the Bureau at the time that I started working for the Bureau in 1939.

Storey: We were going to Juneau.

Reedy: We were going to Juneau, right. (laughter) I'm glad you keep me on track here. So we went to—applied for the job and got it as the hydrologist in the office in Juneau. It was a small office. Their *budget* for the first year was \$150,000. They had an office of about, well, let's see, there was the chief of the office, the assistant chief, hydrology, field investigations, [geology], office manager, and, oh, maybe, four or five field crew people, a relatively small office. It was expanded later. They got an electrical engineer.

Storey: Maybe eight or ten people?

### **Moved Family to Juneau in August of 1948**

Reedy: About [ten full-time permanent staff plus temporary field crews.] ~~that, year.~~ So [I] ~~we~~ applied for that and [was] ~~were~~ accepted. We were going up there in late August of 1948 and—let's see how this worked out. As I recall,



---

we had arranged for shipping all our household goods [from Boise] ~~here in Denver~~, drove up to Seattle, and sold our car to my cousin, because we didn't feel we could afford to take a car up there, and there was only about fifty miles of road that you could drive up there at the time. So we decided to do without a car. But when we got to Seattle, why, Harry Bridges called a strike of his longshoremen, so we couldn't get our household goods shipped up to Alaska.

Storey: ~~Now, you said you shipped from Denver. Weren't you living in Boise?~~

Reedy: ~~Or in Boise, yeah, excuse me. Yeah, Boise. Yeah. I stand corrected.~~

Storey: Those are the kinds of little slips we were talking about that we need to correct.

**In Seattle There Was a Longshoremen Strike That Prevented Most of Their Personal Material from Going up to Juneau Immediately**

Reedy: Need to correct, right. Anyway, we got up there to Seattle and there was this longshoremen strike, so we couldn't get our household goods shipped up on the ship up to Juneau. So after conversations with the Denver office, which had arranged for the transfer, we were allowed, I think, 500 or 600 pounds that we could ship by air. So we got just the bare necessities—very few household goods, [minimum] kitchen equipment, clothing, things of that sort. So we didn't have very much when we got up there. We had

been renting houses all the time in Boise—furnished— so we had no furniture, but we did buy a small amount of furniture before we went up there, that we were planning to have shipped up there, thinking that if we got an unfurnished house, why, we'd need a small amount. So that was left behind in Seattle.

### **Bought a Small House for \$6,125**

We got up there, started looking around for a house, looked at several of them, found one small one that needed a lot of work done on it, that we decided we'd buy. Paid, as I remember, \$6,125 for it. Had some furniture in it. Had an oil space heater and an oil cook stove, which was something new for both of us. But we were able to get by with the 500 or 600 pounds that we shipped up of clothing and things, and small [amount of] household equipment, so we got by very nicely.

It was a growing neighborhood, a lot of young people, young kids, about the age of our two that we had at that time, which were two and three [years old]. One of the ladies came around collecting for Community Chest or something like that, and talked to Lois during the day while I was at work, so they got to talking and Lois told her about our predicament. So as she was going up the hill, why, she told people about our situation, so they came down with clothing for the kids and household goods, and just helped us out immensely for that.

### Mary Ehler Gave Voice Lessons to Mrs. Reedy

Another interesting thing was that this lady, whose name is Mary Ehler, had studied *voice* in Europe under some of the best voice teachers there, and she had sung in New York City extensively, and she was giving voice lessons up there, and Lois has always sung and had a nice voice, so Lois just hit the jackpot in being able to take lessons from Mary Ehler. Her husband was one of the desk clerks down at the Baranoff Hotel, which was at that time the big hotel in Juneau.

Storey: Ehler?

**"the . . . four and a half-plus years that we spent in Juneau, were the happiest times of our life, just *thoroughly* enjoyed it. . . ."**

Reedy: E-H-L-E-R. German spelling. So that was just one of the serendipitous things that happened up there. In fact, as we look back on it, why, the five, four and a half-plus years that we spent in Juneau, were the happiest times of our life, just *thoroughly* enjoyed it.

Digressing a little bit, one reason we did was because in many respects, all the people were on an even plain. You all contributed to the city. The politicians, the professional people, ~~but the—what am I trying to say,~~ the tradespeople, plumbers, electricians, heat[ing] specialists, carpenters, they were all accepted on the same plain. They could associate with each other, and it was just *wonderful* to be able

to have that communication with the whole town. At that time as I recall, it was about—oh, what was it, something less than 10,000—6,000, 7,000, as I recall [with another 1,000 or 1,500 in the immediate area]. So you really became acquainted with the whole community there, and we just thoroughly enjoyed our time up there. Well, that's not Reclamation work.

Storey: No, that's important, though, because it relates to how people get along in Reclamation. Don't be embarrassed about it.

Reedy: Okay. Oh, I'm not embarrassed.

Storey: *Shy* maybe is more accurate.

Reedy: Yeah, it's very interesting to me, and it's a part of the whole picture of going up there as a part of Reclamation.

### **R. C. Johnson from Salt Lake City Initiated Study of Alaska**

Well, anyway, we started working. The fellow who initiated the move of establishing the [Juneau] ~~Boise~~ office was R. C. Johnson, Richmond C. Johnson. He was the assistant chief, and he had come from Salt Lake City.

~~Storey: To Juneau.~~

~~Reedy: To Juneau.~~

~~Storey: Yeah, you said Boise.~~

---

Reedy: ~~Oh.~~

Storey: ~~Go ahead.~~

Reedy: Oh, okay. Yeah. He had come from Salt Lake City. He had worked for Reclamation down there. But he could see some of the potential in Alaska, with the extensive water resources in Alaska, so he got maps and Geological Survey water supply [papers,] ~~bulletins~~, and had just done paper studies of potential power projects up there at various sites, looked for good dam sites on the quad sheets.

**"Alaska has what they call hanging lakes . . . at high altitude . . . with steep slopes close to sea level . . . high head for the power. . . ."**

Alaska has what they call hanging lakes, which are up at a high altitude, maybe a couple of thousand feet, with steep slopes close to sea level, so we could use those lakes for water supply and get high head for the power.

He'd done extensive work on that, and presented it to somebody at a higher level in the Bureau, and they presented it to Congress, so they included in the Bureau's authorization bill, this \$150,000 for the first fiscal year [beginning July 1, 1948.] ~~'49 or '50.~~

**"R. C. Was always a little bit diappointed that he didn't get the job as head of the office. . . . after he'd done all that work . . ."**

R. C. was always a little bit disappointed that he didn't get the job as head of the office. He thought after he'd done all that work, he should have had it. I *don't know* how he would have been as an administrator. ~~The guy they brought in—the guy=~~

### **Joe Morgan Headed the Juneau Office**

The man they brought in, Joseph Morgan—Joe Morgan—was not the best administrator in the world either, but it did work out as a good office and we worked as a team. Everybody liked each other.

### **Detailed to Boise Because of Lack of Funds in the Juneau Office**

But Joe was not too good at managing the finances, and he overexpended early in the year. So for the last three months of the fiscal year—April, May, and June—why, as I recall, [four of the permanent staff] ~~three of us~~ in the office had to be farmed out to other agencies. [Three] ~~Two~~ of the fellows were taken on by the Alaska Roads Commission and worked up there above Haines, I believe it was, when they were working on some of the highway work for the Alaska Highway. ~~Worked for them out in the field up at Haines.~~

I was fortunate enough, from *my* standpoint, anyway, to be needed back in Boise for some continuing work, or at least in the same kind of work that I had done when I was there before, so I was detailed down to Boise for

three months—April, May, and June—which was very nice for me. I got to work with people that I knew, on projects that I knew, and knew a lot of people in the town. I was down there during a period of good tennis, in [May and] June. I played a lot of tennis there. So I was able to participate in that. But it was sort of tough on Lois, being left up at Juneau with two little kids and nobody to help her out. The neighbors helped a lot.

### **Returned to Juneau with His Parents Who Came up for a Visit**

So at the end of June, when my transfer was up, just as a little bit of personal thing in here, my parents drove up from Denver up to [Boise, picked me up, and on to] Seattle, and then we *all* went on one of the Alaska steamships back up to Juneau. (chuckles) Lois tells the story about we were coming in, I think it was late afternoon, as I recall, and so she had the two little kids down there on the dock, with little Alaska beanies on them, and she taught them to say, "Howdy doody, Daddy, it's about time." (laughter) So they were there down on the dock waiting when we got in. ~~But~~ My parents stayed for a couple of weeks, [but] ~~and~~ I had to get back to work right away, because I had been missing there for some time, but the two of them and my wife and the two kids got to do some traveling. They got to get over to Sitka. So it was a good trip for my parents. We enjoyed that.

### **Aerial Reconnaissance of Water Resource Sites in the Fall of 1948**

So let me recollect and see what goes on now. One of the first things we did in the fall of 1948, after I got up there, was doing a three-week reconnaissance of the [water resource development] sites in Alaska, *primarily*—well, the field reconnaissance was all sites south of the Alaska Range, but we did a little aerial reconnaissance of some of the areas in [central and] southeast Alaska.

### **Worked out of Anchorage for about Three Weeks**

Then I was up in Anchorage, and spent three weeks in Anchorage. Two of the fellows had been up there earlier. The fellow who was ~~sort of the field engineer~~, civil engineer and the field engineer, and the geologist, and I as a hydrologist, and the three of us spent three weeks up there. We flew to a lot of the sites that R. C. Johnson had looked at and identified during his reconnaissance map study. Very few of them that we could actually get to on the ground, because there just weren't places to land.

What we used was an amphibian plane, one of the crack pilots there out of Anchorage, and he was familiar with the whole area. So he'd fly us around and we'd have a chance to look at the sites. The three of us would ~~make our best guess, we'd~~ look down on a possible dam site, make our best guess as to the dimensions of the



---

site, flying a couple of thousand feet above it. So that was the basis for some of our future studies.

We had some very preliminary and *meager* hydrologic data that the Geological Survey had collected on water resources of the various streams, but it was something specific to go on. So from that information, ~~the~~ ~~I can't think of~~ ~~his name, it'll come to me~~ [Daryl Roberts,] the civil engineer [and] ~~the~~ field engineer, ~~he~~ worked up data on the dam sites, and I did the hydrology to estimate what the potential water supply and the power generation would be, and so we worked on that for, well, basically the entire territory, but mostly in south central and southeast Alaska. [We concentrated on that area because that's where most of the population lived, the main areas of power use.]

### **Published a Reconnaissance Report on the Work**

We published a book, a reconnaissance book, on hydroelectric power in Alaska. It also included information about other possibilities: agriculture, recreation, fish and wildlife, and things of that sort. As I've indicated, it wasn't based on very precise data and studies, but at least it gave a little bit of picture as to the power potential for the whole state, and primarily the southern part.

END SIDE 1, TAPE 1. JANUARY 12, 1996.

BEGIN SIDE 2, TAPE 1. JANUARY 12, 1996.

Storey: You were saying that you published a book on the hydro potential of Alaska.

Reedy: That's right. It was called a reconnaissance study. It was a very *basic* reconnaissance, not an advanced one, but it indicated what were most likely to be the projects that should be studied in the future, and also examined the potential use of the hydroelectric power.

Storey: South central, southeast Alaska, where most of the population was.

Reedy: South central and south[east]—that's right. Yeah. This basic look, too, at some of the other aspects, such as the agriculture[, minerals, timber,] and recreation and things of that [sort], where power could help facilitate the expansion of some of those other industries.

That was a real big project. ~~We completed that, oh, I don't know, but I remember—actually, this was all before I went back to Boise to work there.~~ This was all done in the period from the first of September, as I recall, to early spring. I remember we had a small office and very limited financial resources, so I remember we got all the pages for this printed, ~~=mimeo-graphed, it was at that time=~~ and then we put them out on the table in a row. ~~, and we had them out, page one, page two, page three, page four, and try to put the different individual books together.~~ We'd go by and pick up page one, page two, page three, and then somebody behind us would come up

and pick one, page two, page three and so forth, and that was the way we put the whole thing together. We worked a lot of overtime ~~to do that to try~~ to get it out on time. Eventually it was published as a bound book, which I sort of cherish, one of the original studies up there.

### **Eklutna Project**

The Corps of Engineers had an office up there. I think they were doing something similar at the same time, but we didn't have a lot of close contact with them. One of the specific outcomes of that, and the first one, was the Eklutna Project, which is on a tributary of the Knik Arm [of Cook Inlet], near Anchorage. Anchorage, being the largest population center, was the one that was most in need of supplemental power, because most of the power that they had, as I recall, was oil-fired generating plants. So this Eklutna Project ~~, and I don't remember the details of it, as I recall,~~ it was about 20,000 kilowatts, 20 megawatts, not a large plant, but it was certainly helpful for them. It was one of these elevated lakes up at about 800 feet elevation, as I recall. They built a small dam and a tunnel down to the power-plant at tidewater. It helped a lot in the power needs for Anchorage.

### **Lake Dorothy Project**

A couple of others we investigated. One of the largest, it was another one of these high-elevation lakes, the Lake Dorothy Project,

down near Juneau, and Snettisham Project, which was a similar one.

### **Studied the Snettisham Project Which the Corps Later Built**

As I recall, there were a couple [or] of three lakes involved in that. Snettisham was ultimately built by the Corps of Engineers to supply energy for Juneau. ~~So that's one of the main sources for that.~~

Storey: Can you spell Snettisham for us?

Reedy: S-N-E-T-T-I-S-H-A-M.

One of the problems with that was the transmission from the powerplant *to* Juneau. As I recall, it was about thirteen miles of transmission line on a steep side slope, and very subject to winter storms, so maintenance of that during the winter ~~it was recognized [as] that it would be~~ a problem, and I think it *has* been somewhat, but I'm sure that the project is working satisfactorily. I never did get out to see that after it was built.

### **Looked at Development of the Susitna River**

Let me see now. Well, most of the work after that reconnaissance was for the specific projects, running reports on the Eklutna Project, on Lake Dorothy, Snettisham. One of the large projects that we looked at was on the Susitna River—S-U-S-I-T-N-A—which is one of the largest rivers flowing south of the Alaska

Range, flows into [Cook Inlet,] ~~Knik Arm,~~ east [west] of Anchorage. ~~a ways.~~ It has steep, *deep* canyons, with good dam sites, large flow. There were multiple dam sites on it, three or four, as I recall. In fact, while I think of it, I may still have some of the reports from those studies. Would you like any of those?

Storey: I don't know. Probably we have them in the archives. What we ought to do is check with the records manager and see.

Reedy: Yeah. Now, some of those I've thrown away, but I may still have some of them. I might check and see if I still have anything.

Storey: Okay. That would be wonderful.

~~Reedy: Because we've been trying to clean out our house.~~

~~Storey: Yeah. That would be very nice.~~

### **Devil's Canyon Project on the Susitna River**

Reedy: Anyway, the Susitna River provided the one ~~on~~ ~~which~~ we emphasized first, was the Devil Canyon Project. As I recall, we were talking about an arch dam that would be maybe 300 feet high. I don't remember the total installed capacity we were looking at. There would not have been a lot of water storage capacity behind the dam, because the river was so steep there, but several miles, a good many miles, above it was another dam site, not so much in the canyon, but just at the head of the canyon,

which would have provided a reservoir with considerable more storage capacity, that could have provided a continuous flow for maintaining the flow of Devil Canyon through the winter when there's not a lot of runoff.

### **Vee Canyon Study**

There was another one, Vee Canyon, which I think was between those two. I remember those three specific ones. It seems to me there was another site that we looked at also.

### **Daryl Roberts and Ade Jaskar on the Susitna River Studies**

I didn't get out in the field. Daryl Roberts ; ~~the fellow whose name I couldn't think of a little while earlier,~~ was the civil engineer who was in charge of all the field studies. Daryl and Ade Jaskar, A-D-E J-A-S-K-A-R, who was a Finn, was the geologist. They did a lot of the field studies, looking at the geology and doing the actual surveys of the dams and reservoir sites as needed.

They had some harrowing experiences. As I recall, Daryl [and some others] fell into the water while they were doing the studies on the Susitna River for the Devil's Canyon Dam. ; ~~and lost—I don't remember all—~~ Daryl lost a lot of personal things, and I remember that Joe Morgan, with the assistance of the Washington office, put through a bill through Congress to reimburse him for his losses there, so he has a

congressional bill for \$800 or something like that, to reimburse him for that. (laughter)

Storey: Really. That's interesting.

Reedy: That's my recollection, anyway.

### **Project Reports Were Just Mimeographed**

Well, let's see. We never did publish a bound book on any of those projects, as I recall. They were all just mimeographed and published, just a few copies, for office studies and sending into ~~Washington Bureau~~, the office in Washington, to see how they wanted to handle any possible requests for authorization.

### **Studies in the Fairbanks Area and Rampart Dam**

Another project that we studied that [we] didn't do in as much detail, and I never did get up to see the site, was a site on the Yukon River, which has been looked at by a good many people. A dam site—oh, not far from Fairbanks. Fairbanks is on the [Tanana] ~~Cheena~~ River. In fact, we looked at studies of sites on the [Nenana] ~~Cheena~~ River, too, but the Yukon River project was one that we studied. I can't remember the exact power generation, but it was in the range, as I recall, of 5 million kilowatts installed capacity. The dam site was not a particularly good one, as I recall, but it was something that was feasible. A lot of storage in it, of course, because the

Yukon is flat and it was spread out a lot up there. That's been studied by a lot of other organizations and a lot of other people, too, but I think that's pretty well out of the picture, now, because of the environmental problems that were raised.

Storey: Was this the Rampart Dam site?

Reedy: Rampart Dam, that's right.

Storey: Oh, it was. We *did* study that.

Reedy: Yeah. ~~Yeah. Yeah.~~ In fact, as far as I know, we did the initial studies on it. There may have been others outside of the Bureau that did a little bit of work on it, too, but I think we did the first significant one. It was just a reconnaissance level, nothing more than that.

Storey: Do you remember anything about the conclusions that were arrived at?

Reedy: I think it was engineeringly [feasible] and—I don't know whether we got into enough detail on the economics to know the economic feasibility. Probably would not [be] ~~have been~~ economically feasible under present conditions, because there's just not that much need for power use and distribution up there.

Storey: At that time.

### **Environmental Issues and Rampart Dam**



Reedy: Well, even now, probably not. With the environmental concerns, I think primarily the nesting areas for waterfowl that would be covered and destroyed, and it just wouldn't be in the picture now. I don't think anybody's thinking about that now.

Storey: Was that a concern at that time?

Reedy: To some extent. Certainly not as much as it is now. We recognized the problem, as I recall. Doggone, I think I've thrown away a lot of those reports. I wish I'd saved them now. I'll look and see what I have.

Storey: Yeah, good.

### **Chakachamna Lake Study**

Reedy: So that was one of the reconnaissance studies that we did. Another one was Chakachamna Lake, which is west of Anchorage. It's another one of these high-level lakes where we'd put in a short tunnel for penstock and a power[plant] project down below the lake. I don't recall any other specific ones right now. They'll come to my mind later on, I expect. So I think that, for my recollections right off the top of my head, pretty well covers the work we did in Alaska.

### **Applied for a GS-13 Job in Costa Rica in 1953, but ended up in Washington, D.C.**

[In early] 1953, ~~early '53~~, I was at that time a GS-12, as a hydrologist. R. C. Johnson was a GS-13 and Joe Morgan was a GS-14. I

guess it was the late fall of 1952, a GS-13 job opened up in the Washington office. ~~Let's see if I can get the chronology of this straight. No, going back a little bit. I've got to dredge things up from my memory that I haven't thought about for a long time. I don't remember specifically the chronology of this. I can look it up and see whether I got it straight or not.~~ But as I recall, there was a job opened up at a GS-13 on a study down in Costa Rica, a possible [water resources development study] power project down there. We thought that would be interesting, so I applied for the job. ; ~~but yeah, I think this is right. I applied for the job.~~

A Bureau man, Bill [Romig] ~~=I'll think of his name later=~~ had been down there on a six-month reconnaissance study for this project in Costa Rica. Then he came back to Washington, and so they wanted somebody to go down on a two-year study to do more detailed investigations of the project. This is the job that I applied for at a GS-13. At that time, security was a significant problem, so they had to go into a security check for everybody.

### **Conscientious Objector During World War II**

As they were doing *my* check, they saw that I had been a conscientious objector (CO) during World War II [to serving in the armed forces.] ~~and did not serve in the service.~~ I was looking at my card, I had about nine different classifications when they were classifying, all

---

the way from 1A to 2A to 4E and 4F, 4E being the CO classification. This was all the time that I was in Boise [prior to and during World War II]. I finally ended up, after they wrestled this all around, ~~then I finally was~~ classified as 4F because of my eyes. ~~and I think maybe~~ I'm not sure, but I think maybe the draft board didn't want to have anybody show as a CO on their records, so they made me 4F and used that outlet. I don't know.

I was all ready, when I was [classified as a 4E,] ~~there, already~~ to go into a civilian public service camp, which is what they had established at that time for the COs. In fact, the Reclamation had a CPS<sup>6</sup> camp down in the Mancos Project down in southwest Colorado. I remember talking with one of the fellows in the Salt Lake office after I got back here about that camp down there.

But anyway, in making the security check, they said that it would take too long for them to go through the necessary evaluation of my CO position, and they needed somebody down there on this project in Costa Rica right away, so [Bill Romig,] the fellow who had done the six-month reconnaissance study, went down for the two-year study. ~~and~~ His job in Washington was as [Bureau representative on] ~~coordinator of—oh, what did they call these—~~ ~~they're multi-agency~~ [inter-agency] committees that try to coordinate the different types of [activities between] ~~activity within the~~

---

6. Civilian Public Service (CPS).

different [agencies,] ~~organizations,~~ like the Corps of Engineers, the Geological Survey, [Soil Conservation Service, Bureau of Reclamation, and others] ~~SCS and all of those,~~ on hydrology. ~~What was the other one?~~  
Sedimentation. Bill [Romig] ~~what's-his-name,~~ who I can't think of his last name yet, was the Bureau representative on those committees. So when he went down to Costa Rica, then they offered me the position as the Bureau representative and coordinator on those [inter-agency] ~~coordination~~ committees, working under ~~;~~ well, it was Jack Dixon, was the director of project planning, [and] ~~but~~ "Buzz" Bennett, N. B. Bennett, [who] was his assistant chief, and ~~he was~~ the one that I more or less worked directly under. So I was transferred to Washington instead, to take Bill's place.

Storey: That would have been in '53?

Reedy: '53, yeah, mid-February I went to Washington. The family stayed up in Juneau and took their time in getting down there. They finally got down there in mid-April, as I recall.

### **Represented Reclamation on Inter-Agency Committees in Washington, D.C.**

So I worked as the Bureau representative on those committees, which was an interesting job. We stayed with a divorced wife of a cousin of mine, who was also a good friend of ours, stayed with them while we were there, looked for houses, and thought at one time we might buy a house, but things were getting a

little bit unsettled then. That was the beginning of the [Dwight D.] Eisenhower administration, and the Eisenhower reduction-in-force (RIF) hit, so I got hit along with that.

### **The Eisenhower Reduction-in-force Resulted in Demotion and Transfer to Denver**

I got transferred back out to Denver and one of the fellows who had been in the Washington office for some time took the job that I had. He'd been a [GS-]14, and he got busted down to a [GS-]13, so I got busted down to a GS-12. For a while, I thought I was going to be out of a job, but Randy Riter, bless his heart, I don't know just how he worked it, but he established a new position as some kind of a coordinator. ~~or administrative assistant, not administrative assistant, but I can't remember just the title of it. I'd have it at home.~~ He established a new position, GS-12, and got me transferred back to Denver, because he felt that the effects of this RIF were going to wear off eventually and they'd need somebody, so he had me there as a GS-12, and found a lot of work for me to do.

So I was transferred back here to Denver at the end of June of 1953. I'd originally thought that I would probably be in Washington for ~~at least~~ two years in this coordinator job, and I think I would have enjoyed that and it would have been worthwhile, but I *sure* didn't want to stay in Washington for any longer time than that. It wasn't the kind of work that I would have enjoyed. I thought there would not have

been a good opportunity for technical work, although there might have been, and I didn't particularly like the climate there. It was too hot and humid for me, having grown up here in Denver. So I wasn't unhappy at all with coming back here, even though I took a grade cut, but I figured that I could get that back sometime soon.

### **Spent Some Time Working for the Firm of Leeds, Hill, & Jewett**

So I came back here and Randy found plenty of work for me to do. ~~One of the big jobs was—let me recollect.~~ Raymond Hill, [of] the firm of Leeds, Hill, & Jewett, had contracted to do a study for the state of Colorado. Just as an aside, Raymond Hill's father, [Louis C. Hill,] worked with my father[, Oliver T. Reedy, in Arizona in 1903 and 1904 on initial survey and studies for the Salt River Project]. ~~As I recall, it was on the Grand Valley Project over at Grand Junction on the construction of the Grand River Diversion Dam, where my dad was the construction engineer.~~

But anyway, they needed somebody to do studies for Raymond Hill, so I was put on leave without pay for four months. ~~as I recall, three or four months.~~ Raymond Hill picked me up and paid my salary to do studies—hydrologic studies, primarily—developing material and graphs and so forth, for his study. He had a contract with the state of Colorado to do a study on water resource possibilities for the

---

state, as he saw it. So I worked with him and had contact with some of the Bureau offices.

### Upset Ben Powell

I remember one of them [that] sticks in my mind particularly, was Ben Powell, who was at that time in charge of the Bureau investigations office down in Pueblo. So I got some information from him as to how he saw the Bureau's future in ~~that part of the state~~, the southeastern part of the state, and provided this information to Raymond Hill. ~~and Ben~~, I don't think [Ben] ~~he~~ ever forgave me, because the way that information was used by Raymond Hill was not very favorable towards the Bureau. Ben thought I was a major part of that, and I know he was pretty unhappy with me. We didn't have a lot of contacts so it didn't make any significant impact on my life, but I remember how Ben was so upset ~~about that~~ when he saw the report. I don't think I have a copy of that report anymore, either, since I've been trying to clean things out. I imagine it would be available at the state if there was ever anybody in the Bureau ever wanted to look at it.

So after I finished that study, [I] came back to the Bureau at the GS-12. [For a few years I reviewed and prepared data from water supply data of the Geological Survey.] ~~Let's see. I can't remember how long after that it was. That was '53. I had a little hiatus in there.~~

### Spent a Year at Harvard, 1956-1957

In 1956 and '57, I spent a year back at Harvard. ~~I can't think of his first name—Arthur.~~ Arthur Maass, M-A-A-S-S, who was a professor of, [government] ~~wasn't economics, can't remember just what his title was,~~ but he was in the Harvard public administration program. ~~;~~ ~~and~~ He and Maynard Hufschmidt, who had worked for the Department of Interior on various committees, as heads of committees and various programs, ~~they~~ had developed a plan, or a proposal, [for] looking at possibilities of technical [and economic] evaluation of [potential] water resource programs [through use of newly developing electronic computers].

It was just when big computers were coming into the forefront, and they were really big, and they were slow, and they were clumsy and everything, but they wanted to develop some kind of a water program that, for one thing, would utilize the potential of electronic computers. So they were offering one-year fellowships on this program for \$4,000 as a fellowship. They got about twelve or thirteen, most of them were engineers from various places. I was at the Bureau, there was another fellow in the Bureau from Texas, there were two or three from the Corps of Engineers, one from the Public Health Service, one from the Department of Agriculture[, one from the California Division of Water Resources]. So we were on this Harvard water program that they had for the school year '56-'57. The team



that we had was the other Bureau man, Frank Johnson, from Texas, and Blair Bower, who had been working with the state of California in water resource development. He was a *pusher* and a go-getter, just a *ball* of fire. Still is. I still keep contact with him. Saw him back in Washington.

### **Studied the Washita River Basin**

But what we did, we picked the Washita River Basin in Oklahoma as being a project that had been studied by the Bureau, on which we had some data. So we made that our study and tried to—well, we did sort of a paper study of it, with the idea that it might eventually be used as a guinea pig for evaluation by this computer program. We didn't get into the computer details, because none of us were computer experts. I'm still not. Blair, I think, is probably facile with them now. Frank, I don't know, I've lost track of him entirely.

We developed this program for the Washita River Basin, thinking it might also be useful to the Bureau in their studies of the Basin. Blair and I wrote up a couple of chapters that were in a book.

END SIDE 2, TAPE 1. JANUARY 12, 1996.

BEGIN SIDE 1, TAPE 2. JANUARY 12, 1996.

Storey: This is tape two of an interview by Brit Storey with Will Reedy on January 12, 1996.

We were talking about the book you had published out of the Harvard study.

### **Book Published with Article Developed at Harvard**

Reedy: Right. Yeah. *Design of Water Resource [Systems] Projects*<sup>7</sup> was the title of it. Many contributors to it, Art Maass had the overall responsibility for it, and Maynard Hufschmidt was involved heavily, too, but they described the [overall] objective of the program. There were extensive writings about the use of computers. Had a fellow who was just starting on computers and showed the mathematics leading to some of the things that they used and cranked into the computer. Then we had a couple of chapters on the studies that we had done, specifically on development of the potential for this Washita River Basin. I haven't looked at the book for a long time, so I don't recall a lot of the detail of it. As a result of that, all the fellows that were in there got degrees in master of public administration as a part of this water resource program.

They continued this water resource program for, oh, two or three years after that, but I don't know what the results of the subsequent years were. I don't know if it had

---

7. Arthur Maass, et. al., *Design of Water-Resource Systems: New Techniques for Relating Economic Objectives, Engineering Analysis, and Government Planning* (Cambridge, Massachusetts: Harvard University Press, 1962). William W. Reedy and Blair T. Bower are listed as "Other Authors" on a frontispiece of the book.

---

### **Bureau of Reclamation History Program**

---

any significant impact on my career with Reclamation.

### **Regional Coordinator in Office Responsible for Technical Adequacy of Reclamation Planning Studies**

Not long after I got back from that, there was an opening for what they called a regional sponsor. The office in Denver to which I was assigned, which Randy headed up, [had] ~~was assigned~~ technical responsibility of all the Bureau investigations throughout all the regions. We had staff who were [expert in] engineering, hydrology, economic[s], land classification, the primary ones. Then, of course, later on we brought in public [involvement,] ~~contacts,~~ environment, and things of that sort.

### **As a Regional Sponsor Worked with the Regions in Boise and Salt Lake City, and the Office in Alaska**

So we, as regional sponsors, ~~there were, what was it,~~ three or four of us, ~~as regional sponsors,~~ would coordinate between the Project Investigations Division, which is what it was called at *that* time, and the investigation staffs of the regional offices. I had responsibility for, at that time it was Region One, which [was] ~~is~~ subsequently the ~~=I can't even remember=~~

~~Storey:~~ Pacific Northwest.

~~Reedy:~~ Pacific Northwest, P-N, [Region].

~~Storey: In Boise.~~

Reedy: Pacific Northwest [Region] in Boise. ~~, right.~~  
And Region Four, as it was called, in Salt Lake City[, later called the Upper Colorado Region].

~~Storey: Upper Colorado nowadays.~~

~~Reedy: Upper Colorado. Yeah, yeah. And Alaska. So I coordinated those.~~

Storey: Alaska was a separate region?

Reedy: Well, it wasn't a region, it was still the Alaska Investigations Office, but it was not established as a *regional* office by the Bureau. There was not enough activity to justify full region status.

Storey: It didn't work for any of the regional offices?

Reedy: No. No. It reported directly to the commissioner, as it had when I was working up there. This is my recollection. I think I'm correct on that.

So I maintained the contact with the Boise office and Salt Lake City. Let's see. No, I had one in Sacramento. What was that called?

### **Also Worked with the Region in Sacramento**

Storey: Mid-Pacific.

Reedy: Mid-Pacific, yeah.

Storey: Region Two, I think.

Reedy: Region Two, yeah. Mid-Pacific. I also worked with them. Those [were] ~~are~~ interesting years, keeping track of what was going on in all those regions so far as their investigations, field trips out there to confer with them, try to resolve differences, try to establish the direction for the study, worked with them on their budgeting. Those were interesting times. I don't right offhand recall a lot of detail or much that needs to be said about that work.

#### **Returned to the Alaska Office Two or Three Times on Detail**

I might mention, too, that during that period *following* 1953, when I transferred from Juneau to Washington, and then came out to Denver, the Alaska investigations office wanted some assistance. They were short on manpower, and from my experience, I could help them out a lot. So I made, I guess two or three trips up there, to help them on studies.

One of them worked out very nicely. We were able to coordinate that with a family vacation. In the summer of ~~=well, let's see, this is much later. No, this is later, this is in~~ summer of 1962, ~~-T~~ they still needed some work up there, so we coordinated that with a family vacation and bought ourselves a small travel trailer, hooked it on the end of our car, and drove up over the Alaska Highway. The two older kids were [seventeen] ~~fifteen~~ and

sixteen, I guess, and our latest arrival who was one and a half—sort of a tagalong. So we drove up over the Alaska Highway, ~~up there,~~ and stayed for a month working up there to help them with some Alaska studies that I had some familiarity with. ~~But yeah, this is 1961.~~

~~Let's see. I've got to get these things straight. Well, then, 1960—no, 1970. I've got to keep this all straight. I worked at that job as regional coordinator for, oh, I guess it was about ten years or so. Then in 1970, Art Mitchell, who was head of the Project Investigations Office, or whatever it was called here at the time, because there were [several] ~~half a dozen names, maybe not that many,~~ retired, and Charlie Le Moyne was his assistant. So there was a vacancy there and I applied for that, and I was selected to head up the investigations office here in Denver.~~

### **Offered the Job as Head of the Investigations Office in Denver**

Charlie was offered the job to stay on as my assistant, but he elected to retire at that time instead, since he didn't get the job himself. We could have worked together, I think, but I can understand his position. He'd had longer experience, he'd had some experience as assistant chief, and sort of thought that he should have had it, and was a little bit disgruntled that he didn't get it. I don't blame him. The time was right for him to retire. He could have done a good job, sure he could have, but he decided to retire.

So I was appointed chief of the office and was in that job for about ten years, which I guess is about the longest that anybody has been in it, except Randy. It's not exactly the same office, but Randy headed up planning for some time after Debler died.

Storey: This was planning or general investigations?

Reedy: Well, it was planning office, ~~but it had charge of all the investigations. This office continued its responsibility as~~ [that was] responsible for the technical [adequacy of all planning] studies that were done by the regional offices. The corresponding office in the commissioner's office, had responsibility for the program and the political aspects of it, but we had the responsibility for [adequacy of] all the technical aspects. As I mentioned before, I don't know whether I can cover them all, but that included the field studies; the surveys; hydrology; water supply; economics; land classification. The economics included both the agricultural economics and the general economics, benefit/ cost ratio and things of that sort; public relations; environmental studies; fish and wildlife, the whole gamut of things that have to be studied as a part of a water resource development project.

Storey: You say you had *technical responsibility*. Does that mean you reviewed what the regions sent in?

Reedy: We advised them on [performing] their studies, met with them and advised them on their

technical studies, and then had review responsibility and approval [for technical adequacy], after the reports were completed. Yeah. But, of course, we kept in touch with them, just as we had done when I was one of the field personnel, or field [coordinator.]  
~~coordination.~~

Storey: The field sponsor.

Reedy: The sponsor, coordination, yeah. It was the same then. We had the technical responsibility. So there's no change in the responsibility of the office here in Denver from the time when I was one of the regional sponsors, to the time when I became division chief. It's just that I had a different responsibility.

Storey: Did you initiate any studies in Denver?

Reedy: Very seldom. I don't recall any right offhand.

**Office Coordinated with the Regions, Reviewed Studies for Technical Adequacy, and Had Approval Responsibility for Studies**

Storey: So what you were doing was coordinating with the regions in order to make sure that the studies were technically adequate.

Reedy: Right.

Storey: And then you had an approval function.

Reedy: Approval function for the technical adequacy.



Storey: What happened when you didn't approve?

Reedy: Well, we got them to change it, or we worked [it] out—well, it's just like politics now, just like [Bill] Clinton and the Republican Congress having to get together. We negotiated. But ours was the *final* responsibility, and we finally had to sign off on it. I don't remember that we had any major impasses. It generally worked out all right.

So I had responsibility for the overall office, but, of course, the specific contacts were made by the people in my office who were responsible for the different technical aspects. They were the ones that provided all the technical input, requirements, criteria, and all of that. I had responsibility for coordinating all of *their* work and coordinating with the regional offices.

Storey: Now, when was this?

Reedy: This is 1970 to 1980.

Storey: So how long, then, were you a regional sponsor?

Reedy: Well, I must have been a regional sponsor for—I think that regional sponsorship was established after I got back from Harvard, so the late 1950s—yeah, late 1950s. I can check back on that if you're interested in the details of it. I've still got my personnel records at home.

Storey: Well, I'm interested in whether there was something in between your being a regional sponsor and--

Reedy: Oh, no. No, no. No, I went from regional sponsor to--wait a second. Wait a second. Yeah. (laughter) Thank you. Yeah, yeah. You're recalling things better than I am. You're reading what should be in my mind.

Storey: Well, I'm just looking for where there are holes.

### **Chief of the Field Investigations Branch**

Reedy: Yeah, well, there was a big hole there. Yeah. Because sometime along in there, I can't remember just the time, I was appointed chief of the Field Investigations Branch in the Division of Project Planning. Boy, you're sharp.

Storey: I doubt that.

Reedy: There was a big hole there. I moved from regional sponsor to chief of the Field Investigations Branch. This came at the time-- Charlie Le Moyne had been chief of the branch, and when he moved up to assistant division chief, which I would guess would have been perhaps in the early sixties, somewhere along in there, he moved up to assistant division chief, and then I was appointed chief of the branch.

**Ken Schroeder**

Just sort of an aside, at the same time, one of my good friends that I'd gone to college with back in Nebraska in civil engineering, he was also one of the field sponsors, and along about that same time, why, the job that I had thought about but didn't apply for, but he applied for [and] went to Omaha as assistant to the man who was Department of Interior coordinator for all Interior activities in the Missouri River Basin. Ken Schroeder went and became his assistant, and then later on Ken moved down to Albuquerque as the chief coordinator for Department of Interior activities [in that area]. So he moved up to GS-15 about the same time that I moved from branch chief up to the division chief. So our careers were somewhat parallel, but I was always glad that I stayed here in Denver and didn't try to get that other job.

Storey: Do you remember what the regional sponsor's grade would have been?

Reedy: They were GS-13s. The branch chief was a 14 and division chief was a 15.

Storey: So you were division chief for ten years.

Reedy: Yeah, which, as I said, I think it's a record for length of time in that particular job. Randy may have had more.

Storey: Randy Riter?

Reedy: Yeah. ~~I just can't~~ Well, he very likely did.

Storey: Then what did you do after you were chief of the planning office?

Reedy: You mean—

Storey: Am I misstating it?

Reedy: Yeah. Chief of Field Investigations Branch?

Storey: Yes. Okay, right.

Reedy: Yeah. Then into the division chief. Project investigations. They changed it to Division of Planning Coordination, and then they had another title in there, too, or maybe a couple of them. Along in that period of time, the Bureau, for a short time was—oh, what was it? It wasn't the Bureau—

### **Water and Power Resources Service (WPRS)**

Storey: Water and Power Resources Service.

Reedy: Water and power resources, yeah. So we had to struggle with that for a while, and then they finally got it back to Bureau of Reclamation.

Storey: Now let's see. You were the branch chief, field investigations, right?

Reedy: Right.

Storey: Then you became the chief of a division, which was—

Reedy: Division of Planning Coordination, as I recall, was the title when I became division chief. It had previously been Division of Project Investigations, and then Division of Planning Coordination. In other words, they wanted to [identify] ~~distinguish~~ it as being the coordination of technical activities, as distinguished from the office in Washington directly under the commissioner, which had not the technical responsibilities—

**Policy, Program, and Political Responsibilities  
for Planning Was a Responsibility of the  
Washington, D.C. Office**

Storey: But the policy responsibilities.

Reedy: But the policy responsibilities. And I can't remember what name they had back there at the time we had planning coordination. I don't remember what they had then.

Storey: Now after you were the chief of the planning coordination division, what did you do?

Reedy: I retired.

Storey: Oh, you retired in '80?

Reedy: I retired from Reclamation in 1980. Let's see, was it—yeah, 1980, yeah, February 29, 1980.

Storey: Why did you decide to retire? You'd only been working for Reclamation for forty-one years, more or less.

Reedy: Yeah. That's right. (laughter) Well, I decided I was about at the top of salary. ~~and I wouldn't be~~ Well, let's see now, what is the logic on that? ~~Something after—oh, yeah, yeah.~~ After forty-one years-plus, you get your maximum of 80 percent of three years' salary for retirement. So these guys that work fifty years, they don't increase their retirement allotment at all, after forty-one years and eleven months or some-thing like that, because 80 percent is the maximum. When you figure so many percent each year, when you get up to that forty-one years- plus, why, you've reached the 80 percent. So if you ~~don't~~ work anymore, you don't increase your retirement. So I decided that was a good time. Anyway, I'd been around for a long time.

Storey: What did you do after you retired?

### **Consulting with Oil Company Consortium Interested in Oil Shale Development**

Reedy: For a *year* I didn't do anything. Then I was offered a job as sort of a technical, not coordinator, but technical consultant from a water resource standpoint, for a consortium of three oil companies. Started out as Getty, which later became Texaco, and [Chevron] ~~Standard~~ Oil, and Cities Service, who had worked to put together a agreement, a consortium agreement, to develop oil shale in western Colorado for production of oil. [The consortium was usually referred to as the GCC.] One of the major concerns of that is

---

water supply, both for processing and for the community that would be set up for that.

Storey: Did you go looking for this job?

Reedy: No. No, I was called about it. I was happy [in retirement]. I can't remember just what the contact was that led to me, but a ~~fellow~~-Zimmerman. ~~What was his first name?~~ ~~Carlos~~, Carlos Zimmerman, who worked for Getty at the time in Southern California, had talked with the man on the—well, Stone and Webster Engineering was the primary contractor with this consortium for doing the technical studies. So Carlos talked with [Gary Grinnell] ~~a fellow~~ who was working for Stone and Webster, [who had a contact who suggested me for the coordinator's job.] ~~and this guy apparently had some contacts, and whoever his contact was, why, they suggested me. So he called me[, and I] . I guess Carlos is the one that called me. At least I~~ interviewed with Carlos out at the [Stone and Webster] ~~Getty~~ office. So I was hired for that.

It was coordination, some technical advice, not a lot. Stone and Webster did the initial technical work, but after about ~~, what was it,~~ three years or so, [the consortium] ~~they hired a~~ local firm. I've got to think about that local firm, too. Some of these things don't come back to mind easily. I can't think of it now, I'll get it later. But a local firm was hired to—Stone and Webster was the local firm, but another [hired Tipton and Kalmbach, a local] engineer-

ing firm ~~was hired~~ to be the engineering consultant on the project.

For about ~~four, five years~~ four years, ~~I guess~~ I was working full time, eight hours a day, five days a week, because they were really pushing it. But then along about that time, why, they started losing interest in oil shale. The foreign supplies [of crude oil] seemed to be holding up pretty well, and they were always finding new supplies of oil, much less costly than development of oil shale. Oil shale [oil] ~~was probably at least twice,~~ cost twice as much as ~~from~~ natural crude oil. So just gradually, ~~why,~~ the interest in that died down.

After working full time, why, they'd have me maybe three days a week, and that way for a couple of years, then two days a week for a while, then down to just one day, and finally [the job] just petered out. But I worked from about the ~~beginning of '81, or~~ middle of '81, July, as I recall I started, until my last work was probably working one day every month or something like that, a couple [or] ~~of~~ three years ago. So it worked out fine for me. ~~The remuneration was good,~~ The salary was good, and I kept myself busy and I finally got to the point where I didn't feel that I needed to keep that busy. So it petered out and I haven't looked for anything more. Never have. So that worked out very nicely from my standpoint.

Storey: Good. What kinds of things were you advising them on?



- 
- Reedy: Primarily water supply studies. Of course, Stone and Webster was [initially] ~~actually~~ doing the studies, and then this other firm, ~~— Doggone, why can't I—~~ Tipton and Kalmbach[, (T&K) was hired by the GCC as the engineering consultant]. ~~They've kept the names.~~ Both Tipton and Kalmbach are dead, but they just kept the name.
- Storey: K-A-L-M-B-A-C-H?
- Reedy: Right. Yeah. R. J. Tipton, Royce Tipton, was one of the outstanding engineers in the Denver area from a standpoint of general engineering. [Clinton W. Mehring was president of the firm when I was involved with it.] The firm is still busy. They have contracts for engineering design and supervision of engineering construction for a lot of projects. The most recent significant one that I was aware of towards the end of my work down there, was one that they did for a new community down in Las Vegas. Developed a reservoir to provide water supply for the community and for a golf course, and things of that sort. They've done work locally up in the Vail area, developing water supplies as these towns up there for skiing have expanded. Breckenridge, I think they've done some work for Breckenridge, too.
- Storey: I think I've heard somewhere recently that these oil companies that were developing oil shale, perfected, I think is the word, water rights, and that they're still holding onto those water rights.
-

Reedy: Yeah. yeah.

Storey: Is that what you were involved in?

Reedy: Water availability was part of it, yeah.

Storey: What were the other parts of it?

Reedy: The water supply needed, necessary water supply, for the community.

Storey: Figuring out those kinds of things?

Reedy: Yeah. ~~Yeah.~~ And just generally working with the engineers as they made their studies. I didn't have a lot of [individual] technical work to do. It was mostly just working with them. I got into a variety of different things, and I can't recall all of them now. [I was basically a coordinator, coordinating the work of T&K with the GCC.] ~~No, I don't recall them right offhand.~~

Storey: Well, let's go back to the beginning, if it's all right.

Reedy: Sure. Yeah. This is a broad spectrum. Now, if you want more detail—I'm not going to have enough information probably for you for anything like the ten or eleven sessions—

Storey: Well, we'll see what happens.

Reedy: —that you had with—

Storey: With Harold Arthur.

---

Reedy: –with Harold Arthur.

**Father, Oliver T. Reedy's Career**

Storey: Well, let's see what happens. Tell me about your father's career with the Bureau of Reclamation. You just mentioned Grand Valley and you just mentioned, what was it, the Fort Laramie Project.

Reedy: Fort Laramie, yeah, where I was born. Well, my dad had graduated from [the University of] Nebraska, ~~going back a little bit from that,~~ in 1898, and his first job, as I recall, was on a survey party [for the Union Pacific Railroad] out at Tie Siding out in southeastern Wyoming.

Storey: South of Laramie.

Reedy: Yeah. If you've taken that cutoff from Fort Collins up to Laramie, why, you've gone through–

Storey: Tie Siding.

Reedy: Tie Siding, yeah. [I've always assumed it got its name from being a siding where the railroad stored ties for laying track. It still shows on current highway maps.]

Storey: That's right.

Reedy: (laughter) You'd hardly know it except there's a sign there. Well, that's where he started his work on the Union Pacific, at Tie Siding.  
~~Then, let's see, it was—I don't know whether he~~

had done anything more than that or not. [Dad worked from 1900-1902 in Havana, Cuba, as topographic draftsman in charge of office work for the survey of fortifications by the engineering department of the U.S. Military Government of Cuba. From July to September of 1902 he worked for the Mexico Central Railway as topographer and transitman.]

### **Oliver T. Reedy's Career at the U.S. Reclamation Service**

But then the Reclamation Act was passed [on June 17, 1902,] ~~in June of 1902,~~ and [on October 17, 1902,] ~~in October 1902,~~ he started working for Reclamation. So he was probably maybe towards the end of the first dozen or so people that were hired by the Bureau of Reclamation.<sup>8</sup> In fact, I've got a couple of old— at that time it was the Reclamation Service, and it was part of the Geological Survey. I've got a couple of old GS water supply papers that list the people that worked for Reclamation and it gives brief bio data on him. I don't remember the dates, 1904, 1905, something like that, were the dates of these water supply papers. But he started in October of 1902, and—

END SIDE 1, TAPE 2. JANUARY 12, 1996.

---

8. Originally placed in the U.S. Geological Survey (USGS), the U.S. Reclamation Service was created by act of June 17, 1902. In 1907 the Reclamation Service was completely separated from the USGS and became an independent bureau within the Department of the Interior. The name of the Reclamation Service was changed to the Bureau of Reclamation in 1923 after Oliver T. Reedy had left the bureau.

---

BEGIN SIDE 2, TAPE 2. JANUARY 12, 1996.

Storey: You were saying that your father started in October of 1902 and began the very initial surveys.

Reedy: Began the very first surveys for the Salt River Project. He set up a back site and started the surveys for centerline and topography for the power canal, which was to provide power during the construction of Roosevelt Dam. In fact, I've got a lot of pictures of his work down there on that, too. But he started those surveys in 1902.

In 1904, he and my mother were married. She went down there and lived in what they called [the] a "little white cottage" for, I guess it was about a year or [more] so they were down there. The fellows on the project gave her a saddle horse as a wedding present, and my father gave her a pearl-handled six-shooter as a wedding present, which my sister still has, I think. So she'd ride horses. Dad tells lots of stories, humorous stories, about things down there that I could regale you with sometime, but I don't know whether this is the time for it or not.

Storey: Please go ahead.

Reedy: Okay. Well, one of them, he said, "I know where there's [are] some great watermelon, but we've got to be real careful about how we get them." So he said, "Let's go out tonight and get one." So they went out in the night and

crawled on their bellies underneath a wire fence, and got a watermelon and came back, and went back to their cottage to eat it. My mother says that was the most delicious watermelon she ever had, until my dad told her the next day that he had an agreement with that man that they could go in and get one anytime they wanted. (laughter)

Storey: It wasn't as delicious then, huh? (laughter)

Reedy: It was more fun to do it that way.

Another time they went out on an overnight trip, just to spend the night out someplace on a weekend, I guess, Saturday night probably, took their horses out and rode out and rode around for all afternoon, I guess, and finally came to a place that Dad had selected as a good campsite. So they set up camp and cooked their supper, and the next morning, why, they had breakfast and everything. Then they started to go back home, and they just went over a little hill, and there was our house right over there. Dad had pulled her around, without her knowing it, back within a couple hundred yards of their house, and stayed all night out there. (laughter) So he was full of things like that.

But anyway, he—excuse me.

Storey: Go ahead.

Reedy: Well, they left in 1905 [or 1906], I think. My mother went back to Stromsburg, Nebraska,

where she grew up. She was pregnant, and the baby died immediately after birth, so that was a sad time for them. I think that was about the time that Dad [temporarily] quit the Reclamation. My older brother could tell more about that. He's seven years older than I am. He has some more of that history than I do, but that's my recollection.

Then Dad went up and worked for several months, I don't know just how long, up in Butte, Montana. My mother's sister's husband, her brother-in-law, was sort of a financier. He was a banker there in the Stromsburg area, and in Polk, Nebraska, too. He had some kind of mine holdings up in Butte, Montana, and so Dad went up there and ran some of that for a few months for him, and then came back. Then he continued his work with Reclamation. I'm not just sure of all the chronology on all of this. I don't know where he worked first after he got back, but sometime before 1909, he started as construction engineer on the Orman Dam,<sup>9</sup> the Orman [Belle Fourche] Project in South Dakota. I know he was there through 1911, because both my brother and sister were born while they were working on that project.

Then he went down—I think this was next—was construction engineer on the Grand River Dam, was there for—

Storey: The Grand—

---

9. Orman Dam was the original name for Belle Fourche Dam, and some locals still refer to it by that name.

Reedy: The diversion dam.

Storey: Yeah, the Grand Valley Project?

Reedy: Grand Valley Project, yeah.

Storey: That was before they had renamed the Colorado.

Reedy: Renamed it the Colorado, yeah. Well, it's still known as the ~~Grand River~~ or Grand Valley Project and Grand [Valley] ~~River~~ Diversion Dam.<sup>10</sup>

They were there through 1911, I know, because—or no, they were there through 1916, I think, was when they left there. No, it couldn't have been '16. Maybe it was. Sometime he was on Minatare Dam, on the North Platte Project, and that was one of the small dams. I can't remember just where it is. This may have been before he went to Orman. I can't remember the chronology on that.<sup>11</sup>

Storey: But he did work there?

Reedy: He did work there, yeah. Then he worked on the Fort Laramie Project on the main canal, Fort Laramie, and that's when they were living

---

10. Historically the Colorado River started at the confluence of the Green and Grand Rivers. In 1921 the name of the Grand was officially changed to the Colorado River above that confluence so that the Colorado extended to its current headwaters in Rocky Mountain National Park.

11. See the appendices for additional information on Oliver Reedy's career at Reclamation.



at the old fort, and that's when I was born. Then they moved down to Denver and started working for the state. So he had quite a career in Reclamation. I worked it out, in fact, I wrote up an article for the *Reclamation Era*<sup>12</sup> at one time. I don't know whether you've seen that or not, about his history and had some pictures in there of him and my mother down on the Salt River Project, and then mentioned that my brother had worked for Reclamation from 1933 to [1968.] ~~=when was it, '48? I think it was longer than that. Maybe it was in the fifties. Anyway, he worked for Reclamation for a good many years. Then with my forty-one years, and with the three of us, we had, as I recall, about ninety-three years with Reclamation, which I challenge anybody in one family to come up with more than that. I haven't heard about anybody that [has] had yet.~~

### **Brother, Oliver Calmar (Cal) Reedy**

My brother started out ~~=well, he was~~ with Debler in the thirties here in Denver. Then he went in the Navy. He was in the Navy during the war from '42 to '45. When he came back, he went to Walla Walla in the planning office under Boyd Austin, initially, and was there for a year and a half, as I recall, and then transferred to the Billings regional office. Then he resigned from the Billings office to take a job

---

12. William Reedy, "The Reedys: A True Reclamation Family," *Reclamation Era*, volume 63, Nos. 1 & 2 (75<sup>th</sup> Anniversary of the Bureau of Reclamation issue), pp. 53-55.

---

### **Oral history of William W. (Will) Reedy**

with the Great Lakes Basin Commission in Ann Arbor, Michigan, which I think was a satisfying job for him.

Storey: Where does he live now?

Reedy: Up until just this last fall, he lived in Ann Arbor all the time, but they sold their house and went to a retirement center in Maryland. They have a daughter that lives in Columbia, Maryland, between Washington and Baltimore, so they wanted to be back close to her, and they felt that they needed to get a place—this is one of these places that provides until they die. It has all the hospital, health facilities there that they need. We haven't seen it yet. We're going back there sometime this spring and look at it.

Storey: Tell me about this family tradition of going to the University of Nebraska. Back in those days, it was sort of unusual for people to get college degrees.

Reedy: Yeah, I expect it was, but Dad grew up in Beatrice, Nebraska. When he got out of high school, he went to the university in, let's see, the fall of '91, I think it was, and started in civil engineering, a very small department in a small college, College of Engineering at that time. He went for two years, then he had to earn some money for the last two years, so he went back to Beatrice and was principal of the West Side School, which is first through eighth grade, and worked there two years.

The interesting thing about that is that he was principal [when] ~~in the class that had my wife's father~~ [was in the school,] ~~in it~~, and we didn't know that until long after we started going together. But in each of our families' photograph albums, there's a photograph of the students and the principal of the West Side School in Beatrice, that has my dad and her dad in it. So each family came with that separately, and we didn't know about that until after we had gone together for some time.

#### **Oliver T. Reedy Graduated from the University of Nebraska in 1898**

But then he went back to school for the two years and graduated in 1898. My mother came from Stromsburg, Nebraska, in the fall of '96, when Dad came back to school for what he called his second spasm. He tells the story about how he was on the campus there, and walking down the walk and he saw coming towards him from the other end of the walk an elderly gentlemen who wouldn't be thought of being as elderly now, and a young lady, and they're coming down the walk, and he said, "Well, this is the first young lady I've spied." No, she was the one that said that. He attributes it to her. Says that, "[I] came to the university to get an education and go on with my life, and here's the first young man I've seen, I might as well take him. Tag, [you're] ~~he's~~ it." But anyway, this elderly gentleman, dad says, stopped him and asked for directions to where they would go for her to register, so he [said, "I'm going that way myself. Follow

me. "] ~~gave them directions.~~ This was on, as he tells the story, ~~on, what was it,~~ September 10, I think he said, and they got married on September 20—eight years later.

But he graduated in '98; she graduated in 1900. She went on and got a master's degree in 1902, and then she went down to Beatrice and taught school down in Beatrice, and taught some of his younger brothers and sisters. He was the oldest of ten children—seven boys and three girls. ~~So she taught.~~ In fact, she stayed in [the] Reedy [home] ~~Hall~~ and taught down there.

Storey: But all three of the men—oh, excuse me. Go ahead.

Reedy: Yeah, and so that was the reason we had ties to Nebraska. So my brother went one year to Denver U., and then transferred back and took four years at Nebraska and got a degree in civil engineering.

My sister graduated from high school—she's two years younger—but graduated from school just one year later than my brother. But she went two years to D.U., then went back to Nebraska, and the two of them roomed together, got a little apartment and roomed together. She got a degree in physical education. Just to carry on with her a little bit, which isn't of significance as far as Reclamation's concerned, but she later got interested in music, so she got two master's degrees in music, not performance or

composition, but in history and theory and things of that sort.

They went back there because my folks did, then I went back there for the same reason.

Storey: But all three of you chose to be engineers?

Reedy: No, no. Well, my dad—

Storey: Your father, your brother, and you.

Reedy: All three civil engineers, yeah.

Storey: Why did you become interested in engineering?

### **Interest in Engineering**

Reedy: Well, probably from my brother and my dad, and my natural aptitude in math and science. I was just looking when I was throwing away a bunch of stuff, I took what was called the Strong Interest Test back, I guess, when I was in high school. It was intended to try to assist a young person in determining what field for his career he might be [interested in but] not necessarily mentally qualified. ~~but from his interests~~. That's why it was called a Strong Interest Test. Those showed that I rated high in engineering or scientific farming, and fairly high in music. Those are the top ones. So my interest has all been that. Then, of course, with both my dad and my brother being engineers, I was sort of led to that.

- Storey: Did you ever have any contact with Reclamation while you were in Denver, while you lived in Denver, growing up?
- Reedy: In high school? Only through my brother. He graduated from Nebraska in '32, and he worked for the Bureau of Public Roads for about a year, as I recall. In the fall of '33, he got an appointment with Reclamation. He lived at home at that time, so I had contact with him until fall of 1935, when I went back to Lincoln to [go to the university.] ~~school~~. So I had met Debler and Riter and some of the other fellows that he had worked with, so I had some personal contact there, and then with my natural leanings toward engineering, this was a logical possibility.

### **The Reedy Family and Relations at the University of Nebraska**

But you were asking about the Nebraska thing, too. My dad used to tell the story that—speaking about ~~, let's see, about~~ my [sister's] ~~daughter's~~ oldest boy—and he said that both his parents, all of his aunts and uncles on *both* sides of the family, by birth or by marriage, and all four of his grandparents, were graduates of the University of Nebraska. Then my sister, who lives in Lincoln, she married a Lincoln fellow and has lived there ever since she went back there to go to school. She made some kind of a study of all of her and his relatives that were graduates of Nebraska, and I don't remember what it came up to, but some number in the twenties or the thirties,

something like that. She felt that that might have been about the highest of any family, but subsequently, why, we've seen a couple of them in the Nebraska [alumni magazine] ~~alumnus~~ that have exceeded that.

Storey: Tell me what Erdman B. Debler was like.

### **Erdman B. Debler**

Reedy: I didn't really have a lot of contact with him. I think most everybody respected him for his abilities, but there were some people that sure didn't like him for his personality.

Oh, another interesting thing is that when my mother was teaching in [Beatrice,] Nebraska, why, she taught Debler in class. I don't know what grade it was, but she said he was known as "Bruno" then. That's that the B stands for. He, at some time or another, why he decided he didn't want to have a dog's name, so he started calling himself Erdman, or E. B. Everybody knew him as E. B., I guess. He didn't like that name Bruno. But she taught him in grade school, I guess it was.

Storey: So people tended to refer to him as "E. B."?

Reedy: E.B. Yeah, E.B. Debler. Or "Deb." Deb is what it mostly was.

Storey: So when you were talking face to face he became Deb.

Reedy: Yeah. Or somebody says, "Deb wants to see you in his office," or something like that. So it was Deb. In the office it was always Deb.

Storey: Tell me about his personality.

Reedy: I didn't have a lot of contact with him. It was just very casual, and I'd go down in the office maybe to see Cal or hear Cal talking about him. He tended to be autocratic. He had responsibility for *all* the investigations up until the time the regional offices were established. He'd tend to be autocratic about, as I recall, about overseeing the field people. Now, my brother could, of course, give you a lot more background on him.

Storey: What about Randy Riter? Is that the right name?

### **Randy Riter**

Reedy: Randy Riter, yeah. Randy was Deb's assistant. Deb—I don't know what his specialty was; Randy's was hydrology, and he was a crackerjack of a hydrologist.

Storey: So was Debler's.

Reedy: Oh, is it?

Storey: Yeah. He was the chief hydrologist for a long time.

Reedy: Oh, yeah, he was called that, but I don't know that—



---

Storey: Oh, I see.

Reedy: I don't know that his individual capabilities were in hydrology. He was called that because it was hydraulic engineer, chief hydraulic engineer, because that was the title that was given to the guy that was in charge of all the investigations, which wasn't necessarily an appropriate title. Now, I don't *know*. I don't know that Deb was *not* a hydrologist, but I never heard of my brother talking about him as that being his specialty, because Randy was the one that did it.

**". . . Randy would take a little stub of a pencil . . . on the back of an envelope, do a bunch of calculations . . . coming up with an answer that somebody . . . now, they'd do it on a computer, and they'd come up with about the same answer. *He was sharp. . .*"**

But Randy would take a little stub of a pencil, everybody used to kid him about [his] ~~take this~~ little stub of a pencil, on the back of an envelope, do a bunch of calculations or something, coming up with an answer that somebody, if they were doing it now, they'd do it on a computer, and they'd come up with about the same answer. *He was sharp*. He acted sort of gruff, but he had a heart of gold. I don't know of anybody that didn't like Randy. He'd be very gruff and abrupt sometimes. Somebody would come in to show him something and he'd say, "What the hell you got there?" or "What's all this crap?" or something like that. But when you got to know him, you

knew that he was interested in what you were doing, he could review it carefully, and show you what you did wrong, if anything, and he was a great counselor and [guide] guidance for young engineers coming up. I've always been very thankful that I had contact with him.

Storey: How did you get your first job with Reclamation?

### **Applied for a Job Through the Civil Service Commission**

Reedy: Well, as I recall, the Civil Service Commission put out their notices, and so I filled out an application for rodman, chainman, whatever it was. How I happened to get the offer from Reclamation, I don't know specifically. I don't recall that.

Storey: So you didn't apply for a Reclamation job.

Reedy: No. No, I applied through the Civil Service Commission.

Storey: For?

Reedy: For a job as a rodman.

Storey: Oh, okay.

Reedy: And Reclamation needed one, so they offered me the job, is probably the way it happened. That's when I snapped it up.

---

### **Worked at Grand Lake on the Colorado-Big Thompson Project**

Storey: Your first assignment was over at Grand Lake on Colorado-Big Thompson?

Reedy: Right.

Storey: Did they give you living quarters? Did they pay you a per diem allowance? How did that work?

Reedy: No, no. They paid—well, let's see. No, I don't think they paid a per diem allowance, because when you're at your headquarters, why, you don't get per diem.

Storey: So that's where you were assigned.

Reedy: So that's where I was assigned. Above one of the cafes there—what was the name of it? I can't think of it. Anyway, they had some rooms, may have been eight or ten, something like that. I remember specifically three of us that were working on the—well, I guess it was four—that were working on one of the survey parties. We all lived there. Each had an individual room, nothing fancy, but very nice. It was up over this cafe.

Storey: These weren't provided by Reclamation?

Reedy: No, no, it wasn't government quarters.

Storey: Do you remember what your first Reclamation salary was?

Reedy: Yeah, \$1,260 a year, \$105 a month, which was a pretty good salary at that time.

Storey: How many other folks were working on your survey crew?

Reedy: Oh, there were about four or five of us.

Storey: How'd you get around?

### **Don Bingham Headed the Survey Crew at Grand Lake**

Reedy: The government furnished a station wagon-type vehicle. The chief of the crew was Don Bingham, who graduated from C.S.U., Colorado Aggies it was at that time, in 1938, a year before I graduated.

Another one was Johnny Demmer, who graduated from the School of Mines [in 1936.] ~~and he—well, let's see. I think it was about the time I was offered the job up in Boise when he decided to quit Reclamation, and he went back and worked for the coal mine, because his specialty had been coal mining and mines, and he worked for that for a while in Pittsburgh, didn't like it, so he came back to Reclamation, and [He was transferred to Idaho at the same time I was, so we drove up there together. He worked on field survey there for about three months and resigned from the Bureau to take a job with a coal company in Pennsylvania, because his speciality at Mines had been coal mining and processing. He didn't like the job there so he came back to Colorado.] He ended~~

up his career as a district engineer for the Bureau of Public Roads up in Wyoming—Cheyenne. He'd [also] worked on the Alaska Highway.

**". . . Don [Bingham] . . . was one of the regional sponsors at the same time that I was. . . ."**

~~Don~~ When I came back to Denver, why, Don [Bingham] was in the planning office in Denver, and he was one of the regional sponsors at the same time that I was. He was a real nice guy.

Storey: Had a lot to do with Glen Canyon, as I recall, Don Bingham.

Reedy: Don Bingham?

Storey: Maybe I'm thinking wrong.

Reedy: I don't remember that.

Storey: I was raised with Don Bingham junior.

Reedy: Oh, you were?

Storey: Yes.

Reedy: Well, I'll be doggone. Well, his wife and I played in the orchestra at East High together.

Storey: Helen.

Reedy: Helen. Yeah, Helen. So I knew Helen long before I knew Don. So you know Don, Jr. Well, I'll be darned.

Storey: We were raised in the same neighborhood here in Lakewood.

Reedy: Oh, yeah, Helen's still in the same house there.

Storey: Yeah. My mother lives about three or four blocks away.

Reedy: Oh, she does?

Storey: Well, I'd like to keep going, but we've actually done almost two hours of talking today.

Reedy: We sure have, haven't we? Yeah, I've got to get going, because I've got to stop home and then get out to that luncheon for Marge.

Storey: Let me ask you if it's all right for researchers inside and outside Reclamation to use these tapes and any resulting transcripts.

Reedy: Sure.

Storey: Good.

Reedy: No problem.

Storey: Thank you very much.

END SIDE 2, TAPE 2. JANUARY 12, 1996.  
BEGIN SIDE 1, TAPE 1. JANUARY 23, 1996.

Storey: This is Brit Allan Storey, Senior Historian of the Bureau of Reclamation, interviewing William W. Reedy, on January the 23rd, 1996, at about one o'clock in the afternoon, in Building 67, at the Denver Federal Center. This is tape one.

### **Survey Work out of Grand Lake**

Last time, we had sort of covered your whole career in outline. Let's go back over it now, if we may. You were talking, I think, when we quit, about the Colorado-Big Thompson and your work over at Grand Lake. You'd mentioned your accommodations and everything, but what were you actually doing out in the field there?

Reedy: I was on a survey crew, and most of the time we spent doing surveys for the regulating reservoir for the diversion to the Eastern Slope. I can't remember the name of the reservoir. It's in conjunction with Grand Lake.

Storey: Shadow Mountain Reservoir.

Reedy: Shadow Mountain, right. That's it. We were doing surveys for Shadow Mountain, both the reservoir itself and surveys of some of the incoming streams.

Storey: What kind of surveys?

Reedy: Surveying the outline of the reservoir, maximum water surface to the reservoir, and

this was what it primarily was, was that survey. Maybe what I was thinking of when I talked about incoming streams was just a little loop of the reservoir that went up one of the steams, because I remember going up one of the inlet streams. It was probably just the high water level going up that stream. Of course, they have to regulate that. As I recall, it just fluctuates within one or two feet, because they have to keep it level there for Grand Lake, both for scenic and recreation purposes. So there's not a lot of fluctuation. Most of the fluctuation comes in Granby Reservoir, with the pumping plant up to Shadow Mountain.

Storey: And what did you do on the crew?

Reedy: I was a rodman, holding rods for the instrument men, for showing elevation and location of specific points on the maximum water surface. I may have been taking topography, too, I can't recall.

Storey: And Don Bingham was running this.

Reedy: Don Bingham was, yeah, my party chief.

Storey: What was he doing as party chief?

Reedy: Well, he would run the transit and the level for instrumental readings that needed to be made to determine the elevation and location of points.

Storey: Did you ever have any problems doing this survey?



---

Reedy: No, not that I recall.

Storey: How long were you up there?

Reedy: I was there about three months, from [June] July 17, to mid-September. ~~, or early September, I can't recall. Oh, actually, it was less than that. June 17, yeah, would have been about three months.~~

Storey: Had you finished the job then?

Reedy: No, no. That's when I was transferred up to [Idaho.] ~~Boise.~~

### **Transferred to Idaho**

Storey: So you didn't actually finish the entire job on Shadow Mountain?

Reedy: ~~No. No.~~ No, I assume that they continued it with the same party, just got somebody to replace me and continued it with the same party.

Storey: Now, at that point you weren't an engineer, is that correct?

Reedy: No, as I recall, I was an engineering aide.

Storey: So you weren't on a rotation program.

Reedy: No. Oh, I never did go into a rotation program. [Interruption of recording.]

... in the heart of Kirk Basin. You'd [classify] estimate all of the irrigable land, then field surveys to determine what land you could serve with canals diverting out of Hornet Creek. Then you would know what land would be available to serve from the Hornet Creek flows, and, *by month*, the next thing you do, or along concurrently with this, depending on how many people you have, but if it was just one person like it was when I was working on it—this is a very simple example, but it shows what's done. You have the surveys made by the land classifiers, determine the irrigable land. Then studies which, again, you have to use other basic data that's based on temperature, to a large extent— Boy, I'm digging way back to get some of this. I haven't done it for forty years.

Storey: I appreciate it.

Reedy: There have been a lot of different experimental studies made relating water use for crops based on the type of crop, the average temperature, or mean temperature, or daily temperature, the type of soil—I'm trying to think. There are other criteria in there, but I think those are the major ones.

So you determine what the crop requirements would be for the land you're trying to serve. For example, under Hornet Creek, it being a very small area, if you had, say, 500 acres, the same thing would apply to 5,000 or 50,000—5,000 acres, and The consumptive use , which is what these other

---

curves are I was just talking about, is the amount of water per year that would be [transpired] used by crops grown on those lands. Your consumptive use graph would show—say this is, start with April and go through October, which is roughly the irrigation season. You'd start out here, a small amount, get up to a peak along July, then it'd taper off like that. This is your consumptive use. That's per acre.

Then you'd estimate your losses that you would have. There are losses, surplus flow, and some of these terms I can't recall right offhand, but surplus flow. If you put water on land, you're not going to be able to just supply enough water for [consumptive use on] that land and not have any subsurface flow. You have to supply more than that to be sure you get it, and there's going to be some subsurface flow, which is drainage water, that would come back either the natural drains, or in a large area you might have artificial drains to pick up that drainage water.

So you estimate what the consumptive use is per acre, then you have to divert the water from the stream to get to the land, and there are going to be some canal losses in diverting that, seepage out of the canals and evaporation. Even though it's a large canal and concrete-lined, you're going to have some losses. Usually that's based on a percentage of the amount that you divert. So you have to apply that to your consumptive use to get the total

amount that you have to divert to supply the consumptive use of the irrigated land.

Let me see if there's things that I've forgotten.

Storey: Then you have to match your water supply to your available acreage.

Reedy: Yeah. It's just a simple process then of multiplying the number of acres times the acre-foot-per-year requirement, which gives the total amount you have to divert. Then you have to do a water supply study, which would be a very simple study. The way we did it on the Hornet Creek was all by hand. We didn't have fancy computers. All you had was a Marchant calculator, or you'd do it by hand for simple ones. You have, well, say in a certain month, say May, you'd have your total diversion requirement minus canal losses, which would be the amount which would get delivered to your land. Well, this is sort of repeating what I was doing before, because you'd work it backwards. You'd start with your consumptive use, and then you'd add the losses. The way I'm showing it here, why, it would be minus these canal losses, minus irrigation losses, and that gives your consumptive use. Actually what you do to get the total requirement, you work with your consumptive use backwards, add the losses to get your total diversion requirement.

But then ~~this diversion requirement, then you would=~~no, you'd take your streamflow, say

during the month of June. you'd have your streamflow from these built-up records, estimated record of streamflow, and you'd compare that with your diversion requirement. In the early months, April, May and maybe into June, the diversion requirement would be less than the streamflow, because in the western part of the country you have high flow in the spring from the snowmelt runoff primarily.

This would vary in different parts of the country, even different parts of the West. But for this area, why, the main water supply, main amount of water, comes in the spring from snowmelt, so that in May or June[, in an average year,] you'd have surplus water over and above your diversion requirements, and then as you get into the latter months, July, August, September, and October, where the streamflow goes down—this is the streamflow here, and this is time, and you'd have, say, like I did here, from April to October—well, we'd better show it more than that, we'd better go the whole year, January to December.

Actually, what we usually do is go by water years here in the West, at least we used to. I don't know whether they still do or not. But the water year was from October 1st, so this would be October, through September. The reason they did that was because in the western streams, your minimum annual flow is usually at the end of the summer, about in October. Then the natural consumptive use of natural vegetation is less, so that you don't

have as much—if there is precipitation, you don't have as much used by the natural flow. In general, the precipitation starts building up in October with fall rains and then the snow. It doesn't build up very much, because it would stay low when you have your fall rains, why, then you get into the winter season where a lot of it occurs as snow. So let's see, October—here is March, about.

Storey: Then in the spring it would run off.

Reedy: [In the spring the runoff would start to increase.] ~~It would run back, yeah.~~ So you'd get something like this, and then you'd get up, it would peak, start building up in April and May and probably peak, oh, May or early June, and then start tapering off again.

So your irrigation requirements are not always the same as that. Your irrigation requirements ~~may start—well, they'd probably start—this isn't too good, this wouldn't come up that much, it would come up more like that, and your irrigation would start in March or April, and your irrigation would come up, say, something like that.~~ Now this amount here could be supplied by direct flow. You have the flow in the stream to meet the requirements under this requirement curve. But this part here, then you'd have to supply from storage.

Storey: So there's a net difference.

Reedy: So there's a net difference for just a single year. In some years, a high flood year, you might

have water coming up here and meet all your diversion requirements. In a drought year, it would be the other way around. You'd have your water staying low here, and you might have to have more from storage. So we do what we call reservoir [operation] studies. Again, this is a very simplistic way of looking at it. But we do reservoir studies using the— [Visitor interruption. Tape recorder turned off.]

Storey: So now if I'm hearing you correctly, say Hornet Creek, you had a short period of time, but you know the Weiser River is flow over a longer period of time.

Reedy: Right.

Storey: So what you're doing is, in order to try to increase the accuracy of our understanding, you're extrapolating what the Hornet's flow would have been over past years?

Reedy: Well, it's not to increase accuracy. We're not increasing accuracy, we're just *extending the period* for which we can make water supply studies.

Storey: Okay.

Reedy: It's an extension of the record, rather than trying to make it more accurate, so that we can extend it for maybe five years for which we might have these records of flow, records of water surface elevation, actually, but we translate that into flow via the rating curve up

here. We have five years, but five years isn't enough to tell us what we really need for this. That five years may be a period of average flow or higher flow than usual or less flow than usual. But if we're going to build an irrigation project here that people are going to rely on for their livelihood, we have to be able to supply them water essentially every year. ~~We don't do that.~~ We take shortages in extreme drought periods, but we need to extend [the short period of record to estimate flows during drought periods.] ~~that.~~

So our base flow, the Weiser, for example, may have a twenty-five year period of record. That may cover some high periods, some periods of [low] ~~high~~ flow. Here is flow and this is time by years, and it would look something like that, with an average flow along in here.

Storey: How many years do you need to have a reasonable study?

Reedy: Oh, the more years you have, the better you're going to be, but you want to be sure to cover flood periods, or not so much flood periods as drought periods, so that we have an adequate water supply to provide these farmers enough water so that they can keep their farms going.

After we've used the Weiser period of record to estimate Hornet Creek, we have Hornet Creek by month, we have the irrigation requirement by month, then as we used to do in those days, it was just a very simple operation,



you put down the flow, the irrigation requirement, whether you had a surplus which went into storage or whether you had a deficiency which meant you had to release storage.

Storey: This would be by month.

Reedy: By month, yeah. Then you do that operation for the period of *extended* record of Hornet Creek that you've extended by comparison to the Weiser, and hopefully you'll cover both flood periods and drought periods. Especially you've got to cover the drought period. Now, we normally don't figure that it's feasible from an economic standpoint to build a reservoir or plan our project to provide 100 percent supply *every* year. That's just going a little bit too far, because it would make the project cost even *more*. Most of them cost too much now, anyway, but it would make them cost even more. But back in this period, why, we would figure on a shortage, and back when we were making these studies, which was the late thirties and the early forties, the driest period we had was the early 1930s, about the same period that we had the Depression, because part of the Depression was caused by lack of rainfall. You remember seeing the pictures of the dust storms down in Oklahoma and Kansas and those areas. Well, the same thing was true generally throughout the West; it was a drought period. Since then we've had a drought period which I think was worse than that, at least in some areas, in the mid-fifties,

early to mid-fifties. But *our* studies were made based on the thirties.

Storey: So now when you were in Boise you were *calculating* these things for the various components of the Weiser River Study?

Reedy: ~~Study~~, Yeah, of which the Hornet Creek was just one unit. The Weiser River Basin was the whole study, and the Hornet Creek was just one unit.

Storey: And Horner is H-O-R-N-E-R?

Reedy: No, Hornet, H-O-R-N-E-T.

Storey: Like in the flying thing.

Reedy: The flying—the ones that sting you.

Storey: Oh, okay.

Reedy: And I suppose the people that named it did so because there were a great many hornets up there at that time, or somebody got stung by a hornet and says, "Let's call it Hornet Creek."

Storey: So how long were you doing this in the Boise office then?

### **Weiser Basin Studies in Idaho**

Reedy: Oh, well, I was doing this on the Weiser Basin for, I suppose, a couple of years, working on the Weiser Basin studies. Then oh, let's see, what was the next thing we got into? I guess I

---

expanded it and did some other studies in southwest Idaho.

### **Studies for Teton Dam**

Then one of the major studies that I got into was the water supply studies for the ill-fated [Teton Dam], ~~Palisades Dam and Reservoir~~, which you remember failed several years ago.

~~Storey: You mean Teton?~~

~~Reedy: Oh, no, no. It was Teton. No, you're right.~~

Storey: Palisades did okay, I think.

Reedy: Palisades has done okay, yeah. I was thinking—

Storey: Was it Palisades you worked on?

### **Palisades Reservoir and Dam**

Reedy: It was Palisades that I worked on, on the main Snake River.

Storey: And were you doing the hydrologic studies there also?

### **Frank M. Clinton**

Reedy: I was doing the hydrologic studies, yeah. The man in charge of that was Frank M. Clinton. ~~was in charge of those.~~ Let's see now. How did that work out? I think Frank was in the

regional office, as I recall. I think George Carter was still the head of the Boise planning office, but I was detailed up to Idaho Falls a couple of times to do the water supply and reservoir operation studies for Palisades Dam and Reservoir.

Palisades was to provide supplemental water for [projects that divert from] the ~~entire~~ Snake River Basin [in southern Idaho]. The Bureau had built Minidoka Dam as a [diversion and] power dam, and then American Falls Reservoir in 1927 [to provide supplemental storage.] ~~, approximately.~~ That was the main storage facility for the lands that divert water from the Snake River.

As I recall, Palisades was primarily for supplemental *water* rather than a large amount of new land. I don't recall that specifically. I'm sure there must have been some new land. The water supply studies would, of course, say, start with the Palisades with the Upper Snake River, and doing on a large scale what we did [in the Weiser River Basin.] ~~here.~~ It was much more complicated. We did this by hand at that time; we didn't have electronic computers the way they have now, so I had a spreadsheet about that long for all the different columns along there for flow into Palisades, what power could be generated by generators at Palisades Reservoir. As I recall, there weren't any direct diversions out of Palisades. I'm sure we had good water supply records. The GS had good records on that.

Then the water would then flow down to American Falls Reservoir with the additional inflow on the main stream and tributaries that come into the American Falls Reservoir. Then we'd operate theoretical paper operation of American Falls Reservoir to meet the requirements of the Twin Falls South Side, which was, a long time, one of the first irrigation projects from the Snake River. It was a private project, but they got supplemental water from the Bureau reservoirs, and the North Side Project, which was a Bureau development. So we'd operate it for those, generating power at American Falls and at Minidoka Powerplant. As I recall, that was the major coverage of the water supply studies for Palisades.

### **Studies in the Mountain Home and Bruneau Deserts**

At the time I was there in Boise, there was also a major study done of the potential irrigable land in the ~~oh, let's see, what were those? We called it the Bruneau Desert.~~ Mountain Home and Bruneau Deserts. There was a possibility of diverting water both from the Snake River and also collecting and using water from tributaries of the Snake, and diverting it down to those storing it in the reservoirs up in the mountains of southern Idaho, and then diverting it down to the Mountain Home Desert and the Bruneau Desert, and also pumping water from the Snake River. ~~down below the—I don't recall that.~~

Are you familiar with the desert area in southern Idaho, north of the Snake River, the streams that flow down from the mountains in the Salmon River area and south of the Salmon? Of course, the Salmon itself flows west into the Snake, but there are streams that flow down—Wood River. ~~Oh, I can't remember~~ geography. Several streams that flow down there, and basically the water disappears then. It goes down into the [porous underground lava.] ground. It doesn't come down and flow directly into the Snake River, and all this desert area in southern—

Storey: Then it comes out in Thousand Springs area.

Reedy: Then it comes out in the Thousand Springs, right. So what we did was look at some of the projects that could utilize this water before it flowed into the lava in the desert areas, store it up there, and divert, as well as pumping the increased flow of the Snake down below Thousand Springs. You're obviously familiar with that area?

Storey: A little bit, not a great deal.

Reedy: Well, you got some of the names right that I can't remember, anyway, which is helpful. (laughter)

Storey: So Bruneau was one of the areas that you studied.

Reedy: Yeah, Bruneau. The accent's on the first syllable. Bruno, just like the dog name, B-R-

U-N-O, only spelled E-A-U. So that was one of the areas that we studied. And a lot of the work on that project, as I recall, it was, oh, 100,000-, 200,000 acre area there. So a lot of the work on that would have been determining, as I explained in a small way on the Hornet Creek, determining what area would be irrigable from a land classification point[-of-view], and mapping that, and then determining what of that irrigable land could be reached by canals, either from pumping plants from the Snake River or by diversion from the streams flowing south from the mountain area.

So the Mountain Home Project was a major study going on at that time. I worked on some of the water supply studies for that. I didn't do any field work on that, but I worked on the water supply studies for that, similar to what I was just describing for Hornet Creek in a small way, and for Palisades.

### **Reservoir Operation Studies**

Storey: You talked about water supply studies. What are reservoir operation studies like?

Reedy: Well, reservoir operation studies are a part of the water supply study.<sup>13</sup> The reservoir operation study, you would determine your demands, your consumptive use demands, for

---

13. See Appendix A which was submitted by Mr. Reedy to expand and clarify the information in this section of his oral history. The appendix is titled "Small Projects Loan Program" but also contains information on reservoir operation studies.

something like this. For Palisades or for other reservoirs where there'd be a powerplant connection, you'd have to have your available heads. You'd have to have the—well, let's see, the curve would look very much like this, would be the area capacity curve for a reservoir. At the dam, if your water surface of the reservoir was down *at* the dam, you'd have zero reservoir capacity. So then you can use somewhat the same shape of curve, which would be elevation up here, and capacity down here, reservoir capacity.

So from your surveys that would be made of the reservoir, for example, if your reservoir flowed down like this, and your dam is going to be here, your reservoir would back up like this, and might go up a tributary there like that. So you determine what area and what capacity you would have to store water in this reservoir. ; which would come up in a curve like this. The normal way of doing that is taking your, say every ten feet, you would have an area at the bottom of the ten-foot elevation level, an area at the top, average those areas for the in-between, and then multiply that by the ten feet.

END SIDE 1, TAPE 1. JANUARY 23, 1996.

BEGIN SIDE 2, TAPE 1. JANUARY 23, 1996.

Storey: So you would take these contour lines at ten feet and figure surface area, and then average each one, and multiply by ten to get your acre-feet?



Reedy: To get the acre-feet in that certain ten-foot area. Then you'd start at the bottom and add those cumulatively up to your maximum water surface, and then draw a curve which would look something like this, with elevations versus capacity. So this would be the curve which you would use as a part of your water supply studies.

So very simply, you have—I don't think I mentioned it before—you have inflow, demand, say for just irrigation, demand, and then you would have either a surplus, which you would show as additional storage increasing your storage during that month, or you'd have a deficit, which would mean you'd have to take water out of storage for that month. So you'd make the operation studies for a period of years, as long as you had the extended record of the stream, such as Hornet Creek, that you were interested in, and determine where you might have water that you *couldn't* store, because it wouldn't be feasible to build a reservoir that big, or water periods where you'd have a shortage, before you'd start filling your reservoir again.

So you would do the same thing for these larger projects such as the Palisades or the studies we did for Mountain Home, but you would include in that your power generation, and you would have the average flow during the month that you could put through your powerplant, and have that multiplied by the head, and then apply certain factors to that to get your total power output in kilowatt hours

during that month. That would be limited, of course, by the capacity of the powerplant. You couldn't build a powerplant, as you couldn't feasibly, economically, build a reservoir big enough to store *all* the water. You don't want to build a powerplant big enough to use *every* bit of water for power. It's more economic to have some spill from your reservoir and some flow past your powerplant that you can't use, because if you build it big enough to use *all* of it, why, you'd use that last increment month in maybe [once in] twenty-five years, and it just doesn't pay to put dollars into building that to utilize that. So you have to average that out. So that would give you the power generation and the use of the water for irrigation.

Storey: Where were you working when you were in Boise, now?

Reedy: You mean where the office was?

Storey: Yeah. Where was the office?

Reedy: It was at 214 Broadway. I remember that very clearly. It [was] what they called ~~the Board~~—~~I think I mentioned it last time~~—the Board of Control Building for the Boise Project, which was built by the Bureau but was operated by the Board of Control of the water users.

Storey: Did it actually have other Reclamation offices than the one you were in?

Reedy: No. No, the Board of Control Building used basically—I guess it was built at the time they

were building the Boise Project, back in the early part of the century. So they had their construction offices there, I think, headquarter/ construction offices. Then after the project was built and the Bureau people moved out, [they] it may have stayed there for a while to operate it until the Board of Control got established, but then when the Board of Control moved in, we only had about half a dozen office employees, so they used only the lower floor. So the upper floor was available, and the investigations office that I was working with was up there for the Southwest Idaho Investigation.

In the meantime, the regions were established, and the regional office was out at ~~what they call the fairgrounds , which was farther west than~~ [on] the west side of Boise. They used the old fairgrounds. I don't remember how those fairgrounds got built and became available, but they used those for the Bureau- [Tape interruption.]

Storey: Now, if I'm understanding correctly, you were in Boise from '39 until '48, right?

Reedy: Right.

Storey: About nine years. Eight to nine years.

Reedy: Yeah. Yeah. Almost nine years.

### **Creation of the Regions**

Storey: If you'll think back to that period, what were the attitudes in your office about the creation of the region and the fact that your office would be transferred away from the chief engineer's office to the regional office? Do you remember anything about that?

Reedy: I don't remember that we had any major concern. In fact, it might have been an advantage, because we'd have a little bit closer control, or closer access, to the supervising office, rather than do most everything by long distance with Debler down in Denver. Of course, we had a larger technical office with the project investigations division established in the region. We had more technical people that were very specific for their different disciplines, such as soils people for land classification, agricultural economists for the economic studies, general economists for the overall economics of the project. So as I recall, it was a very satisfactory arrangement. From the Bureau's standpoint, probably did a better job than the old studies that were done under Debler's supervision.

Storey: Did you ever meet Debler?

**Erdman B. Debler**

Reedy: Oh, yeah.

Storey: What was he like?

Reedy: Oh, he was sort of a martinet in many ways.

Storey: By which you mean—

Reedy: Oh, sort of gruff.

Storey: Expect you to jump when you—

Reedy: That's right.

Storey: —when he said something.

Reedy: Yeah. As I think I mentioned last time, Randy Riter was his assistant, and Randy was the fellow who knew the most about hydrology/ water supply studies, flood studies and things of that sort. Deb had more of the overall supervision.

Storey: He was commonly referred to as Deb?

Reedy: As Deb, yeah. Everybody called him Deb.

Storey: To his face, too?

Reedy: Oh, yeah. Yeah. No, he didn't mind that.

Storey: I suspect with a first name like Erdman, you might want to change. (laughter)

Reedy: Erdman or a middle name of Bruno. I'm not sure whether all the people working under him called him Deb or not. I'm sure they did talking *about* him, but I'm not sure how many of them called him Deb to his face. I'm sure Randy did, but some of the lower-level people, I'm not too sure whether they did or not.

Storey: What did you go to the office in this period of time wearing?

Reedy: Informal.

Storey: Wasn't suits and ties?

Reedy: Oh, no. No. No, you could wear most anything and get away with it.

Storey: Well, after I kicked the plug out of the wall, I started asking you about some of the people you worked with, like Fred Nichols, who was the first chief, I think, up there in general investigations.

Reedy: That's right. Yeah.

Storey: Would you mind repeating what we were talking about, about him, please?

Reedy: I hope I remember to say the same thing, but since you don't have it on record, you won't—  
(laughter)

Storey: I couldn't prove otherwise, could I? (laughter)

### **Fred Nichols**

Reedy: You can't prove otherwise. Well, Nick was not the best supervisor in the world. He probably knew his engineering, but he didn't know some of the other aspects, the other technical aspects of the study, water supply and land classification, economics, and so forth. He was sort of a controller, but I think we got the job done

under him. Of course, as I may have said, I was working for Don Huff at the time on the water supply studies, so a lot of my work was directly with Don.

Storey: And he was known as "Nick"?

Reedy: Nick, yeah. It was a very informal office there. We never called him Mr. Nichols, we always called him Nick, or at least the technical people that worked with him.

Storey: What about George Carter, his successor?

### **George Carter**

Reedy: George Carter was an excellent, excellent engineer. Didn't have a broad knowledge of all types of engineering, but he was a good engineer, and he was an excellent supervisor. He didn't let you get away with anything and he was firm. That's what I mean by saying that. He was firm. But at the same time, why, he let you do your work and made general review of it, but if he thought you did a good job, why, he was very considerate. I always liked working for George. He was sort of a blustery person in some ways, but he was /excellent, excellent supervisor.

Storey: I gather he delegated a lot of the work.

Reedy: Oh, yeah. Yeah. He delegated work to the branch chiefs and the people who had primary responsibilities for the studies.

Storey: But he wasn't trained as a hydrologic engineer.

Reedy: No, he had been engineer in charge of construction of Kingsley Dam on the North Platte River, near North Platte, above North Platte, so that his experience came primarily from field engineering and construction, as I recall. [I don't know where he worked prior to the Kingsley Dam job.]

Storey: Well, speaking of training—

Reedy: Well, I'm not—

Storey: Go ahead.

### **Vern Otter**

Reedy: Then we talked also about Vern Otter.

Storey: Yeah. O-T-T-E-R.

Reedy: Yeah. Who had been with Morrison-Knudsen on some construction jobs, and I guess the reason he came to the Bureau was because he finished the job and they didn't have anything else for him, so he came there and he was George Carter's assistant, and ran the office to a major extent. He was primarily interested in the engineering aspects, having been on construction. So he worked very closely with Charlie Le Moyne. But so far as the hydrology and the other technical aspects, land classification, economics, and so forth, he didn't have a finger right on that. He reviewed our work and kept up with what we were doing, but he didn't



have the technical background for major input to it. We got along well with Vern.

Storey: And Charlie Le Moyne, what was his position?

### **Charlie Le Moyne**

Reedy: Charlie was the chief of engineering, had responsibility for the field engineering, surveys, and also for the preparation of the engineering portions of the studies, cost estimates, designs and cost estimates, to the extent that those are done in the field office. As I recall, the field office had responsibility for the overall engineering studies, and they specifically did such things as canals, but as I recall, the design of dams was done in the regional office. For reconnaissance estimates, just to determine what direction we might want to go, I think those were often done in the project investigations division in the regional office.

Feasibility designs that would be used in the reports that would be prepared for, say, authorization by Congress, approval in Denver and authorization by Congress. Those were probably done, as they were later on, by the engineering people in the regional office. [Feasibility designs for some of the larger dams were probably done in the Denver office.]

Storey: Let's see if I'm hearing this correctly. Mr. Otter would have been the office engineer for general investigations?

Reedy: I don't remember whether he was called office engineer or whether he was assistant chief of the office, but that was basically what he did, yeah.

Storey: And what about Charlie Le Moyne?

Reedy: Charlie worked under him, specifically for the engineering aspects of the studies that would go into a report.

Storey: But he worked mostly in the office?

Reedy: Yeah. We would have field people that were hired to do the field surveys.

Storey: You mentioned, for instance, that Mr. Carter and Mr. Otter weren't particularly hydrologic engineers.

Reedy: That's right.

Storey: But that was sort of your specialization. Where did you get the training for that?

### **Don Huff**

Reedy: Largely from Don Huff. I didn't have any specific studies of that in college. At the University of Nebraska, they offered one course in hydrology, which was just general hydrology from the standpoint of the occurrence of water resources, but did not *apply* it to use of the water. There was one course in Nebraska which had to do more with the type of general water supply investigations,

the broad aspects of it, but that was taught by the head of the department, who was sort of an irascible old gruff man, and I didn't particularly want to take that course, so I took a highway engineering course instead from a better professor. So far as my career is concerned, it probably would have been better for me to take the water supply course. So that I largely just learned that on the job, starting out with Don Huff, and then just pretty much just got turned loose on my own.

Storey: Were there manuals?

Reedy: Not much in the way of manuals at that time. No, each project more or less did it on their own. There were probably some very brief—I don't recall any, and I don't remember ever keeping any in the file. There may have been some general *guidelines* that Deb and Randy may have put together, but mostly it was just learning from the man who'd gone before and was doing the job.

Storey: I think we talked at the last interview a little bit about Mr. Riter, but could you tell me more about him?

### **Randy Riter**

Reedy: Yeah.

**"Randy was a gem. . . ."**

Randy was a gem. He acted tough, but his heart was just as soft as could be, and good as

gold, as they say. He was extremely sharp so far as water supply studies are concerned. He could see through an approach you'd have to take on a study and give good guidance on doing it. Just from a general observation and knowledge of it, why, he'd have a pretty good idea of what kind of results he would expect from it. But he delegated. He had people working for him on the water supply studies, flood studies, hydrologic studies, economics, land classification. But he was an excellent supervisor. I don't remember ever hearing anybody say a bad word about Randy's ability, his technical abilities, and his abilities to work with people and get people to work *for* him.

#### **R. J. Newell, Regional Director in Boise**

Storey: There's one other person I'd like to ask you about. R. J. Newell was the regional director while you were there. Did you ever meet him? What were your impressions of him?

#### **Frank Banks and R. J. Newell Were Originally Named Co-Regional Directors in Boise**

Reedy: Oh, yeah. Oh, yeah. Originally when they established the regions, as I recall, they named co-regional directors. Frank Banks, who'd been the construction engineer on Grand Coulee Dam, lived up at Cooley Dam, and R. J. lived in Boise. As I recall, they were co-directors. But they soon found that that wouldn't work, and since most of the regional

activities were centered in Boise, they named R. J. the regional director.

Storey: I think somebody told me that Banks refused to move away from Grand Coulee.

Reedy: Yeah, he wasn't going to leave Grand Coulee. He could have been regional director if he'd been willing to come to Boise. So they named the co-regional directors, and then found out it didn't work, so Banks agreed, I guess, that he'd drop out of it, and R. J. became the regional director.

R. J., his primary experience, as I recall, was in construction. He'd been on several construction projects. I don't know just which ones. But he was a grand old man. I had a lot of respect for him. He'd put his glasses down and look at you like that.

Storey: Put them down on the tip of his nose.

Reedy: On the tip of his nose, yeah. He's reading, then he'd look up you like this, and very soft spoken, sort of a twinkle in his eyes all the time. I never did work directly for him, but I knew him. Well, I knew him as well in the church that we attended there. He and his brother Tom were both in the First Congregational Church that Lois and I were members of, so I knew R. J. from that, as well as from the office standpoint. His brother Tom was in charge of the district office of the Geological Survey. So they were both

accomplished engineers and had considerable responsibility.

Tom had a harelip. So far as that's concerned, it sounds as though we're making fun of him, but Tom would know about this. ; but the Boise Pilots was the baseball team at that time, and one of the fellows who played on the team—this was During the war [I played tennis with a fellow who =no, no, he didn't play on the Boise Pilots, he played on an Air Force base[ball] team that was based there at Boise Air Force Base. But they were playing out there. I played tennis with him a lot, too, and he would get out there and, He was a chatterbox at first base, and he would holler "Hubba hubba, [babe,] man, hubba hubba." So when he'd do that, why, Tom up in the stands would say, "Hubba hubba, [babe,] man, hubba hubba. Hubba hubba, hit it!" He didn't let that interfere with him at all. Those two brothers were both great men, wonderful people.

Storey: So it was R. J. that you played tennis with?

Reedy: No, no. No, this Negro kid that was in the service there, [and his] that was playing where they had a service baseball team, and was playing some other [another service] team there at the Boise Pilot's field. So we were out there at the same time that Tom was at that interservice [game]—different teams of the Air Force there.

---

**Helped the YMCA Physical Education Director  
Establish Basketball Leagues for Airmen at the  
Boise Air Force Base**

Yeah, I got involved with working with some of those Air Force people down at the Boise Y[MCA]. I joined that before Lois came up there, and went down there and played volleyball and [swam.] ~~swim~~. Then during the war, at the start of the opening of the Boise Air Force Base, they didn't have a lot of activities going on for the servicemen, so I was down there helping the physical education director ; ~~the phys ed staff man there~~, establish some ~~leagues~~, basketball leagues, for the fellows at the Air Force base to play. I guess maybe we had a couple of town teams, too. Well, I know they had one from Boise Junior College that would play against them, too. So I was down there at night, oh, a couple of times a week during the war years helping run those leagues.

At that time, the Negroes were separated. They had their own company and they really had some crackerjack basketball teams. Had some good players there. That was interesting.

Storey: What kind of social activities did you have *within* Reclamation? Anything?

Reedy: Not that I recall.

Storey: No picnics, parties, dances?

Reedy: No, I don't recall anything. I can't even recall whether the regional office had anything. I would have thought that if the project investigations division at the regional office had had any such activities, that they would have invited us, but I don't recall anything of that sort.

### **Don Price in Boise**

Storey: What else should we talk about, about your stint in Boise? How about Don Price? Do you remember Don Price?

Reedy: Yeah. Oh, yeah, I remember Don.

Storey: What was he like?

Reedy: Oh, he was an outgoing, effervescent personality. Had his voice several decibels above everybody else's voice. He was sort of the office manager ~~person~~ for project investigations in the regional ~~office~~, planning office. Yeah, he was a good man, did a good job, as far as I know. I never had to work directly with him, but I knew him, because we had a lot of contact with the regional office out there. I think I mentioned previously about my detail from Juneau after I transferred up there, [and] ~~Don~~ spent three months [on detail] down in Boise. [Don helped arrange that detail.]

Storey: Yeah, that was pretty soon after you went up there.



---

Reedy: Yeah. Yeah. We went up there in the beginning of September [in 1948], and this was ~~April, May, and June~~, the following April, May, and June after the [Juneau] Boise office ran out of money.

Storey: What were you working on during that detail?

Reedy: Oh, I don't remember specifically. It seems to me that there were still some ~~studies on Palisades~~, water supply studies on Palisades, going on at that time. I think I did some of those. Aside from that, I don't remember.

Storey: Why was it that you wanted a change of scene in 1948? What was going on?

#### **Wanted the Promotion Offered by a Transfer to the Juneau Office**

Reedy: Well, a promotion, for one thing, new experience. We'd been in Boise for some time. We liked it there, enjoyed it, happy times, but opportunity to see a new part of the world, get in on the ground floor of the investigation studies in Alaska.

As I said, when I came home and told Lois about the possibility of going to Juneau, she said, "Let's go."

So I got in touch with Randy and said, "We'd like to take the job."

So he said, "Sure," and made all the arrangements.

Storey: Now, do you remember what your first salary at Reclamation was?

**First Salary at Reclamation was \$1,260/Year**

Reedy: Yeah, my first salary at Reclamation was \$1,260 a year, \$105 a month.

Storey: That was when you were surveying?

**Earned \$2,000/Year as a Junior Engineer**

Reedy: Surveying, as a rodman. I think my classification was rodman. I kept that same salary. I don't remember whether I got any raise in that or not. Probably not, because it was such a short time, because I got my junior engineering appointment in December of 1939. That was \$2,000 a year.

Storey: Two-thousand a year.

Reedy: Yeah. Assistant engineer was 2,600. Associate engineer, as I recall, was 3,200. Nick was an engineer in charge of our office, and—

Storey: That's Fred Nichols.

Reedy: Fred Nichols, yeah. I think it was 3,800. They went in about \$600 increments, as I recall, \$3,800 or \$4,000, something in that range [when I transferred to Boise]. Of course, that was a fair salary when you consider what prices were at that time. I have no idea what Deb or Randy got.

---

Storey: When you went to Juneau, do you remember what you got then?

Reedy: Yeah. Let's see. ~~They'd changed it. No, I guess they changed it to the GS schedule then.~~ GS-5 was a junior engineer, GS-7 was assistant, GS-9 was associate, and full engineer rating was GS-11, which was, as I recall, what I got on that ~~=oh, no, no, I was~~ -no, I went there as a GS-12. I think I was GS-12 when I went there, because when I had that opportunity to transfer back, and did transfer back to Washington, it was as a 13, GS-13.

Storey: Do you remember the salary at that stage of the game?

Reedy: [My salary in Washington was \$8,360 per year. It was \$9,300 per year as a GS-12, just before I left Juneau, including the 25 percent cost-of-living allowance.] ~~Oh, no, I don't. I think I've got all the records at home.~~

Storey: But you moved to Juneau. And as I recall, you were telling me about a longshoremen's strike.

### **The Move to Juneau**

Reedy: Yeah.

Storey: I was a little confused about that.

Reedy: Well, we had planned to go up on one of the Alaska Steamship Company ships, from Seattle to Juneau. About the time we got [to Seattle,] ~~up there,~~ the arrangements were all made, why,

Harry Bridges called the longshoremen's strike, so the ships weren't going between Seattle and Juneau. So they made arrangements after my conversations and telegrams and whatever between me and the Denver office, they arranged authorized 600 pounds of air freight. So we got ahold of our—I don't remember the details of this, can't even remember doing it, but we must have gone down and opened some of our packages, big shipping boxes, and gotten out what clothes we needed and what minimal housing equipment we needed, kitchenware, and shipped that up air freight. We traveled up there by Pan American Airways.

Storey: So you and your family also flew also flew into Juneau.

Reedy: The whole family, *plus* the little black cocker spaniel. We all flew up there. I gathered from what some of the airline hostesses told us, that he was quite a pet. They pulled him up into the cabin, and had him up in the cabin while they were flying up there. Then when we got there—

END SIDE 2, TAPE 1. JANUARY 23, 1996.

BEGIN SIDE 1, TAPE 2. JANUARY 23, 1996.

Storey: This is tape two of an interview by Brit Storey with Will Reedy, on January 23rd, 1996.

You were telling me that you flew up on Pan Am and you took your cocker.

Reedy: Took the cocker spaniel, yeah.

Storey: That was sort of fawned on by the airline crew.

Reedy: Right, they enjoyed playing with him. We had reservations at the Juneau Hotel, which is about the third hotel there, the Baronoff, the Gastineau, and then the Juneau going downhill. But it was adequate. The first night they left Sam down in the basement—Sam was the cocker spaniel—left Sam down in the basement, and after that, why, they let us take him up in his room and we took him out for walks so he didn't mess the place up, and bought him food.

### **Stayed at the Juneau Hotel until Bought a Home**

So we stayed in the Juneau Hotel for, as I recall, about a week or ten days, and during all that time we were looking at houses. We'd gotten a real estate agent, who was the present lady friend of Joe Morgan, who was the chief of the Alaska investigations office up there, so she showed us what was available. We needed something that was very inexpensive, so we got a small tract house that had a living room-kitchen across the front of the house, and two bedrooms in the back, and a bath. The person who had lived in it previously had built some very steep, almost ladder-type stairs up to the attic, and had finished the attic, so that there were beds up there that we used for our two children. We bought that.

Getting a little bit personal on it, it was a lath and plaster-built house, which nowadays you don't get that kind much anymore. [Today] it's all sheetrock-type thing. But the plaster was falling down in the middle of the living room, *probably* because of the use of the attic upstairs. Maybe someone was jumping up and down on it, I don't know, but that was falling and we knew that at the time. So that helped out on the price of the house, something that we felt we could afford. So one of my first jobs was to tear all that plaster down and put sheetrock up there, which was sort of a major job at the time while we were living in it and all the plaster dust that we had to live with, but we got it done.

Storey: Did you have a cost-of-living allowance for being in Juneau?

#### **Twenty-five Percent Cost-of-Living Allowance for Juneau**

Reedy: Yeah, 25 percent cost-of-living allowance.

Storey: Did that cover your expenses?

Reedy: It covered the extra expenses. I think it did. I think it probably more than did. We had a good friend who worked for the Forest Service there, that was there just the last year we were there. It seems from our associations with him and his family, why, it seems as though they were for longer than that, but it was just the last year we were there. But he said that the Forest Service had made some studies and they

felt that a GS-9 just about broke even, that the 25 percent on his allowance would just about cover the extra cost of living up there. Of course, that would depend on size of family, too, but for an average family. The GS-7 would probably have to pay out money for cost of living, but from 11 on up, I probably got covered more. The 25 percent more than covered the additional cost of living.

Storey: Now, if I recall our conversation last time, you said you decided not to take a car.

#### **Did Not Take a Car to Juneau**

Reedy: That's right.

Storey: How did that work out for you?

Reedy: It worked out fine. There just [weren't] ~~wasn't~~ a lot of places you would use a car up there. The road going south went past the Alaska-Juneau mine and mill, which was not operating at the time, down to a little town called Thane. There were, oh, I don't know, I suppose maybe a couple of dozen families that lived down there. It was about [five or six] ~~three~~ miles, as I recall, from the edge of town. Going north, the road went up past Mendenhall Glacier and the general airport, past Auke Bay, which was an anchorage for fishing boats and pleasure craft, and on up to the end of the road, which is about Berners Bay, and I suppose it went maybe twenty-five miles up there. There was a road that went for two or three miles up Gold Creek, which is where they found gold that

was the reason for the establishment of the city. That was about the extent of driving that you could do, so you really didn't need [a car.] ~~it.~~ They had bus service, so we used a bus. They [also] had [a] cab [company]. If it was real rainy, why, we'd call a cab. For fifty cents, we could get from our house downtown, or church on Sunday morning. ~~, or something like that.~~

There was no real need for a car. I determined that by—I don't remember just how it was, correspondence or phone calls with the office up here, or talking with people who had lived in Juneau. A lot of people had cars, shipped them up, and it would have been a convenience, but certainly we got along fine. It was about three-fourths of a mile, I guess, from the office to our home, up a little hill and then back down through the cemetery. I remember many times either—well, usually at night I'd stop at the grocery store and get a couple of big sacks full of groceries and walk home three-quarters of a mile with those two sacks. Had a little more energy back in those days. (laughter)

Storey: Yeah, tell me. (laughter)

Reedy: We never felt that we were inconvenienced a lot by the lack of a car. We had friends who had cars that would take us out the highway. We had one good friend that we square danced with that lived out the highway a ways, and they'd take us out. People in church would



take us out. So we were able to get out of town.

Storey: What was the weather like?

### **Weather in Juneau**

Reedy: If you [must have] ~~like~~ sunshine, you wouldn't like Juneau. Well, in the summer it would be overcast a lot of the time, raining a lot of the time.

This may be repeating something I said before, but the rain was caused mostly by winds, as I recall, they would come from the ocean. They'd come down there and bring in the moist air, come down and then hit these mountains, because it went up straight up 3,000 feet. So you'd get a lot of rain or overcast weather. But then when high barometric pressure would come down inland, then the winds would blow in from Canada out towards the ocean, and this would bring clear weather and move the clouds out.

In the summer, whenever you'd get that kind of weather with the sun shining, well, 80 degrees would probably be a heat wave, 70 to 75, but comfortable. You might need a light jacket. A lot of the shopkeepers would close up shop and say, "Shop closed, gone fishing."

The kids would get out and play outside. Of course, they played outside in the rain anyway, but it wasn't as much fun. But they'd get out in this nice weather, and our kids were

little, and they'd play in the sand pile or ride their trikes up and down the walk. It didn't get dark until eleven o'clock at night. I remember when I was painting the house, why, I'd go until eleven or eleven-thirty. Your eyes would adjust as it got darker. If I'd started when it was that dark, I couldn't have done it, but I'd paint until then. The kids would stay up and play until nine and ten o'clock, then they'd be all worn out, but they'd get up and do the same thing the next day. Then after a while they'd get so tired that they got cranky, and then everybody'd pray for rain. Here, sure enough, after two or three days it'd rain, and everybody'd settle back down with the usual style of life.

Storey: What about snow?

Reedy: Get a lot of snow in the winter. We'd get up [to] two to three feet, two and a half feet, in one snow. We were sort of on the corner, so I would shovel the walks down to the bus stop where they had a little wooden house there for people to get in out of the weather and out of the rain. I'd shovel it down there maybe fifty feet or so, so the people could get down there from up the hill where we lived. But you get a lot of snow, but then when it'd warm up, why, then the rain would come and wash all that snow away. So that you didn't have snow [on the ground continuously] from November until April like you would up in Minnesota or North Dakota or the interior down here.

Temperature, zero would be a pretty cold temperature. I usually check the Juneau temperature records in the paper, and I noticed that the maximum, I think, for today was ten with a minimum five or something like that. Maybe that was for tomorrow, forecast.

Then with the humidity, why, you'd feel it, but we adjusted to it.

Storey: Were you on the outskirts of Juneau?

Reedy: Yeah, pretty much at that time. A couple of blocks down Glacier Highway. We were out on Glacier Highway, which is the main highway going out to the glacier and to the airport.

Storey: Toward the north, I think you said.

Reedy: To the north, yeah. Actually, we were on Behrends Avenue, which was just off the highway, but we were not more than—well, a little waiting house for the bus was right on Glacier Highway. So we were 50-, 100 feet off the highway was all.

A lot of people lived out the highway and would [drive in each day.] ~~come in during the~~ [During winter,] they'd get the snow plows out pretty well to get the road cleared. The Alaska Highway Commission would clear those roads. I can't remember if it was the Alaska Highway or the Bureau of Public Roads, federal, that cleared the highway.

Storey: Of course, that's when it was a territory.

Reedy: It's when it was a territory, yeah.

Storey: Was there any problem about your children playing in the yard?

Reedy: No.

Storey: Didn't have any animal problems?

Reedy: No. No. They could play either the front yard or the back yard. When we bought the house, there hadn't been anything done with the yard, so we dug it up and put a little grass out in the front yard, and I wonder if that's still there. The back yard we just left the way it was, which was good enough for the kids to play in.

Storey: Were you still—excuse me.

### **Had to Repair the Ceiling and Foundation of the House They Bought**

Reedy: One thing we had to do was, in addition to the problems with the ceiling falling down and having to replace that, the foundation was—oh, I guess they were about ten-[inch-square] ~~foot-square~~ timbers, and the house rested on that. Those were beginning to rot, so we hired a man to come in and put a concrete foundation in. So we jacked the house up, pulled out those timbers, put in the concrete foundation. Well, no, it wasn't just the timbers, it was the interior support for the timbers that were going bad, too, and a little bit of settlement may have

been part of the cause for the problem in the ceiling falling down in the living room. But he jacked up the house and then had the concrete foundation, then since that would support the full weight of the house, with adequate timbers going the full length of it, why, he put in new timbers for that, and then lowered it down on there.

He was quite a character. He was an old Norwegian, I think, Nicholson. Everybody called him Nick. He'd hire his crew from wherever he could, and some of them were Indians, and probably could only speak their native language, and probably some other maybe Finns or something like that.

I'm getting a little cold; getting hoarse. Excuse me a second. [Tape recorder turned off.]

He'd give these guys, for jacking up the house, for letting it down, he'd say, "Yo, yo," and give them time to recover and they'd move the jacks. One time when he was working on it when I was at work, why, Lois was in the bathroom sitting on the pot, and he just walked right in and says, "Lady, I got to talk to you." (laughter)

Storey: Oh, he did, huh? (laughter)

Reedy: Walked right in there and talked to her, yeah. He wasn't going to waste any time, tell her what he needed to or finding out what he needed to know. He was quite a character.

But that cost, as I recall, about \$900 to put that up on a good concrete foundation. It was the only house along that stretch of houses where we were, about five of them, that I think that had a concrete foundation.

Storey: How did your job change when you moved to Juneau? Were you still doing water studies?

**". . . I was the hydrologist for the Juneau office, so I had responsibility for all the hydrologic studies. . . ."**

Reedy: Yeah, I was the hydrologist for the Juneau office, so I had responsibility for all the hydrologic studies. Again, we didn't have a whole lot of [runoff records,] ~~record~~, so we did a lot of extrapolation for areas where we didn't have any gauging records at all. I just tried to estimate it the best I could.

### **They Were Preparing the "Alaska Reconnaissance Report"**

What we were trying to do was preparing the Alaska Reconnaissance Report. So we wanted to outline the major possibilities for hydroelectric power developments in the territory, primarily in the southern part where most of the population is. So we looked at studies in southeast Alaska, where we had pretty good or fairly good information.

Then over in the south central Alaska and down a little bit on the Alaska peninsula, too. We didn't do much north of [the] Alaska

[Range]. I think last time I mentioned about the later studies that we did for the Rampart Project on the Yukon River, but for this initial reconnaissance, I think we just dealt with that very briefly, more or less descriptive without any studies.

Storey: So you were doing basically reservoir operations studies and water supply studies?

Reedy: Yeah.

Storey: Did you have anybody working for you at that time?

Reedy: Not on a full-time basis, no. The office was small and I was pretty much doing those myself. We did get two people when we needed some help. At two different times we got a hydrologist detailed up from down in the Bureau offices. Got one fellow from Denver and one fellow from the Salem office at different times to help out with our studies.

Storey: Salem, Oregon?

Reedy: Salem, Oregon, yeah.

Storey: That was a project office of some sort?

Reedy: Yeah, they had an investigations office there, as a part of Region One—one of the investigations field offices for Region One.

Storey: So they would come up there. Now, as I recall we discussed last week, this was not part of the

Boise office. Guidance didn't come from Boise?.

### **Juneau Office Reported Directly to the Commissioner**

Reedy: No, no. No, no. No, we reported directly to the commissioner.

Storey: It came from Washington.

### **Alaska Investigations Office/Alaska District Office**

Reedy: Yeah. [Initially it was the Alaska Investigations Office. Later] it was called a district office, the Alaska District Office. Joe Morgan was the district manager.

Storey: How many other people were there in the office?

Reedy: Oh, there must have been about—to start out, there were probably about ten. Let's see, Joe [Morgan], R. C. Johnson, who was his assistant; then we had a fellow in charge of engineering; I was hydrology[, a geologist, a man in charge of field surveys, an office manager, a draftsman, and a secretary. Later on we also had an electrical engineer]. ~~I can't remember any other technical people right then.~~

Storey: Who was Mary Ehler?

### **Mary Ehler**



Reedy: Oh, Mary Ehler was ~~I think I mentioned last time about how, when people in the neighborhood I guess~~ Mary was the one that came around to collect for the Community Chest, just shortly after we'd gotten there. Lois was telling her about our situation where all we had was the 600 pounds that we brought up, so [as] Mary, ~~she~~ went around to the other people to collect for the Community Chest, why, she told them about us. Pretty soon, ~~why~~, we had people bringing us—well, Mary loaned Lois a fur coat, and people were bringing us clothing and things for the kids, things of that sort.

Storey: I remember that now.

Reedy: Mary was a voice teacher, Lois' voice teacher, best she ever had.

Storey: I believe you spelled that name for me last—

Reedy: E-H-L-E-R.

### **Joe Morgan**

Storey: Tell me more about Joe Morgan.

Reedy: Joe was a likeable guy, but not the best office manager or supervisor.

### **R. C. Johnson**

R. C. Johnson, I think I explained earlier, was the one that did the studies that led to the establishment of the office. Actually, it started

out as the Alaskan Investigations Office, not a district office. Alaskan Investigations [Office] later became the Alaska District Office. But R. C. got maps and water supply papers for the area in Alaska, and from that he estimated very roughly as to what the power potential might be at various places. Then he sold that to somebody in the Washington office, and they, on the basis of those studies, they got a bill through Congress authorizing the Alaska Investigations Office and funding it with \$150,000 for the first year.

Let's see, what was your basic question now?

Storey: I just asked you to tell me about Joe Morgan.

Reedy: Oh, Joe Morgan, yeah. (laughter) I sort of cut off Joe, didn't I? R. C., who was the assistant district manager later on, and the assistant initially, was the one that got this started. He was always a little bit disgruntled that he didn't get the chief of the office, chief of the Alaska Investigations Office, and I don't blame him, but Joe, my guess is that Joe had some political clout with somebody back in Washington, so he got appointed. But he was not *really* the office supervisor; R. C. was the guy that ran the office. Joe did public relations with other federal offices in the territory, handled the communications with the commissioner's office in Washington, was a glad-hander, met people well, good talker. He was very glib and could talk well with people, so he was more in that, from that standpoint.

He was sort of a character. One story, he was up in Anchorage, was going to catch a plane coming back to Juneau, and he cut it too fine, [as] he always did, he'd just get there at the last minute, and the plane was taxiing out by the time he got to the gate. He just raised hell. He said, "You get that plane back here, I've got a ticket on that plane."

They said, "We can't do that, it's already gone. It's out. You didn't get here in time." And he just blew his stack at that. So the story goes, anyway. I got it second-hand, of course. But, I suppose he did an adequate job of running it. But R. C. was the real technical person.

Storey: Was Mr. Morgan there throughout the period that you were there?

Reedy: Yeah.

Storey: And what about Mr. Johnson?

Reedy: He was there that period also. I don't know whatever happened to either of them.

Storey: But Mr. Johnson did the day-to-day office supervision? He was the technical expert person?

Reedy: Yeah. He was a technical expert, yeah. He didn't have specific knowledge of hydrologic studies, water supply studies, so he relied on me to do those, but he guided me as to what studies would be needed and how to coordinate

those, and he coordinated everything between the different people, like we had water supply studies, and Darrell Roberts, who was head of the engineering. Darrell had charge of all the field surveys for dam sites, and there were field crews working under him, and had charge of the preliminary designs that would be used to go into their reports, and the cost estimates.

Oh, another person that I forgot that was there initially was a geologist for looking at these dam sites from the geologic adequacy to have input to the foundation design for the dams.

Later on, I don't know just when it was, but I would guess about 1943 or '44, maybe it was later, maybe it was '45-

~~Storey: Maybe '53 or '54?~~

~~Reedy: Or '53, '54. No, no. '43, '44. See, I went up there in-~~

~~Storey: '48.~~

~~Reedy: '48. Yeah, you're right. No, no. What am I talking about? I'm getting all mixed up here. It would have been about 1950 or '51. Yeah, backtrack. I was thinking about the wrong place.~~

### **Electrical Engineer Added to the Juneau Staff**

[Later on] in '50 or '51, we got an electrical engineer up there to help with the designs and

cost estimates for transmission facilities, because most of these projects would be a long way from a population center where the power would be used. So electrical transmission, design ~~and transmission~~ of facilities to transmit the power would be a part of our project. So he was up there on that, but he was not there initially.

Storey: What kind of special problems did you run into in your hydrological studies, besides the fact that there weren't very many or very good records?

#### **Lack of Good Data Was an Issue for Hydrological Studies in the Juneau Office**

Reedy: Lack of data, yeah, that was primarily it.

#### **Flood Studies Were One of the Things He Had to Do in Juneau**

One of the aspects that I was responsible for there, that was handled primarily in the regional office when I was working down in Boise, was flood studies, to primarily determine what the maximum probable flood might be for design of spillways or some means of adequately controlling or passing that flood for design of the dam. So when we were doing some designs for these studies, I had to do some flood studies up there. So I got information from Randy's office as to how to go about that.

I can't remember whether there were any Geological Survey papers published on that. I don't recall if there were. But without much information, without much data, why, it was pretty much a shot in the dark. Of course, by the time they got to the point where they built any projects up there, they had longer periods of record, better data, and better means of estimating what the flood requirements would be for spillway design and for determining what the, say, twenty-five or fifty year flood might be that they would have to be able to pass during construction of a project, because you have to be able to handle *that* while you're doing the foundation work on a dam. So that was part of the flood studies.

Storey: I believe you mentioned that you went out in the field occasionally.

Reedy: Um-hmm.

Storey: Do you remember any of those particular field trips?

### **Field Work**

Reedy: Well, I *think* I mentioned this last time about the Lake Dorothy Project.

### **Lake Dorothy Project**

Storey: You did mention the Lake Dorothy Project.

### **Working Out of Anchorage for Three Weeks**

- Reedy: I think I told about the experience on that. I think I mentioned the time we spent about three weeks in Anchorage, where we had a pilot in a Grumman Widgeon<sup>14</sup> amphibian plane, who would fly us around to be able, from the air, to look at different dam sites.
- Storey: You did mention looking at dam sites from the air.
- Reedy: Yeah, and we'd, the three of us, there was me and Daryl Roberts, Ade Jaskar, the geologist, we'd each from the air make our own estimate as to what the length of the dam was, how deep it was, what kind of shape, and make our own estimate as to the profile for the dam site. Then we'd try to [extrapolate] ~~guess~~ from that. Daryl would guess from that as to what he might need to do for a design and preparing a very rough cost estimate. I ~~don't~~ think for this first study, we didn't have any cost estimate[s] in our Alaskan Investigations Reconnaissance report, but we identified dam sites and very roughly estimated the amount of energy and the installed capacity that would be suitable there.
- Storey: The image I'm sort of getting of your time in Alaska, which was about five years, I think—

---

14. The Grumman Widgeon was produced from 1941 to 1955 for civilian and military use. After World War II, the type was redesigned to make it more suitable for civilian operations. Information found at: [http://en.wikipedia.org/wiki/Grumman\\_Widgeon](http://en.wikipedia.org/wiki/Grumman_Widgeon) at 7:30 A.M. on October 20, 2006.

Reedy: Yeah, four to five years.

Storey: –was that you spent most of your time in the office.

Reedy: Yeah.

Storey: You didn't go out in the field much?

### **Didn't Need to Go Out into the Field Much**

Reedy: No, there just wasn't a need. I couldn't have gotten any information from the [hydrologic] hydrology standpoint by going out in the field.

### **"Smoke" Thomas Suggested the Juneau Office Look at Willard Inlet in the Panhandle**

I remember one time I did go out in the field in southeast Alaska. A fellow who was working for us, named "Smoke" Thomas, who was a guide, guided parties *all over* Alaska, up in the interior as well as down southeast Alaska, but he lived in Juneau, and he told R. C. about a place down near Ketchikan, the southern part of the Alaska panhandle, where the configuration was such that when the tide came in, [it] ~~they~~ would come in rather gradually– and I'm not just sure why this happened, but we saw it–and then when the tides go out, [they would be] ~~why, we'd come~~ to sort of a tidal bore. You may have heard of a project up in Maine, the Bay of Fundy, where there was considerable interest about a possible tidal project up there, and I guess it still is a possibility, a much larger project, of course.



---

But Smoke told about this one, so R. C. and Joe decided that we should go down there and see what the possibilities were. So Smoke and I flew down there with bed rolls and cooking equipment and food, and we spent a day out there on this tidal inlet—Willard Inlet,<sup>15</sup> it was called—and what we'd tried to do was just very rough, and I don't remember just how we translated the results of that, but to get some idea as to what the flow was there. As I look back on this, it was a shot in the dark, but we had floats that Smoke would go upstream 100 yards or so and—

END SIDE 1, TAPE 2. JANUARY 23, 1996.

BEGIN SIDE 2, TAPE 2. JANUARY 23, 1996.

Storey: You were saying that Smoke would go upstream and throw a float in.

Reedy: Yeah, a wooden float. As I recall, I had a stopwatch, and I'd start it when I heard him [call to me], and then watch the float come past where I was, and then stop the stopwatch, so that we know what the surface velocity of that flow was. We did this, as I recall, four times every six hours. So at least one of those times, I think maybe two of them, were during darkness. So he'd throw the float in, then I'd have a heavy flashlight, ~~type thing,~~ but and I'd try to follow it coming down here, so that I could see it as it ~~was~~ going past me. It was very primitive, but as I recall from the studies

---

15. Willard Inlet is located at the very southern end of the Alaska Panhandle, east of Hecate Strait.

that we then made from the quad sheets, with the topography, and what we got from the water there, we tried to estimate what the power would be. I think the Alaska Reconnaissance Report shows that we thought a capacity of about 5,000 kilowatts would be justified there. But I don't think anybody *ever* thought about doing anything to that since. It was just a little sort of a blip on the whole reconnaissance investigation that we made. But it was interesting working with Smoke and hearing some of his stories, and get out in the field and do something a little bit different.

Storey: I take it he flew you down in a float plane?

Reedy: Well, no, no, we took a commercial plane. There were two. Alaska Coastal was the commercial [company] ~~flying~~ that had the Grumman Goose, the larger eight-passenger, eight- or nine-passenger float planes, amphibians, as well as planes on pontoons, with [capacity for] just three, or four, or five. But Alaska Coastal was the one in Juneau, and Ellis Airlines did the same thing down from Ketchikan. So we just flew down from Juneau to Ketchikan on commercial. Then from there, we had somebody fly us ~~into Willard Inlet from Ketchikan, fly us~~ into Willard Inlet and ~~dropped~~ us close to the mouth of Willard Inlet, where we would want to make our observations, as close as they could get. Then we had arrangements for them to come back the next day at the same time, as I recall, and pick us up. So that was how we got around there.

---

### Daryl Roberts and Ade Jaskar Did a Lot of Field Work

Some of the other studies that were done, Daryl Roberts, of course, had a *lot* of field work with Ade Jaskar, the geologist. But Daryl would have—I don't know whether he ever had more than one field party out at a time. He would stay out with them sometime, but he had a fellow in charge of surveys; as I recall, his name was Don Ellery, and he was in charge of the survey work. They'd hire local people for the rodmen and cooks and things of that sort, or they probably did their own cooking.

### Susitna River and the Devil Canyon Site

But one of the *major* jobs that we had was on the Susitna River. That's what we called the Devil Canyon site. There were three or four sites on the Susitna River. It's ~~a river that flows~~, a *major* river that drains [a large area south of the Alaska Range and flows into Cook Inlet west of Anchorage.] ~~=well, the divide—the Susitna is the southern flowing waters from the divide with the Yukon tributaries.~~ Susitna River flows somewhat east of Denali Park. ~~I can't even think of the large mountain there in Juneau now.~~ [I believe they still call the peak Mt. McKinley.]

~~Storey: Now they call it Denali Mountain.~~

Reedy: ~~They call it Denali, but I can't think of what the original name was. But anyway, you know where I'm talking about.~~

Storey: ~~Yes, I do.~~

Reedy: ~~But the Alaska Railroad goes from=~~

Storey: ~~Mt. McKinley.~~

Reedy: ~~Mt. McKinley, yeah, [The Alaska Railroad] from down near Seward[, down on the Kenai Peninsula] to Anchorage, and then goes up the Susitna River Valley, up to the pass, and then down into Fairbanks. So there are three or four dam sites on [the upper Susitna River.] there.~~

The best one for major creation of head, power head, for the reservoir, we called it the Devil Canyon site, and there was another good one farther upstream that would provide considerable storage to store and regulate the flow. There's not enough reservoir capacity in Devil Canyon because the stream is so steep that you couldn't get it there, but then [the valley] it flattens [and] ~~out so up above it~~ broadens out, so you'd get storage up there. But Devil Canyon was the one that would create the head. So they went in there and did the surveys of Devil Canyon Dam site.

Also, Ade Jaskar got drilling people in there, core-drilling people, to drill for the foundation, to determine what the foundation was, and he did his geologic mapping. So they

---

were out in the field a considerable portion of the time.

In fact, one of the times while we were up there ~~doing the~~ ~~I think I may have mentioned this before~~ doing those studies, they were out in a raft, as I recall, and Daryl and a couple of the other people fell in the Susitna and lost a lot of their gear. They were able to get out all right, and they were rescued, but then they had a special bill in Congress to reimburse them for the things that they lost in that accident on the river.

Storey: Were they planning Eklutna [Project] while you were there?

### **Eklutna Project**

Reedy: Yeah. Eklutna was one of the projects that we studied. That's right.

Storey: Did they actually begin construction while you were still there?

Reedy: Yeah. Yeah. They started constructing it. Barney Felkner, ~~I think~~, F-E-L-K-N-E-R, I think, was the construction engineer on that. So they were building that.

### **Worked with the Soil Conservation Service to Establish Snow Stations Above Eklutna Lake**

During the building of it, one of the things that we would like to have as a means of operating the reservoir and the powerplant

would be information on what the potential inflow would be to it for any particular season. So one of the things that I did, in cooperation with Arch Work, who was from the Soil Conservation Service, and an expert in snow surveys, we established a couple of stations up in the drainage area above Eklutna [Lake,] ~~River,~~ in order to be able to determine what the snow depth [and water content] was up there. We tried to get it so we'd have the snow depth and [water content in order] ~~then, of course,~~ to estimate what the water runoff is going to be. ~~why, you have to determine what the water content of the snow is.~~ These were established so that a person could get up there, go up there by snowshoe, which is the way we went. We took a boat from the outlet of Eklutna Lake up to the headwaters, then hiked up to these places where we wanted to establish the markers, and that's the same way you'd have to go to determine the water content of the snow, take your instruments up there for that.

I don't know to what extent those snow survey stations were later used for that. In fact, they may have gotten the Soil Conservation Service, and my guess is that they got the Soil Conservation Service in there and established better stations than we were able to do, just the two of us. But that was one of the things that I had specific input into the Eklutna studies.

Storey: Did we ever establish other measurement stations either on the rivers or snow measurement stations?

Reedy: Not that I recall. All the rivers and the streams [gauging] is all done by the Geological Survey. They had a district engineer there in Juneau that was responsible for that. I can't even recall whether we specifically requested him to establish any additional stations other than the ones that they had already planned or already had established or not. They had a fairly good network of stream gauging stations in southeast Alaska.

There had been a report done in—I don't know whether it was the mid-1940s, and I can't remember who did it, a very *brief* and superficial study of the power potential of ~~Alaska, or southeast Alaska, this was just~~ southeast Alaska. So I relied on that quite a bit for the studies that I did.

### **Developing the Alaska Reconnaissance Report**

Now, our report, the reconnaissance for the Alaskan investigations, for all of the investigations, covered a lot more besides just the technical studies for the individual project sites. It went into history, a brief history, the resources, all the resources, agriculture, forestry, mining, things of that sort. During that first fall that I was there, we hired some people from outside the regular office, people who were familiar with the territory, to write up some of these things, people who had lived there, or studied there, or knew more about it, relying on their *own* information and other reports that they were familiar with. So we

had a fairly good staff writing for this Alaska Reconnaissance Report.

Storey: Do you remember any of the other projects that we haven't talked about in Alaska?

Reedy: I think I mentioned the Rampart Project last time.

Storey: Yes, you did.

### **Rampart Dam**

Reedy: On the Yukon, on which a study was made subsequently. We covered that just very briefly for the reconnaissance report, but then a report was made on that specifically.

### **Wood Canyon Project on the Copper River**

I think I mentioned just recently, in cleaning out our house, tossed out reports on several projects that we did. One was the Wood Canyon Project on the Copper River, which is a main river similar to Susitna, which flows directly into [Prince William Sound, an arm of] the Gulf of Alaska.

There were probably half a dozen smaller projects in southeast Alaska that we studied.

### **Snettisham Project Study**

One was the Snettisham Project, which was subsequently authorized and built by the Corps



---

of Engineers, and is now supplying power and energy to Juneau and that area. ~~there.~~

### **Chakachamna Project Study**

One we did was [the] ~~on~~ Chakachamna Project, which was using Chakachamna Lake as the storage reservoir, building a small dam, and then a tunnel and a penstock down to a powerplant—I don't recall what the head was, 200 or 300 feet, perhaps—over west of Anchorage.

Storey: Did we build that one?

Reedy: No, no, that hasn't been built. Probably will not be. It's a fairly long transmission distance. Unless there is some unforeseen new large industrial need or large community need, which would probably go together, over in that area, it just probably would not pay to transmit the power that distance. If there is a major need for power, if the economy and the population and the industry grows, my guess is that some project on the Susitna River would probably be the next one.

### **Power Creek Study**

Another small [project] was Power Creek, which has a small lake down near Cordova, which is one of the larger—not large, *but larger*—of the small communities on the southern edge of Alaska, on the Gulf of Alaska [southeast of] ~~. It's between Valdez. and Anchorage.~~ Valdez would be another place,

but now the likely source of energy for those areas is oil-fired generators from the Alaska oil, and probably what refining they might need for that, is my guess is what they would use rather than hydroelectric.

Storey: Are there special problems for hydro projects in Alaska, like at Eklutna, for instance?

### **Severe Winters in Alaska Cause Construction Problems for Hydro Projects**

Reedy: Well, there are certainly construction problems with the severe winters why you have a problem of construction. Just offhand, I don't think of any major problems so far as operation. It might be that in the winter, ice formation might cause some problems, but I couldn't say right offhand what they might be.

### **Isolation of Potential Projects Is an Issue in Alaska**

Isolation, distance from main access during construction would be a problem. This is one reason that the Susitna Project on the Susitna River, the Devil Canyon Project, would be a fairly easy one to build, is because you have the railroad coming up there and you could bring in all the equipment and supplies on the railroad. It would have to be from a railroad dropoff point over to the dam site, but that ~~wouldn't be—it~~ would be fairly feasible, I would think.

Storey: Well, we've been at it for a little over two hours now. Let me ask you if you're willing for the information contained on these tapes and the resulting transcripts to be used by researchers.

Reedy: Sure am. Okay.

Storey: Good. Thank you.

END OF SIDE 2, TAPE 2. JANUARY 23, 1996  
BEGIN SIDE 1, TAPE 1. JANUARY 30, 1996.

Storey: This is Brit Allan Storey, Senior Historian of the Bureau of Reclamation, interviewing William W. Reedy, on January the 30th, 1996, at about one o'clock in the afternoon, in Building 67, on the Denver Federal Center. This is tape one.

I think last time we were getting ready to talk about your transfer to Washington, D.C. You had gone over it briefly in our first interview, about how you'd applied for a job in [Costa Rica] ~~Puerto Rico~~. Did you have any expectation—

Reedy: No, Costa Rica.

Storey: Costa Rica, excuse me. Did you have any reason to expect you were going to get that job?

**Missed a Chance to Work in Costa Rica  
Because of Security Clearance Issues**

---

Oral history of William W. (Will) Reedy

Reedy: Yeah, I thought I had a pretty good chance, but it turned out, as I think I mentioned, the security clearance, which was fairly critical at that time, I guess because of the Cold War with Russia, or whatever, but because of the length of time that it would have taken the security clearance, because I had ~~been~~ declared [myself as] a conscientious objector, so they would have wanted to look into my past a little bit more deeply, I guess, because of that, and would have taken extra time, so they needed somebody down there right away. So they sent the fellow down who had been on the reconnaissance study for six months. He went down and took the two-year assignment down there and finished up the investigation.

Storey: Well, then how is it you ended up in Washington?

Reedy: Well, I was going back to Washington—no, no. The security clearance bogged down while I was still in Juneau, as I recall. I'm not just sure now, because that had bogged down, I don't know that I would have taken that job in Washington. Or rather it bogged down after I got there. Memory's a little bit hazy.

Storey: Welcome to the club.

**Transferred to Washington, D.C., for a GS-13, in 1953 to Represent Reclamation on Inter-Agency Committees**

---

Reedy: Anyway, whatever, I transferred to Washington in February 1953. The job that I took was one that had been vacated by a [Leon Maca.] man who was—let me see, what was his name?—Oh, I can't think of it right now. Anyway, he was promoted to a GS-14 as some kind of a, not a coordinator, I don't think, within the Bureau, but he had a 14 job within the Bureau, and he'd left the [GS-13] job, which was coordination between the Bureau and other agencies on specific water resource problems. There were two subcommittees of the overall Department of Interior—water resources committees that he represented the Bureau on, so I took his place on those. One of them was the Sedimentation Subcommittee, and the other was the Water Resources Subcommittee. I think those are correct names. I'm not sure about the water resources.

But I attended the committee meetings, which were headed up by, as I recall, by individuals who had more experience on those subcommittees. I represented the Bureau coordinating activities that had to do with sedimentation and water resources, talking about some of our ongoing work, research studies that could be done, studies that had been done in the field by other agencies such as the Geological Survey was active in sedimentation as well as water resources. The Soil Conservation Service also was active in sedimentation.

So I attended meetings which were held, as I recall, once a month of each of those

committees, then reported back to "Buzz" Bennett, who was assistant [director] ~~commissioner~~ for project planning at that time, and was essentially my supervisor, and I reported back to him on the activities of those committees, to keep the Bureau people up to date on that.

It wasn't, as I recall, a particularly challenging job. It was interesting meeting with the other agencies and seeing what they were doing.

Storey: But it was a GS-13?

Reedy: It was a GS-13, that's right. So I worked on that. I don't recall whether I had any other specific assignments there in the Washington office. I don't recall any specific ones, anyway. I don't recall that the interagency committees took up enough of my time that I would have been on that full time, but I can't recall anything else that I did.

I just mentioned that interagency committee, and, as I recall, it certainly was not Department of Interior. It was all federal agencies. Corps of Engineers was represented on that, and, of course, as I mentioned, the SCS from the Department of Agriculture, [and the U.S. Geological Survey]. So any Federal agency that would have had interest in either problems of sedimentation as related to streamflow and water storage, or interested in water resource—collecting data, analyzing data,

and then using it in project studies, would have been in on that interagency subcommittee.

Storey: I'm not sure that I remember you told me exactly how you went there. Did you apply for this job while you were in Juneau?

Reedy: Yeah. ~~This is why I'm a little bit fuzzy on it. I'd have to go back and see if my diary that I kept sheds any light on this as to whether I think I had that specific job that I was to transfer to Washington from Juneau. I think all the activity, so far as the job in Costa Rica, was prior to that.~~

Storey: Why did you decide you wanted to go to Washington, D.C.?

**"I wanted to be closer to the field work. . . ."**

Reedy: I figured it would be good experience. At the time that I transferred there, I thought I'd probably be there at least two years. I certainly didn't have in mind that I wanted to spend the rest of my career there. I wanted to be closer to the field work.

**"So I was not particularly disappointed when the reduction in force came in June of 1953. . . ."**

So I was not particularly disappointed when the reduction in force came in June of 1953, and I was transferred back to Denver. But at the same time, I would have liked to have spent more time in Washington, both from the standpoint of the job and meeting with other

agencies and with Washington people at a different level than I was out in the field, and also the experience of just living in the nation's capital and being able to participate in some of the things that are going on there and see all the many things that you can see. I visited there several times, but, of course, never have seen everything. Well, if it's like here in Denver, why, there are so many things here that people come to Denver to see that I've never seen. It would probably be the same in Washington. If you live there, why, you just sort of take it as a matter of course and say, "Oh, I'll be able to see that next month or next year," and when you leave, why, "*Oh*, I missed that."

Storey: Yeah. It's too true.

Reedy: Yeah, but it was an interesting assignment.

Storey: Now, more about the Sedimentation Subcommittee and the Water Resources Subcommittee, these interagency committees. Were you working on specific projects or were you just sort of going in and saying, "This is what Reclamation's doing now," or how did this work?

Reedy: I can't recall a lot of that. My memory is a little bit weak on that. But we weren't working on specific projects, that is, specific water resource development projects, not project as we think of them in the Bureau of Reclamation, a specific water resources development project. We may have been



working on research projects. Sedimentation, there's a lot of laboratory work, both inside the lab as we have here and more full-scale research projects that *were* done. So we discussed those, discussed coordination, funding for them, what different agencies would be able to contribute so far as the necessary funding, and things of that sort. But so far as getting down to very specifics, I just can't recollect that. Maybe if I think about it, I will, but as I say, we just had monthly meetings, as I recall, and I was only there for about four months, so I didn't get in on a whole lot of it.

Storey: That must have sort of discombobulated your family to move like that.

Reedy: Somewhat. We never did buy a house. I was about ready to buy one before the family came back, but decided I'd better not, be sure that my wife was happy with it. Along about that time, why, things got a little bit unsettled, so we decided we just wouldn't buy.

We were fortunate, my cousin's former wife was living in Silver Spring, Maryland, and so we were very fortunate to be able to stay with her. She had two children that were about the same ages of our two kids, so they had a good time together. They went to the same school, and we had a happy time staying there. She had a large enough house that she could take care of us very conveniently, so I just commuted from there.

I got in on a riding pool. The fellows were in the Bureau. Well, I guess most of them were in the Bureau office. Some of them were not. One guy, I remember, was in the Secretary of Interior's office. But we had a riding pool and I commuted on that. So that worked out satisfactorily.

So we didn't lose out on having made an investment in a house and then having to sell it because of the transfer. So we were either foresighted or fortunate or maybe a little bit of both in that regard.

Storey: But then you came back to Denver once again coordinating activities, is that right?

### **Worked for Randy Riter in Denver**

Reedy: Well, no, it was not coordination here yet. I was working on Randy Riter's staff, as I mentioned. Randy was the one that was able to pick me up, even though they were in a reduction-in-force situation. I guess the Denver office wasn't hit quite as badly or in the same way as Washington, so Randy was able to establish or *put* me in a position here which had been vacant. I blessed his name ever since because of his looking after me.

But I can't even remember the title [for sure] right now, [but I believe] ~~whether~~ I was an assistant to the chief of hydrology branch. ~~I think that's what it was.~~ So it was on sort of special assignments that I worked. ~~I remember—well, I think I mentioned, I think I~~

covered the fact that for the first four months when I was here, I was put on leave without pay.

Storey: Yes. To work with Raymond Hill.

**Put on Leave Without Pay for Four Months after Returning to Denver "So I wouldn't be showing up as being paid for that period. . . "**

Reedy: Yeah. So I wouldn't be showing up as being paid for that period, until things sort of settled down. Then after I got back, after that four-month period and I got back, I started working on special assignments for Randy. One of them was sort of completing some of the work, so far as any Bureau activity was concerned, completing some of the work that I did for Raymond Hill.

Storey: That was the Colorado River Water Resources Study, I believe.

**Worked on Special Assignments for Randy Riter**

Reedy: Colorado Water Conservation Board. Yeah. Braxton Griffith,<sup>16</sup> one of the fellows in the office, was working on preparing graphs for that study from the Bureau's standpoint, too. So when I came back to the Bureau, why, we sort of worked together on those studies and

---

16. Bureau of Reclamation telephone directories of the period list Estes B. Griffith.

continued that. I can't recall just how long I was in that position as a GS-12.

Storey: So you were downgraded when you came back to Denver.

Reedy: Yeah. Yeah, I was downgraded. ~~Yeah, the fellow whose name I can't remember~~[Leon Maca] bumped *me* out of my job as the coordinator back in Washington. That had been his previous job. His job was eliminated, so he bumped back into his old job. So that left me out.

### **Regional Coordinator in the Field Investigations Branch**

From that [job as] special assistant to Randy, I was moved over into a slot as a regional coordinator in what was called the Field Investigations Branch. Art Johnson, A. F. Johnson, who was a longtime Bureau man, was the chief of that branch. I don't remember how much of this I mentioned, but we had the Bureau area split up into about, oh, I think it was three different groups for setting up field coordinators who would be responsible for coordinating activities between the planning staffs in the regions and the project investigations division in Denver. I had Region Four, Region One, which—

Storey: Pacific Northwest.

Reedy: Pacific Northwest and the Upper Colorado River Basin and Alaska. Those were the three areas that I handled the coordination for.

Storey: So what does coordination involve?

**Regions Were Responsible for Planning Studies. We Were Responsible to Assure Technical Adequacy**

Reedy: Working with the regional offices, regional office planning staffs, helping them, assisting them. They had the responsibility for setting up the planning programs for each project investigation that was done, but we worked with them in setting that up to be sure that the work that they did would be complete and adequate from a technical standpoint, so when it was completed and written up in appendixes and the report and came into the Denver office for review, why, we would be able to approve it.

We talked with them at the beginning of an investigation. We would go out occasionally, maybe a couple of times a year, oh, maybe more than that, three or four times a year, to the office to review their work that they were doing on the several studies they were making. They had field offices out of the regional offices. The planning work was not all done in the regional office itself. ~~Not exactly similarly, but our responsibility to the regions, but~~ The regional planning office had direct responsibility for the prosecution and

implementation of the planning studies that were done by the field offices.

### **Regions Had Various Planning Offices**

For example, Region One, Boise, had a Boise planning office, they had a planning office in Salem, Oregon, and Spokane. As I recall, those are the three planning offices. The Salt Lake City office had a planning offices in Grand Junction [Colorado] and Provo, Utah. I can't recall any others right offhand.

Storey: One in Salt Lake?

Reedy: No, the Provo one handled—as the field office—handled all the field investigation work of the area that would have been handled by Salt Lake City. ~~It seems to me they had one—oh, Green River, Utah.~~ I think they had one at Green River, too. So these field offices did the actual on-the-ground work, the surveys, the land classification, the economic studies. All of the field work was done by these field offices, sent into the regional office for their review and approval, and then forwarded to the Denver office for final review and approval.

Storey: Well, now if I'm recalling correctly, that would have been about the time that Reclamation was proposing to build Echo Park in Dinosaur National Monument.

### **Planning Studies for Echo Park Dam**

Reedy: Yeah. Yeah, I think that's right. Now, that was not an office that was handled directly by one of these regional field planning offices. As I recall that, the studies on that were done directly in the regional office. I can't recall any specific involvement with that, either reviewing their water supply studies, operations studies, determining reservoir capacities, powerplant capacities, and things of that sort, and I'm not sure just why, but it was along around that time, I believe. So I can't explain right offhand. I don't know that even if I reach back deeper in my mind, that I would have any explanations just why we were not involved directly on that.

Storey: Do you remember any of the specific things you *did* work on with the regions?

### **Cliffs-Divide Study in Western Colorado**

Reedy: Yeah, the Grand Junction office, for example, was doing a reconnaissance study which they called the Cliffs-~~West~~ Divide Study. It was a reconnaissance study to examine the full potential of projects on the Western Slope in Colorado, the streams that flow from the divide down to the Colorado River and its tributaries. Oh, they must have developed, I suppose, fifteen or twenty different projects in that Cliffs-Divide [Study]Project. Many of them were built. I might have a hard time recalling specific ones right now.

Storey: Let's see, was the Collbran Project<sup>17</sup> one of these?

### **Other Western Colorado Studies**

Reedy: No, Collbran wasn't one of those. Gosh, if I had a map, I could look at it and pick out some of them, but—Paonia Project was one, as I recall.

Storey: There's one at Ridgway, I think.

Reedy: Yeah.

Storey: That was much later, as I recall.

Reedy: Yeah, later. No, no, I think Ridgway was one that we studied, that they studied as a part of that. [Others that were built were] Bostwick Park [and Fruitland Mesa Projects].

Storey: That one sounds familiar.

Reedy: Yeah. If I had a map, I could pinpoint which one of those were a part of that study. But there were many in that study that never were built, probably never will be now.

### **Seedskafee Project<sup>18</sup>**

---

17. The Collbran Project is located in western central Colorado in the Grand Mesa.

18. The reservoir on the Seedskafee Project on the Green River, a tributary of the Colorado River, in Wyoming, is known as Fontenelle Reservoir and is behind Fontenelle Dam. The dam was built in the period 1961-1964.



---

In the Green River Office, they, as I recall, developed the plans for Seedskadee Reservoir on the Upper Colorado.

### Lyman Project

~~That [The Lyman] Project over in southwest Wyoming [was another project that was built.] can't think of the name of it right now. There's a project over there that was studied and developed. And, of course, many others that they looked at, but were never developed.~~

~~Storey: We're not talking about Flaming Gorge?~~

~~Reedy: No, no. No, this is a small irrigation project. Can't think of the name of it. As I recall, it's named for a town over there, but I can't think of it.~~

### Central Utah Project Studies

Provo, their main study was the Central Utah Project and all the different units of that, many of which have been developed. That has been a major development project and construction project for the Bureau.

Oh, one thing I was going to say, when that Cliffs-Divide [Study] Project was called, Cliffs comes from the Book Cliffs. Are you familiar with the Book Cliffs over [near] Grand Junction?

Storey: On the north side of the Colorado River there?

Reedy: Yeah. Yeah. Well, this was a project that covered everything between the divide and the Book Cliffs [in the Colorado River Basin.]; ~~north and south, between those, roughly.~~ That's how the name of that reconnaissance project got its name.

Let's see. Region One. Salem office developed several projects in the—here my memory goes failing me again.

Storey: The Willamette?

### **Rogue River and Willamette River Basin Studies**

Reedy: Willamette. Thank you. I'm glad—you're more up to date on these. Yeah, in the Willamette River Basin, those were developed. And also the Rogue River farther south, the Rogue flowing directly into the ocean.

Storey: Into the ocean there, yeah.

Reedy: So they developed projects in there, and many of those were built.

Spokane office. If I had a map again, I could locate those. You'll have to bring a map one of these times and help me refresh my memory that way. Offhand, I don't recall any of those.

Storey: What was the relationship between those offices and you here in the Denver office? At that time the [chief engineer] ~~commissioner~~

---

could pretty much veto a planning study, I presume.

Reedy: Oh, he's had that prerogative all the time, as far as I know.

Storey: Did I say the commissioner?

Reedy: Yeah.

Storey: I meant the chief engineer.

Reedy: The chief engineer. [I don't believe he had that power so far as planning studies were concerned. The planning program was pretty much finalized at the Commissioner's annual program conference in August. Nor could the chief engineer veto a project that went through the normal planning process.] ~~Well, he could, but probably would do so only on the advice of his staff, and we were his staff so far as planning is concerned.~~ If a project turned out to be infeasible, specifically from a benefit/cost ratio, we *normally* would not recommend it for authorization. We'd complete a reconnaissance report on it possibly, but then if it didn't seem to be favorable economically, why, we'd recommend no further studies on it. [If the feasibility study showed the project to be economically infeasible, the report would recommend that no further studies be made and that the project not be proposed for authorization.]

Storey: Were there a lot of projects studied that were then proved unfeasible?

Reedy: Quite a few. In this Cliffs-Divide [Study,] Project, I think there were several that were not economically feasible. I don't recall others out of the other offices. For some reason, Cliffs-Divide stays with my memory better than some of the others.

Storey: Did you do more work on it?

### **Mann Creek Project**

Reedy: No, I don't know that I did any more work on it. Well, some of the projects out of the Boise planning office I recall, because, as I told [you] earlier, I worked there for several years before I went up to Alaska. But some of those—well, there were several of them built. I mentioned the Mann Creek Project in the Weiser Basin which is where I first worked when I went up to Boise. Oh, again, I have a hard time recalling specific ones.

Storey: Tell me about relations between Denver and the regions. This is, what, about ten years after the regions were created.

Reedy: Well, it was right after—

Storey: I'm wondering—

### **Relations Between Denver and the Regions**

Reedy: No, it was about ten years after. *No*, at that time our relationships were pretty good. The regions since then, as I've heard from other

people, well, no, it wasn't. It wasn't even true when I was back here and was chief of planning investigations here. I thought our relationships were always pretty good. There have been times, ~~and maybe it's due to specific regional directors,~~ when the regions sort of chafed at the yoke of Denver office having any kind of responsibility for their work. I can understand that, but maybe it was more the individual regional directors, or maybe it was after they got together and as a group decided that they wanted to downgrade the Denver office so far as responsibility for maybe their total work, but, more specifically, their project planning work.

But at the time I was actually working out in the field and at the time I was chief of the planning office here, *I* felt that we had good relations with the regional office[s]. They, I think, felt that we provided a needed service,; ~~which I think is probably the reason that some~~ [But] later on [some may have] felt that it *wasn't* necessary, that it was just an excess layer in there.

**". . . I feel that the Denver office had people with a little bit more experience . . . they could view it from a different angle . . ."**

But I feel that the Denver office had people with a little bit more experience in many cases, not always, but they could view it from a

different angle, see a different aspect of the study.

**"We didn't come down on the regions with a heavy hand without some reason for it. . . ."**

We didn't come down on the regions with a heavy hand without some reason for it. We could provide them with good advice to facilitate their studies, and *I* felt that we had a good relationship with them and that they did not complain about our being one of the steps in the whole process.

Storey: Do you remember any situations where they had recommended a project and the Denver office opposed them? Did it ever develop to that stage?

Reedy: I don't recall any specifics. I don't recall any of those. During the process of the study with our field staff working with them all the time, and this was true when I was chief of the division here, we had people working with the regions just as I did, under the field investigations branch. They worked with them, and the technical people could pretty well come to an agreement on whether a project was feasible and worth going ahead with, or whether they shouldn't spend any more time on it. Of course, the regional directors might have been subject to some political pressure from local people who wanted [a project] ~~it~~ and tried to bring pressure on them, and this might have been *one* reason why they might have tried to override what appeared to be a technical

difficulty to the project, but I don't recall any major instances of that as long as I was working in the planning activity.

Storey: How did you work with the regions? What were the specific interrelationships you had?

Reedy: Specifically. Well, when I was one of the regional sponsors under the chief of the Field Investigations Branch here, the region would write in a letter to chief of planning here, Randy, and say, "We'd like to have the regional sponsor come out and go over this project with us. We've reached a certain stage in the investigations and it would be a good time to check and see whether the studies have been done [satisfactorily.]"

END SIDE 1, TAPE 1. JANUARY 30, 1996.

BEGIN SIDE 2, TAPE 1. JANUARY 30, 1996.

Storey: The regions would write in and ask for a regional—

Reedy: Regions asked for a review. Depending on the specific aspect, maybe it was a review of the land classification. Now, if it was just land classification, we'd probably have one of our land classifier people from the Denver office go out and do that specific review.

If it had to do with the engineering aspects of it, in all cases, [all] the regional sponsors here in the Denver office were civil engineers, as I recall. So if there was something so far as had to do with engineering, the selection of a

dam site, which would also involve geologists, of course, the cost estimates, things of that sort, then the regional sponsors would go out and review.

If it was a water supply study, why, somebody from our hydrology branch would go out. If they were having a problem in trying to develop a spillway design flood and flow design flood study, why, somebody from our flood study and our hydrology branch would go out.

We had a sedimentation branch, and if they were concerned with studies about sedimentation, it would be helpful to have somebody go out in the field, why, we'd send a sedimentation man. Same way with economics, when they got to their economic studies, the agricultural economic studies, we had people on our staff that would help them with that. General economics, justifications of the project, benefit cost ratios, and studies going to general economics, why, we had people to go out there and do that.

Storey: What did you do as the regional sponsor to get those people to go out?

Reedy: Well, the letter would come in. Well, let me think just a little bit how is the best way to answer that. I would probably coordinate with the chief of the Field Investigations Branch *and* the chiefs of the other branches, such as hydrology, lands, economics, and coordinate with them, work with them, as to just what the



problem was, who should go out. Of course, the individual branch chief would have the primary say about that. If it was something on land classification, he would make the primary selection, but we would coordinate on that so that we were fully in accord on that.

Storey: Then you'd send them out to help the regions?

Reedy: Right.

Storey: Okay. Now, if you'll think back for me, how did you travel in those days? This is the mid-fifties when you had to go to the field.

Reedy: It would depend. Up to Boise, why, we'd usually fly. There were flights to all the project offices, Boise, Salem, and Spokane, so we'd fly up there. Grand Junction, why, we'd often drive over there. In many cases, more than one person was going, because they might be looking at several different aspects of it, and you might have a carload of people driving from Denver. Green River, I don't recall that I—yeah, I just thought of the name of that project in southwest Wyoming—Lyman Project.

Storey: I think that's L-Y-M-A-N.

Reedy: L-Y-M-A-N, that's right, yeah. But I can't recall. I know I've been out to the Lyman Project area. I can't recall just how I got there. I may have gone over to Salt Lake City, and then we drove up from Salt Lake City with some regional staff.

Storey: What about trains?

Reedy: Didn't use the train. There were good air travel then. I don't recall ever taking a train on any of these.

Storey: Do you recall how long it would take you to get to Boise?

Reedy: You mean flying?

Storey: Yeah.

Reedy: Oh, gosh, I don't remember. Three hours, maybe, something like that.

Storey: How often did you travel?

Reedy: Oh, maybe, oh, average maybe twelve, fifteen trips a year. I think I've got all my old travel reports. I kept them in a file. When I was looking for something, I had a summary of those that was put out by the travel office here listing all my travel, but it didn't cover the whole period. I had that in my travel file and I took it out. I was going to save it, and I can't find it now, but I'll look for that, too.

It would take us about three hours. We'd have to prepare a travel report for each of those and have to go through our branch chief and the division chief, and get it signed and approved by the chief engineer.

You were asking about travel. Randy Riter *always* used the train, at least early on. He

didn't like to fly, but later on I think he finally decided he was going to have to fly, because he spent too much time on the train. It wasn't very productive, so I think he finally got used to flying.

Storey: Let's see, you came here about the time, I think, that Ken Vernon left Billings. They had a terrible time flying in and out of Billings. If they wanted to go to Washington, for instance, east-west was bad, if I recall, north-south was okay. He could get to Denver or maybe to Cheyenne.

Reedy: Well, if he got to Denver, he wouldn't have any trouble getting to Washington.

Storey: Yeah, but it just took a long time, it seemed to him.

Reedy: Yeah. Of course, the thing I remember about the Billings airport is—I'm trying to think what the occasion was. Or maybe it was just my wife telling me about it. But after I transferred back to Washington, she and the children stayed up in Juneau for a short time, and then they flew down to Denver and visited my folks for a few days, and then back to Lincoln. They stayed in Lincoln. She lived with her dad. The kids went to school 'til the end of the school year in June. But she tells about, on their flight from Juneau down to Seattle, and then they made a stop in Billings, and, as you know, there's quite an escarpment there, and the airport's up on the top of this, and the planes have to come around. They come over the

valley and then land. They've got to touch down right away because of the length of the runway. She said that [it was slightly foggy and] as they came around the first time, the pilot wasn't satisfied with that, so he gunned it and took off again. She was a little bit worried about that, as far as Billings. That's the only thing I remember about difficulties of flying in Billings, is just her telling about that.

Storey: Do you remember any of the specific trips where you went out? For instance, Boise. Would they have been planning Teton Dam at that time, working on preliminary investigations?

Reedy: ~~Yeah, probably would have.~~ No, no. No. No, that was before Teton. Well, I think I mentioned one study that I did when I was—well, this was while I was still working in Boise. No, that's old stuff. We're talking about the period from—

Storey: About '53 to '56, I think.

### **Becomes Chief, Field Investigations Branch**

Reedy: Yeah. Well, [I was a regional sponsor from the late fifties through 1966] ~~in '53 to—I left early sixties, or actually up to 1970, because after I'd been a regional sponsor, then when Art Johnson is the branch chief, and then Charlie Le Moyne was the branch chief, and then when Charlie was promoted to assistant division chief, why, I moved up and was chief of the Field Investigations Branch [beginning in~~

December 1966]. So that would cover the period up until 1970 when I became division chief.

### **Recollection of the Failure of Teton Dam**

I can't recall specifically the studies on Teton. Of course, from the time I became branch chief, why, somebody else would have had Region One specifically, and working on the specific study. But the one thing I do remember in connection to that was when I was division chief, and on a Saturday morning, the morning that Teton failed—

Storey: This would have been in '76.

Reedy: Yeah, I don't remember the date, but I remember it was a Saturday morning, and John Mangan, who was the chief of planning in Boise, and he happened to be acting regional director over the weekend, I guess both the director and the assistant director were out in the field someplace or someplace where they weren't available, and so he called me about the failure of Teton. That was the first I'd heard about it. Then he wanted some advice as to who he should call here in Denver, with regard to that. So as I recall, I gave him some names and phone numbers on that. But I always felt that was an awful thing to get loaded on him, a planning man, and having to take charge of that. Of course, he'd had lots of experience as a manager, but it was a terrible thing to have to deal with.

Storey: Yeah, I imagine it would have been.

Reedy: Yeah. Let's see, you were asking—I can't remember just now what your question was about.

Storey: Well, we were talking about your period as regional sponsor, whether you remembered any projects in particular.

### **Cliffs-Divide Studies**

Reedy: Any specific projects, yeah. Well, I mentioned the Cliffs-Divide. I remember that one particularly. So far as out on field studies with respect to the projects—

### **At Harvard, 1956-1957**

Storey: Why don't we talk about your stint at Harvard. How was it that you ended up going to Harvard for '56, '57?

Reedy: As I recall, I think word came out from the commissioner's office in Washington, because I expect that the two men who were in charge of that at Harvard—well, let me go back and explain that.

### **Art Maass and Maynard Hufschmidt at Harvard**

The overall person responsible was Art Maass, M-A-A-S-S. He was a professor of [government] ~~—oh, I can't think of his title right now,~~ professor at Harvard, and he worked in the School of Public Administration. He had

had some contacts with the Bureau of Reclamation and the Department of Interior in Washington. One of the men who was working on the staff there, I don't know whether he was working directly with Art or—no, he was working on a doctorate with Maynard Hufschmidt. Maynard had been very active as a representative of the Department of Interior on the interagency committees in Washington. Then he went up to Harvard to work on his doctorate.

As a part of—outgrowth of his work, I think, and I don't recall whether he directly reported to Art on the professors' level or not, but, anyway, the two of them got together, and they thought it would be good to have a study that would incorporate all the different aspects of planning the water resource development projects. I think I mentioned this earlier. This was about the time that electronic computers were being started.

Storey: You mentioned it briefly.

### **Harvard Program Focused on Using a Computer to Assist in Analyzing Projects**

Reedy: Yeah. So they thought that there might be some way of making it possible, integrating and setting up and incorporating a study that could be cranked into a computer and then come out with, if not a specific answer, with several answers that would assist in the evaluation of that project from an economic--

not the environment so much, because that wasn't the major problem at that time, but the physical and the economic factors that would affect a project and determine its feasibility, practicality.

Harvard had a computer there, which was, I guess, a mammoth thing, and very slow compared to present computers, but they got the idea that it might be worthwhile to get water resource people from several different agencies to come in and work on a study for a year and then the people that came to this program would get a master's degree as a result of their study. So they, through the Washington offices, I presume, asked the Washington office of different agencies that would be affected. There was the Bureau of Reclamation, Soil Conservation Service, Corps of Engineers[, U.S. Geological Survey, Public Health Service, California Department of Water Resources] I don't know whether there were other agricultural people. Water quality, I guess, was primary. He came at it from a different angle. I can't remember just what his specific approach was, one of the fellows that came on the program. And one fellow from the Department of Water Resources, State of California. There were about ten of us altogether.

So we got there and we were required to take—let's see, I think we were required to take two courses each semester, and I remember I audited a couple of courses as a part of our degree work. Then we broke up into teams,



and each team selected a project or a program for study on which they would develop a report. We worked this out with Maynard and with Art, to develop something that they thought would be productive and work into their overall program and be suitable for a justify a master's degree.

So this substituted for a master's thesis, was the report that we prepared. But we split up into teams, and our team, there were three people. I was on it, and [Frank Johnson] a fellow from the Bureau from Oklahoma, who had been in a planning office in Oklahoma, and then Frank Johnson, and Blair Bower, who was the fellow from the Department of Water Resources in California. Frank was a sort of laid-back Texan. Blair was just hell-bent for leather. He was just pushing all the time, and he still does. I keep in touch with him. He's still pushing. Frank went back to the Bureau someplace and I came back to the Bureau. Blair, I don't remember just where he went, some agency in Washington, and then he finally ended up as a consultant. He was just all over the place doing consulting work. He was really a pusher. But anyway, it was an interesting group.

### **Work Group at Harvard Looked at the Washita River Basin in Oklahoma**

So for our study, we wanted to select a Bureau of Reclamation project that we felt had some reasonable possibility of development and had sufficient data on from the standpoint

of water supply data, hopefully something from engineering, from economics, and things of that sort, that we could put into a study that might be the basis for application of computer analysis. So we selected the Washita River Basin in Oklahoma. So we got all the data that we could from the planning office in Oklahoma City and put that together.

We had to assume a lot of things, but in order to get the criteria for cranking into the computer, for example, a reservoir area and capacity curve showing how area and capacity varied with depth of water above a dam site, and so instead of having actual curves, why, we drew what we felt were reasonable-looking curves. I don't remember how many of those there were; I guess there were about three or four reservoirs in that basin that we selected.

We had some data on water supply from the Geological [Survey] data. We had to sort of cobble up something that would be a reasonable cost estimate, and, again, we wanted costs, say, of the dam, for different height of dam, so we could draw a curve of it. We had to develop some curves for some data, and I don't remember just how we worked those into curves, but data for benefits, from agricultural development, lands, assumed land classification, developed data on what those lands could produce and what the benefits would be, regional-type benefits from additional commerce that would result from the development of the project. So we cranked up all this data and then we turned it over to

---

the computer man, who put it all in the form of computer data that could be put into the huge computer.

**Contributed to the Book *Design of Water Resource Systems***

The [key people in the] ~~whole program, the~~ water resource program, wrote a book on it, *Design of Water Resource [Systems] Projects*,<sup>19</sup> and Blair and I, we [each] wrote one chapter that was specifically about our project and how we approached it. [We also] ~~think each of us~~ had some input to another chapter. This was published by the Harvard Press. I've got a couple of copies at home. I'll try to remember to bring that, show you that. In fact, when I look at it, why, it might refresh my memory, let me say more about it or say something that I said wrong this morning.

Storey: For instance, you weren't developing computer programs.

Reedy: No, *we* weren't. They had computer people on the staff at Harvard. Had one fellow that worked specifically on this program, and he wrote a big long chapter in the book that I never did wade through, telling just exactly how he did it. Then there were other chapters. Gordon Maskew, M-A-S-K-E-W, Fair, F-A-I-R [Maskew Fair], was a professor of [sanitary engineering,] ~~=can't remember what his title was,~~ but he was one of the Harvard

---

19. See footnote 7 on page 38.

professorial staff that worked with the project, but not anyways near as close as Art Maass did, but he was shown as one of the major authors of the book.

### **Staff at Harvard Who Worked with the Program**

Another one who was on the engineering staff was [Harold Thomas, also a professor of sanitary engineering.] ~~=oh, I can't think of his name right offhand, but~~ He worked with our team very directly on some of our water projects. I took a couple of courses under him. But those four, I think—well, there were five. Let's see, Maass, Fair, [Thomas] Hufschmidt[, Bob Dorfman, professor of economics, and Steve Marglin, a graduate student.]<sup>20</sup> ~~=maybe there were just four—and then this other professor, were shown as the [six] four major authors of the book. Then there were several, like in my staff, or my situation, and Blair Bower's situation, that were contributing authors.~~

Storey: Were you there two years or one year?

Reedy: Just one year.

Storey: Was it an academic year?

---

20. The "principal authors" of the study were Arthur Maass, Maynard M. Hufschmidt, Robert Dorfman, Harold A. Thomas, Jr., Stephen A. Marglin, and Gordon Maskew Fair. "Other authors" listed were Blair T. Bower, William W. Reedy, Deward F. Manzer, Michael P. Barnett, Myron B. Fiering, and Peter Watermeyer.

---

### **Bureau of Reclamation History Program**

Reedy: An academic year. We went back late August and finished up in end of May.

Storey: In '57?

Reedy: Yeah, in '57.

Storey: Why did Reclamation choose you?

Reedy: I applied for it, for one thing, and maybe I was the only one that applied, I don't know. They apparently thought it would be a good investment. I don't recall if there was any competition for it. We got a \$4,000 stipend for it, which *did not* last the whole year. The family went back, we drove back, and pulled a trailer and found a house that we could rent—folks in Watertown, just north[east] of Boston, that always went down to Florida for the winter. So somehow or other we found out about them and we moved into their house, and lived there fairly comfortably for that year.

Storey: You were on Reclamation payroll then?

Reedy: Well, I was on leave without pay, so the stipend was supposed to cover it. I had to use up a considerable amount of my annual leave, accrued annual leave, to help get finances for us for that whole year. But it was a good investment. It was an interesting experience for me, for the whole family. ~~My wife, she'd~~ I'd take the trolley down to Harvard Square and [Lois took] ~~she'd take~~ the kids down to school and registered them in a private school down just off Harvard Square, and she dropped them

there and then she'd take off and just enjoy driving around the whole area. We took a few trips as a family. But it was a good experience.

So far as specific application of what I got from it to Reclamation projects, there wasn't a lot. I don't know whether Randy and the upper staff expected there would be. I think maybe they were hoping that there would be, but it didn't turn out that way.

**"The computer analysis . . . there was no conclusive indication . . . that you would get a reasonable answer or close to the best answer for the analysis . . ."**

The computer analysis that was able to be done, there was no conclusive indication that that was an appropriate way to go at it, at that time, that you would get a reasonable answer or close to the best answer for the analysis of the project.

Even later on, when I was division chief, why, we didn't try to utilize that. I think there were advancements that were made in computers, and certainly we use computers for so many things now, but I'm not sure that you can just develop these curves as we did for reservoirs, say, a curve for benefits from land development, cropping programs, regional benefits, all those things, and put them in curves, and crank them in a computer, and come out with an answer and say, "This is it."

**"There's so much judgment that has to go into these things . . . at every step along the way, as well as in the final analysis. . . ."**

I just don't think that is the way that you can approach it. There's so much judgment that has to go into these things, and I think you have to use judgment at every step along the way, as well as in the final analysis.

If Art Maass and Maynard Hufschmidt were looking for a specific answer to come out of this program, and I'm not sure that they were, but if they were, I think it was a vain hope, but it certainly was an interesting approach, and from my standpoint, personally, I feel it was certainly time and money well spent. I don't know to what extent it may have helped me in my career. It may have helped in my being appointed field investigations branch chief, having gone through that and done that and gotten a master's degree. I might have gotten the job anyway, I don't know. But I certainly *never* regretted going back there.

Storey: When you came back, what job did you move back into?

Reedy: Well, I moved back into, for a short time, my old field coordinator, under the chief of the field investigations branch.

Storey: Or also known as a regional sponsor.

Reedy: Regional sponsor, yeah. That was the term I used before. Yeah. Then, oh, I don't know

whether it was a couple or three years after that, as I recall, Art Johnson, who was the branch chief, retired [and Charlie Le Moyne became branch chief.] , and [When Charlie was promoted to assistant division chief in later 1966] I was selected for the position as branch chief.

### **Ken Schroeder Moved over to Various Jobs in the Department of the Interior**

Ken Schroeder, who was one of the regional sponsors along with me, and a good engineer, he'd come up from the [Geological Survey] ~~GS~~. He'd done water resource investigations, getting out and doing stream gauging, really getting good acquaintance with [stream] hydraulics. When he came to the Bureau, he was in the Sedimentation Section, Hydrology [Branch], and with his background in seeing streams and sediment in the field, why he had good information for that, good background for that. But he was one of the other [regional] coordinators.

Now I can't remember what the chronological sequence was. It was about the same time that I was promoted to branch chief, he was transferred to the Missouri River Basin field office of the Department of Interior [in Omaha]. This is back when Interior had, I don't know, maybe eight or ten field offices throughout the country, and had a representative there who would sort of coordinate all of the Interior activities throughout their basin. This office in Omaha, ~~they~~, I think, had the



entire Missouri River Basin. It was the Missouri River Basin field office at the Department of Interior. A good friend of my brother's was head of that and I knew him also. So Ken went in as his assistant.

Then, I don't know what it was, I guess about the same time that ~~Randy retired and I was selected chief of the division here, his supervisor retired, and he [Ken] became chief of the [Interior] Missouri Basin field planning office [in Albuquerque, New Mexico]. I don't remember the exact title.~~

END SIDE 2, TAPE 1. JANUARY 30, 1996.

BEGIN SIDE 1, TAPE 2. JANUARY 30, 1996.

Storey: This is tape two of an interview by Brit Storey, with William W. Reedy, on January the 30th, 1996.

You were talking about him being transferred from Omaha to Albuquerque, I believe.

Reedy: Albuquerque, yeah. He went down there in the same position, as the [Department of Interior] ~~Missouri Basin~~ planning officer for the Rio Grande. He stayed there for many years and retired. I don't remember just when he retired, but as far as I know, he's still living there. I kept in touch with him for several years through Christmas cards, but that sort of fell by the wayside, so I haven't heard anything about him recently.

~~—Well, one of his sons worked there in planning. Oh, what's his first name? His last name's Schroeder. Tall, slender.~~

~~Storey: I don't know. I don't think I know him.~~

~~Reedy: What's his name? I saw him when I was here in the office one of these recent times. I can't recall his name right offhand. Names are a real problem for me.~~

Storey: But you were for a few months a regional sponsor, and then what did you do?

**Again Worked as a Regional  
Coordinator/Sponsor from 1957 to 1966**

Reedy: No, a few years.

Storey: A few years after you came back.

Reedy: A few years I was regional sponsor. Then I was chief of the Field Investigations Branch.

Storey: Beginning about 1960.

Reedy: No, no, it was later than that. [Beginning in late 1966.] It must have been, oh, I would guess maybe '63, '64, something like that. I'll have to look that up. I'll get you something that'll get these dates specific, so that you'll have that.

Storey: Maybe a résumé or something.

---

Reedy: ~~Yeah. Yeah, because I don't want to just be have some guessing going into something that might be written. But I can pin that down.~~

~~But anyway, the early to mid-sixties, then I became chief of the Field Investigations Branch. So in that [job], I had responsibility for people going out to the regions and doing jobs similar to what I had done, so I did not have as much direct contact with the regions. I made occasional trips, but the people who were the regional sponsors under me would make the trips as I had done previously. So, of course, I reviewed all their work, they'd report to me and tell me what had happened and I'd have the travel reports. So between that and telephone conversations with the regions, I kept up with what was going, and we could resolve any problems that might have arisen.~~

Storey: Did you travel to go to professional meetings?

Reedy: Occasionally. I presented a couple of papers based on my Bureau experience at ASCE, American Society of Civil Engineers meetings. One was on the Salt River Project, development of the Salt River Project. The other was the Grand Valley Project, that my dad had worked on, and I talked about that and some of the problems of that and what the future might have been. I think I've got copies of both of those at home. Would you be interested in those, or not?

Storey: Those probably would be too much paper for us.

Reedy: Okay. I attended some other meetings, I can't recall all of them. I remember one, I think it was down in Atlanta. I can't recall a specific objective in my going to them. I attended maybe half a dozen ASCE meetings. Another specific travel, annual travel, was for the annual *program* conference of all the planning people in the Bureau.

### **Reclamation Program Conferences of Planning Staff Set Reclamation's Budget Proposal**

Storey: Tell me about the program conferences. What were they trying to do and why?

Reedy: Well, overall, they were trying to set up the entire ~~planning~~ program for the Bureau for the coming fiscal year. They were held at difference places rotating ~~in the regions~~ throughout the regions ~~had~~. [There was] a specific rotation order. Not always held in the regional office, but the region could select places where they wanted to go to them.

My first one was in, as I recall, in 1970, and it was in the [old Region 6, Upper Missouri River Region, held at Rapid City, South Dakota. ~~oh, let's see, the Lower Colorado River Basin, as I recall, and they held it in San Diego.~~ This is a boon for me, because I could drive to [the meetings,] ~~them,~~ take annual leave and drive, and take my wife and my young daughter. We had a late arrival daughter, sixteen years [after] ~~before~~ our first and fifteen years after our second, so there's a fifteen-year gap there. So she was growing up

---

### **Bureau of Reclamation History Program**

about the time that I was going to these [annual program meetings]. So this was a great way to take a vacation, because we could drive to that and then take vacation afterwards.

But the agenda for the programs [meetings] were always set up by the Washington planning office. and They'd have a large staff coming out [the commissioner, division chiefs, program and planning staff. Regions would be represented by regional directors and program, engineering, and planning staff.] ; the director and the assistant director, their programs people, some of their technical people, well, and their—what did they call it? They didn't call it the field investigations office, but it was somewhat comparable to field investigations office here, where they had a branch chief and two or three on the staff that would examine programs and review programs from the Washington office viewpoint, not the technical viewpoint as we did here, but more the administrative—how will it fit into the overall Reclamation program, from the Washington office. They would come out to these meetings, then all the regional planning officers and regional sponsors, usually the regional program officer, they'd have maybe half a dozen people coming.

So we had all these large staffs and had formal meeting programs, work programs. Of course, it would start out with a pep talk from the commissioner, then break off into smaller groups to review the program. The commissioner's office would usually have

some kind of a target figure to [aim for] ~~go at~~ that was given to them by the Secretary of Interior, who got his figures from the, at that time, the Bureau of the Budget.

So those are the input to it, and each region would have had a target figure for their planning program, and going on what had been done previously, what the status of their work was, and what they looked to be doing during the next fiscal year as well as future years, why, they'd develop their own ~~program,~~ proposed program. Then those would be brought to the planning program, and working with the Washington office staff *primarily* so far as dollars is concerned, but with input from our staff so far as what was needed technically, why, they'd finalize that program and at the end of a week, five working days usually, why, they'd come up with a Bureau program that would be cranked into the Department of Interior budget that would go into the proposed President's budget to Congress.

Storey: Sounds to me like there must have been some negotiating going on.

Reedy: There was some, as I recall. I don't remember any real acrimonious fights about it. The [program staff] ~~planning officers~~ from the Washington office usually had a pretty good handle on what needed to be done, so ~~he had~~ it [was] pretty well organized. Of course, I'm sure the regional planning officers would, in some cases, go home unhappy, because they

---

maybe didn't get all they thought they should have. But, it worked out pretty well.

I'm trying to think who all the people were that worked on that. [Jim O'Brien was one who represented the Washington planning office.] ~~Buzz Bennett and—oh, shucks, then there was that hotshot that came from Nebraska. Oh, lordy, why can't I remember his name? But he was~~ [Then there was the man from Nebraska who was] the head of the Bureau planning office in Washington for a couple- three years.

Storey: Are we talking about Warren Fairchild?

**Warren Fairchild<sup>21</sup>**

Reedy: Warren Fairchild. Yeah. Thank you. What do you know about Warren Fairchild?

Storey: Well, I've interviewed him twice.

Reedy: Oh, have you. Oh, well, that's interesting. How is he?

Storey: He seems to be fine.

Reedy: What's he doing now? Is he retired or is he over at the World Bank?

Storey: No, he's retired.

Reedy: He's retired. Where's he living?

---

21. Reclamation has conducted oral history with Warren Fairchild.

Storey: In Virginia and Florida.

**"Talking Turkey in Tucson"—Warren Fairchild's  
Conference for Planning Staff**

Reedy: He was an interesting guy. He was, I think, maybe primarily a politician, but he had enough technical savvy that he could work with the staff. He put together a great program for the first one that he had [just for planning personnel. I can't recall just what time of year it was held.] ~~It was, oh, what was it, something or other in Tucson.~~ We had it in Tucson, Arizona. It was a catchy phrase[—it was titled "Talking Turkey in Tucson," as I recall]. It was a good meeting.

Storey: When were these meetings held, do you remember?

Reedy: [The Bureau overall program conferences were] usually [held] about the second week in August.

Storey: Tucson in August. (laughter) Well, they couldn't argue that you were there for *fun*, I guess.

Reedy: No [that one in Tucson was just for planning personnel; it was not the Bureau program conference]. Of course, it was all air-conditioned where we were working and stuff. That was a good program.

Storey: So Ellis Armstrong would have been the commissioner.



Reedy: Yeah.

Storey: What was he like?

**Ellis Armstrong<sup>22</sup>**

Reedy: Oh, he was sort of a blustery guy. He wasn't a very good ~~as~~ a speaker. I'm sort of blowing my own horn a little bit, but I remember—I can't remember what the occasion was, but something here in Denver, where he gave an overall talk about the Bureau and I talked about the planning activities, and Howard Cohan came up to me after, he says, "Boy, you sure gave a lot better talk than Ellis Armstrong did." I felt pretty good about that.

Storey: Who's Howard Cohan?

Reedy: Howard Cohan was the chief of the research lab at the time, Division of Research.

Storey: I've heard it said that Ellis Armstrong felt that Reclamation was gold-plating its projects.

Reedy: I don't remember ever hearing that.

Storey: Oh, okay.

**Gil Stamm<sup>23</sup>**

---

22. Ellis L. Armstrong was Commissioner of Reclamation from 1969 to 1973. Reclamation has conducted oral history with him.

23. Gilbert D. Stamm was Commissioner of Reclamation from 1973 to 1977.

Reedy: May have been. He was pretty good as a political advocate, I think. Gil Stamm, I think, for my mind, was one of the best commissioners that we had. In my knowledge, he was a technical man, agricultural economics, but he was a good manager, too. Quiet but firm, and knew how to prod people and get them going, and knew how to put together a program and manage people, too. I thought he was good. He followed Floyd Dominy, as I recall.

Storey: He followed Ellis, I believe.

Reedy: Did he follow Ellis?

Storey: Yeah. Floyd Dominy *chose* Armstrong.

Reedy: Yeah. Yeah. Ellis Armstrong was in between them. Yeah. Of course, I guess it was about a progression from Floyd with a little bit of a comedown for the kind of person, he wasn't the—well, he wasn't the same kind of person that Floyd was, Ellis wasn't, but he was more of a political blustery type, although he had a good engineering background. Then—

Storey: Gil.

Reedy: Gil. Gil Stamm, yeah, was a good solid commissioner, I thought.

Storey: What about Keith Higginson, who was his successor?

---

**Keith Higginson<sup>24</sup>**

Reedy: I can't recall whether I worked directly under Keith at all or not. I may have, but I didn't have a lot of contact with him. He was from Idaho, wasn't he?

Storey: Yes. He was the state engineer.

Reedy: State engineer in Boise, yeah.

Storey: Before Cecil Andrus brought him down.

Reedy: Yeah. Yeah. I don't recall any programming conferences where Keith was the commissioner, but I had met him. I did meet him.

Storey: What about the next commissioner, Bob Broadbent?

Reedy: I don't know anything about him.

Storey: When did you retire, now?

Reedy: I retired in 1980.

Storey: So he was appointed about that time, a little later than that.

Reedy: I retired in February 1980.

Storey: What about Floyd Dominy? Did you know Floyd?

---

24. Keith Higginson was Commissioner of Reclamation from 1977 to 1981. Reclamation has conducted oral history with him.

**Floyd Dominy<sup>25</sup>**

Reedy: I just met Floyd, but I knew him only primarily by—I say *only* by reputation. I didn't know him personally.

Storey: What was his reputation among Reclamation employees?

Reedy: He had a reputation as a real wild guy. Yeah, the parties he'd throw, and the women that he had, and getting drunk, and things like that. But he was sure *good* at getting money for Reclamation. For doing the job, why, I don't [think] that anybody ever did it better. Because he'd put together a program, and he'd go up on the Hill with the secretary, and he'd work it out, and he'd support the secretary up on the Hill. He got *good* programs for Reclamation. The rest of it is all hearsay. Don't quote me.

Storey: What about his predecessor, Wilbur Dexheimer?

**Wilbur Dexheimer<sup>26</sup>**

Reedy: I had met him was all, I guess.

Storey: I think he was out of the Denver office.

---

25. Floyd E. Dominy was Commissioner of Reclamation from 1959 to 1969. Reclamation has conducted oral history with him.

26. Wilbur Dexheimer was Commissioner of Reclamation from 1953-1959.

---

Reedy: He was out of the Denver office. He was assistant construction engineer. Yeah. Let's see. I think Grant Bloodgood was construction engineer.

Storey: Yeah, he was chief engineer under both Dexheimer *and* Dominy.

Reedy: Yeah. I don't know whether he was chief engineer at the time that Dexheimer got appointed commissioner or not, or whether he was still in construction.

Storey: He may have been appointed during his term.

Reedy: Yeah. But I don't know. The scuttlebutt that I've heard is that Dexheimer was not a strong commissioner, adequate maybe, but not a real strong one.

Storey: Okay. Let's start with the chief engineers now. Grant Bloodgood would have been there when Dominy came in in '59.

### **Leslie N. McClellan<sup>27</sup>**

Reedy: No, McClellan preceded Bloodgood.

Storey: Well, that's true. Yeah. Let's see. Tell me about McClellan, then.

Reedy: He was a very remarkable man. Very quiet. He was an electrical engineer. He'd come up

---

27. Leslie N. McClellan was Assistant Commissioner and Chief Engineer of Reclamation from July 1, 1948, until May of 1958.

as head of electrical, and very quiet, but a good administrator. I don't remember just what his term was. When did he retire?

Storey: He was chief engineer from '48 to '58.

Reedy: Yeah. So he was here the first five years when I was up in Alaska, and then roughly the last five years when I was [in the Denver office].

Storey: Tell me why you say he was such a remarkable person.

Reedy: Well, I gathered a lot of respect for his character as opposed to Dominy. He was a good engineer. He came up through the electrical branch, as I recall. Let's see. He started out, I think, just as chief engineer—did he start out as chief engineer or was it assistant commissioner and chief engineer at the time that they—

Storey: No, that happened under Barney Bellport.

Reedy: Under Bellport, yeah. That's what I was thinking, that he was just chief engineer.

Storey: That's right.

Reedy: Yeah. I didn't work directly for him at all, or even indirectly for him, because the planning reported directly to Washington all the time I was—or up through his tenure. So I knew him. I knew him in the hall, spoke to him, he knew me, certainly not a close relationship in *no* way. But from knowing him personally as

---

much as I did, and seeing how he was respected by the people in design and construction, why, that's what made me say he was a remarkable man.

Storey: What are your recollections of how he looked?

Reedy: What's the word I want to use? Very imposing. He was tall. Tall, thinning grey hair, wore glasses, a little bit more than heavy build, I guess. Of course, you've seen pictures of him, I'm sure. I'm trying to see if I can remember the picture.

Storey: No, I'm not trying to see if you remember that, I want to know your impressions of him, and in describing him, you're going to give me your impressions of him.

Reedy: Yeah. He was quiet. He didn't bluster at all like Bloodgood did. He was very quiet and mild-mannered, as far as I know. Of course, there may have been times that he could ~~not~~ fly off the handle, ~~but~~ when he could show his anger to people that he wanted to. I don't know. But I had a lot of respect for him.

Storey: The next one was Grant Bloodgood.

### **Grant Bloodgood<sup>28</sup>**

Reedy: Grant Bloodgood. Well, I think Bloodgood was a good technical person. He probably ran

---

28. Grant Bloodgood was Assistant Commissioner and Chief Engineer of Reclamation from May 1958 to February 1963.

the shop in a good way, too, but he was sure a lot more outspoken, gruff, no-nonsense kind of guy. Again, I knew him to speak to him, but didn't have any direct contact with him.

Storey: Do you remember what he looked like?

Reedy: Oh, he certainly was not as imposing a figure, he didn't cut as imposing a figure as McClellan did. He looked as though he'd been riding the range for a long time, sort of a creased face, weather-worn face. As I recall, there was a cigar in his mouth about half the time, and I guess the other half it was down in an ashtray on his desk.

Storey: Was it lighted?

Reedy: I can't remember. I think he smoked some, yeah. My recollection of him is that he could sort of fly off the handle perhaps if something really got him mad, but he was probably a good administrator, but an entirely different pattern than McClellan.

Storey: His successor was Barney Bellport.

**Bernard (Barney) P. Bellport<sup>29</sup>**

Reedy: Yeah. Well, Barney was sort of in the same mold as Bloodgood. He was a fairly big man,

---

29. Barney Bellport was Director, Office of Design and Construction, at Reclamation from February 1963 to April 1972. Even though this position's title changed when Leslie N. McClellan had the job, the job was still popularly known within Reclamation as "chief engineer" until the 1990s.



not quite as tall as McClellan, but big, I suppose, six feet, maybe a little over, not real heavysset, but he was well-built. As I recall, he smoked, too. Maybe he's the one I thinking of that's smoking. Maybe I got that wrong. Maybe we better not say anything about the guy. (laughter)

Storey: I know Ray Walter liked to smoke.

Reedy: Yeah. Who is this?

Storey: Ray Walter.

Reedy: R. F. Walter?

Storey: Yeah.

Reedy: Yeah, now, he was in Reclamation the same time my dad was. He was a good friend of Dad's. I don't think I ever met him.

Storey: I have heard that Barney Bellport liked to embarrass people who worked for him, chew them out.

Reedy: I can see him doing it. I know one story that I got, and I can't remember where I got this, was when you started working for Barney, or maybe when you started working with him, well, he was assistant [commissioner]/chief engineering, so all the planning people worked for him when I was there. But the story I heard was that he'd give you 100 points when he started working with you or when he started knowing you. Then if you did something to

cross him up, or he thought you did something wrong, or he got mad at you for no reason at all, why he'd take one point off. When you got to zero, you were on his shit list. That was what I had heard was his mode of operation. I did not experience it personally, maybe because I kept my nose clean, maybe because I didn't have all that much contact with him. I was on speaking terms with him, and my relationship was always good.

Storey: Well, now after Barney Bellport was Harold Arthur, I think. No, not quite the last chief engineer you would have worked with.

**Harold G. Arthur<sup>30</sup>**

Reedy: Well, Harold was—I have a lot of respect for Harold, too. He was somewhat in the mold of McClellan as far as his knowledge and abilities are concerned, I think, but a little bit more outspoken. He'd speak his mind in a very firm—well, McClellan did firmly, too, but very quietly. Harold was a little bit more louder voice about it. Of course, you know Harold.

Storey: Yes, I do.

Reedy: You have your own observations of him. But Harold, I think, was a good manager. I think his staff, in general, liked him, enjoyed working for him, with him. My contact with

---

30. Harold G. Arthur was the Director, Office of Design and Construction, at Reclamation from April 1972 to July 1977. Reclamation has oral history for him.

him was not close, but I always felt that he did a good job.

Storey: How did the staff react when he was forced to resign?

Reedy: I didn't remember that—. When did that happen? Because I don't remember that.

Storey: This would have been 1977, after the failure of Teton Dam.

Reedy: Boy, I'd forgotten that.

Storey: Okay, well, let's move on to—do you remember Robert B. Jansen, this mystery man who shows up?

### **Robert B. Jansen<sup>31</sup>**

Reedy: Oh, yeah. That's right. Bob Jansen was in there, yeah. I suppose, and I may have known about [it] at the time, and I can't recall my thoughts now, but looking back on it, my guess is that Harold Arthur was probably a scapegoat for Teton, that it was not his personal responsibility, the failure of Teton, but as the chief of the technical office, why, he probably had to be sacrificed.

Storey: What about this man Jansen?

---

31. Robert B. Jansen was the Director, Office of Design and Construction, for Reclamation from September 1977 to February 1, 1978. His title then changed to Director, Office of Design and Construction, from February 1, 1978, to December of 1979.

Reedy: Oh, Bob Jansen, yeah. I never got to know him very well. He wasn't around for very long.

Storey: About three years, I think.

Reedy: Yeah. Gosh, he must have been chief engineer about the time I retired then, 1980.

Storey: The dates I show are '77 to '80.

Reedy: Yeah. I can vaguely remember him, but—

Storey: But you don't have any outstanding impressions?

Reedy: I don't have any outstanding impressions. Now, he came from the Corps of Engineers, as I recall, didn't he?

Storey: Yeah, he came from outside. I don't know, I've not been able to track him down.

Reedy: I think it was Corps, but I'm not sure.

Storey: What about Rod Vissia?

### **Rod Vissia<sup>32</sup>**

Reedy: Rod Vissia was regional director, Region Two, for part of the time that I was working out there, and he was a fair-haired boy that— personally, I was not that impressed with his

---

32. Rod Vissia was the Assistant Commissioner for Engineering and Research from January of 1980 until March of 1982. He then went to the World Bank. Reclamation has oral history for him.

abilities. I think he did a good job, but I think he—and maybe I'm misreading it, but from the contacts I had with him when I was chief of planning here and he was regional director out there, he did an adequate job, but I never thought that he was head and shoulders above everybody else. Now, whether I got the impression that he thought he was, or that other people had expressed that to me or not, I don't know. But in any case, I think he did an adequate job, but not a real hot job. I didn't know him, of course, when he was assistant commissioner and chief engineer here. How long was he in office, that office?

Storey: He was here from '82.

Reedy: You mean he followed Jansen?

Storey: Yeah, he followed Jansen, and then after him came Darrell Webber. Since then the position's been abolished.

### **Darrell Webber<sup>33</sup>**

Reedy: Yeah, now Darrell, I remember Darrell. When I was, I guess it was shortly after I became chief of planning [here in Denver], Darrell was working, and I guess he was head of the—I don't know what they called it, but it was the office here that had responsibility for the installation, upkeep, and use of the computers, when we were really, really expanding in our

---

33. Darrell W. Webber was Assistant Commissioner for Engineering and Research from July 1982 until September 1993.

use of computers and applications of computers. Darrell came to me and said, "Do you have any job here that would be suitable for me that could open up and give me possibly a better future in the Bureau?" I talked with him for a while, and we didn't have any specific vacancies where he would have fit well.

END SIDE 1, TAPE 2. JANUARY 30, 1996.  
BEGIN SIDE 2, TAPE 2. JANUARY 30, 1996.

You were talking about Darrell Webber, I think.

Reedy: Yeah, and his coming to me and talking about a job in planning. I had confidence in his abilities, but we didn't have any job right offhand that, with his engineering background, where he could have fit. So he decided to stay in computers, and it turned out to be the best thing in the world for him, because he got to be assistant commissioner and chief engineer. He had a real good head on his shoulders and he could rely on other people for their responsibilities. He was a good manager, I think. As I say, I didn't work under him, but what I *heard* about and saw of his operation here. So I think he did a good job. I never did talk with him specifically about what he felt would have happened to him if I had offered him a job in planning and he'd taken it, because he probably would never have gotten to the position of assistant commissioner and chief engineer.

Storey: When you were the branch chief, that was the general investigations branch?

**Field Investigations Branch**

Reedy: Field investigations.

Storey: The Field Investigations Branch.

Reedy: Field Investigations Branch.

Storey: How many people were in that branch then?

Reedy: Oh, probably half a dozen, not more than that.

Storey: So they were doing more than regional sponsoring.

Reedy: Yeah, well, I was trying to think just what they were doing.

Storey: We did have seven regions.

Reedy: No, but, no, we didn't have a regional sponsor for each region, like I had One and Four and Alaska, and Ken Schroeder had Seven and Five. I can't remember who had Two and Three [and Six]. But no, maybe there were four with three people handling regional sponsorship and a secretary, but it wasn't a big branch. I don't know that I would have anything that shows that now or not. [Don Bingham came along somewhere in there and became one of the regional sponsors, but I'm not sure what regions. You remember, Don was chief of the survey party I was on when I

started working for the Bureau at Grand Lake in 1939. Don was a good solid engineer and a very good man.]

Storey: Were there any specific projects that came up that you remember, anything that might have been a problem, or anything that might have been sort of a *triumph*, or anything like that?

**Projects that ". . . were duds, should never have been built. . . ."**

Reedy: Well, not right offhand. There were probably some that, as I look at them now, people would probably say they were duds, should never have been built. That is, some people would say it. Like some of these Western Slope projects in Colorado, Bostwick Park, for example. Small irrigation projects.

Storey: The Florida Project? Florēda [phonetic]?

Reedy: Yeah, Florida, yeah. Yeah, that might be one. Of course, looking at them from hindsight, with the emphasis on an environment now, that may be true, and they probably didn't make a—well, I don't know, I'd have to look and see how much of a contribution they made to the economy of the region. But a project like ~~Grand River Project~~, Grand Valley Project, I think it's proved its worth many times over. It didn't require a reservoir, so people couldn't jump on it because it was flooding riparian land. It's returned its, over the seventy or eighty-five years, no, not that much, eighty years or so, that it's been producing seventy-



five to eighty years, why, it's certainly returned *much* more than the cost of the project and has been invaluable to the economy on the Western Slope.

Storey: That's one where there's just a diversion dam on the Colorado River.

Reedy: Yeah. Of course, there were projects that were—had reservoirs that *had* to be built, as other uses came in, had to be built to maintain flows, such as Granby, which was built for the Colorado-Big Thompson Project, but also to maintain flows in the Colorado River, and others on tributaries of the Colorado that were built subsequently for flow maintenance, and required in part because of the diversions from the Grand Valley Project. But there were other reasons for building those reservoirs, too.

Well, so far as projects that I had a hand in, I'll have to get out a map, or maybe you can give me a map when I go down to your office, give me a map showing all the Bureau projects.

Storey: We ought to be able to find one somewhere.

Reedy: I expect you can. I'll look at that and maybe that'll refresh my memory the next time I'm here, if you want to follow up on that.

Storey: Okay. Well, we're getting down toward the end of the list here, I think. How long were you chief of the Field Investigations Branch?

Reedy: Well, I'd have to go back and look at my records to check that out, but it was [about three and one-half years.] ~~I would guess, seven, eight years. Why don't you hold that. Let me=~~

Storey: Until you retired.

Reedy: No, no. You said Field Investigations Branch.

Storey: That's right.

Reedy: Yeah. No, I was chief of the division when I retired. The Field Investigations Branch was [1966] ~~early sixties~~ to 1970.

Storey: Okay, then in 1970 you became the division chief.

Reedy: Division chief.

Storey: For? The division of-?

**Becomes the Chief, Division of Project Investigations, in 1970**

Reedy: No, it was Division of Project Investigations at that time, then it had several names after that.

Storey: Was that a promotion for you?

Reedy: Yes. That was from GS-14 to a GS-15.

Storey: How many branches in that? That was 1980 you said. I mean, excuse me, 1970.

---

### Branches in the Division of Project Investigations

Reedy: Yeah, 1970, I retired in 1980. That's right. Yeah. Well, let me see. Field investigations, hydrology, lands, economics[, report review]. Then we got a branch for—let's see, was that a branch? It had a couple of people in it, one for public [involvement.] ~~information~~. That wasn't what it was called. I'll have to look at that [at] home. I've got an old organization chart at home.

Storey: It sounds like at least five branches, though.

Reedy: Yeah, I think there were probably five [or six] branches.

Storey: Did you have an assistant to run the division?

Reedy: Yeah.

Storey: Who was that?

Reedy: Let's see, Manny Lopez<sup>34</sup> was the first one, but he was only there a [couple of years, as I recall,] ~~short time~~, because he got offered a job as regional director in Boulder City. Then let's see, I guess Ken Kauffman took his place. I can't remember anybody in between. ~~No, there must have been somebody else in there.~~ I've got to look that up, because Ken [Kauffman] was assistant to Wally Christensen on the so-

---

34. Reclamation has conducted oral history with Manuel (Manny) Lopez.

called Westwide Study. In fact, Warren Fairchild, 1970, I think it was Warren, yeah, they were just setting up the Westwide Study, and the vacancy became available, the division chief. Let's see, as I recall, ~~Art—what was his name?~~ Mitchell. Art Mitchell retired.

**". . . Warren [Fairchild] asked me which job I would rather have, the division chief or [head] the Westwide [study] . . ."**

So they needed a new division chief, and Warren [Fairchild] asked me which job I would rather have, the division chief or [head] the Westwide [study], and I thought from the standpoint of my background and from the standpoint of ~~interesting~~, how interesting it would be, I knew that the Westwide would be interesting, but I also knew there would be a *heck* of a lot of pressure on it, and I didn't want to have anything to do with that kind of pressure, so I opted for the division chief. [Furthermore, the Westwide Study was short term, two or three years, and then it would end, and I'd have to look for another job. The division chief, on the other hand, was a continuing job.]

Storey: What kind of pressure were you anticipating?

Reedy: Time, for one thing, time and dollars, because I knew that there would be an awful lot of work have to be done in a short period of time. I don't remember what the program set up for it was, but getting all studies done, all the coordination with the other state and federal

agencies and the general public, writing the appendixes or the sub-reports that would be necessary, putting together the final report. I'd been involved enough in Boise [and Juneau] with preparing reports and things of that sort, that I knew there'd be an awful lot of pressure on that, and I just wasn't interested in that. So I opted for the division chief, and I never regretted it.

### **Wally Christensen and the Westwide Report**

But then Ken [Kauffman] was Wally Christensen['s] assistant on that, and Ken was an invaluable person on that. They had a crackerjack staff. They got the best people. ~~for that.~~ Wally I didn't know before that. Wally came from Region Three. He was head of the San Bernardino planning office. I'd met him [when I was on a trip there]. ~~I'd been down there when I was chief of the Division of Project Planning here, Project Investigations.~~ I'd been down there and I'd met Wally, so I knew him, and I knew Ken slightly. But they sure had good people on that team.

Ken, I think, was—I don't know, but I just have the feeling that Ken was largely responsible for being able to pull it together. I know Wally was a good administrator, but I would give Ken an awful lot of credit on that.

### **Kenneth O. Kauffman Became My Assistant When the Westwide Study Finished**

Then when they finished that study, closed that office, why, then Ken needed someplace to go, and the assistant chief had been a GS-14. I can't think in my head who—because I know that study was going on at the same time that I was here in charge of this office.

Storey: Yeah, that went, I think, until about '72, maybe '73.

Reedy: Yeah, it was going on at *least* that long. And I can't remember [that] ~~who~~ I had [an] ~~as~~ assistant chief [after Manny Lopez went to Region 3, ~~if I had one~~. But anyway, when Ken came, when that Westwide study closed, why, we needed a place for Ken, so Ken [Kauffman] became my assistant chief, but they upped it to a GS-15. I don't remember what his grade was, because I think Wally was a 15.

Storey: That mean you got to be a 16? (laughter)

Reedy: No. No, it didn't work that way. (laughter) Both the chief and the assistant chief were 15s. But Ken was a crackerjack. He's a prince. He was a prince in that [position]-~~study~~. We worked together in excellent fashion. He gave me advice. If he thought maybe I was doing something wrong, he'd let me know in a polite way, and we'd work it out.

**". . . I just thank the Lord that he became my assistant chief, because he was such a good person to work with. . . ."**

---

He was a wonderful background of information on planning studies, personnel, he knew a lot of people, some of them better than I did, and I just thank the Lord that he became my assistant chief, because he was such a good person to work with. Nice personality.

Storey: How long did he stay with you?

Reedy: He [Ken O. Kauffman] retired the same day I did, very unexpectedly.

Storey: Oh, really.

Reedy: I thought he would take my job, but at the last minute, I think maybe about February 28, [1980,] why, he turned in his resignation for February 29.

Storey: Really?

Reedy: Yeah. So he retired, and then he went to work—I think he'd been looking around, because I think he went to work right away for Morrison-Knudsen. They had an office here, and I think he went to work for them and did a lot of planning studies for them.

Storey: How did you divide up your responsibilities if you had an assistant chief and yourself both ranked at a GS-15?

Reedy: Oh, gosh, I don't remember right offhand.

Storey: Did you have any other staff for the division chief, besides maybe a secretary?

---

### **Geoff Bennet Was in the Programs and Reports Branch**

Reedy: No. No, we had a secretary. Well, we had an assistant--no, he wasn't assistant, he was in the programs branch. Here's another, Programs and Reports Branch was another branch that we had, and Geoff Bennet handled the programs. At one time they had an assistant to the chief--Randy had an assistant to the chief, that developed the programs for what was then the Hydrology Branch. But no, we didn't have an assistant to the chief as I recall; there was just the two of us and the secretary.

I can't recall right offhand specifically how we divided it up. I think probably, as I recall, thinking on it, Ken handled a lot of the day-to-day operation. He was a good man technically. So he, I think, handled a lot of that, and I handled more of the overall work, the coordination with Washington, coordination with the other offices here in the chief engineer's office, and things of that sort. I'll have to think about that some more and see if I can dredge up anything different about that.

Storey: Did you have any personnel problems while you were division chief?

Reedy: Not with our technical personnel, no. One personnel problem was my own darn fault. Let's see. Barbara Whitmore was the secretary when I took over, and she'd been there for a long time. Then Sachi Yoshimura came in as secretary, and then she transferred to the O&M



or whatever they called it at that time. I think she got a grade raise.

So I advertised for a position. On the advice of a fellow for whom she had worked, and who I think was in Washington at the time, and I had talked with him, and he recommended her very highly, but he may have had a good relationship with her, but she did not work out well. I had an opportunity to hire a gal whom I interviewed, and she would have been good, would have been better than the one that I did hire, a lot more open personality. I should have hired her. In fact, before I made the final decision, why, I called her and asked her if she would take the job, but she said, no, she'd already accepted another job, so she couldn't. So I had second thoughts about it, but I didn't have my second thoughts in enough time.

The lady that I did hire, she did not meet people well, she was sort of dour, not an outgoing personality which she should have had for that office. Sachi was, and this other lady would have been, so I kicked myself [many times] for making that mistake many times.

Storey: Did you try and remove this person?

Reedy: No, I didn't try to do that. I didn't think that would be justified, and when I had hired her and she hadn't shown any lack of ability to perform, there wouldn't have been any logical basis for it. It would have been just on a whim, or my own personal choice. I know lots of

times people have had secretaries removed for that, but I didn't want to operate that way. It was a disadvantage to my staff. They didn't particularly like her, and I think some of the other outside offices that may have had dealings with her didn't particularly like her. She did an adequate job, but she just wasn't a pleasing personality. I'm sure it crossed my mind at times, but I never felt that I would be justified in trying to remove her.

Storey: *Planning.* Let's go back to planning.

Reedy: Hey, I thought you said we were about done.  
(laughter)

Storey: Well, we can do this next time.

Reedy: Why don't we.

Storey: Okay, that's fine.

Reedy: It's been a couple of hours, and I'm sort of hoarse with this cold.

Storey: I'd like to ask you whether or not you're willing for researchers to use the material on these tapes and the resulting transcripts.

Reedy: Absolutely. Same as I said before.

Storey: Thank you.

Reedy: Okay.

END OF SIDE 2, TAPE 2. JANUARY 30, 1996.

---

BEGIN SIDE 1, TAPE 1. FEBRUARY 5, 1996.

Storey: This is Brit Allan Storey, senior historian of the Bureau of Reclamation, interviewing William W. (Will) Reedy, a former employee of the Bureau of Reclamation, on February the 5th, 1996, at about nine o'clock in the morning, in Building 67, on the Denver Federal Center. This is tape one.

### **Manuel (Manny) Lopez**

Last time I think we were talking, you mentioned Manuel Lopez—Manny Lopez—who became the regional director down in Boulder City.

Reedy: Right.

Storey: Could you tell me your impressions of him, please?

Reedy: Oh, he was very competent, very, very excellent engineer, administrator, always seemed to be on the up side, I never saw him really when he was down, always with a smile and a happy voice, worked well with people. As I think I mentioned, he was my assistant in Division of Planning Coordination for a short time before he got the job down in Boulder City.

Storey: Why would they go to an assistant division chief for a regional director's appointment?

Reedy: Because he's well qualified. Well, the assistant division chief, I think was primarily a stopgap. He had headed up the—I can't remember the name of the organization, but it was studies of—

Storey: Something like the Office of Saline Water?

Reedy: Saline water. Yeah, that's right. Yeah. He'd headed up that, and then I think that was, as I recall, that was abolished, and they needed a place for him. So they put him in as my assistant. I'm sure it was just sort of a stopgap until something worthy of his abilities came up.

So I don't remember just how long he was there, but I'm sure it was less than a year. It may have been even less than half a year.

Storey: Then he went off. You also mentioned Ken Kauffman.

Reedy: Yeah. Ken was assistant chief of what we called the Westwide Study. I don't remember the official name of it right offhand. You probably recall it. You may have a record of it someplace.

Storey: Oh, yeah, we've got it. We can find that.

Reedy: Well, I'm sure you've got that. He was assistant chief to Wally Christensen, who headed up the office. They'd completed their study, so they needed a place for Ken. Wally, as I recall, retired after that. So Ken became my assistant chief.

Storey: How long were you involved in planning?  
You retired in '80.

**"All my career . . . was in planning. . . ."**

Reedy: Yeah. All my career, basically, except for the first three months when I was working on the Colorado-Big Thompson Project up at Grand Lake. All the rest of it, was in planning.

Storey: Now, if you would cast your mind back, would you tell me about how planning changed over the years between when you started doing planning and when you left in 1980– in the Bureau of Reclamation?

#### **How Planning Changed During the Course of His Career**

Reedy: In the beginning, to quote, in the beginning it was fairly simple and straightforward. We were interested in the hydrology; the water supply; flood studies as necessary for design; field surveys to determine the project lands; soil studies to determine the suitability of the lands; surveys for project structures; topog [topography] of dam sites; alignment; and strip topog along canals; then of course, the design of those structures which was not in the project planning, it was in the chief engineer's office of design; basic economics; the agricultural economics to determine potential benefits in the project; suitability of lands for irrigated agriculture; benefits to the farmer or water user; the general economics, benefit cost ratio, benefits to the community, direct benefits

which would come to the farmer, and indirect benefits to the community in the area. Those were the primary things that we looked at, and it was that way probably, oh, probably up through the sixties, somewhere along in there.

### **New Environmental Concerns in the Planning Process**

Then other concerns became apparent, environmental concerns, more attention to fish and wildlife problems and studies, involvement of the public, public interest, public concern. Those worked in gradually. We had on our staff, just looking at this—we had an environmental and social staff which considered those problems, the environmental concerns and the public relations, more emphasis on water quality, set up a separate section on water quality. That, just very briefly, is the major change.

### **Public Input into the Planning Process**

As a part of our social studies, we would hold public hearings on projects, which is quite common now, but was unheard of in the early days, giving the local people, both those who would be directly affected by the project and those who might be indirectly affected, give them an opportunity to express their opinions about it, and all of those, of course, were considered in the overall evaluation of the project.

Storey: Tell me what it did to the length of time that it took to plan a project. Do you have any remembrance of that?

### **New Planning Concerns Extended Planning Time for Projects**

Reedy: Yeah, it extended that time. When you start getting the public involved, particularly, both from the social aspect and from the environmental aspect, because this created a lot of interest and concern that the public could express, which they couldn't earlier, so to hold these hearings, to evaluate the concerns that were expressed at the hearings, and by correspondence by letter, it extended the length of time for the planning studies, oh, I don't know, just a rough estimate, maybe by 20, 25 percent, because you'd have to allow time for the hearings, then publish the initial results of the hearings. As I recall, we put out a preliminary analysis of them, and those would have to be reviewed by the people who had attended the hearings and others who might be interested, and you get their comments back in and all of those had to be put into the appendixes that we prepared for the report, and added to the technical appendixes, and all of this took considerable time and staff.

Storey: How did Reclamation do at adjusting to these changes?

Reedy: Some people were dragged into it kicking and screaming, some of the old-time people. My impression is that they thought it was a waste

of time, but certainly with the general change in the country, and the *opportunities* for people to express themselves which have increased over the years, it was undoubtedly necessary. It put sort of a stop to some projects, some that would have been just on a straight technical and engineering and economic basis would have been feasible, were no longer feasible.

Storey: Do you remember any of those specifically?

Reedy: No, I don't, not right offhand.

Storey: Go ahead.

Reedy: But it certainly would affect the studies. And as I say, there were some people who resented this, what they felt was an intrusion to the straightforward way of doing a study, but certainly it was necessary. We have always served the public, and as the public's needs and views on Reclamation projects change, why, those have to be considered. They're publicly funded initially, and for that reason, the public certainly should have an opportunity to express their opinions on it.

Of course, I say they were publicly funded initially, but the returns from the project certainly over the years, from a direct financial standpoint to the Bureau and direct community financial standpoint, were certainly justified. You're aware of all the statistics showing some of the benefits from the old projects like the Boise Project, the Salt River Project, the benefits that are accrued to the community and



---

nationally, are certainly adequate justification for those projects, although we have to recognize that in some cases there was some environmental damage done by some of those projects. But at that time, why, it was not a major concern. And sometimes you wonder whether it should be a concern. [Interruption. Tape recorder turned off.]

Storey: ... the way planning went in Reclamation, and the way it had changed. You were the *head* of this. Really, I think, as a major change was coming, we had what, the Wild and Scenic Rivers Act, about '63, which, of course, would affect us, National and Historic Preservation Act in '66, National Environmental Policy Act in '69, and a *whole constellation of other* related kinds of things. What kind of *personal* issues that you had to deal with in your job were presented to you by this *change* in American thinking and environmental law? What kinds of issues did you have to deal with besides dragging people kicking and screaming to the process?

### **Public Involvement Staff Were Added to Reclamation Offices**

Reedy: Well, we had to provide staff to examine those concerns. We did it from a standpoint of providing staff to advise the regions, who had the hands-on operation of it. For example, the regions would be the ones that would set up all the public hearings on environmental concerns or social concerns. But we had experts on our staff that would provide them with assistance

and guidance, develop standards, the same way that we did on the technical, engineering, and lands, and economics. We set up the standards and worked with the regions on implementing those in the specific project investigation studies that they were doing. So we had somewhat similar role in the whole program, from the standpoint of the environmental and social concerns.

Storey: Now, you've already mentioned water quality, for instance. What other kinds of special expertise had to be added to the planning division?

Reedy: Well, you mean from a technical standpoint besides the environmental and social concerns, we added staff for that. Water quality became a major concern, but most of the others had been on the staff for some time, the engineers, the economists, the lands people.

Storey: You were just looking at new issues, then?

Reedy: So we were just adding staff for new issues, yeah.

Storey: I guess the preservation officer, for instance, was not really on your staff.

Reedy: No.

Storey: That was part of the commissioner's staff here in Denver.

---

Reedy: Yeah. Yeah. That was only from the planning standpoint. I don't remember that we had any major concerns with regard to historic preservation of any of the projects that we had. It may have been there were some at that time, may have been those didn't come into play until later on, but there may have been some that they may have been discussed more directly between the historic preservation officer and the regional offices, since he was not on our staff.

Storey: At that time, were you working on things like the Narrows Project, and the Animus-La Plata Project, and so on?

Reedy: Yeah.

Storey: What was going on?

**". . . the regions do the specific studies, and we provide the technical guidance and assistance. . . ."**

Reedy: Well, now the regions were doing those studies. See, the regions do the specific studies, and we provide the technical guidance and assistance, review, and final approval, from a technical standpoint.

Storey: Do you remember any of those cases becoming controversial or anything?

Reedy: Oh, I'm sure there were some minor controversies from the technical standpoint, but I don't

recall any that really stick in my mind as being show-stoppers or anything of that sort.

Storey: Tell me how planning related to other *kinds* of activities, like the laboratories, like the designers, like the regions. How did that interaction work? Were there any tensions? Was it always an amicable relationship? How did that work?

Reedy: Oh, when you get people working together, sometimes with different objectives, why, you're going to get some tensions, which we had some, but I don't recall any that really blew up. I'm sure there were some hot words spoken at times between our technical staff and the technical people in the region, and the regional planning officers who might want to be pushing a project, and our technical staff had some objections to what they were doing and *how* they were doing it.

### **The Three Levels of Design**

We relied on the design division for preparation of, in many cases, preparation of preliminary designs, feasibility designs, we called them. Well, we had three levels of design, the reconnaissance, feasibility, and then final design for construction. Oh, what was it? Along came Warren Fairchild, and he tried to throw in some other design level, and I can't recall just what it was, but as I recall, he was trying to have us substitute for both reconnaissance and feasibility, but—

Storey: Sort of compress the process?

Reedy: Sort of compress the process, shorten the process, but I don't think that it ever really took hold. From a technical standpoint, I had some problems with it, because I think the reconnaissance, the feasibility, serve very good purposes. If somebody envisions a project and you look at it in what we call a reconnaissance level, which is sort of a broad-brush level, from the standpoint of all aspects, water supply, field investigations, engineering design, economics, land studies, you look at it in sort of a broad brush to see whether it's worth going any further with.

Then if you find that it *does* look as though it's feasible from an economic standpoint and all the other concerns, then you go on and do what we call the feasibility level, which would be the level which would be suitable for authorization by the Congress. The reconnaissance reports were primarily internal documents. The feasibility report was one that would be prepared to take to the Congress. Well, of course, it would first have to be approved by the regional director, from the assistant commissioner/chief engineer, from a technical standpoint, which is where we became involved, and then approved by the commissioner's office and forwarded to the Congress. I don't remember just the specific procedures there.

Normally there would be some congressman, either a representative or a

senator, who would be interested in pushing that project from the standpoint of local area development, so they would introduce the bill and this report would be the supporting data to justify the authorization of the project for construction.

So I felt that that procedure was logical and I envisioned that it would be rather difficult to combine those reports or shorten the time, even, in order to go through an adequate investigation from somebody where you first look at it and have it in your mind and have to decide whether it's worth going to the expense and the time required for a feasibility study. So I think what we had originally was a fairly good process.

I can't remember what happened to Warren Fairchild's proposal on that. I just don't remember to what extent that was implemented.

### **Reconnaissance Studies**

Storey: You have this process of studying a reconnaissance report. How would you be prompted to initiate a reconnaissance study? Or how would the regions be prompted to initiate a reconnaissance study? Do you have any sense of that?

Reedy: Many of these projects had been envisioned by the local people for some time. These local people, even though they may not be

technically trained and qualified, they certainly have a pretty good idea as to what might be a feasible project, and they can envision that. They could see a large body of land out here that's not being irrigated that looks as though it might be, by comparing it maybe with something that started irrigation fifty years before, such as the Grand Valley Project. They could see a potential water supply, and maybe what looked like a good dam site, because anybody can see that, where there's a narrowing of the canyon and a broad base in the back of it, why, it's obvious that it's a possibility for storing water. So these local people, as they *still* do, I suppose, would envision this and maybe get their representative in Congress to go about necessary implementation to start an investigation, or maybe they would talk directly with somebody from the Bureau in a regional office or a local office. Of course, the Bureau people would be looking for such things, too, and they could identify some.

### **Feasibility Studies**

Well, just as an example, we had, as I think I mentioned it before, what we call the Cliffs-Divide Project on the Western Slope of Colorado, that was a major reconnaissance-level study done by the Grand Junction office under the supervision of the Salt Lake City regional office, to identify potential projects throughout the entire Western Slope in the State of Colorado. They identified many of

them there, some of which were studied in feasibility detail. This was, I suppose you would call [it] a reconnaissance report, or maybe there was a little bit even pre-reconnaissance. It served that purpose. It wasn't a reconnaissance study of a specific project, but of an area, and identified projects that could be studied in more detail at the feasibility level.

Storey: Do you have any sense of the percentage of projects that went from a reconnaissance stage to a feasibility stage?

Reedy: Oh, it would just be a wild guess.

Storey: Were there a *lot* more studied at the reconnaissance level than at the feasibility level? Or do you have any sense of that?

Reedy: Well, I would guess probably something less than 50 percent of those that were studied at the reconnaissance level would go on to feasibility study. From the feasibility study to authorization, again I don't know, this is a wild guess, 20, 25 percent maybe.

Storey: Would actually proceed.

Reedy: Yeah.

Storey: So what I'm hearing is there's a substantial reduction between the reconnaissance and the feasibility stage, and between the feasibility and the authorization stage.



Reedy: Yeah.

Storey: Regardless of what the exact figure is.

Reedy: Yeah. Now particularly when you're looking at something like the Cliffs-Divide Project, where you're looking at an area and all the water resource potential in that area, rather than a specific project, but you're looking at it from a reconnaissance standpoint.

### **Basin Reports**

We had other what we call basin reports, where you're looking at an entire basin like the Upper Snake River Basin, for example. As I recall, we did a reconnaissance report on that. So these are looking at a major area, trying to identify all the potentials in there. When you do that, you're going to have a larger reduction from reconnaissance to feasibility than you are when you pick out specific single projects that you want to do a reconnaissance report on, and then those would pass the feasibility. If you're just looking at the individual project, they would probably be maybe two-thirds of those might lead onto a feasibility study. Again, I'm just pulling figures out of my head.

Storey: Were you ever in a situation where something or somebody was pushing a project that Reclamation probably wouldn't have wanted to really support?

Reedy: I know that happened. I can't think of any specific one right now. But sure, there'd be

people that would like to have something that would provide a little jump start to their own area, both from the development of the community, bringing more people in, providing more revenue in the area. Of course, then sometimes you get a congressman who might see that, and he might figure if he could get that project, why, it would be a feather in his cap, too. So you had both the local people—well, the local community pushing it, and maybe the local representative in Congress.

Most of these that get pushed that way, they didn't do it without good reason. They wouldn't just bring up some crazy project and ask us to look at it. There was usually some good foundation, substantial basis for looking at a project.

Storey: Well, conversely, did you ever have what Reclamation thought was a really, really good project that for some reason didn't go?

Reedy: Oh, I'm sure that there were some that—and again, I can't think of specifics right offhand—some that we would recommend to Congress for authorization, and Congress, in its wisdom, would not wish to authorize it. Like there are a *lot* of good things that come to Congress that they don't approve, and then conversely, there are a lot of *lousy* things that Congress does that I think would be better left undone. Not only in Reclamation projects, but many other things.

---

Storey: I see from your résumé that you led a reconnaissance team in Kenya in 1966. Could you tell me about that?

**Reconnaissance Study on the Kano Plain in  
Kenya, 1966**

Reedy: This is a study. I don't recall how it was initiated. I should have brought my report on that. I've got a copy of the report, and I could bring that out if you would like to see it.

Storey: Well, why don't you just tell me about what you did.

Reedy: Okay. I can't recall how the project was initiated, but as far as I know, the Republic of Kenya—this was just about the time that it did become a republic.

Storey: It was gaining freedom from the British, you mean?

Reedy: From the British, yeah. The Mau-Mau revolution there, the native revolution against the British rule, and [Jomo] Kenyatta was coming into power as president, and they were gradually moving the control of the government from the British to the native Kenyans. But as I say, I don't recall just exactly how it was initiated, but in any case, the Bureau was asked to make a reconnaissance study of a potential project on the eastern shore of Lake Victoria in the western part of Kenya.

Storey: This is the Kano Plain?

Reedy: The Kano Plain.

Storey: K-A-N-O.

Reedy: K-A-N-O, yeah, Kano Plain. I don't recall the details of how I was selected for that, but in any case, I was selected as a team leader.

END SIDE 1, TAPE 1. FEBRUARY 5, 1996.

BEGIN SIDE 2, TAPE 1. FEBRUARY 5, 1996.

Storey: We were talking about the Kano Plain Project.

Reedy: The Bureau had a team in Nigeria doing some studies there, and we picked up some technical assistance from them on land classification, primarily. But this was a three-man team. I was the leader, Christy Brost [phonetic], an agricultural economist, and Jack Black—oh, I can't remember just what his specialty was—I guess he was primarily a lands man, but he needed some assistance on that. But anyway, we had a three-man team that was invited to go over there, working through the U.S. A-I-D<sup>35</sup> office, to do a reconnaissance investigation of this Kano Plain Project, on the shores of Lake Victoria. It was about a 30,000-acre area, so the minister of agriculture was the one that assisted us or supervised our work, coordinated our work, there in the country.

---

35. United States Agency for International Development (USAID).

That was one of the few ministries in Kenya that was not run by a native Kenyan. This was a gentleman from England who'd been there for many years, and he was still the minister of agriculture. They had largely a British staff. We worked very closely with one of the men on his staff on the study. They provided excellent support for us, provided all their technical data that they had, provided drivers to take us wherever we needed to go. So we spent, oh, I suppose about—as I recall, it was a two-month study, and we must have spent, oh, probably a fourth of our time out in the field, and three-fourths in the office utilizing the data they had there, and making their studies and discussing the project with the local people.

Storey: Where was the office?

Reedy: The office in Nairobi.

Storey: Weren't you nervous about being there right after all this disturbance had been going on?

Reedy: No, no, no, not at all.

Storey: It was no problem at all?

Reedy: No problem at all. No.

Storey: What were you studying the Kano Plain for?

Reedy: For a potential irrigation project.

Storey: How would it have been done?

Reedy: Probably would have had some kind of foreign financing, U.S. A-I-D, World Bank. I should have reviewed the report a little bit. In fact, again, if you like I could bring that over.

Storey: Where would the water come from?

Reedy: From streams that flow into Lake Victoria. I don't remember the name of the main river, but there had been some water supply records taken—stream flow, which the British had taken— so we had that data. We had, as I recall, some basic topographic maps. There was one or two good dam sites. It was basically an investigation such as we would have done in the western United States. We ended up by recommending that they build a small pilot project, which would not require a large storage dam, and there'd be adequate water for that just by diversion.

This is near the town of Ahero, we called it the Ahero, A-H-E-R-O, Pilot Project, about 2,000 acres. It's my understanding that that actually *was* built. I don't know what the results have been, how satisfactory it's been. This was, oh, I suppose—

Storey: Well, you were there in April and May of '66.

Reedy: '66, yeah. But I suppose this may have been built twelve to fifteen years after we were there, that I had heard about it, anyway. I haven't heard anything since. I don't know what the situation is there now.

---

Storey: Well, then you had another special project in Puerto Rico in May of 1968.

Reedy: Yeah, the Toa Vaca Project.

Storey: Let's see, that's B-A-U-T-A dash T-O-A-

### **Bauta-Toa Vaca Project in Puerto Rico**

Reedy: Bauta-Toa Vaca, yeah.

Storey: Vaca, V-A-C-A, Division Project.

Reedy: Right.

Storey: Tell me what that was about.

Reedy: Oh, boy, I still have my copy of the report on that at home, too. I should have reviewed that before I came this morning.

As I recall, it required a storage dam, the Bauta Dam, and as I recall, it was a diversion from the northern part of the island to the southern part. The southern part is fairly dry, and most of the precipitation and runoff occurs in the northern part. So as I recall, it was a Bauta Dam in the northern part and the diversion tunnel over to the—I can't remember if it was the Toa Vaca River, or anyway, somehow it got that name Toa Vaca on the southern part of the project—southern part of the island. I should have taken the time over the weekend to refresh my memory on both of those projects.

But we had a three-man team that went on that also. Charlie Le Moyne had been down there working with the equivalent of the ministry of agriculture, for the Puerto Rican government. Then I was selected to go down there for the longer study. We spent three weeks down there. Al Gibbs went with me as the hydrologist, and Bob Valentine was the geologist, went down there.

One thing, just insert this here, one thing that I neglected to mention when I was talking about the necessary studies for a feasibility study was a thorough geological examination primarily of dam sites, to determine their suitability from a geologic standpoint, but also to determine what treatment the dam site needed or what would be necessary from a geologic standpoint, not to make it suitable for a dam, but to set up a geologic study that would need to be done to provide adequate data for preparing a design, such as drilling and material studies, material sampling, and things of that sort. But that's a digression, going backwards.

On the Bauta-Toa Vaca, we spent three weeks down there gathering data, and then came back and wrote the report on that recommending it for construction. As I recall, it has been constructed.

Storey: Was it just an agricultural supply?

Reedy: As I recall, it was just agriculture. Yeah. No municipal water supply, as I recall.



---

Storey: Then I think I see 1974 in Malaysia.

### **Reconnaissance Study in Malaysia**

Reedy: Yeah. Here again, a study where the Bureau was providing assistance to the Malaysian government for reconnaissance evaluation of some dam sites over there.

Storey: One of them was the Batu River Project, B-A-T-U?

Reedy: Does that mention it there?

Storey: Gombak--

Reedy: Gōmbak, yeah, Gombak.

Storey: --damsite, G-O-M-B-A-K.

Reedy: Right.

Storey: And then some work on the Klang Gates Dam.

Reedy: Klang Gates. Yeah.

Storey: K-L-A-N-G Gates Dam.

Reedy: The Bureau had already provided designs and construction assistance for the Klang Gates Dam. I think what they wanted to do was raise that to provide more water storage. That was not our primary purpose over there. Our primary purpose was to examine the Batu and Gombak dam sites for additional irrigation. It was just a very brief study. We were there, as I

recall, a couple of weeks working through the equivalent of the Ministry of Agriculture of the Malaysian government.

Let's see, who were the people on that? I can visualize them, but I can't think of their names. We had a design engineer, a dam design engineer, and a geologist. I was the team leader of the three of those. Again, just a quick reconnaissance study in the field of the possibilities, both from the standpoint of water supply and geology and agricultural economics, although we didn't have an ag economist with us. It was just a design engineer and the geologist that were—sorry, I can't think of the names of those people.

Storey: In Malaysia, you would have already been the head of the planning division, right?

Reedy: Yes, this was in the seventies.

Storey: But the two previous ones was while you were branch chief?

Reedy: Let's see. I know I wasn't for the Kenya one. What was the date on the—

Storey: The Puerto Rican was in '68.

Reedy: '68. Yeah, I was still branch chief then.

Storey: Okay.

Reedy: Yeah, and the Malaysia, I was division chief.

---

Storey: Then you also worked in Thailand and the Philippines?

Reedy: Well, no, this was just very brief, touching base with some of the local people in Thailand and the Philippines, on the return from Malaysia.

Storey: Oh, okay.

Reedy: We didn't spend any length of time there. The former Bureau man was a liaison officer with the Ministry of Agriculture in Bangkok, so we stopped there and talked with him, and then in the Philippines, why, we just stopped there briefly and they took us around one day to show us some of their potential development. But no length of time there, no studies resulting from that.

### **Nicaragua Study in 1968**

Storey: Then I guess later in that same year, if I'm--no, a couple of years later--you were involved in the San Juan River Project in Nicaragua--

Reedy: Yeah. Yeah.

Storey: --and met with officials in Costa Rica.

Reedy: Yeah. We'd had a planning team in Nicaragua, had been there for some time. Wayne somebody had headed up that team, and they just wanted me to stop in there, go in there and review their work. I just spent about a week there is all.

Then while I was down there, why, this wasn't anything particular so far as the Bureau was concerned, but I did go to Costa Rica and just meet with some of their water resource people for a couple of days. They had had people coming up here, as many other countries did, too, coming up here as a part of our foreign activities work, to spend time, weeks to months, here in the Bureau, learning our procedures and so forth. So I just went down there, while I was down in Central America, just went down there and touched base with them, as far as that was concerned.

Storey: What was going on in Nicaragua?

Reedy: Investigation of a project on one of the tributaries of—well, let's see, I think they were looking at some tributaries into Lake Managua, and also the river which, as I recall, was the border between Nicaragua and Costa Rica. They were looking at a potential project there, also, a storage dam on that. I don't know what ever happened to those. I don't know whether the Sandinista government was not interested in those when they came into power. I don't know that anything was ever developed in respect to those projects.

One thing I recall is—and this is sort of a ridiculous thing to even mention perhaps, but one thing I recall was that they took us out to dinner one night, and I had the best beef steak dinner that I think in my whole life, just wonderful.

Storey: In Nicaragua.

Reedy: In Nicaragua, yeah, Managua. Yeah, that was an interesting stay.

Storey: You also did some very sort of brief consulting stuff, I guess.

Reedy: Yeah.

### **Work in Niger and Senegal regarding the Niger River**

Storey: Niger, Senegal, regarding the Niger River.

Reedy: Yeah.

Storey: Do you remember anything about that?

Reedy: My part in that was rather small. The United Nations was interested in helping development of the Niger. The Niger, oh, let's see, as I recall, that heads up in Burkina Faso, which is now—no, that's the—yeah, it heads up there. I can't remember whether it's still called Burkina Faso. It was the Upper Volta was the country, and the Niger flows up in a loop. It goes north and then east and then down into Niger, and down through Nigeria. So it was a multi-country commission that was studying development of that. They had asked for some technical and administrative assistance as to how they should go about that.

This Club Ami du Sahel,<sup>36</sup> it's French-based, obviously from the name, and this came from the time when those countries, except Nigeria, were under French control. But again, it was just a brief coordination study of all the studies that were going on on the Niger River. The French pronunciation of that is "nee-jerr."

Just as an aside, my youngest daughter spent two years over in Niger in the Peace Corps, and met her husband over there. So they got married afterwards. We just had a call from her yesterday evening that their fourth child had been born, living back in State College where he's working on a doctorate in environmental geography. So this was interesting. We went and visited her once in Niger while she was over there, sort of recalled some of the places that I'd seen while I was at

---

36. Currently known as Le Club du Sahel according to [http://www.observateurocde.org/news/fullstory.php/aid/120/Le\\_Club\\_du\\_Sahel\\_.html](http://www.observateurocde.org/news/fullstory.php/aid/120/Le_Club_du_Sahel_.html), on October 24, 2006, at 9:40 A.M. the purpose is:

"As an informal discussion forum, the Sahel and West Africa Club creates, promotes and facilitates links between the OECD countries and West Africa, and public and private sectors. As an agent of change, we're working to make development aid more effective.

The SWAC is responsible to the OECD and is led by a Secretariat of experts based in Paris, with a network of local correspondents. Our programmes are approved by a Strategy and Policy Group composed of donor agencies and the main West African partner institutions and networks."

OECD is the acronym for the Organization for Economic Cooperation and Development.

---

Niamey.<sup>37</sup> I didn't [get] out in the country at all either of those times.

Storey: What else should we be talking about?

Reedy: Well, let's see. The one thing that I'd noted down here that you'd mentioned last time was about social life.

### **Social Life in Various Reclamation Offices**

Storey: Oh, yeah. Tell me about the social life at the Bureau of Reclamation, in the various offices. I think we've already discussed Alaska. You hardly had any time to settle in Washington.

Reedy: Yeah, that's right.

Storey: So I guess what we need to talk about is Denver.

Reedy: Yeah. I don't remember ever talking much about social life in Alaska, either, but—

Storey: Maybe we ought to talk about that first, then.

Reedy: Yeah, just very briefly. It was a small office there, oh, ten to fifteen people, and, of course, being a single group up there with a single objective, why, as I recall, we didn't socialize, at least our family, didn't socialize a lot with the other people, having dinner at different people's houses, because we got involved in the community life. Both of us sang in a

---

37. Niamey is the capital of Niger.

chorus up there and things of that sort. But we did get together once a year for a Christmas party, so that was always fun.

The same thing was true down here in our Division of Planning Coordination and Planning Technical Services and several different other names. We'd have a Christmas party once a year. I can't remember whether that was started by my predecessor or not. I don't recall. But in any case, we had that Christmas party once a year and we always looked forward to it.

We started out with an exchange of gifts, and you're supposed to write a poem to go with the gift, and while I was looking up some of this other stuff, I found the poem that I'd written to Kirkwood, who was chief of our programs and reports branch. I resurrected that poem and brought back a lot of memories. Gradually the idea of the poem sort of got dropped. We still had the gift exchange. We'd draw for that and have the gift exchange, and then I think even that was dropped, but we still kept having the Christmas party. What we'd do is have a dinner, a catered dinner, served dinner. We'd go to a place where they served dinner, and had a room where we'd go for our gift exchange, and social get-together afterwards. That continued for several years after I retired, and I was invited to those. Leon Hyatt [phonetic], who became division chief, continued those. I was always invited, and it was fun.



Then along towards the latter part of the eighties, why, it got so that there were very few people that I knew, but Lois and I still went to it. Oh, when was it, late eighties, or perhaps early nineties, a couple of times they rented a double-decker bus and took all the people and the families and the kids. Originally it was just couples. But when they started doing this, why, you could bring your kids along if they wanted to, and they'd drive the whole crowd downtown to view some of the light decorations, both downtown and some of the better houses that were decorated down in that area, and that was fun.

But I guess even that has gone by the wayside. With the reorganization here, why, the people that were involved in that and interested in it have gotten scattered around so much in different organizations that it just wasn't done. They couldn't continue in the same way. I presume that things got so scattered here and so perhaps insecure, that this Christmas party idea just fell by the wayside, which I think is a shame, because that was certainly something that was very cohesive for our division. I think it contributed *significantly* to the efficient operation of the division, because people knew each other on a personal basis as well as just the job basis, and they worked together very well. I think those Christmas parties were an *excellent* vehicle for effecting that good cooperation. They were always a lot of fun.

Storey: You didn't do anything else like potlucks?

Reedy: Well, yeah, we didn't do potlucks, but we did have a summer picnic. We usually had a summer picnic, too. I recall a couple of times we rented or reserved a picnic shelter on 285, down the other side of Tiny Town. Now, let's see, it was—I can't remember just where it was, but it was just off 285, one of the roads that takes off 285. We reserved that sometimes. This was always a family deal. Our Christmas dinners were just for the couples, but this was always a family deal. We had a committee that would arrange all of that, and that was another good way to get together. We played softball and volleyball at those picnics. Those are the two main events. I think they contributed to what I feel is the efficient operation of our division and its technical work.

Storey: What else did I say we ought to talk about?

Reedy: Well, now, I've got down here offices, and I'm not just sure what—

Storey: When you came to Denver, where was your office located?

### **Original Denver Offices in Building 53**

Reedy: Oh, yeah. It was in Room 45, which was one wing of Building 53.

Storey: Building 53.

Reedy: Yeah.

Storey: What was it like in there?

Reedy: The wing that extended out to the east. It was sort of primitive. As you know, they'd adapted Building 53 from its work as a munitions—the whole operation here in the Federal Center was originally the munitions manufacturing during World War II, and so it took a lot of adaptation.

We probably had one of the best offices over there. The best offices were down in the north wing where the assistant commissioner—first, the chief engineer and then assistant commissioner and chief engineer was located. They were offices that had been designed and constructed *as* offices for the munitions operation. But ours in the wing off the main building was pretty good, because they could be divided into offices that were fairly satisfactory. They had a reasonable ceiling, not too high, and so they were pretty good.

Our branch, the field investigations branch, had one room that had a little—well, the branch chief was on one side of an aisle that went down not the center of the wing, but off to one side, and the branch chief and the secretary were over there. On the other side, why, there was room for about four or five people, so we had a pretty good place for our staff. In fact, for the whole operation of the planning investigative planning people, project investigations people, was pretty good. Randy Riter's office was down at one end.

### **Design and Construction Staff Offices in Denver**

The design and construction people, they were out in this huge building that was designed for munitions manufacturing, and it was completely open. They had the skylights up there on the side and the roof, and it was completely open up there, and when the skylights were open, as you may have heard, birds would fly in and perch up on the rafters up there and do their thing sometimes, and I guess some of the people who were working on designs and drawings, they had to be pretty careful. It was certainly not an ideal office situation, and it was difficult to heat in winter.

**". . . we were all happy to see the advent of Building 67 . . ."**

So we were all happy to see the advent of Building 67, because it improved our office conditions significantly.

The labs at that time were over in Building 56, where they have been in all the time, and I guess their situation is more satisfactory than ours [was], because for laboratories, the large open space of the munitions buildings was more easily adaptable or more conducive to a good operation of laboratory facilities, such as the hydraulics lab, which requires lots of space.

Storey: Do you remember anything more about the move? What were people saying about the new building?

Reedy: I don't remember that there was any major concern about it. I think most people were happy to get in here.

Storey: Of course, Dominy did a big fight with GSA in order to build this building.

Reedy: Yeah, I know. I'm trying to think. There have been a lot of changes in the building use here since then. We had separate offices for branch chiefs, then sort of a bull pen for most of the rest of it. There was a move at one time to—of course, they had the offices divided off. There was a move at one time to get rid entirely, which has been done subsequently, to get rid of the partitions, but that was not implemented when I was here. Subsequently, they've gone to the open space and the head-high partitioning, rather than up to the ceiling. How do people feel about that now here? Do they like that?

Storey: Well, some people like it and some don't. My only concern is there isn't enough space for all the files I want to keep.

What else did you write down?

Reedy: Oh, let's see. Well, look up Dad's career in Reclamation, I mentioned that; bring the Harvard book; résumé with duties, I got that; organization chart; changes in planning from

early days to retirement, and we sort of discussed that; Manny Lopez—

END SIDE 2, TAPE 1. FEBRUARY 5, 1996.

BEGIN SIDE 1, TAPE 2. FEBRUARY 5, 1996.

Storey: This is tape two of an interview by Brit Storey with William W. (Will) Reedy, on February 5, 1996.

Yes.

Reedy: One thing I was trying to find, and I couldn't. I suppose you've heard the saying, "That's all bound up in red tape."

Storey: Yeah.

Reedy: You've heard that. Well, they actually used to use red tape, and I've got a little spool of red tape that my dad had when he worked for the Bureau of Reclamation, the Reclamation Services as it was at one time, and when they'd have files that they wanted to take out of the file and set aside, they'd pull that out and they'd bind it up in red tape. That's where that saying came from. They actually used red tape for binding stuff up, and I've got some of that old red tape. I wanted to bring it to show it to you and I couldn't find it. But it's true. It isn't just a fictional saying, "is all bound up in red tape." It's actually happened, and I've got some of that red tape. I wish I could have found it. That's all I had. We've covered pretty much everything else.

Storey: Okay. Well, if you can't think of anything else.

Reedy: Is there anything *you* think of that you would like, from our discussions, that I think I mentioned that you'd like to have me bring for you to see or anything?

Storey: No, I don't think so.

Reedy: Would you like to have my dad's—the details of his time with Reclamation?

Storey: Yeah, I'd like to add that to your file, if you can find it.

Reedy: I'll keep looking for that.

Storey: Good.

Reedy: If not, I'm sure my brother can send it to me.

Storey: Good. I appreciate it.

Reedy: Now, do you want me to mention to him the possibility of your talking with him back there when you're in Washington sometime?

Storey: Yeah, you might see if he's willing.

Reedy: Okay.

Storey: Well, in that case, I'd like to ask whether or not you're willing for the information on these tapes and the resulting transcripts to be used by researchers.

Reedy: Absolutely.

Storey: Good. Thank you very much. [Tape recorder turned off.]

Well, after we quit talking, you mentioned that you had a story about your brother on the Grand Valley Project.

**Brother Placed the First Shovelful of Concrete  
in the Grand Valley Diversion Dam**

Reedy: Yeah. Dad was the construction engineer for the Grand River Dam, and my brother was about, oh, four years old when then went down there, and my older sister was about two. But we have a picture at home showing my brother putting the first shovelful of concrete into the Grand River Dam for construction.

Storey: Into the diversion dam.

Reedy: Into the diversion dam, right. We haven't had a lot of other pictures, but this is one that's particularly interesting showing his early Reclamation career.

Storey: That's very interesting. Good. Thank you very much.

Reedy: You're welcome.

END SIDE 1, TAPE 2. FEBRUARY 5, 1996.  
END OF INTERVIEWS.



(INTENTIONALLY BLANK)

Appendix A: Standard Form 171, William W. Reedy

**STANDARD FORM 171**  
**PERSONAL QUALIFICATIONS STATEMENT** Office of Management and Budget  
Approved 10-EO 118

1A. Kind of position (job) you are filing for (or title of announcement)		B. Announcement No.		<b>DO NOT WRITE IN THIS BLOCK FOR USE OF EXAMINING OFFICE ONLY</b>	
C. Options for which you wish to be considered (if listed in announcement)				<input type="checkbox"/> Appor. <input type="checkbox"/> Submitted <input type="checkbox"/> Non-appor. <input type="checkbox"/> Returned Nonusers:	
D. Primary place(s) you wish to be employed <b>Denver, Colorado</b>		3. Office phone (including Area Code) <b>303-234-2014</b>		Form Reviewed: Form Approved:	
2. Home phone (including Area Code) <b>303-237-3049</b>		4. Name (Last) (First) (Middle) (Maiden, if any) <input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Miss <input type="checkbox"/> Ms. <b>Reedy, William W.</b> <b>780 Field Street</b> <b>Lakewood, Colorado, 80215</b>		Option      Grade      Lateral Rating      Preference      Avg. Rating <input type="checkbox"/> 5 Points (Tenr.) <input checked="" type="checkbox"/> 10 Points Comp. Dis. <input type="checkbox"/> Other 10 Points <input type="checkbox"/> Disal. <input type="checkbox"/> Being Investigated	
5. Legal or voting residence (State) <b>Colorado</b>		6. Height without shoes <b>6</b> Feet <b>2</b> Inches		7. Weight <b>175</b>	
8. Birthplace (City and State, or foreign country) <b>Wheatland, Wyoming</b>		9. Birth date (Month, Day, Year) (G-11) <b>December 22, 1916</b>		10. Social Security Account Number <b>521 46 1971</b>	
11. If you have ever been employed by the Federal Government as a civilian, give your last classification series, grade, and job title. <b>GS-810-15, Chief, Division of Planning</b> <b>Coordination Techniques Services</b> Dates of service in that grade From <b>Sept. 1970</b> To <b>Present time</b>		12. If you are currently on a list of eligibles for appointment to a Federal position, give the name of the announcement, the name of the office maintaining the list, the date on your notice of rating, and your rating.		THIS SPACE FOR USE OF APPOINTING OFFICER ONLY Preference has been verified through proof that the separation was under honorable conditions, and other proof as required. <input type="checkbox"/> 5-Pt. <input type="checkbox"/> 10-Pt. Comp. Disal. <input type="checkbox"/> 10-Pt. Other	
13. Lowest pay or grade you will accept PAY <b>GS-06-06</b> OR GRADE <b>GS-05-06</b>		14. When will you be available?		Signature and Title Agency _____ Date _____ <input type="checkbox"/> Refer for medical action	
15. Will you accept temporary employment for: (Assignment or refusal of temporary employment will not affect your consideration for other appointments.)		16. Where will you accept a job?		17. Will you accept less than full time work? (Less than 40 hours per week) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
1-3 months or less? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO 4-6 months? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO 7-12 months? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		- Washington, D.C. <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO - Any place in the United States. <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO - Outside of the United States. <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO - Only in (specify):		18. Are you willing to travel? (Check one) <input type="checkbox"/> NO <input checked="" type="checkbox"/> SOME <input type="checkbox"/> OFTEN	
19. VETERAN PREFERENCE. Answer all parts. If a part does not apply to you, answer "No."				Yes No A. Have you ever served on active duty in the United States military service? (Exclude tours of active duty for training as a recruit or Guardsman.) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No B. Have you ever been discharged from the armed services under other than honorable conditions? (You may omit any such discharge changed to honorable by a Discharge Review Board or similar authority.) If "Yes," give details in item 3.	
C. Do you claim 5-point preference based on active duty in the armed forces? If "Yes," you will be required to furnish records to support your claim at the time you are appointed.		D. Do you claim 10-point preference? If "Yes," check type of preference claimed and complete and attach Standard Form 15, "Claim for 10-point Veteran Preference," together with the proof called for in that form.		TYPE: <input type="checkbox"/> Compensable disability <input type="checkbox"/> Disability <input type="checkbox"/> Wife <input type="checkbox"/> Widow <input type="checkbox"/> Member	
E. List Dates, Branch, and Serial or Service Number of All Active Service (Enter "N/A" if not applicable)		From _____ To _____ Branch of Service _____ Serial or Service Number _____			

## PERSONAL QUALIFICATIONS STATEMENT

REEDY, William W.

February 12, 1973

## 20. Experience

- (1) Supervise: <sup>50</sup> 32 professional (engineers, <sup>hydrologists,</sup> meteorologists, economists, soil scientists, operations research analysts, <sup>social factors analysis</sup>)  
10% secretarial and clerical

I am responsible for development and application of technical standards and procedures, for review of project investigation programs carried out in the Regions, and for coordination of these programs with activities of other staff in the E&R Center. Through subordinates, I supervise engineers, hydrologists, soil scientists and economists who provide assistance to Regional and other offices on technical aspects of investigations, including collection and interpretation of physical data and development of multi-purpose, multi-objective plans. These studies include such aspects as hydrology (water supply and utilization, flood and sedimentation studies), land use planning, plan formulation, and economic and financial analysis. My staff also performs such special tasks as development of mathematical simulation models (of river systems, of ground water, return flow and salinity problems), use of water and water scheduling on irrigation projects, and performance and monitoring of planning research for water resource development. I am responsible for technical training of planning personnel and for the loan program for small projects and distribution systems.

- (2) I was responsible for development and application of technical standards and procedures utilized in field investigations, for review of project investigations programs carried out in the Regions, and for coordination of these programs with the technical staff activities of the Office of Chief Engineer (OCE). I supervised engineers who provided assistance to Regional and other offices on technical engineering aspects of project investigations, including collection and interpretation of physical data and development of multi-purpose plans. Coordination with other divisions in OCE involved geologic investigations, design data requirements, preliminary designs, construction cost estimates, operation and maintenance cost estimates, and drainage and ground water studies.
- (3) I advised field offices of Bureau of Reclamation in Pacific Northwest, Upper Colorado and Great Basins, and Alaska in conduct of engineering investigations of single and multi-purpose water resource developments. I reviewed planning reports prepared by these offices to determine technical adequacy of engineering phases, especially formulation and selection of project plan and completeness of investigation. I coordinated consideration by Denver Office technicians of 1a classification, hydrology, drainage, surveying and mapping, foundation and materials exploration, designs, cost estimates, and economics. I reviewed considerations of provisions for multiple purposes and joint uses of facilities, choices between alternative routes and features, economic sizes of project works, and similar problems.

---

Oral history of William W. (Will) Reedy

## PERSONAL QUALIFICATIONS STATEMENT

REEDY, William W.

February 12, 1973

## 20. Experience

- (4) I reviewed portions of project planning reports and appendices for adequacy, completeness, and sufficiency to support engineering conclusions. Paid special attention to operation and maintenance costs, capacity of project facilities, and provisions for multiple purposes. I reviewed technical aspects of preliminary plans on such subjects as surveying and mapping, geology, clearing rights-of-way, utility locations, municipal and industrial water requirements, and pollution control. I prepared special speeches and papers requiring knowledge and ability to write technical engineering subject matter in a clear, concise, and well-organized manner. I maintained the official Bureau lists of names of projects and structures.

**PLEASE BE SURE TO READ ATTACHED INSTRUCTIONS BEFORE COMPLETING ITEM 20**

20. EXPERIENCE (Start with your PRESENT position and work back. Account for periods of unemployment in separate blocks in order.)  
 May require be made of your present employer regarding your character, qualifications, and record of employment?  Yes  No  
 (A "No" will not affect your consideration for employment except for the BUREAU EXAMINER position.)

Dates of employment (month, year) From <b>Sept. 1970</b> To <b>PRESENT TIME</b>		Exact title of position <b>Chief, Div. of Planning &amp; Operations</b>		If Federal service, civilian or military grade <b>GS-810-15</b>	
Salary or earnings Starting \$ <b>25,174</b> per annum Final \$ <b>30,486</b> per annum	Avg. hrs. per week <b>40</b>	Place of employment City: <b>Denver</b> State: <b>Colo.</b>	Number and kind of employees supervised <b>(See attachment)</b>	Kind of business or organization (manufacturing, accounting, insurance, etc.) <b>Water resources development</b>	
Name of immediate supervisor <b>Wesley D. Fairchild</b>		Name of employer (firm, organization, etc.) and address (including ZIP Code, if known) <b>Engineering &amp; Research Center, USBR, DFC, Denver, Colo. 80225</b>			
Area Code and phone No. if known <b>202-343-8081</b>		Reason for leaving to leave <b>Professional advancement and challenging job</b>			
Description of duties, responsibilities, and accomplishments <b>(See attachment)</b> <i>Clifford L. Barrett, Assistant Commissioner for Planning &amp; Operations</i>					
For agency use (fill out, etc.)					
Dates of employment (month, year) From <b>Dec. 1966</b> To <b>Aug. 1970</b>		Exact title of position <b>Ch. Field Investigator, Div. of Proj. Invest.</b>		If Federal service, civilian or military grade <b>GS-810-14</b>	
Salary or earnings Starting \$ <b>17,221</b> per annum Final \$ <b>22,239</b> per annum	Avg. hrs. per week <b>40</b>	Place of employment City: <b>Denver</b> State: <b>Colo.</b>	Number and kind of employees supervised <b>3 engineers</b>	Kind of business or organization (manufacturing, accounting, insurance, etc.) <b>Water resources development</b>	
Name of immediate supervisor <b>H. F. Dugan</b>		Name of employer (firm, organization, etc.) and address (including ZIP Code, if known) <b>Office of Chief Engineer, Bureau of Reclamation Denver Federal Center, Denver, Colorado 80225</b>			
Area Code and phone No. if known <b>303-233-3611</b>		Reason for leaving <b>Promotion</b>			
Description of duties, responsibilities, and accomplishments <b>(See attachment)</b>					
For agency use (fill out, etc.)					
Dates of employment (month, year) From <b>July 1957</b> To <b>Nov. 1966</b>		Exact title of position <b>Civil Engineer</b>		If Federal service, civilian or military grade <b>GS-810-13</b>	
Salary or earnings Starting \$ <b>8,990</b> per annum Final \$ <b>16,450</b> per annum	Avg. hrs. per week <b>40</b>	Place of employment City: <b>Denver</b> State: <b>Colorado</b>	Number and kind of employees supervised <b>None</b>	Kind of business or organization (manufacturing, accounting, insurance, etc.) <b>Water resources development</b>	
Name of immediate supervisor <b>A. F. Johnson and Charles Lockwood, Jr., Ch. Field Investigator</b>		Name of employer (firm, organization, etc.) and address (including ZIP Code, if known) <b>Office of Chief Engineer, Bureau of Reclamation, DFC, Denver, Colo. 80225</b>			
Area Code and phone No. if known <b>303-233-3611</b>		Reason for leaving <b>Promotion</b>			
Description of duties, responsibilities, and accomplishments <b>(See attachment)</b>					
For agency use (fill out, etc.)					

IF YOU NEED ADDITIONAL EXPERIENCE BLOCKS USE STANDARD FORM 171-A OR BLANK SHEETS  
SEE INSTRUCTION SHEET

**Oral history of William W. (Will) Reedy**

CONTINUATION SHEET FOR STANDARD FORM 171  
 "PERSONAL QUALIFICATIONS STATEMENT"

Office of Management and Budget  
 Approved 5-6-59

INSTRUCTIONS: (1) Fill in only the items which apply to your job. (2) Do not check "EXPERIENCE" on Standard Form 171. Enclose with your Statement of Experience or attach to it as an addendum.

1. Name (Last, First, Middle, Maiden, or name) <input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Miss <input type="checkbox"/> Mrs. <b>Reedy, William W.</b>	2. Birth date (Month, day, year) <b>December 22, 1916</b>
3. Kind of position applied for, or name of examination	4. Date of this continuation sheet <b>February 12, 1973</b>

4. Dates of employment (month, year) From <b>March 1954</b> to <b>Aug. 1956</b>	Exact title of position <b>Hydraulic Engineer</b>	Federal action, civilian or military grade <b>GS-813-12</b>
Salary or salary range Starting <b>\$8,040</b> per annum Total <b>\$8,645</b> per annum	Avg. hrs. per week <b>40</b>	Place of employment City <b>Denver</b> State <b>Colorado</b>
Name of immediate supervisor <b>A. F. Johnson, Ch., Field Investigations Br.</b> Area Code and phone No. if known <b>303-233-3611</b>	Number and kind of employees supervised <b>None</b>	Kind of business or organization (manufacturing, accounting, research, etc.) <b>Water resources development</b>
Name of employer (firm, organization, etc.) and address (including ZIP Code if known) <b>Office of Chief Engineer, Bureau of Reclamation, Denver Federal Center, Denver, Colorado 80225</b>		
Reason for leaving <b>Go to school for advanced degree, on leave without pay.</b>		
Description of duties, responsibilities, and accomplishments <b>(See attachment)</b>		

5. Dates of employment (month, year) From <b>Nov. 1953</b> to <b>Feb. 1954</b>	Exact title of position <b>Hydraulic Engr. Asst. to the Chief, Hydro. Br.</b>	Federal action, civilian or military grade <b>GS-813-12</b>
Salary or salary range Starting <b>\$8,040</b> per annum Total <b>\$8,040</b> per annum	Avg. hrs. per week <b>40</b>	Place of employment City <b>Denver</b> State <b>Colorado</b>
Name of immediate supervisor <b>J. R. Ritter, Chief, Hydrology Branch</b> Area Code and phone No. if known <b>303-233-3611</b>	Number and kind of employees supervised <b>None</b>	Kind of business or organization (manufacturing, accounting, research, etc.) <b>Water resources development</b>
Name of employer (firm, organization, etc.) and address (including ZIP Code if known) <b>Office of Chief Engineer, Bureau of Reclamation, Hydrology Branch, Denver, Colorado</b>		
Reason for leaving <b>Transfer to new position.</b>		
Description of duties, responsibilities, and accomplishments <b>As Assistant to the Chief, Hydrology Branch, reviewed hydrologic aspects of project planning reports. Major function was responsibility for preparation of exhibits for the Government's case in Civil Action 2782 before the U.S. District Court.</b>		

6. Dates of employment (month, year) From <b>July 1953</b> to <b>Oct. 1953</b>	Exact title of position <b>Engineer</b>	Federal action, civilian or military grade <b>-</b>
Salary or salary range Starting <b>\$8,400</b> per annum Total <b>\$8,400</b> per annum	Avg. hrs. per week <b>40</b>	Place of employment City <b>Denver</b> State <b>Colorado</b>
Name of immediate supervisor <b>Raymond A. Hill, Partner</b>	Number and kind of employees supervised <b>None</b>	Kind of business or organization (manufacturing, accounting, research, etc.) <b>Consulting Engineers</b>
Name of employer (firm, organization, etc.) and address (including ZIP Code if known) <b>Leeds, Hill and Jewett 609 So. Grand Avenue, Los Angeles, California</b>		
Reason for leaving <b>Return to Bureau of Reclamation, from which I was on leave without pay.</b>		
Description of duties, responsibilities, and accomplishments <b>Assisted Mr. Hill in preparation of report on potential use of water for irrigation and municipal and industrial use on Western Slope of Colorado. Work consisted primarily of abstracting data on potential water use, capital and annual costs, annual benefits and repayment ability of Western Slope projects, all as shown in Bureau of Reclamation reports. (Note: During this job, I was on LWOP from BuRec at GS-813-12 grade)</b>		

Bureau of Reclamation History Program

7		From March 1953 To June 1953		Hydraulic Engineer		GS-813-13	
Salary of earnings		Per annum	40	Washington D.C.		None	
Name of immediate supervisor		J.R. Riter, Chief, Hydrology Branch, Bureau of Reclamation, Hydrology Branch, Denver, Colorado					
Reason for leaving		Placed on leave without pay, owing to reduction in force					
Description of duties, responsibilities, and accomplishments		Represented Bureau of Reclamation and Dept. of Interior on technical subcommittees of Federal Interagency River Basin Committee. Performed high level administrative and technical liaison on hydrologic matters between Hydrology Br. in Denver & Proj. Planning Div. in Washington & between Hydrology Br. & other Federal agencies.					
8		From Sept. 1948 To Feb. 1953		Supy. Hydraulic Engr., Chief, Hydrology Br.		GS-813-12	
Salary of earnings		Per annum	40	Juneau Alaska		None	
Name of immediate supervisor		R. C. Johnson, Chief, Project Planning, Bureau of Reclamation, Alaska District Office, Juneau, Alaska					
Reason for leaving		Transfer for professional advancement					
Description of duties, responsibilities, and accomplishments		I was responsible for field investigations, office studies, and reports of water supply studies for hydropower and multipurpose water developments in Alaska. Performed hydrologic studies of water resources, water rights, and theoretical reservoir and river operation studies, which were much complicated by lack of basic hydrologic & meteorologic records. Was responsible for snow survey work for Bureau of Reclamation in Alaska.					
9		From May 1946 To Aug. 1948		Hydrologic Engineer		P-852-3 & 4	
Salary of earnings		Per annum	40	Boise Idaho		3 engineers	
Name of immediate supervisor		J. V. Otter, Planning Engineer, Bureau of Reclamation, Central Snake River District, Boise, Idaho					
Reason for leaving		Transfer for professional advancement					
Description of duties, responsibilities, and accomplishments		As Head of Hydrology Division, supervised field investigations, office studies, and reports of water supply studies for irrigation, power, and multipurpose projects. Included studies of water resources, water requirements, water rights, and theoretical reservoir and river operation studies. Included studies of a complex transbasin diversion and a large multipurpose project.					
10		From Dec. 1939 To April 1946		Engineer		PCS-9 to P-2	
Salary of earnings		Per annum	40	Boise Idaho		None	
Name of immediate supervisor		F. H. Nichols, Engr. and Geo. N. Carter, Sr., Engr., Bureau of Reclamation, Project Planning Field Office, Boise, Idaho					
Reason for leaving		Same job under new administrative organization					
Description of duties, responsibilities, and accomplishments		Performed field investigations, office studies, and reports on water supply studies for irrigation, power, and multipurpose projects. Included studies of water resources, water requirements, water rights, and theoretical reservoir and river operation studies. Considerable time spent in writing reports on project investigations.					

Oral history of William W. (Will) Reedy

CONTINUATION SHEET FOR STANDARD FORM 171  
"PERSONAL QUALIFICATIONS STATEMENT"

Office of Management and Budget  
Approved No. 100-106

INSTRUCTIONS—Fill out this form only when necessary for completion of Form 20, EX-107 (12-63), or Standard Form 171. Enclose with Form 171.  
Type or print clearly in dark ink.

1. Name (Last, First, & Middle; Maiden, if any) <input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Miss <input type="checkbox"/> Mrs.		2. Birth date (Month, day, year)
Reedy, William W.		December 22, 1916
3. Kind of position, appointment, or name of examination		4. Date of this continuation sheet
		February 12, 1973

11. Dates of employment (month, year) From June 1939 To Dec. 1939		Exact title of position Engineering Aide (Chairman)		If Federal service, position or military grade FCS-5			
Salary or earnings Starting \$ 1,260 per annum Final \$ 1,260 per annum		Avg. hrs. per week 40	Place of employment Grand Lake, Colo. and Helser, Idaho	Number and kind of employees supervised None		Kind of business or organization (manufacturing, accounting, insurance, etc.) Water resources development	
Name of immediate supervisor		Name of employer (firm, organization, etc.) and address (including ZIP Code if known) Bureau of Reclamation					
Area Code and phone No. if known							
Reason for leaving							
Description of duties, responsibilities, and accomplishments Rodman on field survey party. Also performed a little work with level, transit, and plane table. Note: Work prior to June 1939 included three summers work as engineering laborer and rodman with Denver Water Board and Bureau of Public Roads.							
For agency use (initials, date, etc.)							
Dates of employment (month, year) From To		Exact title of position		If Federal service, position or military grade			
Salary or earnings Starting \$ per Final \$ per		Avg. hrs. per week	Place of employment City State	Number and kind of employees supervised		Kind of business or organization (manufacturing, accounting, insurance, etc.)	
Name of immediate supervisor		Name of employer (firm, organization, etc.) and address (including ZIP Code if known)					
Area Code and phone No. if known							
Reason for leaving							
Description of duties, responsibilities, and accomplishments							
For agency use (initials, date, etc.)							
Dates of employment (month, year) From To		Exact title of position		If Federal service, position or military grade			
Salary or earnings Starting \$ per Final \$ per		Avg. hrs. per week	Place of employment City State	Number and kind of employees supervised		Kind of business or organization (manufacturing, accounting, insurance, etc.)	
Name of immediate supervisor		Name of employer (firm, organization, etc.) and address (including ZIP Code if known)					
Area Code and phone No. if known							
Reason for leaving							
Description of duties, responsibilities, and accomplishments							
For agency use (initials, date, etc.)							

THE FEDERAL GOVERNMENT IS AN EQUAL OPPORTUNITY EMPLOYER

171-202

Standard Form 171-A  
U.S. Civil Service Commission, November 1970

Bureau of Reclamation History Program



**ATTACH SUPPLEMENTAL SHEETS OR FORMS HERE  
• ANSWER ALL QUESTIONS CORRECTLY AND FULLY**

**21. A. Special qualifications and skills (skills with machines, patents or inventions; your most important publications (do not submit copies unless requested); your public speaking and publications experience; membership in professional or scientific societies, etc.)**  
 Fellow, ASCE, and Member, USOGLD  
 Registered Professional Engineer, Colorado  
 Participating author, Design of Water Resource Systems, Harvard Press, 1962  
 "Water - Everybody's Problem," *Water Resources Bulletin*, March 1967 (Originally presented as 15th Samuel Avery Memorial Lecture, University of Nebraska, Nov. 1966)

**B. Kind of license or Certificate (For example, pilot, regional nurse, lawyer, radio operator, C.P.A., etc.)**      **C. State or other licensing authority**      **D. Year of first license or certificate**      **E. Year of latest license or certificate**      **F. Approximate number of words per minute**  
 Typing      Shorthand

**22. A. Did you graduate from high school, or will you graduate within the next nine months?**  
 Yes       No      **22. B. Name and location (city and State) of last high school attended:**  
 East High School, Denver, Colorado

**22. C. Name and location (city, State, and ZIP Code if known) of college or university (If you report in graduate within 9 months, give MONTH and year you expect degree)**

Name and location	Dates attended		Years Completed	No. of credits completed		Type of degree (B.S., etc.)	Year of degree
	From	To		Semester hours	Quarter hours		
University of Denver, Denver, Colo.	1934	1935	1	28			
University of Nebraska, Lincoln, Neb.	1935	1939	4	130		B.S.-C.E.	1939
Harvard University, Cambridge, Mass.	1956	1957	1	28*		MA	1957

**D. Chief undergraduate college subjects**

Subject	Semester hours	Quarter hours	Approximate equivalent
Civil Engineering	45		Government
Mathematics	21		Economics
			Approximate equivalent

**E. Chief graduate college subjects**

Subject	Semester hours	Quarter hours
Government	11*	
Economics	11*	

**F. Major field of study at highest level of college work**  
 Public Administration

**22. G. Other schools or training (for example, trade, vocational, normal, farm, or business) Give for each the name and location (city, State, and ZIP Code if known) of school, dates attended, subjects studied, number of classroom hours of instruction per week, certificates, and any other pertinent data.**  
 Completed following courses offered by Engineering & Research Center, Bureau of Reclamation, Denver: CHM/FERT Techniques (Two courses - Orientation and Detailed Training), June 1963; General Seminar for Honeywell 800 Electronic Computer, Oct. 1963; Value Engineering, Orientation (June 1965) and Workshop (Nov. 1965), Organization & Management Principles, Sept.-Dec. 1969. (Continued - Item 34)

**23. HONORS, AWARDS, AND FELLOWSHIPS RECEIVED**

Sigma Xi, Sigma Tau, Pi Mu Epsilon, Water Resources Fellowship to Harvard Univ.

**24. LANGUAGES OTHER THAN ENGLISH**  
 List the languages and indicate your knowledge of each by marking "X" in proper column.

Language	Reading		Speaking		Understanding		Writing	
	Excellent	Good	Excellent	Good	Excellent	Good	Excellent	Good
Spanish			X					

**25. REFERENCES:** List three persons who are NOT related to you and who have definite knowledge of your qualifications and fitness for the position for which you are applying. Do not repeat names of supervisors listed under item 20, EXPERIENCE.

FULL NAME	PRESENT BUSINESS OR HOME ADDRESS (Number, Street, City, State and ZIP Code)	BUSINESS OR OCCUPATION
Harold G. Arthur	U.S. Bureau of Reclamation, Denver Federal Center, Denver, Colo. 80225	Director of Design and Construction
Herbert S. Riesbol	Bechtel Corporation, 50 Beale Street, San Francisco, California 94119	Asst. to Mgr., Hydro. Engr. (Cons. Engr.)
Maynard M. Hufschmidt	912 Kings Mill Road, Chapel Hill, North Carolina 27514	Prof. Environ. Sci. & Engr., U of N.C.

**ANSWER ITEMS 26 THROUGH 36 BY PLACING AN "X" IN THE PROPER COLUMN**

<p>26. Are you a citizen of the United States? If "No," give country of which you are a citizen</p>	X
<p><i>Before answering these questions read items 27 and 28 in the attached instructions</i></p> <p>27. Are you now, or within the last six years have you been, a member of: The Communist Party, U.S.A. or any subdivision of the Communist Party, U.S.A.</p>	X
<p>28. An organization that to your personal knowledge acts in the overthrow of government of the United States by force or violence or other unlawful means. If your answer to item 27 or 28 is "Yes," give your answer to the following questions in item 29 or in a separate page of paper: (A) The name of the organization? (B) The date of your membership? (C) Your understanding of the aims and purposes of the organization at the time of your membership?</p>	X
<p>29. To insure that you are not placed in a position which might impair your health, or which might be a hazard to you or to others, we need information about the following. Do you have, or have you had, high blood pressure, epilepsy, tuberculosis, or diabetes? If your answer is "Yes," concisely give one of these, identify which one, and give details in item 37.</p>	X
<p>30. Within the last five years have you been fired from any job for any reason? If your answer is "Yes," give details in item 37. Also give the name and address (including ZIP Code) of employer, approximate date, and reason in each case. This information should agree with your answer in item 26, EXPERIENCE.</p>	X
<p>31. Have you ever been convicted of an offense against the law or Federal criminal or for any offense against the law? (You may omit (1) traffic violations for which you paid a fine of \$50.00 or less, and (2) any offense committed before your 21st birthday which was finally adjudicated in a juvenile court; or under a Youthful Offender law.)</p>	X
<p>32. While in the military service were you ever convicted by general court-martial? If your answer is "Yes," give details in item 37. Show for each offense: (1) date; (2) charge; (3) place; (4) court; and (5) other action taken.</p>	X
<p>34. Have the United States Government employ in a civilian capacity or as a member of the Armed Forces any relative of yours (by blood or marriage)? (See items 34 and 35 in the attached instruction sheet.)</p>	X
<p>35. Do you live with, or within the past 12 months have you lived with, any of those relatives who are employed in a civilian capacity? If your answer is "Yes," give in item 37 for each relative: (1) full name; (2) present address (including ZIP Code); (3) relationship; (4) department, office, or branch of the Armed Forces; (5) date answer in 35 or "Yes," also give the kind of appointment held by the relative; (6) you live with or have lived with within the past 12 months.</p>	X
<p>36. Are you entitled to do you have a pending application for retirement or pension pay, gratuity, or other compensation based upon military, Federal civilian, or District of Columbia Government service? If your answer is "Yes," give details in item 37.</p>	X

This Statement cannot be printed until you have answered all questions, including items 26 through 36 above. Be sure you have placed an "X" in the left of the Answer (X) above, either in the "Yes" or the "No" column.

37. Space for detailed answers. Indicate item number to which answers apply.

Item No.	<p>226 Training by Civil Service Commission; Middle Management Institute, Denver, Colorado, Nov. 1967; Executive Seminar, "Management of Natural Resources," Oak Ridge, Tennessee, April 1972.</p> <p>74 Bruce W. Reedy, 3708 Massachusetts Ave., N.W., Washington, D.C. 20016 Sun Employed by: Department of Labor</p>
----------	---

NOTE: In 1966 I was leader of a 3-man Bureau of Reclamation team sent to Kenya by ATD for a 2-month reconnaissance study of a potential 20,000-acre irrigation project on the eastern shore of Lake Victoria near Kisumu.  
In 1968 I was leader of a 3-man Bureau of Reclamation team sent to Puerto Rico for preliminary coordination with the Puerto Rico Water Resources Authority of a feasibility design study of a transbasin diversion project.

If more space is required, use full sheets of paper approximately the same size as this page. Write on EACH sheet your name, birth date, and appointment or position title. Attach all sheets to this Statement at the top of Page 4.

**ATTENTION — THIS STATEMENT MUST BE SIGNED**

Read the following paragraph carefully before signing this Statement

A false answer to any question in this Statement may be grounds for not employing you, or for discharging you after you begin work, and may be punishable by fine or imprisonment (U.S. Code, Title 18, Sec. 1001). All statements are subject to investigation, including a check of your fingerprints, police records, and former employers. All the information you give will be considered in reviewing your Statement and is subject to investigation. A false answer to items 29 or 38 could deprive you of your right to an annuity when you reach retirement age in addition to the penalties described above.

<p><b>CERTIFICATION</b></p> <p>I CERTIFY that all of the statements made in this Statement are true, complete, and correct to the best of my knowledge and belief, and are made in good faith.</p>	<p><b>SIGNATURE</b> (Sign in ink)</p>	<p><b>DATE SIGNED</b></p>
--	---------------------------------------	---------------------------

Page 4

## Bureau of Reclamation History Program

---

## Appendix B: William W. Reedy Biographical Data

### BIOGRAPHICAL DATA FOR WILLIAM W. REEDY

#### ACADEMIC

##### University of Nebraska

Attended: 1936-39  
Degree: Bachelor of Science in Civil Engineering with  
          distinction  
Honors: Sigma Xi, Sigma Tau (subsequently absorbed into  
          Tau Beta Pi)

##### Harvard University

Water Resources Fellowship, 1956-57  
Master in Public Administration, 1957  
Contributing author, Design of Water Resource Systems,  
Harvard University Press, 1962

#### PROFESSIONAL CAREER

##### U. S. Department of the Interior

Bureau of Reclamation, 1939-80, serving in Idaho, Alaska,  
Washington, D. C., and Colorado. Increasingly  
responsible positions in water resource planning; final  
position was Chief, Division of Technical Planning  
Services, 1970-80. Through a technical staff was  
responsible for development of technical planning  
standards, guidelines, and procedures and for adequacy  
of technical planning studies for Reclamation water  
resource projects. Studies included engineering  
surveys, water supply, flood hydrology, sedimentation,  
water quality, land resources, agricultural economics,  
resource economics, environment, and public  
involvement. A particularly significant assignment was  
as hydrologist in the Alaska District Office, as the  
Bureau made its initial studies of potential water  
power development in Alaska.  
Received the Honor Award for Distinguished Service from the  
Department of the Interior, October 21, 1990.

##### Special Studies

Was team leader for a reconnaissance study of the Kano Plain  
Project, Kenya, April-May, 1966. (See attached  
report.)  
Was team leader for a feasibility study of the Bauta-Toa  
Vaca Diversion Project, Puerto Rico, May 1968. (See  
attached report.)  
Was leader of a team that developed and discussed technical  
and administrative aspects of an agreement with the  
Government of Malaysia for study of the Batu River  
Project, the Gombak Dam site, and raising the existing  
Klang Gates Dam (July 1974). The agreement was  
developed cooperatively with personnel of the Malaysian

---

Oral history of William W. (Will) Reedy

Division of Irrigation and Drainage and the U. S. Embassy.  
Following the consultation, the team reviewed potential water resource development projects with government officials in Thailand and the Philippine Islands.  
There were followup consultations with Malaysian officials and the Embassy staff in December 1977.  
Reviewed progress of a study of the San Juan River Project by a Bureau of Reclamation planning team in Nicaragua.  
Also met briefly with water resource officials in Costa Rica, July 1976.  
Participated in the following short-term meetings and consultations with representatives of the U. S. Agency for International Development and others:

In Niger and Senegal to discuss a potential United Nations Development Program study of the Niger River Basin. Met with representatives of the basin countries, the Niger River Commission, and the Club Amis du Sahel. October 1976.  
In Paris to discuss the terms of reference for the UNDP contractor to perform the study of the Niger River Basin, January 1977.  
In Birkinia-Faso (then Upper Volta) for further discussions of the study of the Niger River Basin, February-March 1977.  
Lectured on water resource development at a seminar sponsored by the Japanese Ministry of Construction, in Kyoto, Japan, March 1978.

Consulting Career after Retirement from BuRec

Was leader of a team sponsored by USAID that prepared a report supporting implementation of the first stage of an action plan for development of the resources of the Gambia River Basin in West Africa. Study of the action plan was sponsored by USAID and UNDP in cooperation with the local countries and potential donor nations. July 1980.  
Was consultant from 1981 to 1992 to the GCC Joint Venture (Getty Oil Exploration Company, Cities Service Company, and Chevron Shale Oil Company) for study of a potential project to provide water for development of oil shale in western Colorado.

Miscellaneous Career-related Activities

Member of American Society of Civil Engineers from Student Member at University of Nebraska to current Fellow grade.  
Delivered 15th Annual Samuel Avery Lecture at University of Nebraska on November 10, 1966. Title was "Water - Everybody's Problem". Lecture was subsequently published in the Bulletin of the American Water Resources Association, March 1967.  
Was joint author of a paper, "Making Weather Modification a

---

Working Partner in Water Resources Development", published in the Proceedings of the First National Conference on Weather Modification, Albany, New York, April 29-May 1, 1968.  
Lectured on River System Planning at a University of Nebraska Short Course on "River Systems" at Lincoln, Nebraska, July 25-26, 1972.  
Presented two papers at conventions of the American Society of Civil Engineers:

"The Grand Valley Project", presented at the ASCE National Water Resources and Ocean Engineering Convention, San Diego, California, April 5, 1976.

"Water for the Valley of the Sun", presented at the ASCE Annual Convention and Exposition, Philadelphia, PA, September 30, 1976

#### COMMUNITY ACTIVITIES

Played cello in the Jefferson Symphony Orchestra (a community orchestra in Golden, Colorado) from 1956 to the present. Has served on the JSO Board of Directors and was vice-president from 1981-85.

Has been a member of First Presbyterian Church of Lakewood, Colorado, since 1955. Has served as a Deacon and has also served 15 years on the Session, including chairmanship of the Worship and Music and Stewardship committees. Was coordinator of peacemaking activities from 1985-90, and was chairman of the Social Justice and Peacemaking Committee, 1991-92. Was chairman of two organ committees, the first to purchase and install a pipe organ and the second for a major upgrading of the organ. In 1988 chaired a task force to study, with major input from the congregation, the long-range program needs of the church. Was a delegate from the Presbytery of Denver to the 202nd General Assembly of the Presbyterian Church (U.S.A.) in Salt Lake City, Utah, June 1990.

Together with his wife, Lois Hammond, (UNL 1940), started square dancing in Boise, Idaho, in 1947 and organized the Boise Valley Square Dance Association with 19 member clubs. Also organized the Gastineau Channel Square Dance Association in Juneau, Alaska.

Life member of UNL Alumni Association (No. 1154). Was president of Coloradans for Nebraska in 1967-68.

---

## Appendix C: Small Projects Loan Program

### Small Projects Loan Program

One important program that was under the Division of Project Investigations (also called the Division of Planning Coordination) was the Small Projects Loan Program or just the Loan Program. As I recall, the program was started in the 1960's with the passage of the Small Projects/<sup>Act</sup> by the U. S. Congress. The act provided funds at a low interest rate for small private irrigation districts or projects so that they could repair or upgrade their existing facilities. Money was authorized annually by Congress to fund work under the act.

All the work was the responsibility of the individual districts. They would contract privately for the necessary engineering studies and for the project construction or rehabilitation.

A Loan Program Office was established in the Division of Project Investigations, and the position of Loan Engineer was established for an engineer to work with the districts to be sure that the work done by the districts was adequately performed. The Loan Engineer worked closely with the district staffs and their consultants in developing plans, ~~ENGINEERING~~ and cost estimates, preparing reports, preparing the necessary documents for getting the loan, and contracting for the approved construction. The Loan Engineer would sign off on the project when construction was completed.

The first Loan Engineer was Rex Reed; he deserves the credit for developing an effective program and implementing it with the private districts. Following Rex as Loan Engineer were Bob Butte, Del Fleissence, and Ron Willhite.

I don't know the present status of the program, whether or not it is still in operation.

For a simple reservoir operation study the basic data needed are: records or estimates of stream runoff at the reservoir site and the diversion site; estimates of demand on stream flows for irrigation, municipal water supply, power generation, and maintaining stream flows, to name some of the most important demands, also reservoir capacity required for flood control; and topographic mapping data for preparing area and capacity tables of the reservoir site, showing water surface area and reservoir capacity for different water surface elevations.

A basic simple method of estimating stream flow at a site where there are no long term records is to prepare a graph or curve correlating monthly runoff at the proposed reservoir or diversion site, which may have a short period of record, with concurrent runoff at a stream location where there is a significantly longer period of record. It may be necessary to draw more than one curve for different months or periods throughout the year. From these curves or correlations, it is possible to estimate runoff at the desired location by entering the curve with the runoff from the long-term records on one axis and reading the corresponding estimated runoff at the desired site on the other axis. It is desirable to include long-term periods of drought or low runoff in the study to determine possible runoff available during a critical period of reservoir operation.

Estimates of potential demand for irrigation are derived beginning with an estimate of water requirements for a typical acre of potentially irrigable land. Estimates of potential consumptive use per acre by crops are based primarily on temperature data and type of crop. To be sure that all cropped land has enough water to meet consumptive use requirements, surplus water must be applied to the land, the excess flowing away as surface drainage or subsurface drainage. Finally, allowance must be made for losses in conveying and distributing the water to the lands. The per-acre requirement is then multiplied by the number of irrigable acres that can be served to obtain the total demand on the stream or the reservoir for irrigation.

Other procedures are used to estimate water requirements for municipal water supply and minimum stream flows and required reservoir capacity to store runoff for flood control.

Area and capacity curves for the reservoir are prepared from topographic maps of the reservoir site either from maps prepared by mapping agencies such as the U. S. Geological Survey or prepared from field surveys of the specific site. From the map determine the area at, for example, each ten-foot difference in elevation. Average the area in acres at successive ten-foot contours, multiply by ten, and the result is the reservoir capacity between the two contour elevations. From these data, you can draw curves showing the reservoir area and capacity versus elevation beginning at the bottom of the reservoir.

From all these data you can perform a simple operation study. For example, compare ~~runoff~~<sup>demand</sup> in a specific month with available runoff in that month. If there is surplus runoff, the surplus would be stored in the reservoir; if there is insufficient runoff to meet the demand, storage would be released from the reservoir. Continuing the process throughout the period of recorded and developed runoff would help determine the reservoir capacity needed to store enough water during periods of surplus flow in order to have enough during periods of insufficient flow.

For operating a powerplant at a reservoir you need the flow available to run through the powerplant during a month, the average head on the turbines during the month, and apply appropriate factors to estimate the amount of energy generated during the month. Reservoir operation would be similar to that described ~~about~~<sup>above</sup> for irrigation.

The above are very simple examples, but they illustrate basic procedures for performing water supply studies.