ORAL HISTORY INTERVIEWS

ROY GEAR

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STATUS OF INTERVIEWS:
OPEN FOR RESEARCH

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Interviews Conducted and Edited by:
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STATEMENT OF DONATION
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ROY D. GEAR

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INTERVIEWER: _____
Rett Allen Storey

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

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

While we attempt to conform to most standard academic rules of usage (see *The Chicago Manual of Style*), we do not conform to those standards in this interview for individual's titles which then would only be capitalized in the text when they are specifically used as a title connected to a name, e.g., "Secretary of the Interior Gale Norton" as opposed to "Gale Norton, the secretary of the interior;" or "Commissioner John Keys" as opposed to "the commissioner, who was John Keys at the time." The convention in the Federal government is to capitalize titles always. Likewise formal titles of acts and offices are capitalized but abbreviated

usages are not, e.g., Division of Planning as opposed to "planning;" the Reclamation Projects Authorization and Adjustment Act of 1992, as opposed to "the 1992 act."

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

Introduction

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

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

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For additional information about Reclamation's history program see:

www.usbr.gov/history

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Oral History Interviews
Roy Gear

Storey: This is Brit Allan Storey, senior historian of the Bureau of Reclamation, interviewing Roy D. Gear, on February 22, 2000, at about two o'clock in the afternoon in the regional offices in Boulder City, Nevada. This is tape one.

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

Early Life

Gear: I was born in a little town of Ford, Kansas, in 1921, so I'm basically a Kansas boy at heart. I went to school at Kansas State University in Manhattan, after serving about four years in the Army Air Corps. I had a little schooling before I went in, finished up afterwards.

I then went to work, when I graduated with a B-S in agriculture, went to work for International Harvester Company. Worked there about a year, year and a half, at a very low wage. All wages were low back in those years. They were lower

than some. And I did a lot of traveling, which I really didn't like too well.

So I had a chance for an assistant professorship back at the university in Manhattan, so I took that, and while I was there I decided to work on my master's degree. So I got a master's degree in economics. Not knowing what to do with it, and jobs were not plentiful back in those days, I took a civil service test and qualified for government employ. And I was just about to take a job in Grand Island–Reclamation had an office in Grand Island–and a man came to the office, who lived in Manhattan, had graduated from Manhattan, and was working for the Bureau, happened to be working for the Bureau in Boulder City. He came up to the department where I was working and asked if I would be interested in moving to Boulder City. And I said, "Why not. I've never been there." I thought, "Well, when I go to Boulder City, maybe I'll stay a couple of years and move on."

I did come to Boulder City and I was here about a year and a half, and my wife got gravely ill. Medical people were not too plentiful in Vegas at that time, when Vegas was about 30,000 people. So I took a job with a commodity counseling firm in St. Louis, Missouri, and was there about a year

while she went through some rather intensive medical treatment. When she felt she was well enough, I decided I wanted to get out of St. Louis and come back to the Southwest, and inquired as to whether they might have an opening for me. They said, "Go to work tomorrow."

So I came back to Boulder City. That was in 19–well, my first trip was here in '49, I believe, or '50, and I came back in '52. Thought maybe I'd stay here a year or two. But the way it turned out, I stayed in Boulder City working for the Bureau of Reclamation until I retired. I never transferred. I threatened to several times. Well, I didn't threaten; I was going to, for a promotion, of course. They said, "We'll match it here." I said, "Okay. No point in moving." So that's the way I stayed in Boulder City until I kind of went through the ranks. I became the Assistant Regional Director in 1975, I guess it was, and I was Assistant Regional Director until I retired in 1987.

I wouldn't recommend that as a route for people to go, because I think it's vitally important that they move around, particularly if they're going to stay in Reclamation. Move around and see what other areas have to offer, get a broader view of the

whole program. It worked out well for me, but it's something I wouldn't recommend. I think it's valuable for people to move around and get a broader perspective of the whole program.

Storey: Good.

Gear: So I retired in 1987, and this is the first time I've been back in the building since I left.

Storey: Really. Over twelve years, then.

Gear: Thirteen years.

Storey: When you went to Kansas State, what were you planning to do when you went to Kansas State?

"I Wanted to Get in Business Related to Agriculture"

Gear: I was a farm boy and I had a little bit of college before I went into the service, and when I got out, I wanted to get in a business related to agriculture, some kind, machinery. I started taking agricultural engineering because I wanted to get in with International or John Deere, one of the big manufacturing companies that make farming equipment, but that didn't work out. I was offered the job out here before I was offered a job

eventually in Michigan, and I didn't want go to Michigan. So that was really my objective. In addition to which, I wanted to take a course that I could get out of faster. I didn't want to change direction, because I'd more or less have to start over, and I was anxious to get out of school and get going.

Storey: Were you raised through your early years in Ford, Kansas, then?

Raised on a Kansas Farm

Gear: No, my dad was a schoolteacher and we moved to southeastern Kansas. Ford was in southwest Kansas. I was really raised in southeastern Kansas near a little town called Galesburg, only a couple hundred people. My dad died in a hunting accident when I was in the fourth grade. He was a school superintendent there. We lived on a little 160-acre diversified farm, no money to speak of, hand-to-mouth existence, raising your own vegetables, beef and eggs and so forth. So I really became kind of a farmer at that point in time, and from there through my high school years I pretty much run the farm, odd as it might seem, along with my mother. I had a brother who eventually took over when I left,

when I left school after my senior year.

But I liked farming, liked the way of life. It's not one where you're going to get rich. Nowadays you couldn't get into farming, I don't believe, unless you inherited a spread, because it's just too expensive.

Storey: Did your brother continue in farming?

Gear: My brother continued in farming for about ten years, and he gave it up and went to work for the Postal Service in Kansas City.

Storey: Would this farm have been an irrigated farm?

Gear: No, it wasn't.

Storey: It was just natural moisture there?

Gear: If it rained, it was natural moisture. Otherwise, it's dried up like everything else. It wasn't the best way to make a living, but it was one way. You survived.

Storey: Other than your subsistence crops, what was grown on the farm?

Gear: Well, mostly you grew–we had a few milk cows, had quite a lot of chickens, layers mostly, sometimes we'd raise capons, a few pigs. Never did get into sheep. Then basically wheat, corn, a few beef cattle. But it was a small farm, 160 acres, so subsistence is what it was.

Storey: And you sold eggs?

Gear: Yes, we sold eggs.

Storey: Sold chickens?

Gear: Eggs, sold chickens, sold cream, milk.

Storey: How did you sell those? Did you sell them in the town of Galesburg?

Gear: We did sell–yes, we did. Galesburg had a little produce business there. We sold our eggs to this produce house. He also bought the cream. We separated the cream at the farm, used the milk to feed the pigs and chickens and so on, the skimmed milk. Chickens we would sell to this produce man. The cattle we would haul to a stockyard place in Parsons, which was about fifteen miles away, and sell our cattle to the stock market.

Storey: How did you haul them?

Gear: We had a trailer, just pulled it by a trailer, or there was a man in town worked at the stockyards and he said, "I'll haul them in," for little or nothing, a couple of bucks back then. So we'd say, "Come and get it." He'd haul them in.

Storey: What kind of water supply did you have on the farm?

Simple Farm Life

Gear: The only water we had was from wells, and they were shallow wells, dug wells, actually. Didn't have a drilled well. They were about maybe twenty-five feet deep at the most, and, of course, all we used the water for was livestock and for household use, and then we had a pretty good-sized pond down the pasture for livestock. If it didn't rain, you begin to wonder where your water's going to come from. They were not great wells, but they were adequate.

Storey: Did they ever go dry on you?

Gear: Never went dry. You pumped them dry once in a while, but they would recover in an hour or two.

Storey: How about electricity?

Gear: For most of the time I was on the farm, we had a little thirty-two-volt generating plant, had a whole wall of batteries about ten feet wide, and two shelves full of them. We had thirty-two-volt motors, had a motor on the pump that pumped water for the livestock. Had lights in the house, electric fans in the summertime. That's about the extent of what you were using electricity for.

Storey: So your cream separator, for instance?

Gear: We cranked that by hand.

Storey: And I'm guessing this was a gasoline-powered generator?

Gear: Yes, it was.

Storey: What did you do for recreation?

There was Little Time for Recreation on the Farm

Gear: Work, mostly. [Laughter] School, you know. I played basketball, softball. Too small of a school to get into football and that sort of thing. It was

only a three-teacher high school, fifty people in the whole high school. I played basketball, softball. Had a creek that ran through our neighbor's farm, and in the summertime us youngsters would go down and do a little skinny-dipping. But that was about the extent of the recreation. Otherwise, you were working and you were doing chores or shocking wheat or hoeing cockleburrs or thinning vegetables or whatever it took to survive.

Storey: How big an area do you suppose you had planted, actually?

Gear: In actual crops?

Storey: Yes.

Gear: Probably about 120 acres.

Storey: So that was more than just your food crops for the house.

Gear: Yes, a wheat cash crop, some sorghum for silage, soybeans for hay.

Storey: For the cows.

Gear: Oats. We had about a one-acre orchard with all

kinds of fruit trees and about probably a half-acre garden. As big a garden enough for me. I wouldn't want an any bigger one, when I'm out there hoeing weeds.

Storey: And how did you decide you were going to go to college?

Decided To Go To College

Gear: I don't really know. My dad was superintendent of schools. I had one brother and three sisters. I'm the only one that went to college. I just decided I wanted to go, and they said, "Okay, if you want to go, we'll try to support you."

The first year in college, I went to Kansas State Teachers College, which is at Pittsburgh, Kansas, about fifty miles from where I lived. And I lived in a basement room with four other guys, had two bunkbeds, double bunkbeds, had a little gas plate and a little half-refrigerator. Ice box is what it was. And we were all farm kids. We'd bring canned stuff from the farm, eggs, meat, pretty much how we survived, as far as eating was concerned.

And I was lucky enough to get a job with the

old N-Y-A, the National Youth Administration, that paid me twenty-five cents an hour on weekends.[1] So that helped quite a lot. The second semester, I went to work on a dairy about a mile from the college, for my room and board. So I milked and fed cows, helped bottle milk, and pitched manure and whatever it took. And the guy was good enough to lend us an old automobile to drive to school. There were two of us working on this dairy. Once in a while–he was a good old guy–he'd give us fifty cents and tell us to go out and have a good time.

Storey: Do you remember his name?

Gear: No, I don't remember his name. He was kind of an old geezer. But you couldn't do a dairy that way these days. No pasteurization, no nothing, you know, just raw milk. And we had the milk route, too, run the milk route.

Storey: This would have been what, about '38, '39, you first went off?

Gear: '39 and '40, yes.

1. The National Youth Administration was a New Deal agency created to provide work and education for young adults between the ages of 16 and 25.

Storey: And what did you do after that first year?

Start of the War Interrupted College

Gear: After the first year, I went for one semester at Parsons Junior College, which was just about ten, fifteen miles from where I lived on the farm, because I couldn't afford to go back over to Pittsburgh anymore. Then the war came along, and I volunteered for the service and was turned down because of my eyesight. Then I just worked on the farm for a few months. The draft came along. I went into the draft, and if your body was warm, they'd take you, so I went into the service.

Come out of the service after about four years, wanted to get a job and start making a little money, so I went to a little factory there in Parsons that made window frames, steel and aluminum window frames. I said, "I want a job, any kind of job. I can do anything." If you work on a farm, you can do anything. And he asked me a little bit about my background. He says, "You know, I know you'd be a good hand, but my recommendation to you is for you to go to college. Go get an education. Don't get yourself tied to this job which really has no future. You can make a

living here, but go to college." And that's really the thing that triggered me to go back to college after the service. If it hadn't been for him, I'd probably still be making window frames.

Storey: Well, the next question I want to ask you is how you afforded to go back to college, but let's step back first and talk about your four years in the service. What was the routine for you? Where did they send you for basic and all that kind of stuff?

Military Experience During the War

Gear: I was inducted at Fort Leavenworth, Kansas, and they wanted to put me in the cavalry because I was a farm boy. I didn't want to pitch manure my time in the service, so I said, "I'm mechanically inclined. I'd like to get in the Air Corps." Fortunately, they sent me to Shepherd Field, Texas, which was kind of a basic training combined with some mechanical activities to see what your aptitudes were mechanically.

And after basic training there, I went to Douglas Aircraft factory in Santa Monica, California, for some specialty training on A-26s, which is a little bomber, twin-engine bomber. From there they sent me to Greenville, South

Carolina, where they put me on B-25s, and I was in Greenville for a little over three years. I wanted to go overseas. I'd see these guys going overseas, you know. Boy, that'd be great stuff. My C-O said, "If I sent everybody overseas that wanted to go, I wouldn't have anybody left." So I stayed at Greenville all the rest of my Army career until I was sent to a town up in Massachusetts for discharge back in December of 1945. So I was a mechanic and engineer on a B-25 all the time I was in service, after my initial training.

Storey: How did they move you around?

Traveling on Troop Trains

Gear: Troop trains.

Storey: You started in Leavenworth, you went to Texas, California, back to South Carolina, you said.

Gear: South Carolina. Troop trains.

Storey: Tell me what they were like.

Gear: Some of them were not too bad. They were the old basic Pullman car, no sleepers, just seats. The

one that I took from California to Greenville, though, was one of the older, older-type passenger cars that had wooden seats, and it took us about four days to get back to Greenville. And those seats got mighty hard in four days. You wouldn't believe it, that they would put you in cars like that.

But it was a good-sized troop train. No air-conditioning. You'd go along with the windows open, and when you go back east of the Mississippi, where there were quite a number of tunnels in that mountain country before you came out on the coast, you'd be going through those with the old coal-fired steam engines and unless you had some warning to get your windows up, you got covered with soot as you went through those tunnels. It was not pleasant. But after a few of those, you kept your eyes out if it was daytime. You started putting your windows up.

"Quite an Experience"

But it was quite an experience. We actually stopped several places for meals, ate in some Fred Harvey places, probably some of the best meals I had in the Army. Other places, they'd stop and bring on a bunch of box meals, probably some contractor, caterer, selling his leftovers to the

Army. It was an experience that I wouldn't want to go through again, but it was an interesting part of my life.

Storey: But you didn't want to be, for instance, an airplane mechanic after you got out?

Gear: No, no, I sure didn't. I actually wanted to be a pilot, but I couldn't pass my physical because of my eyes. I had had amblyopia in one eye, so my depth perception is not as good as it needed to be for pilot training.

Storey: Why did you choose the Air Corps?

Gear: Well, I wanted to fly. When you're out on the farm and you see the old airplanes going by, and a couple of my older friends had an airplane, it was just something I was fascinated with. I didn't want to be in the infantry, I was pretty sure of that.

Storey: What were your quarters like in South Carolina? Where was it in South Carolina?

Gear: It was in Greenville.

Storey: Greenville. Yes, you said that. I'm sorry.

Gear: We had barracks, two-story barracks, with about, oh, I'd guess sixty or seventy or eighty people on each floor in double bunks, bunk over bunk, all open space. The last year I was there, I was fortunate enough to get an individual room in an old officers' quarters. They no longer use them for officers' quarters. Some of the people that have been around there a long time, they let them go up to the B-O-Q and get a room there.

Storey: Did you get any promotions?

Gear: Promotion? I was a corporal, stayed a corporal.

Storey: What did a corporal do in the situation you were in?

Gear: Actually, it was just like being a mechanic. We had a crew chief who had about two or three or four guys under him, mechanics under him, that maintained the airplane, changed engines, changed plugs, changed oil, whatever was required, changed ailerons, patched holes, changed the instruments. These were mostly training flights, young guys,

young, twenty, twenty-one years old, being pilots. So, yes, it was a good place to be if you had to be someplace in the service, I guess.

All the maintenance was outside. We didn't have hangars. So in the wintertime it was pretty bitter working. Even though South Carolina was not all that cold, we would wear wool-lined suits, boots, your hands get numb trying to reach back in there in these old Pratt and Whitneys, change propellers, whatever was needed.

Storey: But this was basically servicing the planes that were used for training?

Gear: Right.

Storey: This wasn't them flying in planes that needed to be refurbished or anything like that.

Gear: We didn't refurbish. They were mostly training planes, although some of them did go overseas with those planes, and some of the planes came back from overseas that were in not too good a shape, that came in.

Storey: What was the food like in the Army in South

Carolina?

Army Food

Gear: It wasn't bad, actually, except for there were two things you didn't like, was powered eggs, which seemed to turn green when they cook them, and we called it goat stew. It probably was mutton stew. I've never eaten mutton since. Other than that, we had pretty decent food.

Storey: Did they serve Spam, for instance?

Gear: They did have Spam. Had chicken, beef, a lot of stew-type materials, eggs. All the eggs you wanted for breakfast if you happened to be there at a time when they were frying eggs, but if they had scrambled eggs using powdered eggs, you didn't want to eat that stuff. [Laughter]

Storey: Why would they send you clear to Massachusetts to muster you out of the service?

Gear: I guess it's the same reason why they'd make truck drivers cooks and cooks truck drivers. [Laughter] It never made sense to me.

Getting Back to Kansas After the War

Storey: Then how did you get back to Kansas? Did they pay for your transportation? How did that work?

Gear: They gave you, I think it was two hundred dollars allowance to get back home the best way you could get there. And I lost most of mine in a poker game.

Storey: What did they pay you during the war, do you remember?

Gear: I think the first few months I was in, it was twenty-one dollars a month, and then it got kicked up to fifty dollars a month. That's what it was all the time I was in, as I remember.

Storey: And did they play a lot of poker?

Gear: Yes.

Storey: Did you play a lot of poker?

Gear: I played a lot of poker. I don't out here, but I did in the service. I learned my lesson when I got mustered out. [Laughter]

Storey: And lost most of your two hundred dollars.

Gear: And lost most of my two hundred dollars.

Storey: So how did you get back home, then, if you'd lost most of that travel money?

Gear: A guy came along and says, "I've got a ticket here to Iola, Kansas, if anybody wants it." And Iola was only forty miles from where I lived. So took that train ticket to Iola and hitchhiked home.

Storey: So let's get back to the question I wanted to ask. How could you afford to go to school?

Returned to College on the GI Bill

Gear: Mostly because their tuition was–gosh, I don't know even if they had tuition then. But we bought used books and we had a few bucks, you know, to pay for our room. I know after the war, even, when I went to school up in Manhattan, I had my room and board for thirty dollars a month. Then I was on the G-I Bill. I think I was getting ninety bucks a month for schooling on the G-I Bill. But before that, it was mostly survive if you can.

Storey: So you went back to school before the G-I Bill was passed, is that what I'm hearing?

Gear: No. I went back to school right after I got out of the service. The G-I Bill had already passed or I probably wouldn't have gone back to school.

Storey: And when you say you majored in agriculture, any specific kind of agriculture?

Gear: It was general agriculture. Actually, a course in agricultural administration, which included–

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Went to Work for International Harvester

Gear: . . . some of the courses that might be of value to you in business, accounting, and that sort of thing, business management, a little bit of law. So it was agriculture with, I guess you'd say, a minor in business, which I thought would be valuable if you went to work as a co-op manager or wherever you went to work, for an implement company. Actually, I was working for International Harvester, traveling, when I met my wife in Hutchinson, Kansas. She worked for a dealership there.

Storey: Were there a lot of other G-Is in school then?

Gear: Mostly G-Is, I would say. A lot of them already married. They had housing for married G-Is, little Quonset huts. I lived in rooming houses. Then my wife went to work when I went back to work on my master's.

Storey: So you met her in Hutchinson.

Gear: I met her in Hutchinson.

Storey: And how long a courtship was this, if I may ask?

Gear: About a year before we got married.

Storey: If I'm recalling correctly, Hutchinson's sort of out west.

Gear: It's right in the middle of Kansas, right in the center.

Storey: It's on, what, maybe I-70 there?

Gear: No, it's south of I-70. It's on U-S 50.

Storey: Was she from around there?

Gear: She lived on a farm about twenty miles west of Hutchinson, but she worked for this dealership in town and roomed in town.

Storey: You married her after you had left K-S-U?

Gear: Yes, after my B-S, yes.

Storey: And then you went back to school.

Earned a Master's Degree

Gear: Then I went back to school. She went back with me when I took that assistant professorship job, and she went to work for crop insurance, U-S-D-A crop insurance office. So we lived high off the hog and bought a brand-new car before we came out here, for $1,700, money we had saved up.

Storey: What car was that?

Gear: It was a 1950 Chevrolet.

Storey: It's amazing how many people bought brand-new cars just out of school before they went to their first job. [Laughter] In those days.

Gear: Yes. My first car out of the service was a 1940 Chevrolet Business Coupe that I paid $1,000 for and it was $750 brand new. This was about six, seven, eight years old when I bought it.

Storey: So it would have been about '48 or so?

Gear: Yes, I guess it was about '47, maybe, when I bought that car. They were just beginning to manufacture cars again. They were hard to get, so the older cars were selling really well.

Storey: I remember my dad bought a Chrysler on the black market. [Laughter] Well, I don't remember. I remember the stories about it.

So you were teaching. Now, why were you teaching? You had a B-S., right?

Gear: I had a B-S.

Assistant Professor at KSU

Storey: Was there some professor who was a mentor or something?

Gear: There was. He asked me if–well, I actually went back because the pay was so much better than the job I had with International, where I was making $175 a month. And this job back at the university as an assistant professor was 350 bucks a month, which was big dough for me.

Storey: Yes, but that was probably nine months a year, right?

Gear: That was nine months a year, yes.

Storey: And then in the summer you didn't get anything.

Gear: Didn't get anything. Still had some G-I Bill left, so I got that and went to summer school and graduated actually at the end of summer term. That's when I came out here and landed in Boulder City in August.

Storey: You graduated with your master's degree.

Gear: Yes.

Storey: So while you were teaching, you were also–

Gear: Going to school.

Storey: –going to school and getting your master's degree.

Gear: Right.

Storey: What were you teaching?

Gear: I was teaching farm accounting and I was teaching a basic course in economics, just general economics.

Storey: Did they offer you the assistant professorship because you wanted to go back to school?

Gear: No. No, I got that anyway. I decided to go back to school.

Storey: Who was the man who was your mentor?

Gear: A man named George Montgomery. He was the head of the Agricultural Economics Department.

Storey: So when you went to school before, he must have liked you or liked your work.

Gear: I guess we got along pretty well.

Storey: Did he come after you, or did you ask for a job?

Gear: I think he sent out here and inquired if I would be interested. That's when I was working for International in Wichita at that time. But he knew I was looking for a better job.

Storey: So you took the Civil Service exam.

Took the Civil Service Exam

Gear: Yes.

Storey: That would be for the GS-7 level or the GS-5 level?

Gear: The GS-7 was a master's. It was 5 if you had your bachelor's. So I came out here at a GS-7.

Storey: Do you remember who the man was that you ran into in Manhattan that suggested Boulder City?

Gear: A fellow by the name of Ned Thompson.

Storey: Was he there recruiting or–

Gear: He was there visiting his mother. He had an opening. He was head of the Economics and Statistics Branch in the Irrigation Division, they called it then, out here. He had an opening and he came up to the department there at the university and wanted to know if there was anybody interested up there. I was all ready to go to Grand Island. He talked me into coming out here.

Storey: Was there a pay raise involved?

Gear: Yes.

Storey: Do you happen to remember how much?

Gear: I made $3,825 a year here.

Storey: When you first came?

Gear: When I first came.

Storey: So 325 for nine months would be–

Gear: Whether I could have stayed there, you know, if you did, you had to continue working for your doctor's degree if you wanted to be a professor. I really wasn't that inclined to go for a doctor's degree.

Storey: What was your first job here in Boulder City?

Starting with Reclamation in Boulder City

Gear: My first job, as I mentioned, was in the Economics and Statistics Division, and the Division of Irrigation, they called it then, doing economics studies to support projects that were being planned by the Planning Department to support the repayment studies for contracts. Back then, the

Wellton-Mohawk Division of the Gila Project was just getting under way, so most of my work at that point in time was involved with farm budget studies out in the Wellton-Mohawk area down at Yuma.[2]

But I didn't really like it. I went out interviewing farmers, and that wasn't the job that I liked. I hated to take farmers' time, although they were, you know, most of them were happy to have someone to talk to. But I really didn't like the work. I wanted to get into repayment. I'd gone to a few sessions where they were negotiating repayment contracts. I kind of liked that. So after about a year in the Economics and Statistics Division, I transferred to the Repayment Division. They had an opening there.

Storey: You called it farm economic studies.

Gear: Yes.

Storey: What was the objective of that?

2. The Wellton-Mohawk Division of the Gila Project provides water for 65,000 acres of farm land in southwestern Arizona. For more information, see Tina Marie Bell, "Gila Project," Denver, Colorado: Bureau of Reclamation, 1997, www.usbr.gov/history/projhist.html.

Farm Economic Studies

Gear: The objective was to come up with a budget that would show that they could afford the project that the government was proposing to build. Of course, you had to provide enough in there for subsistence for the farm family and enough left over to make payments to the government for their water and to repay the cost of the project. It was a 160 acre limitation. In those days, that was pretty tough sledding. A man and a wife could go for 320, but that was not a lot of acreage, even back in 1950 when costs of farming was pretty high.

I also worked in the Phoenix area at the same time doing the same kind of work to support some rehab studies. People were wanting to rehab their systems; get government loans. And you had to come up with proof that they could afford to pay. They would have to pay for the money they borrowed from the government. So as I remember the farm subsistence level in these budgets, and it was dictated by Washington how much a family should have, gosh, it was $1,800 a year or something like that. Wasn't very much. So it was still tough time then in farming. That was my first exposure, actually, to irrigation.

Storey: So you had to travel down there to do this?

Gear: I spent a lot of time in Yuma and in Phoenix doing this kind of work, and Coachella Valley.

Traveled Throughout the Region

Storey: So what was travel like in those days, in the federal government?

Gear: Mostly by automobile at that point, un-air-conditioned automobiles painted black so they'd absorb all the summer heat. We had attorneys that were in Los Angeles. When they set up the Regional Office for the Southwest Region, they wanted to establish it in L-A. But the guy that they wanted as a Regional Director said he wouldn't go to L-A., but he said he would go to Boulder City, where Boulder Canyon Project was located. So they moved the administrative part to Boulder City. The legal part was in Los Angeles. So in those early years when we went to see the lawyers, if we didn't drive, we took the train, took an overnight train to L-A and back. I had done that several times.

Storey: That would be from Las Vegas?

Gear: That's from Las Vegas to L-A.

Storey: Which line was that?

Gear: That was the Union Pacific, I believe it was.

Storey: Why would you have to go talk to the attorneys?

Gear: Mostly working on repayment contracts.

Storey: So this wasn't during the farm economic studies.

Gear: No, that was after I transferred into the Repayment Contract Branch.

Storey: Was there a lot of pressure on you to demonstrate that the projects were feasible?

Pressure to Demonstrate Project Feasibility

Gear: Yes, there was a lot of pressure. Some projects were not feasible, and they'd say, "Well, let's work it around. Get a little crop in there that's a little more productive, a little more sensitive to the market for cash income. Give them a few cattle," whatever it took, you know. There was a little scheming involved in some of these farm budgets.

Storey: So it didn't necessarily reflect reality?

Gear: It was close to reality, but with a little editorial license in how you set up the operation.

Storey: Do you know where the pressure for that editorial license came from? Was it the Region? Was it the project offices, D-C, or what?

Gear: It really, I think, stemmed from politics, where a senator or congressman wanted a project, and he'd put the pressure on, of course, at the Washington level, and it just tumbled on down to the grassroots level.

Storey: That's interesting. Do you remember any particular project where this happened?

Gear: I think that Wellton-Mohawk is a prime example of that, and subsequent events, I think, have proven that out. The original repayment contract for Wellton-Mohawk was 42 million dollars, which is the biggest contract that had ever been negotiated at that point in time, in '52, I believe it was. Eventually, when they started getting water to their land, then it turned out they needed a drainage project, which really was known at the time but

didn't come out until later. And so we went in with a plan for a drainage system that ran another 14 million dollars.

Salinity Issues on Wellton-Mohawk

In subsequent years, the problem came up with delivery of water to Mexico and salt deliveries to the water that was delivered to Mexico. A lot of that drainage water was very high in salts. It was run into the river and if there wasn't any excess water to dilute it. So that's really what led to the Yuma Desalting Plant, if you've ever heard of the Yuma Desalting Plant. It was a very, very expensive proposition.

But over the years, they have taken a number of acres out of production out in the Wellton-Mohawk area to reduce the return flow to the river, the highly saline return flow. In exchange for taking acreage out, they've reduced the repayment load, written it off. So there was a lot of politics in Wellton-Mohawk.

Storey: Was there a particular congressman or senator that you're aware of that was interested in that?

Gear: Carl Hayden was a senior senator from Arizona at

that time, from the Phoenix area, actually, but, of course, was a senator. The whole state was his province. At the time he died, he had served longer than any other senator in the country, in the history of the country. Fifty years, I think it was. Had a lot of clout.

Storey: Yes, it was amazing.

Gear: This was a time when Floyd Dominy–well, he came in a little bit after '52, as I recall, but Floyd Dominy and Carl Hayden got along just like that.[3]

Storey: Got along really well.

Gear: Oh yes. Anything Floyd Dominy came up with, Carl was behind him, or vice versa. Those were the heydays, so to speak. [Laughter]

3. Carl Hayden served Arizona in Congress, both in the House of Representatives and the U.S. Senate from 1912 to 1968. Floyd Dominy was commissioner of the Bureau of Reclamation from 1959 to 1969. Commissioner Dominy participated in Reclamation's oral history program. See Floyd E. Dominy, *Oral History Interviews*, Transcript of tape-recorded Bureau of Reclamation Oral History Interviews conducted by Brit Allan Storey, senior historian, Bureau of Reclamation, April 16, 1994 and April 8, 1996, at Bellview Farm in Boyce, Virginia, Edited by Brit Allan Storey, www.usbr.gov/history/oralhist.html.

Storey: I believe you said you worked for about a year and a half in farm economics.

Gear: Yes.

Storey: Then you got a job in repayment.

Gear: Right.

Repayment Branch

Storey: What did repayment mean in those days? What was the job?

Gear: The job primarily, in addition to justifying a project, which kind of worked in cahoots with the Economics Branch, was negotiating contracts for repayment. There were quite a few other responsibilities that went along with the repayment aspect. I don't recall what they were, even though I was in the Repayment Branch for ten or twelve years.

Storey: With a break in there, I guess.

Gear: Well, I didn't have a break in there.

Storey: Did you do farm economics, then go away to St.

Louis, and then come back into repayment?

Gear: Yes. Right. That's right.

Storey: So you went in there about 1952, into repayment.

Gear: Right.

Storey: Tell me how we went about figuring out what a repayment contract should be like in those days.

Developing Repayment Contracts

Gear: Well, first of all, you had to know the cost of the project, estimated cost, which nearly was always underestimated. Probably nearly 100 percent of cases, I think, the original estimate was low. Then you had to come up with a process whereby the farmers could pay for the project.

Involved in that oftentimes were some non-reimbursable costs. And you'd attempt to maximize the nonreimbursable costs if you could work some flood control into the project, work some Indian lands into the project, Indians being nonreimbursable. Maybe get a little municipal water supply in there to help get a little more

repayment from municipal water. It was a conflagration of different things that went into the repayment.

Then you had a limitation on how long people could repay, you know, a legal limitation from the legislation. Basically it was forty years. Wellton-Mohawk, as I recall, they had an extension for sixty years, because that's what it took.

Storey: How did you get extension like that?

Gear: From additional legislation through our good senators. It was an interesting process and a lengthy process usually, with many negotiating sessions and give and take, legal language, acceptable, non-acceptable.

Storey: Acceptable and non-acceptable? I'm not following.

Negotiating Contracts with Water Users

Gear: Well, acceptable to the water users. If the water users didn't like something that you were trying to get into your contract to the government's benefit, to the government's advantage, and the water users didn't want to go for it, you're at an impasse. You

either had to come up with a way of modifying the language or you had to come up with a way of modifying the water users' point of view, either through convincing them that this is the only way to go, or they can go this way, or they'll go back–lots of times they went back to the legislature for modifications.

But I'd say Wellton-Mohawk had probably over the length of period from 1950 until I retired, Wellton-Mohawk probably had as many problems of varied nature as any project, although there were a lot of projects with a lot of problems, including ones in other regions like the Riverton Project and some of those.

Storey: Yes. I'll tell you a story about Riverton off tape. [Laughter]

So the first thing you'd do is what, go to the economics people and get them to tell you how much had actually been spent on the project?

Repayment Ability of the Water Users

Gear: Well, first you'd go to the planners. They'd come up with a plan for a project and the estimated cost.

Of course, the estimators go through the Construction Engineering Division and all the rest of the divisions to get all the elements into the cost. Once you got the cost of the project, you would–and then you got the repayment ability of the water users.

Storey: Through your farm study or whatever.

Gear: Farm studies primarily, and see whether the two would match or not. If they don't, you either rework the farm budgets to an operation that's a little more profitable or you go back and just start looking at your plan. And maybe you'll take part of the project off that's marginal or submarginal. Most projects had that. Or maybe you'd go back in and have a new re-land classification to show that you had more Class One land than you thought you had. Or you'd redo the project to eliminate this section and maybe take another section of land over here. Some places you couldn't do that, because you're limited in the land that was available. But it had to be arable land, which the land classifiers would say was usually class one, two, three, or six, or four, were the basic land classes. Class one being the most productive. If a farm contained sixty-three acres of class one land and sixty-one acres of class two and some acres of

class four, which is going to require drainage or land treatment of some kind, you'd have to prepare your farm budget along those same lines. You couldn't do it all on class one land, because most of them weren't all class one land.

Then you had to modify your repayment. If this guy's on class two land, he can't pay as much as this guy on class one land, so he's going to be treated a little better financially in the repayment contract. He can only repay ten dollars a year per acre. This guy on class one land pays eighteen or fourteen or whatever it might be. But if he has a mixture of lands with various capabilities, then you have to blend them all together to come up with a composite of ability to pay. Then you put all those together and hopefully you come up with a plan that is feasible. Some projects are not feasible. Some projects that were not feasible were built anyway.

Storey: Because?

Gear: Because Congress appropriated money to build it, to build it.

Storey: Even though we told them it's not feasible?

Gear: Yes.

Storey: Do you recall any specific examples of that kind of project?

Questionable Projects Constructed

Gear: I don't know of any in this Region, because this Region's generally more productive than others. But I'm sure in some of the northern regions, Riverton, Wyoming, and some places like that, you'll find some projects that were built that were certainly submarginal.

You know, some projects you can help repay by electric power, if you generate electric power. So you can allocate some cost to that. In fact, I think the branch is called Repayment and Allocation, or Allocation and Repayment, where you allocate costs to different aspects of the project: flood control, Indian, land class, power, wherever you could allocate the cost.

Storey: I guess I hadn't thought much about this, but what I think I'm hearing you say is that the repayment contract was signed before we actually started building the project.

Gila Project

Gear: It should have been signed. It wasn't always signed before you built the project. The Gila Project in our area was authorized–oh gosh, I don't remember the year, way, way back, and they built part of the Gila Project before Wellton-Mohawk actually was authorized, but it's also a part of the Gila Project. The Gila Project was originally designed for 585,000 acres, as I recall, and eventually, the way it was built, it was reduced to about 150,000 acres. When they built the headworks at Imperial Dam, the diversion works, they built it to divert–capability of diverting 6,000 cubic feet per second, as I recall. Eventually I think they reduced that to 2,000. There were some costs involved in building Imperial Dam with the headworks, and the All-American Canal headworks, that eventually you had to declare nonreimbursable through congressional action.

Storey: Because the project didn't pan out as they thought, or what?

Gear: They didn't pan out as they were thought, and it was built before you had repayment. Some of this was in the early years, you know, when the

government was looking for ways to provide employment.

Storey: All-American, for instance, would have been a project in that time period.

Gear: They share the headworks with the Gila Project.

Storey: So now you were involved in the negotiations with the water users for repayment?

Gear: Yes.

Storey: How would that work? Do you remember a specific example, for instance?

Gear: Well, in the Gila Project, one of the first things that we had to do was allocate some costs that you know you weren't going to get paid for, which in part was Imperial Dam and the 6,000 headwork facility that was built there.

Storey: You're saying it could have been reduced in scale, probably, to divert 2,000 cfs?

Gear: Initially, yes, it could have been, but it had been planned for 585,000 acres. And there weren't 585,000 acres down there that really were arable,

that would support the project in addition to the water supply, which is kind of nebulous, too.

Storey: That was on the–

END SIDE 2, TAPE 1. FEBRUARY 22, 2000.
BEGIN SIDE 1, TAPE 2. FEBRUARY 22, 2000.

Storey: This is Brit Story with Roy D. Gear on February 23, 2000.

Homesteading was Difficult on Yuma Mesa

Gear: If I'd had my name in for a homestead on Yuma Mesa and my name was drawn, I probably wouldn't have taken it. Because it was nothing–looking at it, it's nothing but a sandpile up there, sand, barren desert, high water use. You really couldn't cut it on an ordinary farm crop, because there just wasn't enough productivity there.

So a lot of these guys that actually got homesteads there floundered a while trying to grow alfalfa, wasn't very lucrative. But it's a great citrus area. So the ones that could afford it started putting in citrus groves. Of course, you've got about a five-year period before you get any returns

from a grapefruit tree. So it's pretty tough sledding unless you had a job somewhere else. A lot of them did. Some of them became pretty well-to-do citrus growers. But it looked pretty bleak when there was nothing up there, and it was hot in the summertime. Yuma wasn't much of a town then. I'd have been hard pressed to go to Yuma in any circumstances back in those days.

Storey: When were those days?

Gear: Those days were in the fifties.

Storey: This would have been maybe when you were doing farm economic studies?

"It's a Nice Area Now"

Gear: Some of it was, yes. I also got into contracting about that time, because I remember negotiating Yuma Mesa repayment contract. But it looked bleak. It's a nice area now. A lot of them had to take the citrus out, and I don't know what they're trying to grow, whether they've put in some other crop or not. Grapes never did very well up there. Some of them made pretty good money growing peanuts for a while when the peanut market was good. But the bulk of it was in citrus.

There was a little project right adjacent to it called the Yuma Auxiliary Project, was kind of an auxiliary to the Yuma Project. Had about 3,000 acres up on the mesa from the Yuma Valley, and it was established way before my time, had been there a long time. It was all in citrus, and those guys were all making good money in citrus.

160 Acre Limitation Detrimental for Successful Farming

A lot of it started out as, you know, they'd put in ten acres of citrus and as they got a little income, they'd maybe buy an adjacent ten-acre piece, put in ten more acres of citrus, till some of them eventually had a pretty good spread. But the 160 acre limitation was a big deterrent to really getting into a profitable general farm-type activity. It's just not enough land.

During the heydays of trying to enforce the excess land provisions, they were more or less ignored for many years. People would have to divest themselves of their holdings if they wanted to continue receiving water. A man and wife was able to hold 320. Initially they couldn't do that. Then they relaxed the laws a little bit and let a man and wife have 320, and then they let their kid have 160.

If they had five kids, six kids, you know, you finally get your spread up to where it's big enough to make a profitable farm. Then you risked the kid saying, "Hey, I don't want to farm anymore. I want to sell my piece." But that's the risk you took.

A lot of people on the Salt River Project were also not in compliance, and one guy in particular, called Max Springer, was farming 320 acres. He was going to have to get rid of 160 acres, and he was being pressured to get rid of that acreage. We got a faxogram–it wasn't a fax, a telegram back in those days–from the project manager, says, "Max Springer now in compliance. He's married. Do you feel responsible?" [Laughter]

Storey: Sounds as if acreage limitation was being paid attention to back then.

Gear: It was.

Storey: Did we have a staff doing that? How was that handled?

Acreage Limitation Policy Poorly Policed

Gear: Very poorly back in the early days. The projects

were supposed to police that. Of course, none of the projects were very enthusiastic about the 160 acre limitation. That was okay back in 1902, 1910, back in those days when you're farming with mules, but as farms became mechanized and equipment became more expensive, it just wasn't big enough to support family with that kind of enterprise. You couldn't do it with mules anymore, either.

So a lot of the farms just kind of gradually grew. People would lease land from people who were in compliance of 160 acres. But gradually it just got out of hand, and to enforce the 160 acre limitation on an economy that was built on 700 acres, plus or minus, whatever it might be, it was just an almost impossible situation.

A lot of that came to a head with the Westlands Project out in Central Valley. Those were big holdings. A lot of those big companies had designed what was called a recordable contract that required them to dispose of their land over a certain period of time so it could be phased out. I think in later years–and this would have to be verified by someone besides me–that the land limitation laws were liberalized considerably, and

they should have been. Whether they were or not, I don't know, but–

Storey: I think it went up to 960 or 940.[4]

Gear: I think they were liberalized significantly. But when you were trying to enforce the land limitation of 160 acres, you were not a very welcome person among farmers or projects, either one.

Imperial Valley was another different situation, in which the old 160 acre limitation theoretically applied, but I think it was Ray Lyman Wilbur–I'm not sure whether he was Secretary of Interior or a Solicitor back at that–

Storey: He was Secretary of the Interior.

Enforcing the Acreage Limitation Rule

Gear: But during those days, a memorandum was written probably within the Department [of the Interior] which exempted Imperial from the 160-acre limitation, and a good many years later that was determined to be an illegal determination.

4. In 1982 Congress passed the Reclamation Reform Act that, among other things, raised the acreage limitation for receiving project water from 160 acres to 960 acres.

Storey: Was that when you were Division Chief?

Gear: That occurred–yes, that was about that time. That was about that time.

Storey: So then what did we do to enforce it?

Gear: Very little. Very little. I don't recall whether Imperial Irrigation District ever was in compliance with the 160 acre limitation until such time as the law was liberalized. I know I had to go down there at one time at a town meeting and explain the 160 acre limitation requirement, and I was an unwelcome cowboy, I tell you. [Laughter] This big hall that we were in, it was packed. We had one of the infamous Imperial Valley earthquakes. That building just shook like hell. People started heading for the exits. They said, "That's what you have in store for you when you come to Imperial Valley and try to enforce the 160 acre limitation."

Storey: Who said that?

Gear: I don't remember who said it; somebody at this meeting. [Laughter]

Storey: That's interesting.

Gear: But it was an unwelcomed experience.

Storey: They weren't thrilled to see you.

Gear: Not at all. Not on that issue.

Storey: Nor to hear your news.

Reclamation Not Very Welcomed in the Imperial Valley

Gear: That's right. They were never very thrilled with Reclamation. When I first came to Reclamation in 1950, you were not welcomed in Imperial Valley, and I don't really know why, except they didn't like Reclamation. They liked the All-American Canal, but they didn't think Reclamation should have any jurisdiction over what Imperial Valley did.

I know at one meeting in Los Angeles when the then-president of the board in Imperial Irrigation District–I can't remember who the Regional Director was at that time, whether it was Ernie [E. A.] Moritz or someone, I don't really remember, when we were talking about enforcing the limitation, the director said to the president of the district, "What would you do if you had a government job and you were in my shoes?" He says, "I just thank God I'm not in your shoes."

[Laughter]

Storey: This is the Regional Director?

Gear: Yes. But they were not really welcomed in Imperial in those early years. They'd call down there on some issue, maybe the All-American Canal, particularly with Evan Hughes, who was the director at that time, he was quite anti-Reclamation, he said, "Well, what's that pipsqueak organization up to now?" [Laughter] Whenever I had a job of some kind to do in Imperial Valley, regardless of what it was, I always had a little reservation about going in there, until later years. After about 1970, they were pretty good to work with.

Storey: Did they change directors?

Gear: Here? There? Yes, they changed them every so often, yes. In fact, we were on a trip to Rainbow Bridge up at Lake Powell when I was–I think I was still in the Irrigation Division at that time, for a trip to Rainbow Bridge on Park Service's big boat, and Imperial Irrigation District Board, I think Coachella Valley County Water District Board, probably about twenty, twenty-five people up at Page to make that trip. And the then-president of the board

was along and he died while he was in the motel, before the trip took place.

Storey: The Imperial.

Gear: Imperial. I think he'd been out jogging, came back to his room, and died. Had a heart attack, I guess. So it was kind of a somber trip to Rainbow Bridge.

Storey: I imagine it was. That would have been in the sixties?

Gear: I think that was probably in the seventies.

Storey: So it was after Powell was full.

Gear: Yes, after Powell was full and you could get up to Rainbow Bridge.

Storey: Tell me about how the nature of your jobs changed as you went from being a staffer to being Branch Chief, to being a Division Chief, to being Assistant Regional Director. And were you the only Assistant Regional Director, or was there more than one?

Gear: At the same time?

Moving Up the Ladder

Storey: Yes.

Gear: I was the only assistant at the time I was in there. We did have an Assistant to the Regional Director, who was in charge primarily of administrative programming, finance, general services, but he was called an Assistant to the Regional Director, a grade lower.

Before I left, well, it was while Bill [Nelson W.] Plummer was Director, I think, we did have another Assistant Regional Director, Assistant Regional Director for Construction. The guy's name was John Brown. John was here a couple of years, I guess, as an Assistant Regional Director for Construction and then he left. I believe he retired and became the executive director of the water district at Grand Junction. Durango. Durango. I don't recall the name of the district. But he was an engineer, and Bill Plummer, I believe, brought him in as Assistant Regional Director for Construction.

Storey: How did the nature of your job change over the years? What's the difference between being a staffer and a Branch Chief and so on?

Responsibilities Increased

Gear: A lot of difference in responsibility. A lot of difference in the people you had to get along with. A lot of supervisory problems that came up as you progressed in responsibility compared to when you were a loner, you could care less. There were some times when the transition wasn't that easy. When you would get promoted to a job and someone that was your peer at the same time the job was available, and you got the job over him. There were some times when you had a little rough going. That evened out after a while.

A case in point would be with Curt Bowser. Curt was here longer than I was. He came here in '44, I think, '45, maybe. He was the Lands Chief. He had applied for the job, and it was given to me. And we had some differences of opinion on how some land matters were being handled. I don't recall the specifics of it. I just had to finally tell him, "I'm the boss, Curt." And that didn't go over too well. Actually, the relationship was a little bit strained for all the rest of the time that I was his direct supervisor. Nothing of major concern, but you could feel it in the air.

But primarily it's in responsibility and taking

on areas of activities that you might not be all that familiar with. In fact, being an economist, basically, administrator, by schooling, and moving into a job that was primarily administrative and legal in nature, in contracting, and taking over responsibilities that engineers were handling. You had to prepare yourself for those types of things by trying to get educated in the areas of expertise that you really weren't competent in to begin with. Most people were very cooperative in dealing with you and helping you understand what they're doing, why they're doing it.

I was quite familiar with most of the activity in the Irrigation Division just because it was not a big division, and the guys talking about their problems. What they were doing, what issues were coming up. So you weren't totally unfamiliar with what was going on, but as a supervisor, you had to get a lot closer to the problem.

Reclamation's Management Development Program

I was selected for the Bureau's first Bureau Manager Development Program back–I don't recall the date. '67, somewhere along in there. It was the first year they had done that program. I

think there were about six or seven people that they selected to participate in that program. It was a farce at that point in time. You selected areas that you thought you wanted to get some expertise in, get a little more knowledgeable on. So I did, selected some areas.

In the meantime, the people who you were going to work with on this program were notified that they had a responsibility in helping this trainee, so to speak, learn. Most of them could care less back at that point in time. I recall I wanted to learn more about drainage and drainage problems. Denver had an office. I don't know whether it was called Division of Drainage or what, but it was headed by a guy named Charlie Maierhofer, very good in drainage. But that was one area I wanted some expertise in, so they set up a schedule for me to spend two weeks in the Drainage Division of the Denver Office.

So the day I went up, I went in to talk with Charlie, shooting the bull for a half hour or so, and he said, "What are you doing? What did you come to Denver for?" So I told him. He said, "Oh, yeah, seems like I heard something about that." He says, "Well, you can use Tom Steele's [phonetic] office. He's off in Turkey on some kind of assignment.

You can use his office. It's around the corner." He says, "Just go around there." He says, "Get some manuals out and get familiar with our manuals." I spent the whole damn two weeks in the Denver Office doing nothing but reviewing some manuals. No exposure to their problems, what they were doing. Nothing. And most of the areas that I was involved in, in that program, were the same way. It was a waste of money, a waste of time. I think eventually the program developed into a pretty good program, but that first year, it was, in my opinion, it was a lost cause.

Storey: Did they have evaluation forms and things?

Gear: I don't really recall if they did or not. They should have had, if they didn't. I think I did fill out an evaluation form as to what I thought of the program, and I told them. I didn't put any embellishments on it; I just flat told them how I felt about it. I gave them some pointers for improvements to make it a decent program.

Storey: What else did you do on that program?

Spent Time in Programming and General Services Division

Gear: I worked in the Programming Division.

Storey: What's Programming? What do they do?

Gear: They set up the program for the Bureau's requests for funding, primarily.

Storey: The budget people.

Gear: The budget people, yes. The budget. The work that I did in the budget, any peon could do it. "Add these figures up. Add these figures up." I spent some time in the General Services Division, reading manuals.

Storey: And General Services would do what?

Gear: Reading manuals.

Storey: That's what they did?

Gear: No, that's not what they did; that's what they had me doing. No, they were involved in, at that point in time, property, had responsibility for all the property. They were doing some acquisitions, contract acquisitions. I think they were in charge of some maintenance. I don't recall all that they were doing, because I didn't really get involved in any of

that because they'd–"I've got to get this work done and get this work done. You go do something else."

Detailed in Washington, D.C.

I did go to Washington for a couple of weeks, spent most of that time in the Division of Irrigation, shooting the shit more than anything else. Excuse me. But they didn't have a developed program. It's a good concept, but hadn't been developed. Subsequently, they developed the Departmental Manager Training Program, which I didn't participate in. I think it probably was a much better program than the Bureau Manager Development Program. I don't know if they still have either one anymore or now. Probably they do, or something similar. But the Departmental Program, Bill Plummer went to that one. I can't recall whether Gene [Eugene] Hinds did or not. Maybe Gene might have. But you got some good exposure back there on Capitol Hill and the other areas in the Department [of the Interior], so I think that was probably a pretty good program.

Storey: What did you do when you went to Washington?

Gear: On the Bureau Manager Program?

Storey: Yes.

Gear: Just visited around mostly.

Storey: Do anything on the Hill?

Gear: Didn't do anything on the Hill. Went to a couple of meetings up in the Secretary's Office on–I can't recall what they were on now. Just sat in the background as an observer. Neither of them lasted more than five, ten minutes. But I didn't get up on the Hill at all.

Becoming More Aware of Political Issues

Storey: As you moved up in the organization, did you become aware of political issues more?

Gear: Definitely, much more.

Storey: What shape did that take, generally?

Gear: Generally you had to be much more knowledgeable of what the agenda of your congressmen and senators were. Because oftentimes you would have meetings with these guys, or in a meeting,

when these people were around, one or two, or the governor of the state, and they'd find you're from Reclamation, they'd start inquiring into various and sundry things. "What are you doing about this? What are you doing about that? You think we could get this accomplished?" And you just had to be much more aware of where their interests lie, where in some of the more technical jobs, you could care less where their interests lie.

I had quite a bit of exposure to [Arizona Governor] Bruce Babbitt in those days, [Arizona U.S. Senator] John McCain, to a lesser extent the congressional delegation from Nevada, because Nevada in this Region didn't have anything going except Southern Nevada Water Project, some dealings with Senator [Alan] Bible at that time. Primarily involved in Arizona political issues, some in California, not so much. Most of my dealings there were with water district-type people rather than with political-type people. The occasional meetings with city managers and county managers and that sort of thing when they were involved or had an interest in what Reclamation was doing. Just had to be much more aware of the political phase of Reclamation's activities.

Storey: What about awareness of economic issues?

Economic Issues on Central Arizona Project

Gear: That really didn't come into play that much as an administrator, at least not as far as I was concerned. One of the biggest issues of that nature, of course, were involved with Central Arizona Project,[5] which is a very expensive project, and the economic feasibility of the project overall. It initially was proposed primarily as a municipal water project for the city of Phoenix, and then, of course, got expanded and you got your Indian rights involved. That's made the whole picture more complicated.

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Storey: Tucson became involved.

Gear: Tucson became involved to build an aqueduct to take Colorado River water to Tucson. Their water table was falling quite drastically. Tucson didn't like our water.

5. The Central Arizona Project, authorized as part of the Colorado River Basin Project Act of 1968, was designed to deliver Colorado River water to central Arizona.

Storey: When it got there?

Gear: They initially started using it and the consumers were complaining about corrosion, and it's pretty high in salt. Of course, it's 700 parts per million, as I recall, from the river. By the time it gets down to Tucson, it's probably 800. Gets pretty salty. They had pretty good groundwater. So I don't think they're even using it in their system now. They may be using some to recharge groundwater, but they're not putting it directly in their system. You have some Indian reservations down there that you are able to allocate some costs to, but the water gets quite expensive, time it gets down there.

Storey: Yes. Were you involved in any of the Indian water-rights issues?

Indian Water Issues

Gear: Yes, I was. Indian water rights has always been an issue. Of course, the Indians claim they have prior right to whatever, and perhaps they do. I don't know. But then the Salt River Project encompassed much of the Indian area. Colorado River has several Indian reservations along it, but eventually the Indian water rights on the Colorado

River were pretty well settled by the Supreme Court decision of 19-whatever it was. It's allocated so much to the Indian reservations. There was a lot of negotiation going on with the Indians during that period prior to the time the Supreme Court issued its decision.

The Indian rights situation in central Arizona probably is still quite controversial. I know in the time I retired, it hadn't been determined what the Indian rights really were. Part of the settlement of the Indian rights question in central Arizona eventually involved the Wellton-Mohawk Project down in the Yuma area, whereby, as I am informed, they actually took some acreage out of production in the Wellton-Mohawk Division to make that water available for Indian water rights over in central Arizona. As a result, a bunch more of the Wellton-Mohawk costs are written off. But that occurred in legislation subsequent my time, so I'm not familiar with the details on that.

Storey: Tell me about C-A-P and your involvement with that one.

CAP Repayment Activities

Gear: My personal involvement dealt largely with

repayment activities of C-A-P. Their ability to repay and the allocation of costs to municipal water and to Indians and to flood control, wherever you could find a place to allocate costs. Part of the costs of Central Arizona Project, of course, are allocated to Navajo Steam Generating Plant, which was financed in part by the Central Arizona Project.

Also involved in that deal was getting a coal supply for the Navajo project, which eventually is coming from, I believe, Peabody Coal Company on the Navajo Reservation. There were water rights involved in moving that coal and then furnishing water to Navajo Generating Station. Mohave steam plant down at Laughlin, it's a coal-fired plant. We negotiated the water contract for that one.

Storey: But it isn't our powerplant is it?

Gear: No, it's a private powerplant owned in part by the Salt River Project, though, Nevada Power, Southern California Edison, and Department of Water and Power, city of Los Angeles. But the water supply that we negotiated for that was for the steam plant proper. It's fed by coal slurry from the

Navajo mine, whereby they transport that coal in a pipeline, in a slurry, and that water comes from the groundwater supply on the Navajo Indian reservation. I didn't get involved in the details on that, but there always was a controversy among various Indians about using their water for such a frivolous purpose as transporting coal to power white folks' refrigerators and air-conditioners and so on.

But as far as Central Arizona Project per se, my detailed involvement really was dealing with the repayment contract activities. Of course, after that was the administrative oversight capacity as Assistant Regional Director, and overseeing–oversighting, not really overseeing, activities of the Central Arizona Project. Where most of the activity and construction and surveys, land acquisition, took place.

Storey: Tell me about the repayment contracts. We got a repayment contract to start with.

Variable Repayment Schedule

Gear: We got a repayment contract, and I don't remember the details on that too much. It seems to me like that was a fifty-year repayment. I don't

believe we had a development period on that because most of the lands were already developed. Probably had a variable repayment schedule, which means in the early years you pay a little bit. And as the years went by, you jacked that price up a little bit until really your larger payments came in the latter part of the fifty-year repayment period. LeGrand [Neilson] would be a lot more knowledgeable on that than I am at this point in time, because I don't really remember the details. But I do believe it was in the neighborhood of a billion-two. I don't remember that. It was a big contract. It's now in dispute, as I understand.

Storey: Yes, there's a lawsuit that's been filed by C-A-W-C-D [Central Arizona Water Conservancy District], or as they like to call themselves nowadays, C-A-P.

Gear: Yes. But they've had problems with C-A-P. As I understand it, a lot of the siphons under washes and rivers have either collapsed or deteriorated or leaking or whatever. Whether they've had land subsidence problems, I don't know. I think some of the canals they built a little higher to compensate for land subsidence. The last thirteen years, I haven't kept up with what goes on in C-A-P.

Storey: On the C-A-P, how did you distinguish land responsibilities in the Region and right-of-way responsibilities in the Region from those on the project? How do you split that up?

Region's Right-of-Way Responsibilities on CAP

Gear: On the right-of-way, initially right-of-way was being acquired out of this office, the basic responsibility.

Storey: Out of Boulder City.

Gear: Out of Boulder City. But when C-A-P became really active, it was just too big a program for a Regional Office to handle, so they established a land acquisition program in Phoenix, and our Land Acquisition Chief in Boulder City transferred to Phoenix and took that job as Chief of the Right-of-Way Division in the Phoenix Area Office. He had set up a pretty good staff of people to handle the right-of-way problems, so it's pretty largely handled out of the Phoenix Office just because you had the expertise there to do it.

Storey: And did the Region exercise oversight?

Gear: They exercised some oversight, but there wasn't

that much really exercised because of the people they had there. Bobby Vaughn [phonetic] would have been our oversight person had he stayed here, and he was running the program down there. So it was pretty much a self-sufficient program out of the C-A-P office once the project got really under way.

Storey: Same thing for right-of-way?

Gear: Yes. That was right-of-way primarily.

Storey: Remember anything about replacing Wadell Dam with New Wadell Dam?

New Wadell Dam

Gear: New Wadell. Yes, I remember some about it. As I recall, it was a dam that really needed some remedial work. It wasn't a Bureau of Reclamation dam; it was a private dam, as I recall.

Storey: Yes.

Gear: But it did need some considerable work due to the dam safety problem, not that it was the Bureau's problem. But they had dam safety problems, and

the state set up dam safety review programs, too. But with C-A-P, they did need a place for reregulation of C-A-P water so that you could pump water during periods of low use, but you could still use the energy to pump water and store it closer to its point of use.

New Wadell Dam area seemed like a logical place for this reregulation. So it was worked into the scheme of things for C-A-P and they essentially rebuilt. In fact, they might have even moved it a little ways. I'm not sure whether they built over it or just downstream of it, New Wadell Dam, and made a pump generating station out of it so that they could pump C-A-P water up into the reservoir during times when it wasn't needed further downstream, and release it at the time it was. And when it was released, it would generate energy through the hydro plant reversible pump generating units.

As far as the repayment on New Wadell Dam, I'm not sure that the people who owned the dam in the first place ever had any increased liability for it. I really don't know the ins and outs of that. That New Wadell Dam was constructed after I left.

Storey: If you think back over your years with Reclamation, characterize the way you moved around the Region for me and how it changed over time.

Moving Around the Region

Gear: That's not too difficult, because I really didn't move around that much in the Region. I came to the Region in 1950. As I mentioned, I went back to St. Louis for about a year for some medical treatments for my wife, then came back out. Pretty much was work associated with the Regional Office and worked at the Regional Office and did oversight in working with project offices. I did do quite a bit of traveling to project offices, to the E&R Center [Engineering and Research Center], and to some of the other regions on occasion for one purpose or another. But my movement to the Regional Office pretty much was just a kind of progressive step of going from one job to another little more responsive job.

Storey: I didn't ask the question properly. When you were moving from here to Yuma, from here to Los Angeles, from here to Denver, how did the transportation change over the years?

Gear: Over the years, the transportation changed primarily from ground transportation, driving government cars or riding the train, to occasional air flights, to more frequent air flights as they became available. And in probably the last five or six or seven years that I was with the Bureau, we had a Bureau plane. So much of our travel both to the Yuma and the Phoenix area was by plane.

The Bureau Plane

We didn't use the plane unless we felt it was justified from an economic point of view. And off the record, sometimes you–well, you would wait till you had a planeful of people to do various things and to do their oversight things and so on. You could do that, or else you had three or four people going together on a contract negotiating session, for example. Whether that is an economic operation or not, I think in most cases it is not that economic. It's convenient. It's convenient and it's expeditious, and you can get there and get back same day in a lot of cases. Other times you'd have to at least spend overnight. So I never did an economic study on that, but I'm sure it was marginal at best.

Storey: Having our own plane?

Gear: Having our own plane. But sometimes in some areas it's the only way you can get there from here without spending two days driving a car.

Storey: You mentioned the creation of the Environmental Division. Why don't we talk about how the environmental activities started up in Reclamation in this Region. And were they in the Irrigation Division?

Regional Environmental Activities

Gear: Initially they were in the Irrigation Division. It sort of started out kind of as an afterthought, actually. We were doing some fisheries work with the Nevada Department of Fish and Game, with fish primarily in Lake Mead and Lake Mohave. And we felt we needed somebody that was familiar with that industry, that activity, because we didn't have any fish experts, didn't have a wildlife expert.

There was a guy that worked for the Nevada Fish and Game, by the name of Al [R.] Jonez, was a very well-liked person, as far as I know. Arleigh West[6] actually hired him initially. He came on as

6. Arleigh West was Lower Colorado Regional Director from 1959 (continued...)

our resident expert in fish and wildlife matters. We were doing some work on Lake Mead. We had a good bit of criticism the way Lake Mead was being operated as far as the fish and wildlife people were concerned, from lake fluctuations, primarily, when the bass would spawn. During bass spawning season, maybe that's a big water use time downstream, and you reduce the level of the reservoir and expose their nests or bank them in water that is too shallow for survival.

So we had Al Jonez. He was a diver. We would go out on occasion and we'd have Al dive, which was, I guess, a violation of FINA [Federation Internationale de Natation] diving regulations, because Al would dive by himself and you should never have a single diver down. But we had done some of that. Occasionally we'd have someone from the Nevada Fish and Game join Al so you had two divers. But there were times when Al would go down by himself just to see what the bass spawning situation was; to maybe get a count of what he sees in some of the coves.

But it got to the point where Al couldn't handle it all, so we hired–I think that's probably

6. (...continued)
to 1970.

when we hired Jim [James F.] LaBounty, and Jim came in to give Al a hand. I don't recall when the Environmental Protection Act was passed, but that probably was the forerunner to the establishment of the Environmental Division, the E-P-A [Environmental Protection Act] Act.

Storey: Yes, 1969.

Environmental Activities Increased after EPA

Gear: So we did then set that up as a division, after it had been in the Division of Irrigation with these two guys. Then we started hiring staff with people with expertise in wildlife, expertise in fish, expertise in environmental matters, until the division eventually was up. I guess maybe a dozen people in the division.

Storey: Was hiring these folks controversial in any way? How did it happen?

Gear: In setting up the division?

Storey: Hiring the first folks and then eventually becoming a division.

Gear: No, it wasn't really controversial in hiring the first people, because Arleigh was a far-sighted sort of guy and he could see something coming down the pike that some of the rest of us couldn't see, that we were going to get into more and more of this. Al was such a likeable guy that I don't think anybody held any grudge against Al. So I don't see any controversy when we started it.

There was controversy when we started getting into the requirement for all the environmental compliance activities, environmental reports and clearances and statements. Before, the Bureau really never paid that much attention to some of these environmental matters. You want to build a dam or a canal, you go do it. But when it developed that you had to look at artifacts, and you look at the bugs and the birds and the rabbits and the rodents and plants and everything that goes along with environmental issues, it slowed the program down tremendously, made it much more expensive. So it was controversial in that aspect. We were used to going out and having a job and going out and doing it, and when you couldn't get that done because of delays of doing the environmental work. Not that it was bad, it's probably a good thing. I think it was overdone. But that's neither here nor there.

Storey: Do you remember a meeting in Tucson on the environmental issues under Ellis Armstrong's commissionership, by chance?[7]

Gear: I don't think I was involved in that meeting, no.

Storey: Now, the fisheries issues. Did we become directly involved in those? How did we become involved?

Gear: We became involved primarily because of the controversy on lake operations and the bass spawn and the publicity that was generated, and the attempt to operate our facilities that were compatible with the fish life cycle. Then I think the matter just kind of grew. I always felt that we got in a little deeper than we needed to be, into fish and wildlife matters, because you've got agencies to handle that sort of thing. But, nevertheless, Reclamation did get into it, still is, I guess, as far as I know.

Endangered Species on the Colorado River

But then you got into the endangered species situation on the Colorado River with humpback

7. Ellis Armstrong was commissioner of the Bureau of Reclamation from 1969 to 1973.

suckers and some of the other things that most people never heard of. And we had diving expeditions to see if they could count humpback suckers, and two or three or four of the other species. We had an issue with the–what did they call them? Little things we had in Devil's Hole, little fish about yea long.

Storey: Darters, maybe?

Gear: That was one.

Storey: Pupfish?

Gear: Pupfish. That's what they were. Pupfish. And in order to do a little public relations-building, we decided to work with the Department of Fish and Wildlife in Nevada, and we set up a pupfish facility down at Hoover Dam. There's warm springs, several, down there, but there's warm springs just shortly below the dam. So we set up a tank, built a concrete water tank with the water coming in from this hot springs, warm springs, into that tank, and planted some pupfish in there to study pupfish survival in conjunction with the Nevada Department of Fish and Game. The more you get into it, the deeper involved you get. So that was a big deal for

a while, the pupfish.[8]

Then they started getting into endangered plants and tumble bugs and whatever these people get excited about. You know, environmental program's a good program in the long haul, long view, but I think it was way overblown in the expansion of the program and what they got into and the way it interfered with other activities and seemed to take front seat. To me–I'm probably in the minority–that was not a proper interpretation of the Environmental Policy Act.

Storey: What else should we be talking about that I'm not aware of? What sort of leaps to your mind as the most interesting things you did at Reclamation? And the worst things you did at Reclamation.

Gear: I wouldn't want to speak about the worst things that I did. [Laughter]

Water Quality Issues to Mexico

We had quite a number of dealings with

8. For more information on Reclamation's pupfish studies, see Phillip F. Sharpe Herbert R. Gunthur, and James Deacon, "Endangered Pupfish at Devil's Hole," *Reclamation Era*, 59 (Spring 1973): 24-29.

Mexico. I found that quite interesting, because of our water treaty with Mexico to deliver a million and a half acre feet of water a year. Initially that was just water, you know, without regard to quality. Then quality got into the formula. We had many meetings with the Mexican people and the International Boundary and Water Commission on both sides of the border on how to handle the issue of water quality and in deliveries to Mexico, and in maintaining the channel down to Mexico.

The Wellton-Mohawk Project probably was the thing that precipitated the water-quality issue with Mexico, due to the return drainage flow out of Wellton-Mohawk that was two, three, four, five thousand parts per million in salts. When you mixed that with what little Colorado River water was going down to Mexico, it made it quite salty. Of course, the saltier the water, the worse it is, as far as agriculture is concerned.

END SIDE 2, TAPE 2. FEBRUARY 22, 2000.
BEGIN SIDE 1, TAPE 1. FEBRUARY 23, 2000.

Storey: This is Brit Allan Storey, senior historian of the Bureau of Reclamation, interviewing Roy D. Gear, on February 23, 2000, at about two o'clock in the afternoon, at the Regional offices of the Bureau of

Reclamation in Boulder City, Nevada. This is tape one.

Yesterday you mentioned that you were a salesman, I believe, for International Harvester.

Working for International Harvester

Gear: I was a service manager type. I wasn't a salesman.

Storey: What does that mean?

Gear: I went out to different dealerships in Kansas and Oklahoma, sometimes in Nebraska, really working with their service departments was my primary job, and also doing troubleshooting. This is about the time International Harvester got itself involved in refrigeration, household refrigeration. So I became a refrigeration technician. I'd go out and change units on household refrigerators, and in the process, I also got involved in refrigeration units on milk coolers, which was a big deal back then when a lot of people had dairy cattle. And also on diesel tractors and diesel engines that they used in gas-oil pumping and so forth. So I was kind of a diesel engine-refrigeration-troubleshooter, in addition to helping the shop set up their shop in the most

efficient manner, shop manuals in order and that sort of thing. But I was not a salesman.

Storey: I misunderstood that. And it may be that this question isn't going to be relevant, but you can tell me that. Did you work in any irrigated areas when you were doing this work?

Gear: There was some out in western Kansas, yes.

Storey: Were there any types of special equipment or special needs that International Harvester serviced on those irrigated areas?

Gear: I don't think International got involved with irrigation at that point in time. I know Ernie [E. A.] Moritz,[9] who was the Regional Director here at the beginning, always used to say, "I had a complete success and I had a complete failure as a Reclamation construction engineer." The Yakima Project was his success. The Garden City Project was his failure. Garden City is in western Kansas.

Storey: And, of course, it's a project that's been disposed of now because it didn't work.

9. Ernie Moritz was Lower Colorado regional director from 1943 to 1952.

Gear: I'm sure it has been.

Storey: That's interesting. But irrigated agriculture didn't require any special equipment, say, for instance, that you wouldn't use on a dry-land farm or anything like that?

Gear: No, I don't believe so. I think that's true even today.

Storey: Okay. Good. Yesterday we were talking about the different branches within the Irrigation Division when you became the Division Chief. You mentioned economics. That's the farm–

Gear: Farm economic studies, do studies, prepair crop reports, do statistical studies and that sort of thing.

Storey: And we've also talked about repayment, which you headed for a number of years.

Gear: Yes.

Storey: For about ten or fifteen years, as a matter of fact.

Gear: Probably about ten or fifteen.

Storey: Tell me more about irrigation operations. What does that involve?

Irrigation Operations

Gear: Irrigation operations involved any problems that came up in connection with completed systems, actually. Whether it was in pumping plants, in irrigation measurement devices, in diversion facilities, in drainage wells, irrigation wells, lining of canals, soil conservation activities as might be related to canal lining or water conservation measures, review of maintenance on facilities, including both dams and irrigation facilities. Most of the facilities are turned over to water-user organizations as soon as they're capable of taking care of them. But the title is still in the United States, both the irrigation system per se and to the underlying rights-of-way.

So the Bureau is, in a sense, responsible for what happens to that system. So we had actually annual reviews of maintenance, we called them, where our engineers would go out and go over the entire system with the district operating people and point out areas that needed attention, and give them due credit where they had done a good job. Sometimes they had made changes in a system

because they felt the changes were in their best interest, when they really weren't in the best interest of Reclamation. Which I really can't point out a specific example, but one might be where they changed the spillway works because it wasn't spilling where they wanted it to. Or they wanted to change the course and it might have been in their best interest, but not necessarily in the best interest of the United States in case there was damaged or lawsuits as a result thereof.

But primarily I think their biggest responsibility was in assuring that the facilities were maintained in a proper manner. And if they needed work, trying to work with the water users in getting financing if that were necessary, or giving them advice. We often would bring out an expert from the Denver Office, also in irrigation operations, to accompany our people on those inspections.

Storey: You talked about turning the projects over for O&M. What about constructing them? Whose responsibility was that?

Gear: Construction?

Storey: Yes.

Construction Responsibilities within Reclamation

Gear: Initial construction was the Bureau's responsibility. They did all the construction, as far as I'm aware.

Storey: But within Reclamation, who was responsible?

Gear: We had a division in the Regional Office called Division of Design and Construction. They were generally the local people responsible for seeing that construction was done properly. Although if a project is under construction, there is normally a dedicated Construction Engineer at the site, who is responsible for all those construction activities, with advice and consent and help of the experts in the Denver Office. Who generally knew more than anybody else, they claimed. But you did have a Construction Engineer in charge of the projects.

Storey: Let's see. You became Division Chief in '65.

Gear: I believe it was '65.

Storey: So who chose the construction engineer then in '65?

Gear: As far as the project construction engineer?

Storey: Yes.

Gear: I suspect that that was a joint effort between the Regional Office and the Denver Engineering Center. They would advertise, normally, for the vacancy for the Construction Engineer, and whatever Region was involved, that Region would, I think, basically be responsible. But with a lot of input from the Denver Office.

Storey: Did that situation change while you were still at Reclamation?

Changes in Construction Contracting Procedures

Gear: There was a change in the contracting procedure when I was still in Reclamation. The Design and Construction Division used to be responsible for the construction contracting, whatever matters were involved in construction contracting. I'd say it was around 1980, plus or minus, that was changed and the contracting responsibility was moved from the Construction Division to what I call the Division of General Services, who had construction expertise in their contracting officers.

It was a very unpopular move with the

construction engineers, with some legitimacy, I think. But it didn't seem appropriate to some people who were in office of power at that time, that the people who were supervising construction were the same ones who were administering the construction contract.

Storey: So where were these different divisions located?

Gear: In this Region or generally?

Storey: Generally. You said it shifted from one division to another division.

Gear: That was in the Region.

Storey: Okay.

Gear: It shifted from Construction Division, which was located in this building at that time, to the General Services, which was down over on Railroad Street at that time. I think at the same time it was moved in the Denver Office from the construction people to the, quote, "contracting people," some of whom had construction experience and some of whom didn't.

Storey: That would have been about the time you became

Assistant Regional Director.

Gear: It's along about that time, yes. I don't recall exactly when it was, but it was a very unpopular move as far as construction engineers were concerned.

Storey: Did it have any repercussions for Reclamation?

Gear: I don't think it had any significant repercussions. You still had the attorneys involved in construction contract matters, and they would be involved regardless of who was in charge administratively of those contracts. But I think it was mostly internal strife that that move resulted in.

Storey: Now, let's see if I've got this correct. Back in those days we had administrative money, we had planning money, or was it–

Gear: General Investigations [G-I], I think.

Storey: G-I money.

Gear: Yes.

Storey: What supported your division, the Irrigation Division? What kind of money?

Gear: It was supported primarily from G-A-E, General Administrative Expense, but there were also some charges like Review of Maintenance. Oftentimes the water users would have to cough up the money for that. But basically it was General Administrative Expenses.

Storey: Let's talk about the annual reviews a little bit. Were they in depth, and did they request changes to be made? How did the water districts respond to requests?

Water Districts and Annual Reviews

Gear: Most water districts were very responsive. I think they welcomed them. There were a couple of districts that didn't care much for it, but they were cooperative. But generally they were pleased to see that review, because when you see a system in operation every day, you begin or can begin to overlook things just because of the gradual change in their condition. And you really don't notice it until someone comes in from the outside who maybe hasn't seen it for a year. And during the past year, they can see that there's been some deterioration that is a little more significant than perhaps the water users thought it was.

Storey: Did you ever have any major issues come up in that program while you were there?

Gear: We never really had any major issues that I can recall. There were some review of dams that created some consternation among various people, including the Denver offices, the Regional Office as well as the water users.

About that time, and I don't recall the date, was when the in-depth review of dams program was initiated. And part of that, I think, was the result of the dam up in Idaho that–

Storey: Teton.

Gear: Teton.[10] But then that was a pretty in-depth review of maintenance on that dam program. As a result, a lot of dams have been rebuilt, refurbished, rehabbed, modified, costing more than the dam did in the first place.

10. Teton Dam was the primary feature of the Teton Basin Project in eastern Idaho. Reclamation completed dam construction in November 1975. On June 5, 1976, Teton Dam Failed leaving 15,000 people homeless, resulting in 13 fatalities, and causing more than one billion dollars in property damages.

Storey: Did you have any particular experience with a situation like that?

Safety of Dam Issues

Gear: My only personal experience was in review of maintenance of dams on the Salt River Project. I think Salt River [Project] was also happy to get those reviews, because there were some major flood potentials in the Phoenix area, particularly since it became urbanized and the dams were beginning to deteriorate, better information developed on hydrology. So as a result, there was a lot, many, many millions of dollars worth of work done on Salt River Project. Roosevelt Dam in particular was very expensive. It was raised a good many feet I don't recall, but almost essentially built a new dam over the old dam.

Storey: Was the safety evaluation of existing dams and the Safety of Dams Program part of your division?

Gear: No, that was kind of a division or section all its own being run pretty largely out of the Denver Office, but with participation by the Region and the projects.

Storey: So how did it affect the Irrigation Division then?

Gear: I don't think it had any effect on it, really. I'm not too clear on what the repayment responsibility was on some of those major renovations. I think in some of them the water users were required to pick up some of the cost. A good bit of the cost probably could be declared nonreimbursable due to safety hazards. And a lot of it could be also allocated to flood control, flood-control costs being nonreimbursable in most cases.

Storey: Like on the Salt River Project.

Gear: Yes.

Storey: How about river operations? Was that part of your division?

River Operations

Gear: It was part of my division–well, it wasn't part–yes, it was. It was part of my division during my latter part of my irrigation supervisor days. And then during my Assistant Regional Director days that was under my jurisdiction. Primarily, initially was run out of the Division of Design and Construction. Well, even before that, it was a division, actually almost a project all its own, Division of River

Control.

Storey: What kind of issues came up in that office, in that branch?

Gear: In river control?

Storey: Yes.

Gear: What kind of activities, you mean?

Storey: Yes, what kinds of issues. How do you balance hydro against irrigation water delivery and whatever the other issues are.

Gear: Well, that part was Division of Irrigation, was eventually. Initially it was in River Control. They did all the water scheduling. Then the water scheduling and the river control function was moved into the Division of Irrigation, when they did away with the River Control Division. So we did the water scheduling responsibilities, did many, many studies, particularly after we got computerized and your information on runoff became more sophisticated. I'm not sure that really led to any better operation, but at least you went through a lot more measurements. A lot more activity to support what you were doing.

A big portion of the river control work, other than water scheduling, was in managing and controlling the river. Doing river revetment work where it was necessary, levees, dredging. Dredging's still a big operation. And that all is a nonreimbursable function. I don't really know what it's assigned to. I suppose flood control in some fashion, but as far as I know, all the river control work is a nonreimbursable function.

Desilting the River

And you get involved in the treaty with Mexico and delivering water and the capability of delivering water, desilting the river. A lot of money goes into desilting works and dredging down in the Yuma area.

Storey: So the river picks up silt between Hoover and there?

Gear: Yes, it does.

Storey: And deposits it down there.

Gear: Yes. It has quite a lot of silt in it. I don't know if you've been down the Yuma area or not.

Storey: I haven't.

Gear: On the All-American Canal they have the All-American Canal Desilting Works. Which is a huge facility with big scrapers, arm scrapers, that water goes into these settling basins and you have the huge scrapers that go in a circular motion clear around the basins. There's several of them in each basin. Basically that should desilt water going into the All-American Canal, and part of that water also goes to Mexico. Then that silt is dumped back really into the Colorado River below Imperial Dam, and then that's where a lot of the dredging comes in. Otherwise, the river gets really clogged with that silt. A lot of silt, amazingly.

Storey: So the silt comes out of the stilling basin back into the river, basically?

Gear: From the desilting works.

Storey: And then we have to dredge it.

Gear: Then you dredge it out. When there's a lot of water going down the river, you know, you just flush it down the river, but that happens only once in three or four decades anymore. I think the last time we had surplus water, I don't know about the

last year or two, I don't really keep up with it anymore, but I think the last time they really had water going down to the Gulf was in about 1983, when we had–

Storey: A record water year.\

"People Built Their Residences in the Flood Plain"

Gear: Had a lot of water, and a lot of people built their residences in the flood plain complained a lot because they were getting flooded out. Even though they were admonished, "Do not build in the flood plain." They go ahead. It was private land, so they could go ahead and build what they want to build.

Storey: Yes. What kinds of issues come up for flooding when flooding occurs, for Reclamation, for Chief of the Irrigation Division, or for the Assistant Regional Director?

Gear: Basically, at that point in time you were kept very busy meeting with people, to kind of soften their ire a little bit. Which was a very difficult thing to do, because they were getting flooded out. They felt it was the Bureau of Reclamation's fault, even though

the channel is designed to carry, I think, 40,000 second feet. When you put 40,000 second feet in there, some of the areas that they've built on in the low water areas is getting flooded. And some of it will go back up into other low-lying areas that have been developed in the trailer courts and that sort of thing.

As a result of some of that flooding down near the Needles area, I guess further down closer to the Blythe area on the Arizona side of the river, where the water was backing up, we did go in and build a levee from the river back over to the foothills of the mountains that keep the high water from backing up when it came high. Then in that levee you had to build a gate so that when the whether is low and you want to drain that area, let the runoff go through, you've got to open the gates. So it's a very expensive operation to save a few cabins, trailer courts, houses that have been built in those low-lying areas.

Storey: Do we ever have to pay damages for flooding people?

Gear: I don't recall of our ever having paid any damages. I'm sure we've had some lawsuits, but I'm not aware of any damages that we've actually paid.

That's not to say there haven't been some.

Storey: That would have been a section within the Irrigation Division, or how did that work?

Gear: It became a section within the Irrigation Division. Originally, as I say, it was the Division of River Control all its own.

Storey: And then it became–

Gear: Then it became part of the Irrigation Division at that time.

Storey: Is there a separate office for hydro?

Gear: No. Well, no, there wasn't a separate office; there was a separate branch that dealt with water scheduling, and there was a separate branch that dealt with what we called river control. Which dealt primarily with the activities of maintaining the river–dredging, levee maintenance, revetments, that sort of thing.

The water scheduling, since I've left, I think it has since been transferred down to Hoover Dam, that particular activity.

Storey: It might have been, yes. They've been moving a lot of activities out of the regions, out to the area offices, and making them responsible.

Gear: So, fortunately, I got out before some of these moves came along that I didn't really cotton to too much.

Storey: Tell me what the Soil and Moisture Conservation Branch did.

Soil and Moisture Conservation Branch

Gear: Soil and Moisture Conservation, one of their major activities was really in investigations. I believe they called them lysimeters. They were lined basins in which they would plant various types of mostly native species of plants, trying to determine what the water-using requirements were for those plants. Salt cedar, for example, is a high water-use plant.

The activity dealt with attempting to come up with species that would supplant the high-water-consuming species along the river and in other areas as well. They did some work, as I recall, with the Fish and Wildlife Service in their wildlife areas–there are several of them down the Colorado River–and with the Indian people. And also

experimental canal-lining, they did some work in that which never went very far, but very difficult to line a canal once it's in operation. They're tried sealants, putting chemicals in to seal the canal perimeter, trying to line it with asphalt under water and things of that nature.

In a way, it was probably an extension of the general investigation program, except it was specialized in water conservation activities, moisture control.

Storey: What's moisture control?

Gear: That's conserving moisture.

Storey: And did we have programs to encourage that among farmers, or how did that work?

Gear: It was mostly, I think, among farmers in attempting to get control of water-consuming plants along fields, perimeters of fields, along canal banks, by supplanting different kinds of species. Also experimenting with burning programs, weed burners, with chemical control. It was an attempt mostly to conserve moisture by eliminating high-moisture-using plants.

Storey: Not experimentation, for instance, in different ways of applying the water or different ways of trying to conserve the water by tilling or–

Gear: There was some work along those lines, in field leveling. The Department of Agriculture's program also got into that to some extent, as far as field leveling, flat leveling, leveling with just a slight, slight grade, what size headwater to turn into the irrigation field, best get it to–

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BEGIN SIDE 2, TAPE 1. FEBRUARY 23, 2000.

Storey: Did Reclamation, for instance, work with the state agricultural school or anything like that?

Gear: Not really.

Storey: I sort of hear a thread of contracting through all of this. Were the hydro contracts negotiated in this division, for instance?

Hydropower Contracts

Gear: You're talking about power?

Storey: Yes, hydropower.

Gear: The hydropower contracts really, the ones we've had, were negotiated many years ago, as mostly administration of those contracts that the Power Division was involved in. Although during the early days, for example, when Davis Dam was constructed, there was a lot of negotiation on power, where it would go, who would get how much, how the powerplant would be operated, whether it's a peaking plant or standard power supply plant.

On Parker Dam, which was before my time, the Department of Water and Power–Southern California–let me get this right. Southern California–it wasn't Department of Water and Power, I don't think. Maybe it was. Anyway, they paid for the cost of Parker Dam.[11]

Storey: Metropolitan Water District.

Gear: Metropolitan Water District. And in exchange for paying for part or all of the dam, I don't recall anymore, they got half the energy to support their Metropolitan Water Colorado River Aqueduct. I

11. For more information on the Parker-Davis Project, see Toni Rae Linenberger, "Parker-Davis Project," Denver, Colorado: Bureau of Reclamation, 1994, www.usbr.gov/history/projhist.html.

guess most of it probably goes to Arizona and maybe some other smaller power companies.

Storey: Another area where we would have had at least agreements would have been recreation activities on our projects. Was that part of the Irrigation Division's work?

Irrigation Division and Recreation Activities

Gear: To the extent that we had any of that, it was.

Storey: And where would that have been handled? Which branch?

Gear: A division of the Branch of Lands would have handled that. A later year when we established the Environmental Division, that type of thing probably was transferred over to the Environmental Division.

But we really didn't have that much recreational activity in this Region, other than Lake Mead National Recreational Area, which Park Service administers. There's some in the Phoenix area, where they work with the Maricopa County, city of Phoenix, maybe the city of Scottsdale, where they were permitted to build some recreation facilities along some waterways and along some

canals. So some of that worked out pretty well.

But down in the Yuma area, off the top of my head, I can't think of any recreational facilities that we had down there, rather than use of the river.

Storey: Tell me about the Lands Branch and the Right-of-Way Branch. How did they differ from one another?

Differences Between Lands and Right-of-Way Branches

Gear: Well, the Right-of-Way Branch was dealing almost specifically with the right-of-way acquisition, acquiring rights-of-way for canals, power lines, for road extensions. Whatever type of right-of-way they needed, they would negotiate for that.

The Lands Branch, per se, was more in the administration of land matters. Reclamation had a lot of withdrawn land in this Region, a lot of it, which had to be administered by somebody. You had land leases, you had mining claims on your land, you had squatters on your land, all kinds of problems associated with lands. I imagine that the guy that interviewed Curt Bowser probably got a beakful on that. Curt was our Lands Branch

Manager for all the years I was in charge of irrigation, all the years I was Assistant Regional Director, until he retired before I did. So he was Chief of the Lands Branch for probably thirty years. So I'm sure he gave a snootful to Simonds, was it?[12]

Storey: Joe Simonds.

Gear: I think Curt said he was interviewed by him.

Storey: Yes. But tell me your perspective on those issues as Division Chief. Trespass situations, for instance.

Gear: That was a pretty touchy issue, trespass. You know, at one time the Bureau sort of ignored trespass, or didn't have an active program in trespass control. And when we got to the point where there was controversy about flood-control damage and people trespassing on land along the river, building cabins and putting up their trailer houses and that sort of thing, then we took a more active role in trying to evict those people, which

12. Curtis W. Bowser, *Oral History Interview*, Transcript of tape-recorded Bureau of Reclamation Oral History Interviews conduct by Wm. Joe Simonds, historian, in 1999, and desktop published by Brit Allan Storey, senior historian, Bureau of Reclamation, 2009, www.usbr.gov/history/oralhist.html.

isn't easy.

It was a very touchy program that eventually led to establishment of the Lower Colorado River Land Use Office. Which was headquartered at Yuma, headed by a guy named Al Romeo. He was a very close friend of Floyd Dominy, as I remember. So we had some issues on trespass that Floyd didn't think were handled with the greatest of tact and diplomacy. So he established, along with the Department, established the Colorado River Land Use Office. And they took over that program, which we were very happy about, except there were controversies, issues between our office and their office in some areas. But it worked out.

Storey: Who did Mr. Romeo report to?

Gear: He reported direct to the Department [of the Interior], I believe.

Storey: I just by chance ran across a box full of photographs taken in the late forties down there, of trespass situations around Laguna, Imperial, I think, whole motels and trailer courts and things.

Gear: Yes.

Storey: How did all those finally get resolved?

Gear: I think some of them finally got taken off. Some were probably given a life estate. I don't know how Al resolved some of those things. There probably were some where substantial facilities were involved, that there might have been arranged a legislative land sale program to transfer ownership of land to some of those people. They would be certainly in the minority, that type of thing. But eventually just a number of years and a lot of work, and if you don't watch it, they'll move back in.

Storey: How long did that office exist, do you remember?

Gear: I'm just guessing. I'd say about ten years.

Storey: Then where did Mr. Romeo go?

Gear: I think after that office closed, he went back to whatever he was doing in Nevada somewhere. Not a government job, as I recall. He came into that job as an appointee, not from the established Civil Service. When the job was done or when they got through with the office, why, his appointment expired.

Storey: Were we still having those kinds of issues when you

retired? Trespass.

Gear: On trespass? Not really, not as far as Reclamation was concerned. There are always problems on trespass whenever you have public land. But part of it, you know, I think went away with the flood of '83, when some of them got flooded out. Some moved back in. We tried to get them out of there. Some left. You'd get them out one day and you'd go back there a week later, they're back in. So unless you've got a constant program, constant surveillance program, you can't keep them out of 300 miles of river, because it's desirable, nice, if you like the heat. It's nice living alongside the river.

Storey: It's certainly a contrast to the surrounding area.

Gear: Oh yes.

Storey: I don't recall, I think there were a lot of cottonwoods back in the forties, anyway.

Gear: Yes.

Storey: Tell me about right-of-way, Right-of-Way Branch. Were we acquiring a lot of right-of-way?

Acquiring Right-of Ways

Gear: We were acquiring right-of-way. Yes, we were acquiring right-of-way for irrigation facilities in the Yuma area. We were acquiring right-of-way for power lines. We had the Pacific Northwest-Southwest power grid in operation.[13] The Bureau acquired quite a lot of right-of-way, as I recall, for the power line that was never built.

Storey: The D-C [direct current] line?

Gear: The D-C line. After that right-of-way was acquired, there was a guy out west of Henderson about ten miles that built an airport right across the right-of-way, attempted to get that stopped and wasn't able to, because there wasn't any real thought that that line was going to be built. He just sort of defied the orders, and eventually the right-of-way was abandoned, and that's a pretty busy airport right now.

Storey: Really.

13. The Pacific Northwest-Pacific Southwest Intertie was designed to combine the two region's power grids. The interconnection of these two regions would alleviate existing seasonal excess capacity of energy by transferring energy between the two areas.

Gear: It's only ten miles from McCarran, so it's a flopover airport, a lot of private aircraft stationed there, airplane schools and that sort of thing.

Storey: What kinds of issues come up on right-of-way acquisition?

Gear: Reservation of mineral rights, the right to continue farming, the necessity for evacuating the right-of-way before it's used, price, what it's worth. The owner always thinks it's worth more than what the government thinks it's worth. There was a lot of negotiation required on right-of-way. And as it develops, of course, it's more expensive, more expensive. Found that out with the Central Arizona Project, tried to reserve a lot of that right-of-way years before the facilities were built. Some was acquired and some wasn't.

Some of the land, there was areas where you didn't think you'd have a problem, way out in the boonies. Well, all of a sudden here you see subdivisions out there. You see where you should have bought right-of-way ten years in advance when you didn't have money to buy it.

Storey: Or authorization, probably.

Gear: Right. But rights-of-way normally, in urbanized areas, is very expensive. And there's a question of fencing, access. Our Phoenix Office established a Right-of-Way Division down there when they really got going on C-A-P, which didn't really receive too much supervision from this office, because it was a full-fledged right-of-way office. A right-of-way officer had as high, or maybe higher, ranking than our branch of right-of-way here. He was a good man, eventually went to Western Area Power, west of the Denver Center. What's the name of that little town?

Storey: Golden?

Gear: Yes.

Storey: Do you remember his name?

Gear: Bobby Bond is his name.

Storey: Then he was succeeded by whom? Maybe Stan Segal?

Gear: Stan, yes.

Storey: Yesterday we started talking about the Regional Directors. We didn't talk about [Edward A.]

Lundberg,[14] I don't think.

Lower Colorado Regional Directors

Gear: No, we didn't.

Storey: We did talk about Lundberg. We didn't talk about Manny [Manuel] Lopez [Jr.].[15]

Gear: No. I don't know if we talked about Lundberg or not. We may have.

Storey: We talked about–I want to say–

Gear: Ellis Armstrong brought Ed in as the Regional Director.

Storey: He did. Where did he come from?

14. Edward A. Lundberg was Lower Colorado regional director from 1970 to 1975.

15. Manuel Lopez was Lower Colorado regional director from 1975 to 1979 and participated in Reclamation's oral history program. See Manuel (Manny) Lopez, *Oral History Interview*, Transcript of tape-recorded Bureau of Reclamation Oral History Interviews conducted by Brit Allan Storey, senior historian, Bureau of Reclamation, in 1995 and 1996, in Jefferson County, Colorado, Edited by Brit Allan Storey, 2008, www.usbr.gov/history/oralhist.html.

Gear: I believe Ed came from Bismarck. I don't recall what his job was, whether he was an Area Manager or what he was up there.

Storey: But he was a Reclamation person?

Gear: Oh yes, he was Reclamation. Of all the Regional Directors that I served with or under through the years, I think Ed was my favorite. Not that the others weren't–they were all good people, but I just got along with Ed so famously, and he just had an easygoing way about him, that everybody liked Ed Lundberg.

Manny was brought in as the Assistant Regional Director while Ed was Regional Director. Primarily for his expertise in desalting. He had had some background in desalting work in the Denver Office. This is when we got deeply involved in the study and construction of the Yuma Desalting Plant. So Manny came in at that time.

Manny was a very knowledgeable person. When he selected me for his assistant after he became Regional Director, he said, "I want you to be responsible for all the project offices." Of course, he's got oversight. He said, "I have to have time to think, to do my thing." So he said, "The

day-to-day operations is your responsibility." So we got along very well with that arrangement.

He was liked by everybody, I think. He was a little different than some people in his demeanor. But very serious, very upbeat, had a good sense of humor. But he was a good Regional Director. I think Manny was in there for five years, something like that.

Storey: Let's see what the picture says. September of '75 to March of '79. About three and a half to four years.

Gear: He's the only Director that ever had his division chiefs, branch chiefs, to his house. About twice a year he'd have a kind of a party with hors d'oeuvres and drinks and whatever. None of the other regional directors ever had done that. So he was well liked by all those people, felt they were part of the team.

Regional Director Gene Hinds

Storey: What about Gene [Eugene] Hinds?[16]

16. Eugene (Gene) Hinds was Lower Colorado regional director (continued...)

Gear: Gene was all right. Gene worked for me before he went to Washington. He was my Chief of Repayment. I brought him in from San Bernadino, and he went to Washington as some job in irrigation, I think maybe an assistant. I don't recall for sure. I think Cliff Barrett[17] brought him in there. When a vacancy came up after Manny left, Gene was in Washington, and they had about five or six applications for the job. I applied for the job. I went back and was interviewed by [Bureau of Reclamation Commissioner R. Keith] Higginson, but he selected Gene.

It was kind of an uneasy relationship for a while, because most of the water users, when they would call in for whatever reason, would ask for me, and they didn't ask for Gene. This bugged Gene. He says, "They should be calling me." I said, "Gene, if you want me to, I'll tell them not to

16. (...continued)
from 1979 to 1981.

17. Cliff Barrett first came to Reclamation in 1956 and eventually became Upper Colorado regional director in 1981; served as acting commissioner in 1985. Mr. Barrett also participated in Reclamation's oral history program. See Clifford (Cliff) I. Barrett, *Oral History Interviews*, Transcript of tape-recorded Bureau of Reclamation Oral History Interviews conducted by Brit Allan Storey, senior historian, Bureau of Reclamation, in 1996, in Salt Lake City, Utah, Edited by Brit Allan Storey, 2009, www.usbr.gov/history/oralhist.html.

call me anymore. They should call you." Well, he didn't want to do that. [Laughter]

Storey: So it just sort of festers.

Gear: So it just kind of festered. But we got along all right. I was his boss and then all of a sudden he's my boss. But we got along all right.

Storey: Let's see. After Gene Hinds–now, he went on to Amarillo, didn't he?

Gear: He went to Amarillo.

Storey: [Nelson W.] Plummer.

Regional Director Bill Plummer

Gear: Bill Plummer.[18] That's another guy that's kind of different. He started with Reclamation here out of college. I don't recall them, a trainee or something, some sort of thing. He was a sharp guy, but not too well liked by a lot of people. I liked Bill all right. Not that he was disliked; he just wasn't a likeable kind. A lot of people referred to Plummer

18. Nelson W. (Bill) Plummer was Lower Colorado regional director from 1981 to 1985.

as a–what do you call these kids that are over-enthused as a kid? I can't recall the word. Overactive. Hyperactive as a kid and never outgrew it. He was just go, go, go, go.

We'd oftentimes travel together to Phoenix or L-A or wherever. Bill would always have to stop about every chance he got, he'd stop. "Got to make a phone call. Got to make a phone call." Stop at a 7-11. "Got to make a phone call." [Laughter] I don't know who to or what for, but he was just going like a house afire. Reminded me of Pigpen, the kid on Charles Shultz, "Peanuts," who was always running in a big cloud of dust around him.

But Bill and I got along real well together. as far as our professional relationship went.

Regional Director Ed Hallenbeck

Storey: Then after him was Ed [Edward M.] Hallenbeck.[19]

Gear: After him was Ed. Ed and I got along pretty well. Of course, Ed had started out here in the Region, too, before he'd gone to Yuma and then to

19. Edward (Ed) M. Hallenbeck was Lower Colorado regional director from 1986 to 1991.

Phoenix. He was in the Power Division here in the earlier days.

Ed was an administrative type, didn't like to work too well, but he was a good administrator. One of his goals in coming to the Region was to streamline the Region, having been in the project offices before he came here, felt we were overstaffed, which is not unusual for people to think that. I thought that myself a lot of times. "God, what are all these people doing?"

But he came up here with the goal in mind of reducing staff and making the Region more efficient. Well, he did. He probably did away with thirty, maybe forty jobs. A year and a half later, they were back up at the same level, probably higher, even. So it was one of these recurring things that the Bureau's always going through. Big staff cut. Two years later, you're back up where you were. But he got some Brownie points for cutting the staff.

Storey: That would have been [President Ronald] Reagan years, I guess.

Gear: Yes, I guess it was. I don't remember when Ed

was here. In late eighties?

Storey: '86 to '91, I believe.

Gear: He was here about a year, year and a half before I retired. But we had always gotten along well, got along well when he was in both Phoenix and Yuma as the Project Manager. He was a delegator, pretty much let people do their thing. But he was power oriented. That was his background.

Storey: He came from the hydropower program?

Gear: That's where he came from initially, yes. He was in the Division of Power when he was in the Regional Office. I think he came here from probably the Billings Region, and I don't really know where up there, but in the power–

Storey: Was he an engineer?

"Most Regional Directors were Engineers"

Gear: Yes, he was an engineer, electrical engineer. Most of the Regional Directors, Moritz, [G. G.] Nielsen, [J. P.] Jones, [W. H.] Taylor, were engineers. Arleigh [A. B. West] was more or less an economist administrator. Ed and Manny were

engineers. Gene was an economist. Plummer was an engineer. Hallenbeck was an engineer. Bob [Robert J.] Towles was an engineer. And Rodriguez, or whatever this guy's name is, I'm not familiar with him.

Storey: Larry Hancock.[20]

Gear: Yes, Hancock. He was an engineer, too, I believe.

Storey: He's a civil engineer.

Gear: As I remember Larry, he was working in the computer game when I was Regional Director.

Storey: Yes, he was in computers in the Denver Office.

Gear: I think both the guys in the front office, both Bob Johnson[21] and LeGrand Neilson, if they're both still there, are economists, basically, in background and training.

Storey: I think Bob Johnson is an engineer, but I'm not

20. Larry Hancock was Lower Colorado regional director from 1994 to 1995.

21. Robert W. Johnson was Lower Colorado regional director from 1995 to 2006.

sure.

Gear: No, he's an economist.

Storey: Is he?

Gear: Yes.

Storey: I didn't remember that.

Gear: And LeGrand's an economist.

Storey: Yes. They probably were in that division, as a matter of fact.

Gear: Bob was in Division of Planning. before he went to Washington. And LeGrand was my repayment guy before–I guess that was after Gene, maybe. I don't recall the sequence.

Storey: You mentioned yesterday that the Riverton Project[22] was involved with the Wellton-Mohawk Project. Can you tell me about that?

22. The Riverton Project is located in central Wyoming and provides irrigation service to 71,000 acres. For more information, see Robert Autobee, "Riverton Unit: Pick-Sloan Missouri Basin Program," Denver, Colorado: Bureau of Reclamation, 1996, www.usbr.gov/history/projhist.html.

Gear: I think I told you all I know about it.

Storey: But you did it off tape.

Riverton Project Connection with Wellton-Mohawk

Gear: I did it off tape. I'm not sure what that relationship was. I had it in my mind that when some public land came up for settlement in the Wellton-Mohawk Division, that some of the people from the Riverton Project that they had to displace were given a priority for homesteading out in Wellton-Mohawk, and under what condition I just couldn't remember. But I thought Curt Bowser would remember, because homesteading was under his jurisdiction.

So I called Curt last night, and he says, "Well, it kind of rings a bell," but he didn't remember exactly what that relationship was. I thought he would, because he has a fantastic memory. I said, "Well, maybe there wasn't any relationship," and he said, "Yes, I think there was. I don't remember what."

But whether anything ever really materialized from that and some of the Riverton people were

given preference for homesteads or whether they weren't, I really can't answer that. But I know they were looking for a place for them to go. This was probably the only place in Reclamation that had some land available for homesteading. Normally you got in a lottery for that, and if you were lucky, or unlucky, however you looked at it, you were given a homestead. At the time they had homesteads available on the Yuma Mesa, when it–

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Storey: This is Brit Allan Story with Roy D. Gear at about two o'clock in the afternoon on February 22, 2000.

It would have been part of their allocation under the Colorado River Compact,

Payment Variables for Wellton-Mohawk

Gear: Yes, it would. But basically once you came up with a project that you felt and could prove on paper that was feasible, and the water users wanted it. Then the process of negotiation would begin as to how they were going to pay for it, at what rate, whether they were going to have the variable repayment, which Wellton-Mohawk didn't

have in the early years. The pay, just for an example, I don't remember the numbers, 1 percent a year for the first ten years, then 2 percent a year for the next ten years, then on up until hopefully over the legal repayment period you get it all repaid, although a lot of it would have been shifted toward those later years so your grandkids could pay for it. [Laughter]

Wellton-Mohawk, as I recall, had a sixty-year repayment period and probably a ten-year development period.

Storey: When they didn't have to pay anything.

Gear: When they didn't have to pay anything except O&M.

Storey: So did those sixty years begin immediately or after the ten-year–

Gear: It would begin after the ten-year development period.

Storey: So how much flexibility did Reclamation have in deciding development periods and how to load the years with percentages and so on?

Gear: They seemed to have quite a bit of flexibility. I think that was included in some legislation, and there might have been a little of it in some general legislation versus specific legislation. I don't really recall. But exercised quite a bit of flexibility as long as you were able to get total repayment within the specified repayment period of forty years or whatever it might be.

Storey: Did you ever feel that the water users were trying to take advantage of Reclamation in any way?

Tense Relationship Between Reclamation and Water Users

Gear: All the time. Sure. Well, you know, they're honest people. They want to get the best deal they can get, but if they can take advantage of loopholes or whatever, they're going to do it. They have lawyers, too, good lawyers, probably some better than the government lawyers.

Storey: Who came to these discussions?

Gear: The discussions were usually the board of directors of the water users and their legal representation. Sometimes it'd be one guy, sometimes it'd be two or three. And our legal representation, who would

come in from L-A, unless you were meeting in L-A. Some meetings were held there. Most meetings were held in the local area. Occasionally you would have one or two or three people from the Washington Office participate in those sessions. If you were getting down to some really nitty-gritty stuff that you couldn't agree on, you could get some Washington representation coming to those meetings. But generally it was regional and project personnel.

Storey: So you were doing this process from about '52 to '60 or '62?

Gear: About that, yes, from '52 actually till '65, I was in Repayment and Allocation. Then I was promoted to the Division Head, Division of Irrigation, Division of Water and Land or Division of Power and Water, whatever it happened to be called at the time. I think it was Division of Irrigation at the time. Then I had all those branches under my jurisdiction.

Storey: Had you been promoted to a Branch Head in the meantime?

Gear: Yes, I had. I'd been a Branch Head for quite a few years.

Storey: The Repayment Branch head?

Gear: Yes.

Storey: Repayment and Allocation, was it?

Gear: Yes.

Storey: Now, for instance, in '65, that would have been three years before passage of the Colorado River Projects Act [Colorado River Basin Project Act] when C-A-P was authorized.

Regional Preparations for CAP

Gear: Right.

Storey: Were Reclamation people getting ready for that? Were they anticipated that kind of thing and doing studies for repayment and that kind of thing?

Gear: They'd been doing studies on the Central Arizona Project for thirty years, probably.

Storey: Beginning about '43, '44, something like that.

Gear: Yes.

Storey: How does the nature of the studies change when you're anticipating a project as opposed to when you actually have a project, as opposed to when you go into construction?

Gear: Some projects are initiated by the local people that want a project. Other projects are initiated by planners that say, "This looks like it would be a great achievement for Reclamation." Maybe there's nobody living there. Wellton-Mohawk was pretty much that way. There was some farming there, but not a lot. Other places, maybe the land has been pretty well developed but their water supply has gone to pot and they need to come up with not only a new and better water supply, but a better irrigation system, which all costs money.

Central Arizona Project at one time had Bridge Canyon Project in it, which would have been another power project, had Marble Canyon in it, and Glen Canyon, of course, as part of the Upper Colorado River. Navajo Powerplant, which is at Glen Canyon, is part of C-A-P. So it just kind of evolves as things go along. You knew way many years ago that Tucson was going to need additional water, but the thought of carrying Colorado River water to Tucson, you know,

boggled the minds of a lot of people.

They thought, well, at least we can get it to the Phoenix area, and there's a lot of land around Phoenix that can be irritated, or was being irrigated from wells and the groundwater was dropping precipitously, ten, twelve, twenty feet a year. So they had to have supplemental water if they were going to survive. Basically that, I think, was the backbone of the Central Arizona Project initially, was to get water to Phoenix, but it was going to be funded in part by Bridge and Marble canyon dams as power projects.

In the final scheme of things, it's funded in part by Navajo Powerplant. So it's just like a car we have nowadays; they started out with four wheels and a steering stick, and every year they add this and add that and make this a little better and that a little better, till finally you got up to a decent automobile. So that's really kind of the way a project is developed. You come up with a conceptual project, either initiated by the people who want a project or by Reclamation itself. I think some projects really were initiated politically, rather than by grassroots, because the senators see, you know, "Oh, you're building a project up in Idaho. I ought to have a project down in my area."

So he'd say, "I want Reclamation to go look in my area and see if you can find something." So that's how the great West got developed. [Laughter]

Storey: Tell me, if you would, about your promotion to be Branch Chief.

Promotion to Branch Chief

Gear: My promotion to be Branch Chief took place–gosh, I don't really remember. But the reason I became Branch Chief is because the Branch Chief that was here transferred to Salt Lake City and eventually to Boise, Idaho.

Storey: And his name was?

Gear: His name was Claude Nafsiger [phonetic]. But I had worked for Claude for several years before he transferred. And I think at that point in time the Bureau was on another one of these tears to reduce staff and reduce higher-level staff. I know that's how the Chief of the Economics and Statistics Branch moved, because they did away with his job. So he transferred to the Bureau of Indian Affairs down in New Mexico. I think a few years later they got on another tear to reduce staff, and that's

when Claude transferred to Salt Lake, had an opening there which they weren't going to do away with. So I became Branch Chief at that time.

Storey: Did you apply for that job?

Gear: I had to put in an application, yes. I guess it was an advertised job, but it was given to me. I was in that job until 1965.

Storey: For about how long?

Gear: I guess I was in there for about twelve or thirteen years. Then the Chief of the Irrigation Division retired and they advertised that position. I wasn't even going to apply for it, said, "I don't really want that job." Then A. B. West was the Director at that time.

Storey: Arleigh B. West.

Arleigh B. West

Gear: Arleigh West. He said, "I'd like for you to apply for that job." I did, and he gave it to me. We had some not so pleasant times after that, Arleigh and I, because he was a–I don't know if this should be on the record or not, but he and Floyd Dominy were

two peas in a pod.

Storey: A lot of other people have said that. You don't need to worry. [Laughter]

Gear: And anything that happened in this Region that was deemed as kind of a downer or something that could have been avoided, Arleigh just had a fit about it. And a lot of that stuff was in Irrigation Division, in land matters or water matters or in other matters that were within the division. Of course, he wasn't bashful about chewing me out about that. But we got along all right.

He, frankly, wasn't my favorite Regional Director, although if it hadn't been for Arleigh West, probably C-A-P might not have been authorized. He was really a pusher for C-A-P, with both Floyd and Carl Hayden. So I've always had my doubts about C-A-P, personally, as a feasible project. Not that it's not needed to get water over to those areas, but I've always had some reservations about C-A-P.

Storey: Were you ever able to express those as Division Chief?

Gear: Not overtly. [Laughter]

Storey: You knew that would not go over, huh.

Gear: That would not go well.

Storey: Tell me about the first Regional Director, would have been the Director before Arleigh, I believe.

Ernie Moritz

Gear: The first one was Ernie Moritz. He was several before Arleigh. Ernie Moritz was Regional Director when I came here in 1950. And I believe he was the Regional Director when I came back, after I'd gone to St. Louis. He was still the Regional Director, but he was just getting ready to retire.

A fellow by the name of Ed Nielsen became Regional Director. At that point in time, he was head of the Planning Division in the Region.

Storey: Tell me about Moritz. What was he like?

Gear: Moritz?

Storey: What was his management style like? Did you ever

have any personal anecdotes?

Gear: Not really with Ernie. Of course, I was a pretty low peon when I came here, and he was a top dog. Ernie respected everybody. I know the first letter that I wrote as a member of the Irrigation Division, first letter I wrote, he called over to Arleigh. Arleigh was Chief of Irrigation Division. He said, "I'm glad you finally got somebody in there that can write a letter." [Laughter]

Storey: And Arleigh told you this?

Gear: Arleigh told me that. Arleigh and I were both sticklers for letters. He knew English like nobody that I ever knew of, and I was no slouch at it at that time. It's all gotten away from me since then. But we knew how to write letters, knew what English was and knew what punctuation was, and could spot an error in a letter just like that after it had gone through three or four surnames. So he and I got along great in that respect. But we were good friends, even though we had a few little spiffs during the time he was Regional Director and I was in power. But he retired–actually, he retired by being promoted to Washington at the time when Ellis Armstrong was Commissioner.

Storey: About '70 to '74.

Gear: Yes. I believe it was about '70 when Ellis and Arleigh had differences of some kind. I don't know what it was. He wanted Arleigh to retire, and Arleigh said he wasn't ready to retire. So he said, "I'm transferring you to Washington," because that was the only place they had a job that would support his grade. I think they established a job there for Arleigh as policy reviewer, advisor, something like that. Arleigh never moved to Washington. He went back and maybe spent three or four months, wasn't very long, and he said, "This is not for me," and he did retire. I believe it was around 1970. But we were always good friends.

Storey: Who came after Mr. Moritz?

Gear: Ed Nielsen came after Mr. Moritz.

Storey: Oh yes, Ed Nielsen.

Ed Nielsen

Gear: Ed Nielsen.

Storey: Floyd Dominy had a lot to say about Mr. Nielsen.

Gear: Did he? I bet he did, yes. He was an outspoken man. I liked Ed. Ed and I always got along real well. After Ed left, I believe Ed went to Washington, too.

Storey: He came in as Assistant Commissioner.

Gear: Maybe he went to Denver. I don't recall.

Storey: No, he went to Washington. But tell me about him. What was he like while he was here as Regional Director?

Gear: I never really dealt very much with Ed. He was a guy that left you alone pretty much. I think most of Ed's dealings back then were between the Regional Office matters and the Phoenix Office matters. He spent a lot of time in Phoenix. He was kind of an outspoken guy. He would speak his mind, but he was fair about it. He wasn't Regional Director too long, I don't believe. Maybe a couple of years. I don't recall.

Jack Jones and Wade Taylor

Then they brought in a man from the Construction Division, by the name of Jack Jones,

for Regional Director. He was ailing, and he wasn't Regional Director, I believe, over about a year when he died from–I don't know, leukemia or some disease. I don't recall what it was. Jack was just the nicest man you'd ever want to know. Just nice.

Then we got Wade Taylor. Wade came into the Regional Director's office from being Chief of the Division of Power. He was a stickler, too. Wasn't too easy to work for, but I think he was fair. He didn't really deal too much with irrigation, because he was a power man.

Storey: And he had Hoover right here.

Gear: And he had Hoover right here, and Parker and Davis downstream. So he pretty much stuck to power activities if he could. Of course, Arleigh had been in irrigation ever since they established the Region in '42, I believe it was. So he pretty much left the Division of Irrigation alone.

The only thing I can remember about Wade that embarrassed me. He called over one time. I didn't know it was Wade calling. I had written a letter on something. He just said, "Roy, would you come over to my office for a minute?" I said, "Why don't you come over here. It's closer." He says,

"You didn't think this was the Regional Director, did you?" [Laughter] I said, "No, I didn't." I thought it was Bob Brown, the guy who was Chief of Finance at the time. I went over there and he giggled about it. He didn't really chew me out like he should have. [Laughter] But I got along well. In fact, I got along well with all of them except a few little tiffs with Arleigh.

Storey: Was Arleigh West the next Regional Director then?

Arleigh West was a Good Regional Director

Gear: Arleigh was the next one, yes. He was a good Regional Director. He was aggressive and he pushed for things, and he wanted things right. He didn't put up with a lot of mishmash. Arleigh spent a lot of time in Phoenix, a lot of time in Washington. This is the time when they were working C-A-P. But Arleigh suffered from migraine headaches, terrible migraine headaches. When he'd get one of those, before he'd go home, he could be a bearcat. In fact, he went to New York one time and was back in the office, to Washington, went on up to New York to see if he could find somebody that could do something for his migraines. He did get something, I don't recall what it was, that kind of

alleviated the migraines a bit. But he finally outgrew them by the time he retired. Maybe the stress was causing the migraines, because he always seemed to be under stress.

I recall one time we went to Phoenix for a meeting. He and I went down from Vegas. Ted Moser [phonetic], who was at our Yuma Project Office, was coming over because he was going to be involved in that meeting. Arleigh and I just took an overnight bag because we were just going to be there overnight, but Ted Moser, whose airplane got in at the same time ours did, he checked his bag. Arleigh rented a car. We got in the car and he started to leave, and I said, "Aren't you going to wait for Ted?" He said, "Anybody's stupid enough to check his luggage doesn't deserve a ride with me." [Laughter] About a half hour later, here come Ted into the meeting. But Arleigh was a–in a way, he was kind of arrogant, but he wanted to get going.

Storey: Did he become Regional Director from the Division Chief job?

Gear: Yes, he did. I'm not panning Arleigh. He did a hell of a job. He really did a hell of a job.

Storey: You didn't replace him as Division Chief. There was somebody else in between, is that right?

Jack Rodner

Gear: A fellow by the name of Jack Rodner [phonetic] came in between Arleigh and myself. Jack was in there, I guess, for about five years until '65, when Arleigh selected me for the job in '65. I was in the Division of Irrigation until 1975, when I was promoted to Assistant Regional Director.

Storey: Tell me about Mr. Rodner. What was he like?

Gear: Rodner was a big man physically. He's a big man. He had worked over in California, I believe on the San Luis Project in Central Valley somewhere. I don't recall the specifics of why he came to Boulder City, whether he was recruited or whether he applied for the job. I just don't remember. But he did come into the job and he was a good man also, very knowledgeable, treated everybody with respect, kind of a jovial guy in some ways, not above joking.

I remember one time we were driving to St. George for a contract negotiating meeting up there.

And I was driving a government car, going a little faster than I should, probably about 70 miles an hour. When you get on the interstate, you know, you kind of lose track of how fast you're going. He was a little nervous and he says, "Roy, if you don't slow down, I'm going to fire you." He said, "I'd rather be ten minutes late in St. George than ten years early in hell." [Laughter] That's the kind of a guy he was. We got along famously. I emceed Rodner's retirement party. He appreciated that. But Jack didn't last too long. I think he had colon cancer after he left. They went back to California, around Bakersfield somewhere, and he lasted about three years before he died of cancer of some kind.

Storey: And when he left, when he retired is when West suggested you apply for the position?

Gear: Yes. And I did, and that's when he selected me for the position. I was in there till I retired in January of '87.

Storey: Well, he selected you for the Division Chief.

Gear: Yes, for the Division Chief job. I was there till 1975. Then I became Assistant Regional Director.

Storey: What other activities were under you when you were Division Chief, besides repayment?

Division Chief Responsibilities

Gear: Well, the Division of Economics and Statistics was still under me. The Division of–I believe they called it Irrigation Operations. That's more in the operational field of actual facilities. And the Soil and Moisture Conservation Branch, the Lands Division, Right-of-Way Division. Let's see. What else? I guess basically that covers the branches that were still in the division.

Storey: So those were all branches.

Gear: Those were all branches.

Storey: Not Right-of-Way Division. Right-of-Way Branch?

Gear: The Right-of-Way Branch, a branch of Lands Branch. Actually, Right-of-Way was in the Lands Branch. It was part of that.

Storey: I'd like to start talking about those, but we're going to run past our four o'clock deadline. Let me ask

you if you're for information on these tapes and resulting transcripts to be used by researchers in Reclamation's history.

Gear: I have no problem.

Storey: Good. That's a yes, I take it.

Gear: Yes.

Storey: Okay. Thank you.

END SIDE 1, TAPE 2. FEBRUARY 23, 2000.
END OF INTERVIEWS.