ORAL HISTORY INTERVIEW

ROBERT D. KUTZ

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STATUS OF INTERVIEW:
OPEN FOR RESEARCH

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Interviews Conducted and Edited by:
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Interviews conducted 1998
Interview edited and published–2016
Oral History Program
Bureau of Reclamation
Denver, Colorado

SUGGESTED CITATION:

KUTZ, ROBERT D., ORAL HISTORY INTERVIEW. Transcript of tape-recorded Bureau of Reclamation Oral History Interviews conducted by Brit Allan Storey, Senior Historian, Bureau of Reclamation, Grand Island, Nebraska in 1998. Edited by Brit Allan Storey, further edited and desktop published by Andrew H. Gahan. Repository for the record copy of the interview transcript is the National Archives and Records Administration in College Park, Maryland.

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STATEMENT OF DONATION
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ROBERT D. KUTZ

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INTERVIEWER: Britt Allan Storey
Britt Allan Storey

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Editorial Convention

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
Robert Kutz

Storey: This is Brit Allan Storey, senior historian of the Bureau of Reclamation, interviewing Robert D. Kutz, Bob Kutz, on June 9, 1998, in the office of the Nebraska-Kansas Area Office in Grand Island, Nebraska, at about nine o'clock in the morning. This is tape one.

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

Early Life

Kutz: Well, I was born on a farm south of Cambridge, Nebraska, which is over in southwest Nebraska, in March of 1931, and I lived on the farm. My dad lost the farm that we owned in the droughts of the 1930s, but he worked on various farms around that area for a number of years. So I was raised on a farm until about junior high age.

At that time, my father went to work for the Bureau of Reclamation. I would say it wasn't my father that got me into Reclamation, but later, in high school age or so forth, I met some friends from the McCook area. And they had some irrigation, surface irrigation, along the Republican River up in McCook area, and I saw the wonders of what irrigation does to crops. And that just really totally interested me, because I saw what the drought did to crops, and you just couldn't raise anything in the drought in the thirties. Hell, tumbleweeds didn't even grow, it was so dry. So I saw these fantastic corn crops, and it was something that I wanted to be part of.

So I graduated from McCook High School. In fact, I just went back for Memorial Weekend for

my fiftieth class reunion at Cambridge. And from there I went out of high school directly to work for the Bureau of Reclamation.

I guess I should state that during my adolescent years, I lived through two major floods. In 1935 there was a major flood on the Republican River, and I do remember a couple of things about that. I would only have been four or five years old, but I remember the footbridge they built back across the Republican River that we had to cross, and apparently it scared the hell out of me, because I remember that footbridge. That's the only way you could cross from the south side of the river to the north where Cambridge was located.

And then when I was in high school, there was a terrible flood on the Medicine Creek tributary of the Republican. And what had happened there was that they had tremendous storms up north on the Medicine Creek. And the flood waters had brought a lot of trash down in against a huge railroad trestle, and this trestle more or less formed a dam. And when that finally broke, it just sent a wall of water on down through the valley, and it flooded about, oh, I'd say, the northeast one-third of Cambridge. That was in 1947. In that '47 flood, I think there was thirteen lives lost. In the '35 flood on the Republican–it was a tremendous flood–I think there was something like 120 lives lost. And in each one of them there was just tremendous property damage involved with it.

So I had experienced both sides of Reclamation, floods and droughts. I used to have a boss named George Krigger [phonetic], Willard Krigger, that always said, "Floods and droughts, that's our business." I guess, to look back, I had witnessed both ends of it.

Going to Work for Reclamation

One of the unique things about my going to work for the Bureau is that they were just hunting for warm bodies to go to work on the construction of Medicine Creek Dam,[1] which was right close to Cambridge, where I graduated. They told me to report in, so I went to work. They said, "In a couple of days we'll bring you in to fill out the paperwork." Well, I started in the soil lab pounding soil densities. We'd check densities and how you could pack the earth in those days.

A couple days later, they called me in the office, and I gave them my paperwork, and they said, "Well, we can't hire you. You're not eighteen." I'd just barely turned seventeen when I graduated. And so they hemhawed around, wondering what the hell they were going to do with me, because you were supposed to be eighteen to go to work for the Bureau. Well, I guess by the time this was decided, they owed me a week or two of wages and didn't know what to do, so they decided they could hire me as a laborer.

I never will forget, my first salary was $1,822 per annum as a laborer, and I didn't even justify an old rating. At those times they had professional and subprofessional, S-P, subprofessional ratings. They didn't have the present G-S [General Service] system they have now. But anyway, I worked for a laborer until I was eighteen, and then you got a subprofessional rating. I worked for the Bureau there on Medicine Creek. I advanced up through the soils lab and became an inspector on the fill and concrete batch

1. Completed in 1949, Medicine Creek Dam is part of the Frenchman-Cambridge Unit of the PSMBP in southwestern Nebraska. For more information, see Tina Marie Bell, "Frenchman Cambridge Division, Pick-Sloan Missouri Basin Program, 1997, www.usbr.gov/history/projhist.html.

plant and so forth. So even at that age I progressed up to some degree.

Decides to Get a College Degree

Then after the completion of Medicine Creek, I'd worked for the Bureau over three years, and it became quite obvious to me that I couldn't move very far in the Bureau without an engineering degree. So I packed up and went down to the University of Nebraska to sign up, and things didn't look good there. So I came back and signed up for starting college at the McCook Junior College. They had a pretty good football team there, and Cambridge was quite a football town. I went out for football. In fact, I was out for football before I even went to any classes. I never will forget that after a few weeks of classes, I went in to the football coach and told him I was going to quit school. I said I just wasn't getting the books. You know, after a three-year layout, you're pretty rusty, and they were just leaving me in the dust.

So he said that he was really short of bodies for the team. We played pretty much two platoon football and we only had something, a little over thirty players out. So he was pretty short bodies, and he said, "By God, you can't quit till after football season." I've often thanked him for that, because by the end of the football season, I was starting to get the books and went on for one year of college there, played football. And I didn't try for a college deferment and I was drafted during the Korean Conflict.

Fortunately, I was sent to Germany during the German occupation, and while I was over in Germany I was given a special M-O-S, military occupation specialty, of surveying. So I was on a traveling survey crew with the Army that traveled

all over western Europe.

Then when I got out of the Army, I came right back to McCook College and finished up my second year there before I entered the University of Nebraska. During these times, I would work all the summers for the Bureau of Reclamation, and any spare time that I had during Christmas holidays or summer vacations, the Bureau always had a spot for me and helped me out with money, because I was working my own way through college.

So that's pretty much the story of where I was raised. So I'm pretty much a farm kid myself, raised on a farm, not totally, but at least up till junior high grade.

Storey: What's your engineering specialization?

Kutz: It's civil engineer.

Storey: Were there any professors that particularly influenced you?

College Mentors

Kutz: Well, yes. In junior college I had a lady math professor that was just outstanding, that really taught us a fantastic mathematical background that later helped me in the computer end of it, because I was in electronic computers when they were first beginning with Fran Swain and Darrell Webber over in Salt Lake and a couple people like that, where we were starting up electronic computing in the Bureau of Reclamation. We had one at McCook since McCook was quite a big project office.

In the University of Nebraska, there was a professor that I worked with a lot. I corrected

reports for him and helped him with a lot of research in concrete. In fact, he wanted me to stay on and become a college professor, and I didn't want to go through that much more school. I was getting fairly old by the time I got my bachelor's degree, and I was married and wanted to get out and make some money. I really didn't think I wanted to be a college professor.

This professor was mainly in concrete, so I had a good concrete background and education. The Portland Cement Association even wanted me to go to work for them, but they wanted to send me to Chicago, a large city like that, and I wanted to stay in Nebraska, where all the good hunting and fishing are. But I guess my heart was really with the Bureau of Reclamation. I went right back to them.

Storey: So you were hired as a student who had been working for them?

Engineering Rotation Program

Kutz: Well, even though I'd had three straight years and then some summers working for the Bureau, so I had some education, and I'd worked several different areas, like I'd worked on a dam. So I was in inspection, and I'd worked on surveys for quite a bit. And even though I'd been around several areas, they put me in their engineering training program, which I thought was an excellent program. In those days, where they would rotate you around to different project offices, the Regional Office. And you would work in different areas, because it gave me some general experience at what other project offices do as far as power generation. Because we didn't have any hydro or power generation out here in the flatlands, didn't have that capacity.

So I was sent up to the Loveland, Colorado, Project Office for some of the term and caught some nice trout up there, too. And so it was a good program in those days. Even though I had quite a bit of experience around, it added to it a great deal.

Storey: Tell me about these summer assignments, these job assignments you would take. What were you doing at Loveland, for instance?

Kutz: Well, at Loveland–gosh, you're reaching back in my memory. I'm not sure I can remember exactly what the heck I did. They would just have you help wherever they could find that kind of temporary work. Most offices were real good at giving you productive work, because you were a graduate engineer and capable of doing some pretty complicated stuff. Any menial stuff would have bored the death out of you.

Storey: So this was after you had graduated from college?

Kutz: After I graduated with a B-S degree.

Storey: So this is the rotation program.

Kutz: Right.

Storey: Where did they rotate you to, do you remember?

Kutz: Well, I can remember being in the Denver–at that time our Regional Office was in Denver, because the McCook Office was the Kansas River Basin Office at that time. We were broken down by river basins, and we were out of the Regional Office in Denver, which is–

Storey: Lower Missouri, I believe.

Kutz: I believe they called it the Lower Missouri or

Region Seven or whatever the heck it was. It's been changed so many times.[2]

Storey: Yes. At that time I believe it would have been Seven. It was the last one created.

Kutz: Region Seven, yes.

Storey: What did they have you doing there?

Kutz: Oh, gosh, I can't remember. They just moved you around. I spent probably a month to a month and a half in the Regional Office, and I can remember being in different areas there. I can't remember specifically anything that I particularly did, but, you know, it gave me some idea of all the different functions that are required to keep a big organization going.

Storey: Loveland was a separate assignment?

Kutz: Yes. It was another one of the stops in this rotation.

Storey: Any others?

Kutz: Goodness. Of course, at that time, as I recall, there was a lot of construction going on around McCook area, you were put out both in planning and construction, those two general areas. Of course, I'd already been somewhat on construction, but I hadn't been in planning and design and that area in the McCook Office. So that covered that.

Storey: Let's go back to the Medicine Creek Dam. Who

2. In 1943, the Bureau of Reclamation created seven autonomous regions; one of which was Region 7, Lower Missouri Region, in Denver, Colorado. In 1985 Region 7 was merged with Region 6, Upper Missouri Region, headquartered in Billings Montana and renamed the Missouri Basin Region.

did you work for there?

Medicine Creek Dam Construction

Kutz: Well, my first boss was quite a unique fellow. He was unique in the fact that he'd come from a fairly wealthy farm family that lived on the lower Republican [River] area. His name was Ossie–Osland Keifer, Jr., [phonetic]. He could have stayed on the farm, and his dad could have left him a farm–it was that wealthy a farm–but he wanted to be an engineer. He was running the soils and concrete inspection part of it. He was my first boss and he taught me quite a bit, because at that time I hadn't had any further education than high school. But he went on to a career, I think, in the [U.S.] Army [Corps of] Engineers. I think he moved over to the Army Engineers. And then Cliff Mutch [phonetic] was the fellow who was the head of the Construction Office there at Medicine Creek.

I guess there are several things unique about Medicine Creek. It was built on a section of Medicine Creek Dam and Harry Strunk Lake, and it was close to one of the areas where we lived on the farm for quite some time, so it was kind of close to home country for me, and I knew all the farmers and people involved in the area.

Discovering Indian Artifacts

Some of the things that were quite unique there is that we unearthed a lot of Indian artifacts. There was a huge Indian camping area in the vicinity, and there were a lot of dwelling sites that they excavated, so there was a lot of Indian artifacts. Probably the most unique thing is that while they were excavating from a borrow area for dirt, they unearthed a complete skeleton of a sabretooth tiger, and that skeleton is down at the

Museum of Natural History in Lincoln, Nebraska, for many, many people to see.

Storey: When you say "they" found the Indian artifacts, were there archaeologists there, or how did this come up?

Kutz: No, I don't think we had a person with the title "archeologist" at that time, but we just knew that this was a very fertile Indian area. Heck, when I was a kid following along behind a team of horses when my dad was farming, you'd find arrowheads. Gosh, we wouldn't even keep anything that was broken. We'd only keep the perfect arrowheads. My dad donated all our collection to a museum.

It was just a very fertile area for Indian artifacts, and the people involved knew that these were items of value and should be salvaged. But mainly, I'm fairly certain that on some of the diggings, like where they would dig up a large dwelling–some of these weren't nomads; they built large dwelling sites–the universities would come in there and do the digging. Now, I don't recall that they were under contract. I think they just wanted to do it. So the universities were quite involved pretty much on their own in helping recover those items.

Blizzard of '49

Another thing quite unique about Medicine Creek is–and I can't recall, I think it was in 1949, we just had a tremendous blizzard in the winter. I'm fairly sure it was '49. With the construction site, it was mostly closed down during the winter, but there were a few people that were reporting to the Construction Office out there. They couldn't even get food back and forth, so they lived mainly on candy bars out of the candy machines there at the office and so forth until they cranked up some

bulldozers and bulldozed out the roads to town. It was kind of nice to have all that construction machinery there to bulldoze the snow. It was just an unbelievable blizzard. It just paralyzed the area for several days. There was just nothing moving. So those people pretty much had to stay right there at the office. I remember after that we put in a pretty good supply of canned goods and stuff in case that ever happened again.

Storey: Out there at the Construction Office.

Kutz: Right.

Storey: Where were you living at this time?

Kutz: I was living in Cambridge.

Storey: With your parents?

Kutz: Yes. My father was working for the Bureau of Reclamation, and he was on surveys at the time, as I recall.

Storey: You mentioned that they hired you as a laborer, but what were you actually doing?

Kutz: Well, I was doing work in the soils lab.

Storey: Still working in the soils lab.

Concrete Inspection

Kutz: Yes. But after–oh, I can't remember exactly how long, probably less than a year, I was doing quite a bit of concrete work, too. I'd go over and inspect at the batch plant to make certain the right mixes were set on the scales and so forth.

Some of those old guys kind of resented it, you know, a young whippersnapper of that age

inspecting. (laughter) In fact, I can remember one big argument we had. They didn't mix the right stuff on a pretty critical pour, and I wouldn't let it go at the site. And there was a big argument that went clear up to the main bosses in the Bureau and the contractor before they finally dumped that load, because it was in a narrow wall of the stowing basin. So it was pretty critical that it had to be mixed right, and it wasn't. They hadn't set the scales right, and I wouldn't let them dump it. It was soup. They didn't have the large rock in it. They forgot to release the large rock scales. They'd mixed grout to begin with, and when you go to the concrete mix, it was already preset, ready to go, but they had to unlock the scales so that it would release the–I think we had three or four different types of rock, from pea gravel to larger rock, and they missed, I think, the two medium-sized rock sizes. So all they had was fine sand and large rock in there. It just wasn't going to work. So they finally ended up dumping it, but they sure resented some kid eighteen years old dumping that whole truckload of concrete.

Storey: This would have been a contractor?

Kutz: Oh, yes.

Storey: Do you remember the name of the contracting company, by chance?

Contractor for Medicine Creek Dam

Kutz: I sure do. (laughter) Because in later years, one of these gentlemen has become a good friend of mine. In fact, I'm fairly sure he's still alive. At that time it was the Lytle and Ames Construction Company, and Rufus Ames is still quite active, or he has been until the last year or two. I don't know how active he is right now. He's quite active in water politics in the state of Nebraska.

But it was kind of a combination. I think one worked the concrete and one the soils. I think that Rufus Ames, his construction company, was more the soil end of it, in other words, the embankment of the dam. Rufus Ames. He lives in Omaha right now. I haven't seen him for a number of years. He's getting to be quite an elderly gentleman, but he's quite an individual. He owned, I think, the controlling interest or a big chunk of this aircraft company in Oklahoma that built Aero Commanders, and we flew an Aero Commander out of the Regional Office in Denver and Billings for a number of years. I thought it was kind of unique that he was one of the people that was involved in that aircraft company. Rufus Ames is quite a gentleman, interesting to talk to, and he and I would get together, we'd talk about the old times of building dams out in western Kansas and southwest Nebraska.

Storey: How would you characterize relationships with the contractor at the level you were working at?

Working Relationship with Contractors

Kutz: I would say as compared to what we dealt with in recent years here in the eighties and nineties on the North Loup Project,[3] I'd say our relationship with contractors in those days was just absolutely excellent. They bid a price and they pretty much lived up to it. They were good companies. They were well managed. We had excellent relationships. We weren't dinged with these

3. The North Loup Division of the Pick-Sloan Missouri Basin Program is located within the Loup River drainage basin in central Nebraska. Diversion facilities are on the Calamus and North Loup Rivers. The plan provides direct surface water service to 53,000 acres of land. For more information, see Kevin E. Rucker, "North Loop Division, Pick-Sloan Missouri Basin Program," Denver: Bureau of Reclamation History Program, 2001, www.usbr.gov/history/projhist.html.

extras all the time, nickel and diming you every time you turn around.

Storey: How did this work with the soils lab? Was there always somebody there inspecting at the concrete plant? So you would be there part of the time, somebody else would be there part of the time?

Kutz: They were laying fill on the dam twenty-four hours a day. In other words, we had people that would go down and take densities out of the dam, the soil–

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BEGIN SIDE 2, TAPE 1. JUNE 9, 1998.

Storey: So there would be somebody down there all day, all twenty-four hours?

Shift Work

Kutz: Yes. Right. And I used to hate night shifts. I remember, my God, you know, you'd come on duty before the sun goes down, and you'd see the sun go down and go around, and the sun would be up again before you'd get off your shift. We worked some pretty long shifts.

Storey: Tell me about those shifts. How long were they?

Kutz: I think that we were possibly working twelve-hour shifts in the soil lab at some times.

Storey: Did you work five days a week twelve-hour shifts or how did this work?

Kutz: I just can't recall. I know I was making a hell of a lot of money, because at the end of one year, I paid cash for a car, bought a 1949 Plymouth, wrote a check, cash, for it, and that was $1,875 for that car. I was playing a lot of poker, and I was a

good poker player. I played a lot of poker in the evenings, but I'm sure I didn't make that much. So I was working a lot of overtime, a lot of overtime, because they were just short of people.

Harry Struck, Local PSMBP Booster

You know, one of the things I'd want to make sure I mention was that the southwest area of Nebraska probably had more percentage completion of the Pick-Sloan program than any area in the Pick-Sloan Missouri Basin Program. And one of the reasons for that was a guy by the name of Harry Strunk. Now, Harry was quite an individual, and he was the editor and owner of the *McCook Daily Gazette*. For that time in politics, I would say he knew how to tweak politics, and he didn't think anything about calling the president personally. In fact, my wife has placed calls to the President of the United States for Harry Strunk when she was just starting with the telephone company over there.

But Harry formed the Republican Valley Conservation Association, and what he did was he went around to all these small towns in the Republican Basin and–you know, this was in a time not too far removed from that 1935 devastating flood–and said, "Hey, we need flood control in this valley so that we can continue to develop, and, by gosh, while we're at it, we'll use some of those flood waters to irrigate crops." And they figured that probably one of the best ways would be to form this association as R-V-C-A, Republican Valley Conservation Association.

And so they went around and convinced all these communities up and down the Republican Valley to join this association. And each town or city was assessed so much money per population, and this is how they got their funds to organize.

They had commission members from up and down the valley that were members of this. Of course, Harry was the driving force behind it. And with this money, they hired a full-time lobbyist in Washington. The fellow lobbied for the projects full time.

Right after the war, they were getting started with this, but what really gave it the push was that 1947 flood, because they weren't getting near the funding at the level that Harry Strunk thought they ought to have. I never will forget that they ran a special edition of the *McCook Gazette* on that '47 flood. And they sent it to every congressman in the Congress, representative in Washington, and all heads of major agencies and so forth, and that really helped to push for some real funding, and they really got started.

They had a major Construction Office there in McCook at that time, and, in fact, it was an old dance hall, a huge Quonset building, and it was called the Gay Way. In its time, they had all of the big band orchestras that came through there for dances. It was kind of dying out, and the Bureau bought that and converted it to offices in there in this huge Quonset building. They even built on to it and bought some of the surrounding area because it was just outside the area where all the houses–I think it was still in the city limits, but it was just right at the edge of the city limits. But they bought all this land and built warehouses and garages and so forth. I recall at one time we had as high as 120 people or more working just in that office in design and right-of-way and so forth.

Storey: This would be McCook.

Kutz: McCook, right. And I did a lot of time working in that office, the McCook Office. I worked in right-

of-way and design data a lot while I was working in there where we were gathering design and surveys information for final design.

But Harry Strunk was quite an individual. Anybody that was really influential in bringing that construction to that area was Harry Strunk. And the fellow–it was said he never drew a sober breath in his life. He was a heavy, heavy drinker, but he knew how to get things done and he really did it.

Storey: Let's talk about your dad and farming for a while. You said horses a little while ago. Plowing?

Family Farm

Kutz: Oh, gosh, yes.

Storey: No tractor?

Kutz: No tractors in those days. When I was first on the farm as a real small child, we didn't have tractors, but in the later years, just before we moved to town and my dad went to work for the Bureau, we did have tractors, yes. In fact, I remember that we even had a tractor with a power lister that had two rows at one time. Golly! And he even had me run that, which was about more than I could do, to run the guide discs out here so I'd make straight rows and turn it at the end of the row.

Yes, I've lived through the beginning of tractors and refrigerators. When we first lived on the farm, there wasn't electricity on the farms; you had kerosene or gas lights. We dammed up the little creeks in the area to put up ice. You'd put ice in the ice house that you'd use in the refrigerator to keep food cool through the summer and freeze ice cream and so forth. That was quite a thing, putting up ice in the ice house. You had a

big silo, more or less, down in the ground, and you'd put ice down in there and cover and insulate it with straw so that it wouldn't thaw. So you kept ice down there the year 'round.

Storey: Were you the only child?

Kutz: No. I had two older sisters, and then I had a younger brother who was quite a bit younger than I was. He was ten years–kind of a caboose in the family.

Storey: So when did you start working on the farm, helping your dad?

Kutz: Gosh. (laughter) I would say as soon as you could ride a saddle horse. I remember first riding, we didn't even have a saddle.

Storey: Bareback. You'd grab the mane.

Kutz: You taught the horse to put his head down, and you grabbed his mane and climb up that way. Oh, I've lived through it all. Even after we moved to town, my folks, I guess to work the orneriness out of me, would farm me out during the summers to work with people we knew on the farm, and I'd ride saddle horses to get to cattle and so forth. Boy, I've had a lot of run-ins with rattlesnakes. I had some close calls with rattlesnakes in the Bureau.

Storey: Tell me about that.

Rattlesnakes

Kutz: Well, you know, one of the things, when we did most of our mapping manually with a plane table board and alidade and a couple of rodmen. When I first began surveying, I was one of those rodmen. Later on I moved up to where I was

drawing the map and running the instruments, but when I first began, I was running the rod. And walking around the pastures and so forth with the rod, you'd always tap the yucca plants, which are kind of a–do you know what a yucca is?

Storey: Yes.

Kutz: It's kind of a cactus. Because the rattlesnakes would climb in under those yucca plants to get in out of the sun, and every once in a while you'd hear a buzz and you'd get a rattlesnake.

I had a close call one time. We were drawing a map, and it wasn't in a particular high–what I thought–rattlesnake area. But I was drawing the map, and so during lunch hour, I was catching up with drawing contours and finishing detail on the map while the other guys took a nap after lunch. So I finished up my catching up with detail, and there's still some time left before the lunch hour's over. So these guys are all in the station wagon and taking all the space, so I just lay down under the back tailgate with my head by one tire. When I looked at my watch at time to go to work, I got up and walked around the station wagon, and it looked–I thought, "My gosh, that's a snake tail right by that back tire," which was only a couple of feet from where I'd been laying. And, sure enough, it was a rattlesnake. We pulled it out and killed it, but, boy, that wouldn't have been far from my head, and if you get bit on the head, that could be all she wrote, because getting that much poison close to your brain could be pretty bad news. So that was kind of a close call.

Storey: Yes, I remember. I was raised in rattlesnake country south of Colorado Springs.

Kutz: Yes, that's pretty good country. I always brag that I killed thirty rattlesnakes in two days. Actually

what it was was two females, and we cut them open, and each one of them had fourteen little ones in them or thereabouts, and all those little ones were alive, too. So we killed those. (laughter)

Storey: When was this that you were doing survey work?

Survey Work

Kutz: Well, see, I went to work in '48.

Storey: That would be at Medicine Creek?

Kutz: Yes. Well, I went to work at Medicine Creek in '48, and I think construction was done there in a couple of years. So then after that, I went on surveys, and actually I was working out of Culbertson, Nebraska, which is west of Cambridge. I was still living in Cambridge, but we'd drive back and forth, and I finally ended up moving up to McCook, which was closer to Culbertson. I had a good probably year and a half of surveys before I started college.

Storey: What were you surveying?

Kutz: We were surveying irrigation canal sites up and down the Republican Valley.

Storey: For what?

Kutz: For these various canals out of the dams.

Storey: Which dams, is what I guess I'm trying to ask.

Kutz: I guess it was mainly out of Trenton Dam and Swanson Lake, would be the main ones. I also did a lot of surveying, or some surveying for a proposed site below Bonny Dam over in Colorado and did some surveying for canal sites down

below Enders Dam.[4]

Storey: Did you ever have trouble getting on the land to do the surveys?

Kutz: Oh, yes. I can remember once in a while, not very often. Not very often. But I can remember one guy driving up with a tractor, and I grabbed the survey instrument just before it got hit. (laughter) But it was a rare occasion. We got along pretty well with people. It was an area that the Bureau of Reclamation was highly thought of, and they liked us. They wanted what we were doing, so we were pretty well accepted. It was a good place to work. Very little hostility.

Storey: I gather your dad did dry land farming, is that what I'm hearing?

Dry Land Farming

Kutz: Yes. It was total dry land farming.

Storey: So when the drought came, it's completely devastating, I guess.

Kutz: Yes, and he lost the farm that we owned and lived on.

Storey: What was he raising?

Kutz: Oh, gosh. I can't remember. It was probably wheat and milo.

4. Trenton Dam, on the Republican River in southern Nebraska and Enders Dam, on the Frenchman River are features of the Frenchman-Cambridge Unit of the PSMBP. Bonny Dam, on the south fork of the Republican River in eastern Colorado, is a feature of the Armel Unit of the PSMBP. For more information, see Wm. Joe Simonds, "The Armel Unit, Pick-Sloan Missouri Basin Program," Denver: Bureau of Reclamation History Program, 1994, www.usbr.gov/history/projhist.html.

Storey: Any livestock?

Kutz: Oh, yes. I remember we had a little livestock, but he hadn't been in farming that long, so not very much. The main thing in those days is you had a few milk cows that you took cream and eggs to town, and that's what you got your staples that you couldn't raise in the garden. We did a lot of canning and butchering and things on the farm to keep yourself alive in those days.

Storey: So you kept a garden.

Kutz: Oh, tremendous gardens in those days.

Storey: What did you grow?

Kutz: Oh, everything. I remember picking carrots, and cole slaw in crocks, huge crocks. You'd bury the carrots in the sand and try to save them down in the cave.

Storey: Down in the cave. A cellar?

Kutz: Yes. It's like a storm cellar, and it acted as a storage place for your canned goods. You'd even put all your jars of vegetables and meats that you'd can down in there. And it was also a storm cellar for of you had tornado problems, too.

Storey: Did you ever have any tornado problems?

Encountered a Tornado

Kutz: Oh, the only time I ever saw a tornado, and I'd lived in southwest Nebraska for all my life except the time I was in service in Europe and the time I was in college in Lincoln, but all the rest of the time I lived in southwest Nebraska, and only saw one tornado that I go, "That's a tornado. That sucker's coming our way." Actually, I was

headed up to the–at that time, my wife and I lived just a block east of the Bureau office in McCook. I only had a block to walk to work. And I was walking up to shut off our electronic computer because I saw this storm coming, and this computer was working, and if you had a power failure you'd lose all the computer work you'd done up to that time. So I wanted to shut it down before the storm hit and we maybe had a power outage or something.

And along with this storm I saw this tornado coming. Our project manager happened to be–he lived just a block south of the office, and he was out in his back yard looking at the storm coming, and he said, "Is that what I think it is?" I said, "It sure is."

He said, "My God, what am I doing in this damned country?" (laughter) He wasn't a native Nebraskan. Jim Ingles was his name. Jim Ingles, quite a fellow.

Storey: You mentioned that when you went to the Medicine Creek Dam construction that you knew most folks around. Tell me how most folks were reacting to the construction of the dam.

Community Reaction to Reclamation

Kutz: Well, I'd just go back to my previous statement. At that time, you know, I wasn't involved or privy to information of how they were dealing with landowners where they were buying the land. But I'm sure that there were a lot of people that didn't want to give up that land, but they knew it was the right thing to do. But I don't recall as we ever had any major conflicts. We did have condemnation actions where maybe people didn't think we were giving them a fair price and it went to the court to determine.

And there were some negotiations. Like this one family, they even had a little sod-type cabin on their farmstead that was down in the lake area, and so in the dealings they dealt pretty tough with the Bureau. They got a little square chunk of land out of our reservoir land area on the west bank of Medicine Creek to put this little sod house. Well, the Bureau didn't write a tight enough contract in giving them that little area, and that later became a major cabin area that's not under Bureau control. But anyway, it was in the legal dealing with these landowners.

No, I believe we were welcomed and highly thought of in those days. The people knew that this was the way to go and these were good for the area, and they have been. They have been.

Storey: I can imagine that there were families that had been on the farms since they were founded and they were upset about losing them.

Kutz: Absolutely. Absolutely. But, you know, most of the people–and some of them were friends of mine. They accepted it. They bought farms or lands other places and had money from the sale that could allow them to do it. There was just not any major conflicts.

Storey: When you were doing the dam construction and you would go out and gather soil samples and take them back to the soils lab and so on, were you working with anyone? Were they having you do this by yourself? How did this work?

Kutz: Oh, you pretty much worked on your own. We just didn't have enough people to where we could work in pairs. You'd drive the pick-up down on the fill, dodging around all this heavy equipment. So you kind of had to watch your Ps and Qs.

Importance of the Safety Program

That's one thing that drove home safety to me. Safety was a big issue when I became Project Manager, because right after I became a Project Manager–I think I was made Project Manager in 1974; about half of my career I was a Project Manager. Right after I became Project Manager we had a fatality, and it was an instance where the employee just didn't recognize he was in a hazardous situation. Of course, they had a Board of Survey. We thought we had a great safety program. After they tore us apart, I realized we had kind of a paper safety program.

I was pretty much a stickler on safety issues from then on, and during my tenure we racked up some unbelievable safety records. We were even approaching two million miles driven without an accident, and one of our employees got rear-ended and ended it. Everybody thought that was so unfair, because it was totally not his fault, but it still ended our goal of getting to two million miles. But we reached a million miles a couple of times, and as far as I know, we still have running a man hours lost that's just unreal, if you want to check the latest, and, my God, that began way back. They kind of carried that over from McCook to here because they combined the offices in, I think, 1981 or '82, and then they put both offices under me. So they brought along that safety record that we had at McCook and combined them here. But both from no lost time accidents and miles driven. We've had some pretty outstanding safety records, and that's one of the things in the Bureau that I was always proud of, that and bringing people along like Roger Patterson.[5] (laughter)

5. During his career with Reclamation, Roger Patterson served as regional director of the Upper Missouri Region (1988-1991) and the (continued...)

Storey: Giving Roger Patterson a start.

Roger Patterson

Kutz: Yes. He went to work for us in McCook, and he was at one time very mad at me because I didn't give him a job he wanted, and I told him he was better off to get out of McCook and get some other experience. He didn't see it that way. Of course, he wanted to stay there, too, because it was a great place to work, but with his ability and enthusiasm, he needed to branch out.

He wanted to be the head of my O&M Division, and we had two or three applicants that had much more experience. I hired one of those, and he was quite mad at me, but it ended up he was much better off. He went into our Regional Office and got some experience there, and shortly thereafter he was a Project Manager himself. I called and said, "Well, Rog, I was right, wasn't I?" (laughter) But he's one of those guys that goes ninety miles an hour, it seems like, twenty hours a day. I thought he was going to burn out years ago, but he feeds on it.

Storey: Yes, he goes and goes. That's for sure.

While you were out there at Medicine Creek, did you do anything besides work in the soils lab and check the concrete plant?

Kutz: No, that was pretty much it.

5. (...continued)
Mid-Pacific Region (1991-1999). Mr. Patterson also participated in Reclamation's oar history program. See Roger K. Patterson, *Oral History Interviews*, Transcript of tape-recorded Bureau of Reclamation oral history interviews conducted by Brit Allan Storey, senior historian, Bureau of Reclamation, from1994 to 2000, in Sacramento, California, and Lincoln, Nebraska, edited by Brit Allan Storey, 2011, www.usbr.gov/history/oralhist.html.

Storey: So then as they were winding down, what happened?

Other Project Experiences

Kutz: Well, I moved over to surveys, and at that time they were starting up a fairly large survey office headquartered out of Culbertson, Nebraska, which would have been some thirty-five miles west of Cambridge, to survey these canal sites. I guess they just transferred me up there.

Storey: How long did you do that?

Kutz: Oh, gosh. I don't have my employment record, but I would say a year and a half.

Storey: So, let's see. You would have been at Medicine Creek from '47, was it?

Kutz: Well, spring of '48 till, I would say, probably around the beginning of 1950. Then about '50 until school started in '51. In 1951, I started college up there. I remember that's the year I played ball. Just had a reunion of my football team this Memorial Weekend. Our coach at the college is still alive. He's in a retirement home. You can do amazing things with Internet and locating people these days, and I located all my football team I played with and we had a reunion. So that was fun.

Storey: So you would have been there the whole school year, '51 to '52?

Kutz: Right.

Storey: Then worked in the summer?

Kutz: Right.

Storey: Do you remember what you did in the summer?

Kutz: Boy. I would say that summer before I went into the Army, it was surveys.

Storey: How close is Cambridge to McCook?

Kutz: Twenty-five miles.

Storey: So were you commuting to college?

Kutz: Yes.

Storey: So you lived in Cambridge pretty much this whole time?

Kutz: Well, after my second year of college, I–no, during that time my dad went to work for inspection up on Trenton Dam, and they were living in Culbertson. So I was living with them in Culbertson and driving back east to McCook. It was only like ten or twelve miles. And then part of the time I was in McCook College, I stayed with a family that lived in McCook there. So there's very little of the time I drove back and forth that far. That was a long commute in those days.

Storey: And then you were in the military, where I guess your Reclamation surveying served you well.

Surveying for the Army

Kutz: Yes. As it turned out, it did. If they'd happened to send me to Korea, I'd have been a forward observer for the artillery, which would maybe not have been so good.

END SIDE 2, TAPE 1. JUNE 9,1998.
BEGIN SIDE 1, TAPE 2. JUNE 9, 1998.

Storey: This is an interview with Robert D. Kutz on June 9, 1998.

Kutz: In the service, they wanted me to give up this great surveying job I had and play football, and I knew that if I went on the football, I wouldn't be able to get back to this surveying group because we traveled all over and it was a pretty tight group. You kind of had to behave, too. We had a couple guys who got to drinking and raising too much Cain, and they were kicked off of this survey group. So the only time we would go back to headquarters would be to get mail and pay, and we'd be off and running again.

We were surveying in the strategic targets like factories and bridges. We did some surveying for the Air Force, surveying in bomb sites where they would practice bombing runs and so forth. But it was pretty detailed surveying.

Storey: And you did this for two years?

Kutz: About a year and a half. They shipped me after basic training over there, and I was there the rest of my two-year duty.

Storey: Then you got out, went back to McCook.

Kutz: Right. And I can't remember, I probably went right back into college. I might have worked some.

Storey: You didn't mention the woman's name at the community college who taught you math, I don't believe.

Kutz: Her name was Lydia Butler. Tremendous. She taught me calculus so well that I could do a lot of some of these advanced mathematical problems in analytic geometry where you do a lot of stuff

graphically. I wasn't quite sure how to do them graphically, and I would do them by calculus.

On the Ground Floor of Reclamation's Computer Technology

But she gave me a tremendous math background which really helped me when I got into computers, because in those days, those old–we had a Bendix G-15D computer, which had old vacuum tubes and so forth. They had one in Salt Lake City and one in McCook. Fran Swain in the Regional Office, he had a fancy I-B-M computer of some kind. I think it was an I-B-M 650 or something like that, but it was a bigger, fancier machine than our Bendix. But we pretty much had to do all the programming. There weren't any compiler-type programs. We took a number from here and moved it to here and added it to this. You know, you did everything step by step, and it was pretty tough work programming for those machines in those days. You had to have quite a special temperament to do that.

Storey: When were you doing this?

Kutz: Oh, goodness. I'd give you a rough time period. I would say that was from about the early 1960s to about 1970. It was the beginning of computers. About the only thing that we were using them for was advanced engineering applications, like earthwork programs, flood routing, which was a tremendous thing to do manually. It's just unbelievable to do a flood routing. Say, if you had a certain type of flood, to route it down a river channel, to do that is just unbelievably complex manually, and some of the things like that.

And we really resented people trying to use them to compile. You know, they liked the nice format that they typed things out, and the

hydrologists were always wanting to just shove numbers in and type them back out in a nice way. We didn't want to do that unless they were doing a lot of grinding with them. In other words, unless you've got a big mathematical problem, get away from it. But we did a lot of effective work and really got computers to start. But it's amazing, the communication capacity that they have now with computers. It just boggles a person's mind.

Storey: Did you get any computer work while you were going to the University of Nebraska?

Kutz: Oh, no. No, none. None at all. See, I graduated in January of '58, and I would say it was about that time–I wish I had my sheet showing my time period. But I don't think electronic computers were in work at that time. You know, we did all our work with slide rules.

Storey: So you got your degree about ten years after you graduated from high school.

Kutz: Took me a long time.

Storey: Well, between the military and everything else, yes.

Kutz: Four and a half with school and two military.

Storey: So then where did you go back to work for Reclamation?

Returned to McCook Construction Office after College

Kutz: Well, let's see. As I recall, I went right back to the McCook Office, and then they sent me on this one year of rotation. Now, some of that rotation was right there in the McCook Office in planning, because I'd never been in planning. You know, you went into some of the areas that you'd never

been in before, and then they worked me in right-of-way, drawing right-of-way track maps and so forth. I ended up working a couple of years in preparing right-of-way track maps and stuff like that. I worked in right-of-way, preparing right-of-way track maps.

Storey: After you'd done your rotation, did they ask you where you wanted to go, or did they just assign you somewhere?

Kutz: Well, I think that you had the opportunity to look around at what was available. They, of course, were trying to keep people with engineering degrees there. You know, I wasn't the only one. My gosh, I think there were like five or six of us out of the same class that came to work at the same time.

Storey: From the University of Nebraska?

Kutz: Oh, no. A couple of us were. There was a couple from K [Kansas] State and one from Kansas, one from back East somewhere, Illinois or Indiana or someplace.

Storey: Went to the McCook Office.

Kutz: Right.

Storey: Do you remember who any of those folks were?

Kutz: Oh, yes. Well, you know, one of them went on to have quite a career with the Bureau, Bill Brand [phonetic], and he retired out of the Sacramento Office here a few years ago. Bill went to work for the Bureau about the same time. Another fellow by the name of Mark Vobrock [phonetic]. Now, Mark Vobrock, he ended up taking a foreign assignment. Bill and Mark both went to foreign assignments. I think they both went to Thailand.

When Bill came back, he found a job, but Mark just never did find a job that suited him, I guess, and he ended up dropping out of the Bureau, and he lives up here at St. Paul, Nebraska, now and plays golf. But a couple of the others, I just don't know what happened with them. They never stayed long term with the Bureau, but especially Bill did.

Storey: So you ended up doing right-of-way maps for a couple of years. This would have been in the Real Estate Office or what?

Right-of-Way Mapping

Kutz: Well, no. It's right in McCook Office. Actually, it was right under the Engineering Division, where one part of the Engineering Division was doing design data where they were designing siphons and farm turnouts and all the stuff along with the canals. But then they would turn those drawings over to us, and we would prepare track maps. You know, it's helped me a lot. I moved on into doing actual acquisition later in my career, actually writing right-of-way contracts to buy land and this type of thing. It all ties together.

Storey: And gathering design data, did I hear you say?

Kutz: I did a little bit of that, not a whole lot.

Storey: So tell me about the complications of drawing a right-of-way map.

Kutz: (chuckles) You know, now you've got these computer programs that draw these beautiful, just hundred-percent exact and beautiful track maps by computer. But in those days we sketched them all to scale with drafting machines and pencil, and then you inked them in with drafting letter machines and pens. So you did all the drafting

pretty much as you were drawing these maps. So there was a little bit of drafting that we didn't like to do, but you almost had to do it along with preparing the track map.

Storey: What level would you have been at that time?

Grade Levels

Kutz: Oh, goodness. Well, at that time, I was probably–it was kind of funny. After I got out of college, I darned near had to take a pay cut to go to work for the Bureau, because I'd worked up in longevity or something. And when they gave me a first professional rating, I didn't get very damned much raise right at the beginning, but I quickly moved on up the scale.

They used to have, in those days, the S-P rating, which meant sub-professional. In other words, unless you had an engineering degree or passed some kind of equivalency test, you were given an S-P rating of some type. I forget even what they were like, S-P-1 through 5 or something like that. And then after you got your degree, you got a P rating, professional, P-1, P-2, and so forth. So I would assume that at least after you'd been on this one-year rotation program, then you moved into the professional ratings. But it wasn't too long after that where they established the G-S rating system.

Storey: I can imagine that if you're sitting at the drafting table, you're using somebody else's field notes.

Drafting from Field Notes

Kutz: Yes. Survey notes, yes.

Storey: Did that cause problems?

Kutz: (laughter) Once in a while. You know, you'd lose some field notes or something isn't quite correct, and you'd have to go back out and verify or something. Hell, I can remember–it was quite a humorous story in those days. My dad was keeping notes on a survey crew, and he made a hundred-foot error. He was moving along with these levels and made a hundred-foot error and went a little ways and, by gosh, he picked it right back up. So it looked like there was a hundred-foot deep canyon there, but the banks were vertical. (laughter) And they got so far along that they were about ready to design a siphon for that, and somebody said, well, that didn't look right, and can't remember anything like that in that area. So they went out and found out that my dad had made a hundred-foot error in the survey notes. That was quite a joke for a while, because they were about to design a siphon for it. That's one of the occasions that comes to mind.

Storey: That kind of thing happened a lot? Occasionally?

Kutz: No. Very, very rarely.

Storey: What was your dad's background?

Father's Reclamation Career

Kutz: Well, my dad, oh, gosh, he came from the steel mills in Pennsylvania, and he only had a junior-high education. So he did surveying and inspection on construction. He never could move into the higher G-S ratings.

Storey: How long was he with Reclamation?

Kutz: Well, he worked for quite a long time. I can't remember exactly how many years of service he had. But he worked quite a few years on a lot of the dams in Kansas and Oklahoma while they

were constructing. He worked mainly on dam construction and inspection, so he traveled a lot around to different dams. After they lived in Cambridge and we built a couple of dams there that he was on, and surveys around there, he went to Kansas and Oklahoma, and I stayed in Southwest Nebraska.

Storey: Did he retire from Reclamation?

Kutz: Yes.

Storey: You don't remember the number of years of service?

Kutz: I sure don't.

Storey: Where did they retire to?

Kutz: They retired to Cambridge, Nebraska, moved back to Cambridge. My father passed away–oh, goodness. I think it was about 1981. I can't remember the exact year. My mom's still alive. She's ninety-three. She's in a retirement home in Cambridge.

Storey: The purpose of these right-of-way maps was to provide the legal descriptions for the canals or what?

Right-of-Way Maps

Kutz: Well, they were to provide, mainly, the legal description for the right-of-way contract. It was similar, but in a much smaller scale than on plan and profile maps that go into a specification book. So they're much smaller scale, and they're a meets and bounds description from section corners and so forth.

Storey: And then we would put this in a plat book or

something?

Kutz: You would put those mainly in a right-of-way contract, and then you would go out and negotiate that contract with the landowner, either get an easement for a lateral or buy it in fee title.

Storey: So that would be what Reclamation would use it for.

Kutz: Yes.

Storey: But in the surveying, then, we had to be doing the preliminary layout and so on of where we were going to be putting things.

Project Surveying

Kutz: That's right, and that was all done manually in those days, no aerial. We did all the topographic mapping. We would kind of pick out from the information we had about where the canal would go, and then we would survey in the center line of the canal, and then we would do topography, what we call strip topography, you know, so far each side of that center line, and then if they had to shift it up or down the slope, that strip topography would allow them to do that on that map and still be on that map. A lot of those old maps are still in our files over in McCook.

Storey: So this isn't just a matter of "Well, I think the canal ought to go here." You've got to get the right elevations and so on.

Kutz: Absolutely. So you have enough soil that you excavate out to fill. Otherwise, you run short of dirt. In other words, what you do is you run it along the banks. So you excavate some and you fill some, in general, on the average, so that you don't have to have a huge borrow area somewhere

to haul a long ways to build a fill. See what I'm saying? You try to balance that out to minimize the haul distance and dirt, and the better job you do at that, the better economy you have in the construction.

Storey: So at this stage you're being fairly careful about where you're laying your canals.

Kutz: Oh, yes.

Storey: Is there an engineer on this survey crew, or who's doing all of this?

Kutz: Well, there was engineers in charge at the time I was on surveys. They were graduate engineers.

Storey: And then you moved–what did you say? Not to design collection so much as–

Troubleshooter Job

Kutz: Well, after right of way, let's see. I guess about that time they moved me in kind of as a troubleshooter job. I was getting, I guess, a little bored with track maps, and had put in for some jobs at some other places, and they didn't want to lose me, so they put me kind of as a second-hand man. I forget what title they gave me. They would just give me kind of troubleshooting jobs, kind of unique jobs.

Moving a Pioneer Cemetery

Heck, I can remember moving a cemetery, for instance. We had this old pioneer cemetery in Medicine Creek Dam. By this time the dam was several years old and the bank was eroding away, so it was threatening this old-time cemetery. So we had to relocate those graves, and to do that you had to, supposedly, find next of kin or at least

do all possible attempts. It was quite interesting. I found next of kin for all of the–there were six graves there, and I found all except one, and he was an elderly gentleman. There was five children that died of some of the diseases, diphtheria or smallpox or whatever they died from in those days. There was four from one family that died within about a year of each other. So they must have really been plagued by these diseases.

It was quite unique. Everyone said, "Oh, you won't even find any bones there," because this dated clear back to the late 1800s, these burials. The Historic Society of Cambridge had put up a marker there and put the names of these people. This one family of four children, I found next of kin on them. I found out that one of the names that the Historical Society put on that marker was incorrect, that the infant baby that died hadn't ever been named. They said it was–I think it was Hammond, John Hammond, and it wasn't John at all, because John was killed in a gun fight in Wyoming. (laughter) So I later found out it was an unnamed baby.

People said, you know, "You won't find anything there." It was quite unique, locating that grave. Everybody said, "Well, you need to probe with a metal probe, and it'll be soft where those graves are." Well, you could find absolutely nothing that way. And we didn't have any of the elaborate electronic equipment that archaeologists have nowadays. So I just hired a fellow from locally there that had a big scraper and caterpillar, and we started scraping off this area. He would only get out so close to this bank because it was a high, steep bank that was eroding into the lake. But anyway, he got close enough, and, gosh, he went down about three feet of topsoil that had accumulated over these graves and washed down

over this area before we found the graves. And, boy, just as soon as he hit the old ground surface, you could just tell exactly where all those graves were.

Storey: You could see differences in the soils.

Kutz: In soil color. In fact, it was so precise that the four children were different ages from teenage to infant, and I could tell this was the older teenager and this was this age, and this was this age. So I could tell you which child was which from the gravesite.

We hired a local mortician to relocate those graves, and what he did was take a backhoe and dig right down beside those grave locations and dig down deeper, and then you just took them like off a shelf. They were all in wood caskets. I would have suspected four of them that close together, maybe they just rolled them in a blanket and put them in the ground, but they were all in little wood caskets. You could even see some shoes. You could even see some fabric, texture in the fabric, and all the bones were there. It was amazing to me.

Storey: But the caskets weren't still there?

Kutz: Some of the casket was still there, hadn't decayed away, some of the wood casket. In fact, one of the wood caskets had a little glass top to it, even. They were just in wood caskets. They weren't in–what are the big concrete things you put them in now?

Storey: Vaults.

Kutz: Yes. They weren't in vaults, just in little wood caskets. But there was quite a lot there, and we relocated those. But that's the type of thing, just

troubleshooting.

Storey: So where did you relocate to?

Kutz: Well, after a short period of time in that, I got into electronic data processing.

Storey: I meant, where did you locate the bodies to?

Kutz: Oh, just to another safer area just right closer to the same area.

Storey: Not to an established cemetery?

Kutz: Oh, no. We moved them only about half a mile.

Storey: Did you put markers on the graves?

Kutz: Oh, yes. It's marked, and we put a chain link fence around it. It's much nicer now.

Storey: You didn't have any trouble with the families saying, "Yes, we want to relocate," or, "No, we don't think you ought to"?

Kutz: No. No. They were no problem. They were highly favorable.

Storey: This was siblings or descendants?

Kutz: Well, you know, it's quite unique. There was four children of one family. There was one small girl of another family and then this older gentleman. So there was six of them altogether. And this one girl that was by herself, her name was, I think, Pearl. When I located the next of kin, some gentleman from–I think he lived out in Colorado Springs or out in there somewhere, Pueblo. I didn't actually talk to him, I talked to his son, and he said, "My dad's name is Myrle [phonetic]." And I often wondered if, you know, they–Myrle

and Pearl. (laughter) That was his sister. And I often wondered. Years later, I wished I would have asked him if they were twins. But it was his sister that was buried there.

It was kind of an interesting job. But that was the type of jobs, just kind of troubleshooting. They needed a jack of all trades, and it gave me a lot of different types of experience.

Storey: Remember any of the other things?

Kutz: I sure don't. That's the one that kind of sticks out.

Storey: And then what did you do?

Kutz: Well, then into data processing.

Storey: How did that happen?

Moved into Data Processing

Kutz: Oh, goodness. I guess the bosses at that time felt that we had so much earthwork that we needed our own computer there. A couple of us–they sent me and one of the other fellows over to Salt Lake to see the Bendix computer that they had over there. We went over there to see their establishment, and decided to do that. And then they sent me and a couple of other fellows to Chicago, where they manufactured these, and learned all about them and so forth.

They ended up purchasing one, and we ran it out of McCook, and we got pretty good at it. In fact, we started doing most all the computing for a few years out of the McCook Office for Region Seven. In other words, I'd travel around to Pueblo and Denver and Casper and Loveland and see if they had jobs that we could help them with. So we were more of less doing regional computing

out of there for a while, until that generation of computers became pretty much obsolete, and they got cheaper and better computers in. Then they started building up the one in the Chief Engineer's Office, or E&R Center, or whatever you call it. Does it have a different name now? But anyway, until they got bigger and better computers, we did a lot of the regional work out of McCook. And strictly engineering applications.

Storey: Such as?

Kutz: Earthwork.

Storey: Calculating earthwork.

Kutz: Calculating earthwork. And they would also type slope stake locations where you'd put a stake out here and say, okay–

END SIDE 1, TAPE 2. JUNE 9,1998.
BEGIN SIDE 2, TAPE 2. JUNE 9,1998.

Kutz: The slope stake tells the people that are doing the excavating where to begin their cut or fill and so forth. It's kind of the outside limits. The computer could figure those up just wham, bam, whereas, you know, we used to, in the old days, you'd look at the plan and profile maps, and you'd have to calculate those by hand. You could generate that information right along with about the same program you used for canal earthwork.

We did lots of hydrology applications, where you were predicting probabilities of storms and magnitude of storms, like I said, flood routing of storms down through a river valley, and if you had a certain magnitude of storm. Those are a couple of the major ones. I can remember one of the other ones that since I'd had quite a bit of right-of-way applications and sections and so

forth, we needed a program that will generate coordinates and correct up a section line and generate coordinates all around the various section coordinates–quarter corners and sixteenths corners. So I wrote a program that did that, and that was quite useful for the people doing right-of-way.

That's another area that we would generate these meets and bounds descriptions around these right-of-way tracks, where you used to have to do that all by hand and hand calculator, which was very difficult to do all that by hand. We wrote a program to generate those meets and bounds descriptions around those track maps from center line and offset from center line information. Then it would give you the area involved.

Storey: Just automatically calculate that?

Kutz: Yes. As it went around, it would generate that. So those are some of the main ones. Oh, gosh. We did a lot of–some of the smaller ones I can remember, where a person goes out and gauges a stream with a meter to measure how fast the stream's going and how deep it is. If it's just a little stream the width of this room, it's not very difficult, but if you go across a big long river, it's quite a calculation. So we wrote a program to take those different velocity measurements at different points along the river at different depths and areas and figure the volume of flow of those creeks and rivers from stream gauge information.

Storey: I guess you were sort of guarding the computer from those hydrologists who wanted pretty charts, too?

Kutz: Well, yes. We just didn't want them using it as a typist machine. Of course, in those days there just wasn't the capacity to use it in communication the

way they do P-Cs now. It's just fantastic, the way you can fire a message or a written report or a written letter to a region and say, "Hey, look this over," and they can bring it up on a screen, look it over, make a couple changes and fire it back, and you're still not out in hard copy yet.

Managing 1993 Flood Event

There's a couple things that were quite extraordinary that came up in my career, but one of the true things that–I'm glad I was still working at the time. We had a tremendous flood operation in 1993, and usually you have a lot of delivery of irrigation water. It isn't very often you send a reservoir or a series of reservoirs clear at the top of the flood control pool, I mean clear to the top. In '93, it was the most unbelievable precipitation here, especially down in north central Kansas, about two hours' drive south of here. We had this big, pretty large reservoir on the Solomon River, and it's called Glen Elder Dam and Reservoir.[6] In '93, it seemed like about every other day or every third day we'd get a rain, and it just kept raining and raining, and the flood problem just got worse and worse. The Corps was having so much flooding down below in Manhattan, Kansas, and on the lower Kansas River, which the Solomon flowed into the Kansas River, that they wanted us to hold all this water in Glen Elder. It just kept accumulating, and the flooding got worse and worse and worse.

This reservoir at normal pool is like 11,000 surface acres. During this flood operation, we

6. Glen Elder Dam and Reservoir are features of the Glen Elder Unit of the PSMBP on the Solomon River in north-central Kansas. For more information, see Kevin E. Rucker, "Glen Elder Unit, Solomon Division, Pick-Sloan Missouri Basin Program,": Denver: Bureau of Reclamation History Program 2001, www.usbr.gov/history/projhist.html.

took that within a tenth of a foot of the top of the flood control pool. It went from 11,000 surface acres to about 33,000 acres. So all of the flood control pools underwater, which meant it killed all the trees. Before we could evacuate that water, all the trees were dead in this huge area. I didn't travel down there much, but I can't imagine, because this was a reservoir that was just thick with turkeys, pheasants, deer, all sorts of wildlife, and they had to get out of this 22,000 acres that we flooded. All the recreation facilities, the toilets, showers, camping pads, so forth, even the concessionaires' buildings were just totally flooded and destroyed. I think we destroyed, say, like four million dollars worth of recreation and camping facilities. And that doesn't count the trees, the beautiful trees that we had started.

But it was just an unbelievable flood operation, and people were just absolutely getting so nervous, because if you fill that flood pool, from then on your only concern is the dam, and if X amount of water comes in the upper end, you release X amount out, because you have no more flood pool. People were just really worried that we were going to crack open those gates and flood the lower valley down below this dam. So we had quite a flood operation going on.

Most of our O&M forces were over there because we had to walk downstream facing this dam several times a day to make sure there wasn't any seeps or signs of weakness in the dam. Here at this office, Bob Prouty, he was my Head of Operations Maintenance Division, and I told him, "You supervise the O&M crew out there and make certain they're doing everything they need to do out there, and my job here will be to keep the press and all the phone calls off you guys' back." Otherwise, they're going to be on the phone night and day from individuals wondering

if we're going to open the gates, to newspapers and T-V, emergency offices, sheriffs' offices, all of these places. And thank God for fax machines, because at that time our main communication was fax machines. I would come in here real early in the morning, like maybe even before seven, about seven o'clock, and I can get the water report of where we were on the inflow into the reservoir and where the reservoir was, and send out what our operation was going to be for the day. I had a secretary who would come in early and type that. By eight o'clock, we would have faxes on the way to all these various media, sheriffs' offices, and so forth to keep them off our backs.

Now, we would still get some calls for clarification, "If this happens, what are we going to do?" We tried to answer those as best we could. If it hadn't been for that kind of communication capability, Bob Prouty or I would probably spend most of our days on the phone with all these various constituents. I think we sent usually between sixty and seventy faxes out here. They'd just keep dialing them up and sending them out to these various offices. That was a lifesaver.

That was quite an operation. We didn't get all of that water evacuated–I can't remember, that was like the middle of summer, and we didn't get that water evacuated until January of the next year, because there was so much flooding downstream for so long that we couldn't release very much, and we just had to hold it. Holding it that long is what killed all those trees. So that was a tremendous experience. It took a real good staff that knew what they were doing and really went off smoothly and without a hitch. We just saved hundreds of millions of dollars in flood damages with those operations. There were three other smaller dams involved, tributaries to the

Solomon River and the Republican: Kirwin, Webster, and then on the tributary to the Republican, Lovewell was pretty well filled, too, the flood pool. So that was quite interesting.[7]

Storey: And the other flooding you were talking about was the main flooding on the Missouri?

Kutz: Yes. The Corps was having such a problem. This is when they had those unbelievable floods all down the Missouri, and they just didn't want any more water coming in from these tributaries like the Kansas River, but that was flooding also. So wherever we had flood capacity, we were storing, and that's why they put Glen Elder and some of these smaller dams clear to the top of the flood pool, just a tremendous amount of water.

Storey: Let's go back to the computing part. Actually, I was just getting ready to ask you how the computers were actually programmed back then. You said a Bendix, right?

Computer Programing in the Early Days

Kutz: Well, you have to understand that back in those days, a Bendix G-15, the information was actually stored on a drum that rotated in magnetic bits that were magnetized or non-magnetized. I forget exactly how they did it. And it was all in binary, binary bits. So actually, the basic guts behind the machine was binary language. Now, on input and output, we used a different number system, a

7. Kirwin Dam, on the North Fork of the Solomon River near Kirwin, Kansas, was completed in August 1955 and part of the PSMBP's Kirwin Unit. Webster Dam is on the south fork of the Solomon River in Rooks County, Kansas, and a feature of the Webster Unit of the PSMBP. Part of the PSMBP's Bostwick Unit, Lovewell Dam is on the White Rock Creek 3 miles northwest of Lovewell, Kansas. For more information, project histories of all three projects can be found on the Bureau of Reclamation History Program website at www.usbr.gov/history/projhist.html.

sixteen-base number system. We call it hexadecimal. So you'd have a number that might have X, Y, Zs and so forth in it. But to take a number off of this drum, you had to make sure that that number was in a particular position or rotating.

In other words, this would spin rapidly, but even though it was spinning rapidly, you had to make sure that the number you were wanting to pick up was close to a head that would read that number. Because if you didn't and it kept spinning the thing around all the time to pick up information or commands, you had a very slow program. So that's how intricate it had to be. You would maybe pick up this number and put it in this register. You'd pick up another number and put it in another register, and then you'd tell it to execute a certain command, and so everything was pretty much–you put all the gears into place. You didn't have any tremendous compilers.

Now, of course the machine had built into it the capability or programs to multiply and divide. Now, basically, the machine, all it did was add. It subtracted by adding the complement of a number, if you've ever seen that done. So it was very precise and very intricate stuff, and it was very frustrating. You had to have somebody with a hell of a lot of patience to program. Now, there were compiler programs, but if you didn't work in what we call the machine language, in other words write it, put the gears in place yourself, if you didn't write the machine language and used a compiler program to compile a program for you, it was very slow.

So if it was a short engineering computation, lots of times we wrote those programs with compiler programs. Like Fortran. I-B-M had Fortran. Now, the Bendix had other compiler programs with different names. But they would

generate programs for you, but if you wrote in those languages, it was slower. So the more complex, like flood routings and earthworks and the more complex engineering programs we wrote right in the language of the machine, and it was pretty tough. So you had to know how to convert ten-based numbers to two-based, and two-based to sixteen, and back and forth between all those three number systems. So it was quite an education.

Storey: I heard stories about having to plug plugs into boards in order to do programming.

Kutz: No, we didn't have to do that, but you did it all with numbers that you inputted into this machine, but not back that far.

Storey: So how did this work? Did you do this out on paper and then put it in or were you working on a keyboard or how?

Kutz: You would do this on paper, on various forms that they would provide that helped you, that as the drum was rotating you could keep track of the timing and so forth. So you'd know where numbers were stored on the drum as it was rotating and so forth.

Storey: By doing this on the paper.

Kutz: Right. They had forms that would help you do this. Then you would put those commands and those numbers in those slots on that drum.

Storey: How long were you doing this?

Kutz: I did it, I think, about nine years and then just burnt out. Of course, it was probably a good thing because that generation of computers was kind of closing down anyway, and fancier computers

were coming into place, and each office was thinking about getting their own computer. And Region didn't want to do that. They wanted to get a big computer and have everybody send it to Region. So the McCook operation was more or less phasing down, and we realized that.

So the next generation came in, and they started computing in Denver. They operated out of Denver for a long time before they went to the smaller office computers.

Storey: Mini-computers. What did you transition into then?

Head of the O&M Division

Kutz: Well, then again, as this kind of phased in, I was kind of getting burned out on it anyway. In fact, I was so burned out of it, I don't have a P-C myself at home anymore. (laughter) I swore off computers forever, I think. But then again I was thinking about leaving, and the fellow that's in charge of the office wanted to keep me around.

At that time the head of the O&M Division was retiring, so I put in for the head of the Operation and Maintenance Division. I was the head of O&M for not very long, a short period of time, I think about two or three years. It was one of the more enjoyable jobs I ever had, was heading up the O&M Division, because you were actually out working with irrigators. One of the jobs that the O&M Division Chief had was working with irrigation districts and going out and working with all our reservoir superintendents to make certain our dams are maintained to a high degree. It was a very interesting job, and in a way I hated to leave it. I wasn't there very long, and then I moved on up to Project Manager.

Storey: How many people were in the office at that time?

Moved Up to Project Manager

Kutz: Well, we scaled down quite a bit. My wife always said I'm famous for reducing office staff, because when I took over as Project Manager we still had quite a few people working. But we were completing the construction of all those canals and so forth. And our main construction, we were building subsurface drains because the irrigation was starting to cause some high groundwater in some areas. So we were doing a lot of building subsurface terrains and researching subsurface drains, too.

So that was mainly our construction activity, but we were even phasing that down. So we reduced the office down. I would say probably thirty or forty employees there at McCook by the time I left, and then we didn't have any planning activities at the McCook Office. It was strictly an O&M Office at that time, when I became Project Manager. They had some construction activity, but it was all more or less in the Operations and Maintenance Division. So we considered it mainly an O&M Office, and we didn't have any planning activities, is what I'm saying.

Combining the Nebraska Offices

The planning activities for Nebraska were all over in this office. So they decided to combine the two offices and make a whole office for planning clear through construction and O&M. And they selected me to head it up and wanted me over here. Because we had a remote supervisory control system, you know, that controls dams and monitors releases and everything situated at McCook, they left a few people there. They left about a dozen people at McCook. It's not the best

of solutions to the problem, but most of us they moved over here to Grand Island. At that time it was very appropriate, because we were just beginning construction of the North Loup Project up here, which has Calamus Dam and then a smaller feeder reservoir, I call it Davis Creek Dam, and we were building the distribution system to 53,000 acres. So it was a pretty extensive construction project, and we were just beginning that when they moved me over here.

Storey: How many folks were there in the McCook Office when you shifted over to the O&M Division?

Kutz: I would say there was probably thirty-five or forty. You know, like I say, they left about a dozen there. I always say in something like that, a third stay, a third move, and a third get out of the Bureau. That's probably about what happened.

Storey: Who was the Project Manager who wanted you to stay on?

Kutz: A guy by the name of Win Hedges, Winston Hedges [phonetic]. His wife had a bad disease, one of these hereditary nerve–Huntington's Disease, and she was getting pretty bad, and he retired kind of early. In fact, it kind of surprised me. I hadn't been O&M Chief that long. When they selected me as Project Manager, he said, "Well, never fear. I'll be a phone call away to help you, Bob. Don't worry." But he passed away suddenly and somewhat mysteriously. I'm not sure what he died of, but I think it was less than two years after he retired, he passed away.

Storey: What do you think the reasoning was for selecting you for O&M Chief?

Reasons for Being Selected O&M Chief

Kutz: I guess overall experience and knowledge probably had a big factor in it. Of course, the O&M Chief had to get along pretty well with irrigators and farmers and people, because that's one of the major parts of your job. The O&M Chief and the Project Manager are the ones that really work directly with the irrigators and irrigation districts, boards, and you have to get along with those people. I guess I probably got along with people.

I think another probably somewhat significant factor is that I was fairly knowledgeable in contracts. I'd written many right-of-way contracts and knew somewhat the basics of water contracts. Later, in my O&M and Project Manager years, I became well versed in all phases of contracts. But I would say the general experience from the bottom up in construction experience and all phases, it was probably that, and, in fact, I felt I got along well with people.

Storey: How many folks in the O&M Division at that time?

Kutz: I would guess that probably over half of those forty were in the O&M Division.

Storey: What grade level would that have been?

Kutz: Oh, goodness. Well, let's see. I think that they were twelve and below. Our Reservoir Superintendents get clear down to threes and fours, fives. So it's a wide range.

Storey: What was your grade?

Kutz: I can't even remember. I think I was GS-12.

Storey: What is a Reservoir Superintendent?

Kutz: He's the one that's on site there, that does all the inspections that we have to take readings, weather readings, outflow readings, makes gate adjustments–usually makes gate adjustments. They can make gate adjustments right out of McCook Office with the remote control system.

Storey: Nowadays, but probably not then.

Kutz: Probably in the beginning they did most of that, and maybe they still do some. I don't know what percentage they do out of McCook or manually, but they're there to do that. And they do all the mowing, weed spraying.

Another thing that Bob Prouty and I were pushing for, we tried to hire Reservoir Superintendents that had surveying skills, because one of the things that we needed done, I think every three years or so, we had to take surveys of the dam. To see if the dam is settling or moving downstream or whatever, you take these precise measurements on the dams. Then, to some degree, we also used those surveys to do sedimentation, to see how much sediment's accumulating in the reservoir, and–

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BEGIN SIDE 1, TAPE 3. JUNE 9,1998.

Storey: This is Brit Storey and Robert D. Kutz on June 9, 1998.

Electronic sounding on the reservoir, you mean?

Kutz: Yes. Sonar-type things that do a fabulous job now, but in the beginning that used to be done pretty much manually. It wasn't near as accurate as what we get now electronically. So we tried to

get survey experience, so we'd have a crew, those people, those reservoir superintendents that would travel around to all of the reservoirs and do those surveys, kind of a dual job. But they would, of course, do that in the summertime.

Storey: As Chief of the O&M Division, what were all of these folks doing?

O&M Division Activities

Kutz: Well, you know, it's a wide range of activities. I guess primarily and most importantly we were dealing with irrigation districts and administering these water repayment contracts to make certain that they were fulfilling their end of it, and we were fulfilling ours of supplying the water supply. We also had to be collecting the moneys for repayment and water supply from these irrigation districts. We were making certain that those payments were being made. So that's one of our more important activities.

Of course, in doing that we were dealing with the irrigation district boards from all over Nebraska and northern Kansas. There's probably fifteen, eighteen different irrigation districts or boards that we dealt with. In fact, most of the time we had a Piper Aztec that we had stationed in McCook with a full-time pilot to fly us around these various sites and to go to all these meetings that we had to go to.

So it was going to a lot of meetings as the head O&M or the Project Manager. I did some of them, and the head of O&M did some of them, and some of them we did together. We even moved the Piper Aztec over here when they moved me over here. I told the employees I wasn't sure, but I thought when they announced they were moving the airplane over, it got a

louder applause than when they said they were moving me. (laughter) But as the transportation and the small airlines moved in here and we got the small commuter airlines available so we could fly to Denver and Lincoln and Topeka and so forth on commercial airlines, it just wasn't feasible to keep a full-time pilot and the airport anymore. So we terminated that.

Storey: Was the airplane here when you came as head of the division?

Kutz: No. It was in McCook.

Storey: But I mean the plane was available to you as the Division Chief?

Kutz: Well, see, they moved me over here as Project Manager.

Storey: Yes, but when you were Division Chief over in McCook.

Kutz: Oh, yes. It was available to me.

Storey: Where would you go and why would you need to go there? What kinds of meetings were demanding your attention?

Kutz: Oh, problems or issues with irrigation districts.

Storey: But what kinds of issues?

Issues with the Irrigation Districts

Kutz: Oh, Lordy. (laughter)

Storey: What kinds of things came up the most often?

Kutz: I guess one that sticks in my mind is one time Bob Prouty and I flew into Sergeant, Nebraska,

because the Sergeant Irrigation District and Farwell Irrigation District were both under the realm of the Loup Basin Water Supply Contract. Sergeant was operating their system like they had a prior water right better than Farwell, and they really had an equal water right. We were flying in there to tell them that they were going to have to change their operation some because of their water rights.

They had a good country lawyer that battled me all the time, and so he thought his best avenue was to have wall to wall irrigators there with fire in their eyes. So I walked in there expecting to meet with three people on the board plus the lawyer, and here was this whole Quonset shop full of chairs and irrigators with fire in their eyes. This lawyer gets up and says, "You're not going to come in here and tell us what to do with our water right." And it just so happened that that irrigation district didn't have a water right. (laughter)

When we got the water rights on that project, the irrigation district initially, or the Loup Basin Reclamation District initially got a water right, but in getting the water right, we had to pay out on a power interference agreement. Now, what a power interference agreement is, is that we were taking water away from a generator down by Columbus, Nebraska, for a more preferential use, irrigation. So irrigation was using consumptively some of the water that these people had a power right on. So we had to buy, pay them in dollars or power, and the best way for us to buy that out was to pay them off with Pick-Sloan power. So we had to buy them off with Pick-Sloan power, and they didn't want to agree to what we offered. So we had to go to condemnation. So, since the water right was in Loup [River] basin, they had to go to court to condemnation, and they didn't want to do it. So they turned that water right over to

the Bureau of Reclamation, and we went to the condemnation proceedings on that water right. That water right just hadn't ever got transferred back to the district. (laughter) Apparently the lawyer had forgotten that.

So I let him harangue on there for about twenty minutes, then I got up and said, "Well, counselor, you need to do your homework, because you don't have a water right on this project. This water right's all in the name of the Bureau of Reclamation, and you have an equal water right with Farwell, and the state law of Nebraska says this is how it should be run. So this is the way it's going to be run." So that kind of ended that meeting.

But that's the type of meeting, various conflicts over various issues. Like Ainsworth, I remember that we had a great deal of problem up there.[8] It was a concrete canal. In building these sand hills, a lot of these concrete slabs on the side of the canal would pop out. It just seemed like twenty or thirty of them every year. So the district wouldn't accept that for their operation and maintenance. They said it just wasn't adequately constructed. So we devised a procedure where we would do so much building and so forth, and outlined a plan to more or less force them into taking that. If we were going to do any more repair up there, we would do a certain amount of repair, but after that, they had to accept it. And those are the type of things that you had to deal

8. The Ainsworth Unit of the Pick-Sloan Missouri Basin Program is located in North-central Nebraska. The storage facilities are on the Snake River approximately 14 miles upstream from its confluence with the Niobrara River, in Cherry County southwest of Valentine. For more information, see Wm. Joe Simonds, "The Ainsworth Unit, Sandhill Division, Pick-Sloan Missouri Basin Program," Denver: Bureau of Reclamation History Program, 1999, www.usbr.gov/history/projhist.html.

with. It seemed like every few weeks or few days it was some different issue we were dealing with.

Storey: What kind of training did you take while you were, for instance, working on the computers?

Kutz: Well, like I said, on the computers we went back to a couple of weeks of school to learn how to run the computer, but after that it was pretty much on your own. That was about it as far as computer training.

Storey: So, not a lot of training in those years.

Kutz: No.

Storey: What about when you became Division Chief for O&M?

Management Techniques

Kutz: Well, in my later years in the Bureau, people would get up at a lot of these big management meetings and say how lousy of managers we used to be or used to have. And I would get up there and tell them they were full of crap, that in those days I felt we had just as good or better managers, because they didn't have some of these techniques or skills that we've learn through various management techniques in like quality management. You know, there's some of those things that are good and useful and you can use them, and some of them aren't.

Now, I thoroughly believe the Bureau has gone totally over the cliff in management techniques and so forth. They're spending too much time managing themselves. They forget they have a job to do rather than managing themselves. But in those days, we're talking about the managers that didn't have a lot of these techniques and skills on

management, but they got the bulk of all these projects built. So they had to be pretty damned good managers, and that's my argument. Yes, we've learned a lot of good management tools and some of them are very useful, but we need to sort the ones we can use from the ones we can't use in the Bureau of Reclamation.

I just felt that the Bureau was spending too damned much time sending people to make group or council meetings when those decisions didn't warrant that level or that magnitude of decisions. It's nice to bring a lot of people in so they're on board with you and feel part of the group. But you can't do that all the time, in my opinion, not in the type of activity that the Bureau does. You can bring them in to bring up safety issues or how you can streamline or handle different issues better, and we've learned those things.

Raising Gates on Trenton Dam

Christ, I can remember one issue, we had to change the cables that raised the gates on Trenton Dam. Now, we're talking cables that are as big around as your wrist. These are things you just don't throw them over your shoulder, throw them down there and hook them on. You do it with huge drag lines, and it's a major construction activity. Well, these cables and gates are on a counterbalance. They have these huge concrete counterbalances over here so that the motors that raise and lower these gates aren't raising the whole gate, just the part that's not balanced by these counterweights.

Well, to raise the gates and release the tension on those cables, you had to do it without those counterweights so that you loosened the cable. So, gosh, we called up the E&R Center or Chief Engineer's Office, or whatever it was called in

those days, said, "How do we do this?" They said, "God, we don't know. We'll call you back." So we called back in a week, no answer. No answer. They couldn't tell us. "You can't do it by the motor alone. We're sure you'll burn out the motors."

Well, we forgot to ask the Reservoir Superintendent. So at that time I was the Project Manager, and I took Bob Prouty, my O&M Chief, and we went out there to look at this problem on site and told the Reservoir Superintendent to be there. I was finally smart enough to ask him, "Do you have any ideas?" He said, "Well, sure." He said, "You can raise that with the motor. I've done it several times." (laughter) He'd already done it and hadn't burned out the motor. So it was just one of those things. You shouldn't ever forget to involve the people that are really doing the activity, because sometimes they have the best ideas, or at least the ideas that work.

Bulkheads

That brings up another issue. We finally figured that out. Then we said, "Okay, E&R Center, we need a bulkhead that fits down there above this gate," because we'd be working below the water level to change the swivels and clamps and clavices and so forth on this huge cable. So we had to put some bulkheads in above these gates to keep the water away from our working area. Did they have any bulkheads that would fit in there? So in a few days they called back and said, "No. We called all over, and there's just no bulkheads that size that would fit those slots above those gates. But for $30,000 we'll design you some."

I looked at Bob Prouty, and I said, "My God, if we're going to pay $30,000 for the design, what is it going to cost us to build the bulkheads?" And I

said, "Goddamn. We can't afford that in our O&M budget." I said, "You know, Bob, I've got an idea." I said, "I remember that we salvaged a whole bunch of great, huge I-beams from a bridge that we took out of one of our dam areas down in Kansas." And I said, "I can still picture those I-beams laying off in the grass over along the north boundary. I want you to go down and measure those, see what the measurements are, see if they're still there. Maybe those darned things would work if we weld these I-beams together, put them down in that slot."

Sure enough, they fit like a glove. We sent a guy down, a welder, to cut those to size, welded several of those lengths together, and we put those down in that slot, and, man, it was just tight, and we put in a rubber seal gasket, and it hardly leaked any, and it worked perfect. I don't think we spent $30,000 for the whole darned bulkhead. (laughter) So, these are some of the tricks you learn in the whole process.

Plugged Outlets on Trenton Dam

One of the other very interesting things that happened–well, there are two or three more that I might mention before we close this off. At one time, I guess it was in the late seventies, we had quite a few dry years in a row, and Trenton Dam, the reservoir, Swanson Reservoir behind Trenton Dam was very, very low. When our Reservoir Superintendent went to open the gate to make his first releases to the irrigation canal, he calls in and says, "Hey, something strange." He says, "I opened the gates to the canal outlet. Nothing happened. What do we do?"

Of course, the O&M Chief and I said, "Quickly close the gates," because you don't know what happened, and if something happens there and the

water breaks loose all of a sudden and you get water hammer in, say, an eight-, ten-foot diameter pipe coming under a dam, you can kiss that dam goodbye, because it's going to blow that pipe right out of there.

Well, we first thought that it was probably a broken stem on a gate. So we went down. No, it wasn't that. Well, what had happened was the water was so low that the wave action had brought fine sand into the outlet works tower that dropped down, that went down, I think, something like twenty or twenty-five feet down from this outlet works down lower to a lower level and then under the dam. Well, this twenty, twenty-five feet from this outlet, where it's down to where this turned and started under the dam was completely filled with sand. There again, "My God, how are we going to get this sand out of here?" It was completely filled with sand.

The Reservoir Superintendent says, "No sweat." We said, "What do you mean?" He said, "Let's blow it out of there." "Blow it out. Okay. How are we going to do that?"

We had a huge compressor. Now, this was a compressor the size that's on four tires. It's big as a wagon. They brought this huge compressor in, and we cranked her up and took about a three-inch line out there and hooked it onto a big long pipe on a barge out there, and with that compressed air we blew that sand out of there. And that compressed air blew that out so fast that it would pop beer cans full of sand clear up to the surface of the reservoir. It just blew it out of there.

We cleaned out this clear down to where nothing would come out of this vertical field, but, by God, the water still wouldn't flow through that

outlet. So we were still at a loss as to how we could do that. So we got together with the irrigation district. We knew that the irrigation district had a drain-cleaning machine. It's like a sewer-cleaning machine, extremely high pressure. It pumps water. It's the type pressure that it will cut off tree roots maybe up to a half inch in diameter. It's that much pressure. And you put this head in a confined area, and it will pull itself clear up this conduit.

So we didn't know whether it would work in this big a conduit, because this conduit was something like eight feet in diameter, as I recall. And we had to go under two gates. We had to go under the regulating gate on the downstream side, go clear up the tunnel underneath the emergency gate, clear up to where this thing turned. From horizontal, it went up to this vertical concrete pipe to the outlet work. So we thought, well, that's the only thing we've got to try. So the irrigation district, we cranked up their sewer cleaner. We only opened these gates just enough to get this head and this hose under there, because we knew that if this broke loose, we didn't want the whole bit to come. We just wanted it to come very gradually so we didn't get a huge water hammer in this whole system.

So we got that, and it would travel up there, and you could even tell it was moving into the sand. So what they do is they blast it up into the sand, and then they would pull it out, blast it up into the sand, pull it out, blast it up. We kept doing that. And this was several hundred feet of hose that we were working with that it pulled up down at the base of the dam. Finally, my greatest fear that it would blast loose all of a sudden, maybe break a gate or something–but anyway, it just broke so gradually that all of a sudden here we saw this murky water coming up the outlet works. And

when this hose came out, it wasn't pretty. It was just a pile of spaghetti. We had a hell of a time straightening out this hundreds of feet of hose. But we did get that clog out of that outlet. That was quite a unique undertaking and took a lot of people involved and a lot of people with different skills and knowledges, and we pulled that one off. It took us several days, and the irrigators were getting a little nervous, because they were wanted the irrigation water, but we finally broke it loose.

Storey: Did you then modify the dam in outlet works or something?

Kutz: No. What we did is we said, okay, now, if we ever get down to this level again where the water level is so low that this wave action is going to bring sand in there, we're going to have to open the gate every couple of weeks or so to flush that through there. In other words, nothing physically. It was an operational change, procedure. So hopefully the people that have followed us will remember that or have some knowledge of that and do that if it ever gets down that low so that that conduit fills with sand. But these are some of the interesting things that I recall. [Tape recorder turned off.]

Storey: Let's see. It's about 12:45 now that we're beginning to talk again. The computers. You mentioned Darrell Webber earlier and some of the other folks you worked with. Where were they, and how were you interacting with them at that time?

Interacting with E&R Center with Data Processing

Kutz: Well, Darrell Webber worked for a guy by the name of Fran Swain, and Fran was the head of Data Processing when it was in its infancy in the E&R Center, and Darrell worked for him, his

right hand man. So Darrell was in the beginning of it, too.[9] So those two guys and a guy by the name of Frank Thacker [phonetic] that was in the Regional Office in Salt Lake City. The reason we were involved with Frank was because he also had a Bendix G-15 computer, so we exchanged programs and information and ideas and so forth. Working with Webber and Swain was mainly just promoting data processing applications and, I guess, getting ideas from each other and so forth. It wasn't that close, but we did–

Storey: It wasn't a formal thing.

Kutz: No.

Storey: One of the things that I'd also like to talk about is how you began to adapt your way of looking at Reclamation as you went from the computer programming function to the Chief of the O&M Division to the Project Manager. If you went back to then, what kind of changes would you think you had made on your outlook on Reclamation?

Changing Perspectives on Reclamation

Kutz: Outlook on Reclamation.

Storey: It gives you a different perspective when you're sitting in a different seat.

Kutz: Well, going to Project Manager, you're not one of

9. Darrell W. Webber served as regional director of Reclamation's Southwest Region in 1982 and went on to become Assistant Commissioner Engineering and Research (1982-1993). Mr. Webber also participated in Reclamation's oral history program. See Darrell Webber, *Oral History Interviews*, Transcript of tape-recorded Bureau of Reclamation Oral History Interviews conducted by Brit Allan Storey, senior historian, Bureau of Reclamation, Denver, Colorado in 1993, edited and desk-top published by Andrew H. Gahan, 2012, www.usbr.gov/history/oralhist.html.

the boys anymore. (laughter) Up to that time you're still one of the group that's invited to the poker games and so forth. I don't know, there's a difference there when you're the fellow that draws the lines through the names if there are reductions. So there's definitely a difference there.

As far as how you'd look at Reclamation, when you're working in data processing or drawing right-of-way tract maps, you're doing a product. You're working to get out so many tract maps before a deadline and so forth. So it's more of a product, where, you know, you move in to head O&M or Project Manager, I always felt I had a couple of big duties, and number one was to promote and make sure we were getting adequate funding for our programs through the organization. And right along with that is to look out after employees under my office or supervision. It puts a lot of pressure on you from that standpoint, the manager's standpoint. You've got a lot of stuff on your shoulders.

Storey: How did you go about promoting a program? I presume this is within Reclamation.

Speaking Out Against Irrigation Wells

Kutz: You do a lot of public speaking. Of course, I started even doing some speaking as head O&M chief, even though I was only there a couple of years. One of the things that I was quite outspoken on was that Nebraska was putting in so darned many irrigation wells in the sixties and seventies that they were starting to affect flows in the tributaries of the Republican River, and so we saw problems starting clear back almost as soon as the final rivets were in the project.

END SIDE 1, TAPE 3. JUNE 9,1998.

BEGIN SIDE 2, TAPE 3. JUNE 9,1998.

Kutz: So I started speaking out on this irrigation development, this groundwater development and how it was beginning to affect and how it could affect projects in the future. A lot of them pooh-poohed it, "It's only a change in climate," and so forth, but I never did buy that and was quite outspoken on it.

I kept pounding on that even after I retired. In fact, it was quite unique. The governor of the state appointed me as a federal employee, which is quite a position to be in. Here I was a federal employee, and I was put on this–he called it the Water Council. He had about twenty-four people on this Water Council. It was to study Nebraska water law, which just wasn't cutting it, and to give him ideas or possible legislation to pass in the legislature to tie groundwater and surface water together. They didn't even have a legal tie together in this state. The laws are about a hundred years behind time.

Served on the Nebraska Water Council

It seemed quite funny to me, as a federal employee, to be on a detail to develop state water law. But it was mainly because I knew the governor. He knew that I was raised on the Republican [River] and had been through all the history of those projects over there and was well versed on all the tributaries, the dams, the hydrology of those projects. I guess probably, secondly, that I would speak out for those surface irrigators, because they were being greatly harmed by the groundwater depletion of those streams that were there. Some of those streams are two-thirds gone because of the groundwater pumping. They just pumped away the aquifer that was feeding those springs to those streams. I did

a lot of speaking on that.

Storey: This was after you retired, you said?

Kutz: I stayed on that council even after I retired. In fact, I think we lasted about three years. We did studies, public meetings, and so forth. After I retired, I submitted my resignation to the governor, saying if he wanted me in this position as Project Manager of the Bureau, I'm no longer. But they turned down my resignation and said, "No, we want to put you on as Bob Kutz because of your knowledge," and they wanted me to stay on. So I stayed on that Water Council even after I retired.

Storey: Did the council make any recommendations for how Nebraska law might change?

Kutz: Yes. They did change the water law. Now, they watered it down quite a bit from what I desired, but politically I felt it was about the best that could be done. They passed it very expeditiously. About a year from the time our council submitted it to the legislature, it passed. There's a lot of people that are trying to overturn that at this time. I don't think they've got a prayer of overturning it, but it's still not as strong as I feel necessary for the long-term future of Nebraska. At least it was a beginning. It tied groundwater and surface water legally together.

Storey: About the time you became Project Manager, Warren Fairchild would have left Nebraska as State Engineer. Did you ever know him?

Kutz: Sure. Sure, I knew Warren.

Storey: Tell me about Warren Fairchild.[10]

Kutz: I just knew him in his state position and saw him at conferences and so forth. I never did have that much personal knowledge of Warren, but I dealt with his predecessors in their positions, in the same position, quite closely for a number of years.

Storey: Tell me about these meetings you went to. What kinds of meetings?

Professional Meeting Attender

Kutz: Oh, gosh, there's just all kinds. There's so many meetings, it's almost like you're a professional meeting-attender. From irrigation district board meetings that I've previously described, where you have problems or issues with irrigation districts, then you're dealing with state agencies on water rights. We've had several squabbles on water rights, that we didn't think they were interpreting their state water rights correctly, and we've about gone to the mat on a couple of those.

Then working with the Game and Parks Commission, because they administer the fish and wildlife and recreation on all of our lands, both in Nebraska and in Kansas. So there's two different state agencies there that we work with. Then you have a Wildlife and Parks for each different one, so there's two agencies. Usually we keep those together, but they're Kansas down to Topeka.

10. Warren Fairchild served as Executive Secretary of the Nebraska Soil and Water Conservation Commission (1957-1970), became Reclamation's Assistant Commissioner for Resource Planning (1970-1974), and acted as the Department of the Interior's Director of the Water Resources Council (1974-1976). Mr. Fairchild also participated in Reclamation's oral history program. See Warren Fairchild, *Oral History Interviews*, Transcript of tape-recorded Bureau of Reclamation Oral History Interviews conducted by Brit Allan Storey, senior historian, Bureau of Reclamation, in Washington D.C., edited by Brit Allan Storey, 2013, www.usbr.gov/history/oralhist.html.

Then there's all the water organizations. Each state has an irrigation association, water resource association, and then it more or less kind of started with the Bureau, the Four States Irrigation Council, or Conference.[11] I think the Bureau more or less started it as an avenue to send information out, research and information, to irrigation districts under its projects, but I think it expanded a little more than Reclamation projects, but they call it Four States Irrigation Council. All these surface irrigation projects in Kansas, Colorado, Nebraska, and Wyoming would get together and have tours. They'd have summer tours, and they'd have a winter conference in some site that was selected. I'd speak to those meetings, well, maybe not yearly, but quite often. So there was an awful lot of speaking.

Storey: Going out to these meetings, usually in Nebraska and Kansas?

Kutz: Yes, and some in Colorado, but mainly in Kansas and Nebraska because that's our area. Then there was also testifying at state hearings on water rights or various issues, changes in legislation. We didn't usually go to a state hearing, but occasionally we were requested to testify on certain issues, and we would do that. So there was always that. And, of course, our work with the Water Council, where we even went so far as to give guidance on water law. Just all sorts of meetings. Court cases, you know, testified in a lot of court cases.

11. "Established in 1952, the Four States Irrigation Council serves as a forum for irrigators to exchange ideas and information, to discuss specific irrigation-related problems, and to learn if solutions to those problems have been explored by other members. The member states are Colorado, Kansas, Nebraska and Wyoming." Se e Four States Irrigation Council, www.4-states-irrigation.org (Accessed August 2016).

Storey: On what kinds of issues?

Project Issues

Kutz: Oh, gosh. Everything from squabbles between irrigators to irrigators and irrigation districts, just all sorts of issues. One that kind of brings to mind, this lawyer went on to become quite an outstanding judge in the state of Nebraska, but this irrigation district took out this farm bridge that was totally deteriorated and the farmer wasn't using it and it was a hazard, so they just removed it. The farmer sued them, said, "You've got to replace my bridge."

They said, "No. We removed it because of safety reasons." They'd given him a couple of warnings to fix it or remove it, and he hadn't done so. So he was taking them to court, saying they've got to replace it. They hired this what I thought at that time was a country bumpkin lawyer, and, my God, when he got in that courtroom, he was something else. He was a real topnotch trial lawyer. He kicked butt. (laughter) He knew how to do it. You know, there are lawyers that are trial lawyers and then there are those that aren't, and this fellow was one of the best. Of course, they won the case hands down.

Storey: This was the irrigation district?

Kutz: Yes. I never will forget that fellow. He went on to be a pretty high judge in the state of Nebraska, the highest. So I'll always remember that.

Another case that he was involved in–I had to kind of laugh. The irrigation district condemned a piece of land they needed for an outfall to a drain, a subsurface drain, and we had the irrigation district do it because we thought they could do it faster and have better results in local court rather

than federal court if we did it. So the local court and the condemnation came up with a price, and damned if they didn't appeal. This guy appealed. He appealed it to one court, and the next court reduced the amount they were going to give him instead of increasing it, and I'll be doggoned if he didn't take it to the Court of Appeals, and they reduced it even further. (laughter)

This lawyer was doing the arguing for the irrigation district, and I thought, boy, I wonder if they're going to try it a third time to the U-S Supreme. But I'll tell you, some of those country lawyers you don't want to tangle with. That's just some instances that I recall.

Storey: Yes, you mentioned earlier there was some others, I think, attorneys you wanted to talk about.

Country Lawyers

Kutz: Yes. There's one that I dealt with. His name's Cy Shaughnessey. In fact, he and I had so many battles and he's raised my blood pressure so many times, that many nights I couldn't sleep because my blood pressure was so high, I'm sure. Cy was just the best advocate there was for water resource projects. If there's anything you can say about Cy, his fighting was to promote those projects. If anything, he got carried away a little too much sometimes. But because of his tenacity and his sticking to what he believed in, they got one of the last projects ever to be built by the Bureau that we just finished here a few years ago up on the Calamus and North Loup rivers. He's been the lawyer for several irrigation districts up north of here.

Heck, there's more surface irrigation development by Bureau projects up in just the Loup Basin area up here, I think, than there is in

South and North Dakota combined. It's just individuals like that. I put Cy in for the Citizen's Award that they give to citizens that promote reclamation, and he received that before I retired. Cy passed away just a couple year ago. But he was another one of those country lawyers that, boy, if he believed in something, he never let go of it. Never let go of it.

You know, one other thing I might mention that was kind of amusing. Did you interview Willis Ervin?[12]

Storey: No. We're planning to interview him later this summer.

Kutz: How about Gordon Windler [phonetic]?

Storey: No, I haven't interviewed Mr. Windler.

Preparing for Pick-Sloan Program

Kutz: I was going to look up–he might have some interesting stuff, and I'll see if I can find his–but when my dad first went to work for the Bureau of Reclamation, one of this first jobs was, he was a driver, and he drove a couple engineers all around the Midwest. They were looking at these proposed sites that they were going to promote in the Pick-Sloan Program. Apparently they were just very roughly guess sites, and they wanted to pin them down to see if they were good sites. I think it was a soil scientist and engineer that he

12. Willis Ervin had a long career with the Bureau of Reclamation (1948-1983); much of it connected with PSMBP activities in Kansas and Nebraska. Mr. Ervin also participated in Reclamation's oral history program. See Willis J. Ervin, *Oral History Interviews*, Transcript of tape-recorded Bureau of Reclamation oral history interviews conducted by Christine Pfaff, Historian, Bureau of Reclamation, edited by Christine Pfaff and Brit Allan Storey, 2012, www.usbr.gov/history/oralhist.html.

drove all over, and I think one of those guys is still alive here in Nebraska. In fact, I saw him at one of the funerals of one of these elder Bureau people here just about a year ago. So I'm sure he's still alive, or he was at that time, and still with a good mind and body. But that goes clear back. Hell, not much–I forget exactly when Pick-Sloan was passed, but it wasn't too long after Pick-Sloan was passed.

Storey: Yes, '44.

Kutz: Yes, that's right. So it was about in that time frame that my dad was driving these two individuals around.

Storey: Who was this one that's alive?

Kutz: I can't recall his name. I can picture him, and probably in the next day or two I'll come up with his name. I know where he lives, and I'll go through the telephone directory. It isn't too big a town. Maybe I can pick it out, and I'll give it to you. But maybe even just a telephone interview with him, he might tell you some things.

God, you go back in those days, we didn't hardly even have heaters in our vehicles back in those days. In the late forties, we felt that a car with a heater in it was tremendous, because back in the early forties, a lot of the damned vehicles we had only had–what were they, manifold heaters. It was ridiculous. Having a radio in a car would be unheard of. Now you've got fancy air-conditioning. Air-conditioning, that was something else, too. Air-conditioning and heaters and radios and cell phones and, my God, whatnot now. My realm goes clear back to–a lot of them still had old manifold heaters in them. (laughter) And you froze to death in the winter, believe me.

Storey: You mentioned earlier that you worked on subsurface drainage.

Kutz: Yes.

Storey: Design and development of that?

Subsurface Drains

Kutz: There were really two big areas in the Bureau that had subsurface drainage problems. In was down here on the lower Republican, mostly in Kansas, but in the lower Republican, in Nebraska and Kansas, that after we'd irrigated for, oh, I guess, twenty, twenty-five, thirty years, we started getting a lot of high ground water problems because these people just weren't the most efficient irrigators in the world, and there were some problem areas where the water just couldn't get away.

So early on, our attack–and I think later we've kind of reverted from that, or at least I have–from attacking the illness. In other words, after the high ground water would develop, then we'd go in and build subsurface drains. When we first started building them, we really weren't that knowledgeable in how to go about it. There was also another big area up in Oregon–Ephrata, Oregon.[13] Up in there they had a lot of drainage problems. There were some other smaller areas, but those were the two big areas where there were some drainage problems.

So the Bureau, in its desire to promote and do research in it, we did a lot of research in different types of things for subsurface drainage. And it got so we were pretty darned good at that, how to

13. Believe Mr. Kutz is referring to Ephrata, Washington on the Columbia Basin Project.

engineer and do precisely and put in a subsurface drain that really did the job. Because early on, hell, we had some contractors that would try to excavate these areas with backhoes or draglines, and we were just working in swamps where it would just muck in. Hell, you couldn't excavate out to the depths we wanted. Finally we just had to say, "You need some kind of a subsurface drain machine where you can excavate twelve, fourteen feet deep and lay a pipe at that depth."

So they've gone to excavation machines with protective sides and areas where people can get down in there and lay pipe, or sometimes now they are laying more and more continuous pipe. When we first started doing it, we laid pipe that was in lengths, and you'd block the bell and spigot apart so the water would run in the opening between the pipes, make an opening there. Well, that didn't work all that great because sometimes it would break apart, and then all sorts of soil would move in there, and you'd have a slump hole. So now they've gone as far as laying continuous plastic pipe, perforated pipe, and it works real well. We were in on a lot of that research in improving subsurface drainage and design of it. A lot of the people who came through McCook have gone on to the Denver Office to help in the drainage program and even supervise and so forth.

Storey: Did you actually go out and work on any of that yourself?

Kutz: Yes, as far as working with landowners and irrigation districts on what we were doing, but by that time I was more in a management position. So I was more or less supervising, making sure we got the money to do the jobs and we were doing it. In my later years in the Bureau, I started attacking the problem differently. I said, "This

problem is occurring because we're getting too much seepage out of the canal or lateral system, that or our irrigators aren't doing a good enough job on site."

Promoting Efficient Irrigation Systems

So we started promoting more efficient irrigation systems, and we did a lot of research out of the McCook and Grand Island Office on low-cost canal improvements. Most of them are just earth canals. Some of it isn't even compacted. And they were losing a lot of earth. Well, we tried everything from in-place compaction to putting a sheet of plastic just in the bottom of the canal. Just that will cut the seepage out of a canal system by fifty percent. So we did a lot of research in that area. I'm kind of proud of some of that research, and I'm a little amazed that it hasn't picked more. People aren't doing a lot more just bottom lining, because they could lay a sheet of plastic in the bottom of those canal systems without too great an expense.

Probably one of the projects that I pushed more as a Project Manager and I believe in–well, let me finish this on canals. Farwell started, Farwell Project up northwest here, started to have a tremendous high ground water problem. In the early stages of that high ground water problem, we were building drains, and I just felt from the beginning that maybe this was a project where we need to attack it from a different standpoint; we need to improve the canal system and improve the lateral system and improve the on-farm irrigation efficiency.

One of the ways that you can best improve the on-farm irrigation efficiency is if you can get the farmers to go to gated pipe for delivery to each row. To do that, they must have some head. In

other words, they've got to pump it or it's got to come out of a pipe lateral with enough head to push it through this gated pipe. Are you familiar with what a gated pipe is?

Storey: I think it's the little one with the little slide openings in the side.

Kutz: Right. They've got slide slots.

Storey: About an inch by two inches, maybe?

Kutz: Right. The reason that they're so efficient is that you can open that slot way up and run a lot of water through that real fast to get that water clear down to the end of the row. As soon as it gets to the end of the row, you shut that way back so it just keeps that water full to the end of the row.

Storey: Soaks it in good.

Kutz: Right. So you can adjust it with an infinite number of settings on that gate. Whereas if you were using the old siphon tubes, hell, you only had one siphon tube. Some other people had a couple different sizes, but what a mess, going in there, setting one size siphon tube, then, boom, you come right back through with another one to slow it down. So, gated pipes improves on-farm efficiency like fifteen percent, just boom, like that.

Irrigation Improvements on the Frenchman-Cambridge Unit

So one of the ways to get to gated pipe is where you have enough head to bury the laterals in pipe, because all of our early systems were open-dish laterals. One of the most ideal projects was–it's almost like we designed it with pipe laterals in mind–was the Frenchman-Cambridge over around

Cambridge and McCook. Most of the canals were along the escarpment or along the edge of the valley, and then the laterals came down into the valley floor. So that just automatically provided them with enough hydraulic head, or in other words, enough head above the delivery point that you could push that water through a plastic pipe.

So we convinced the district that, "Hey, this groundwater development in this area is going to deplete your water in the future. You're going to have to do a better job. So it's in your best interest to borrow some money from the federal government." They borrowed–gosh, I think it was $4.4 million to start. They started burying all their pipes. Well, they ran a little short of money, and they came back and got another $1.1 million, I think it was.

Boy, this has been just a tremendous project. In the early years, we had a lot of tours that came in here just specifically to look at that project, because immediately, with the gated pipe, almost immediately all the farmers–in other words, they had a choice. They could have stayed with their ditch and siphon tubes, but I think about the first year, ninety percent of them would immediately go to gated pipe. They would buy gated pipe deliveries. So between the water you save from the pipe lateral itself plus the improved on-farm efficiency, they just made a tremendous difference in their irrigation system.

Improving Water Efficiency on the Farwell Project

So we decided to push that up on this Farwell Project, say, "Hey, what you guys need is not to spend your money on subsurface drains. Why don't you do yourself a favor and put that money in the system itself to improve the system and to push for better on-farm efficiency."

Of course, they said, "Well, who's going to go out and tell our farmers that they're lousy irrigators and they need to improve their efficiency?" Of course, that fell on my shoulders. (laughter) I never will forget, the board–it was kind of humorous. They said, "Well, how are we going to get all of our irrigators to meetings to hear this?" One of them kind of jovially said, "Well, let's say that the Bureau is thinking about reducing the amount of water we get." (laughter) I forget exactly how they put it, but in the article trying to get these people to come to these meetings, there was some inference that the Bureau wanted to reduce the amount of water that they get for irrigation. And, believe me, we had wall to wall irrigators. It brought them out.

So we were able to get our message across. The board wasn't, I would say, a hundred percent. It was probably about fifty-one percent in favor of this to begin with, but it's worked above and beyond our wildest dreams, and now they think it was the greatest idea since pockets on shirts, I'll tell you. It's really stopped the need for subsurface drains. So we went about a cure for the illness instead of treating the illness after it occurred. It's really worked great.

But that pipe lateral system on the Frenchman-Cambridge is one that I'm sure proud of, and that's one that I pushed from the beginning. In fact, I even cut some deals on that to keep it going. Because we run out an R&D report–

END SIDE 2, TAPE 3. JUNE 9,1998.
BEGIN SIDE 1, TAPE 4. JUNE 9,1998.

Storey: This is an interview by Brit Storey with Robert D. Kutz on June 9, 1998.

. . . [U.S.] Fish and Wildlife Service had come

in.

Working with U.S. Fish and Wildlife Service

Kutz: Yes, and Fish and Wildlife said, "If you bury all those open ditch laterals in pipe, then cover that over, why, there's going to be a pheasant, quail, bird wildlife habitat that's going to go under." Probably going to go under back to cropland, because they could farm right over this pipe lateral once it's buried. And they wanted X number of dollars to study this issue for two or three years.

I got along pretty well with the head of the Fish and Wildlife Service at that time. I knew the guy real well. So I called him up and had a meeting, and I said, "Let's face some facts." I said, "The irrigation district has been burying just a little bit of these laterals each year on its own without federal money, and they want to do this all of a sudden with federal money. Granted, what you say is true, you're going to lose bird habitat and so forth." I said, "But they aren't going to wait two or three years to do this. If we can cut a deal, it's a done deal." I said, "How much wildlife habitat do you want? Tell me how many acres. We'll buy it and set it aside as part of the project."

He scratched his head and he said, "Well, we could probably run some figures and come up with something." So he proposed so many acres, and I can't even remember the number of acres, like 320 acres, maybe, they were losing.

So I went to the board and said, "Okay. Here's the deal. If you want to move ahead on this, here's what you've got to do." Oh, they just raised hell. "Goddamn Fish and Wildlife! They're blackmailing us." But, you know, it was a fact of life and changing times. I said, "That's it. Either

that or delay it for two or three years' study or no federal money. So which of those options do you want?"

The president of the board, he was for the deal. I could see that right off the bat. All he had to do was–it was a three-man board, so he just had to convince one more to go with him. He said, "Well, hell. I've got this big block of land down by the Republican that's already tremendous, and I'd sell that to the district for little or nothing for wildlife habitat land." Then another one got to scratching his head. "Yeah, by gosh, I've got some land here and there." They got to figuring up that maybe getting this acreage wasn't going to be that bad a deal after all.

So we cut the deal, and we moved expeditiously ahead with that project. We said, "Okay, Fish and Wildlife, here we're going to set aside some of these lands." Some of the lands we even selected because Fish and Wildlife wanted some pheasant hunting areas. So we selectively picked out a few spots and put plantings on them. In later years, on these tours, the district would even go by and say, "Here's some wildlife habitat we set aside, and now it's great hunting," and so forth, and they almost bragged about it. But they sure were a little hot about it to begin with. It was kind of the big start of the environmental movement.

I got a lot of flak internally for cutting this deal. They said, "Kutz, you're setting a goddamned precedent." It was a big start of the environmental movement, and I just felt it was the thing to do at the time, and I didn't think it was setting a precedent for anything else. I just wanted to move this project on. So we set aside wildlife habitat for this. In fact, probably one of the first or few that ever did that, because, boy, I got a lot of phone calls. (laughter) "Hey, you

shouldn't be doing this."

Storey: Was there an office in McCook and an office in Grand Island?

Kutz: For a number of years, yes.

Storey: What was the difference, or was there a difference?

Project Offices Based on River Basins

Kutz: Not a hell of a lot of difference. Like I said, in the early years, they were on river basins. McCook was the Kansas River Basin Office. It wasn't only the Republican; the end product was the Kansas River. So it was called the Kansas River Project Office. Well, this office up here was called the Niobrara [River], which is clear up in northern Nebraska, the Niobrara in Lower Platte Projects Office. So they were on river basins, so it was two complete different river basins.

In earlier years, they both had planning offices and staffs, but in the later years of McCook, there just wasn't anything more to plan. So we kind of dropped out of the planning category, and most of those people transferred out, and we just more or less closed the planning activity. There were times in the Grand Island Office when things got tough and they reduced down in size, that there wasn't much of a planning here. But they were independent offices.

Storey: I think I saw a map out at the store museum yesterday. McCook isn't all that far away, is it?

Kutz: About 150 miles.

Storey: That's a little further than I thought from that map.

Kutz: Yes, it's 150 miles.

Storey: So basically they were project offices.

Kutz: Both project offices. Both had Project Managers.

Storey: My understanding, the little bit of research I did before I came over here, McCook would have been the office for the Republican River also.

Kutz: Right. See, the Republican goes on down and flows into the Kansas. Right.

Storey: It's a tributary. And there's an interstate compact on that river.

Kutz: Before we get into the compact, let me tell you another kind of humorous incident that happened. I can't remember, I think I might have still been the head of the O&M or my early days as Project Manager. Willis Ervin was the head of Operation and Maintenance in our Regional Office in Denver. This would have been in the late seventies, because we were having pretty much–you know, not a bad drought, but some dry years. The Republican was short of water, especially down at Trenton and Harlan County and on down, and we needed some more storage water in those reservoirs to fulfill our contracts.

Selling Water in Bonny Reservoir

Willis and I were talking about it one day, about, you know, here's Bonny Reservoir over here in Colorado, that Colorado just never has pushed to develop the irrigation project out of that reservoir, and here's all this water supply and this conservation pool that's just sitting there, and they're recreating on it and boating and so forth, but the Bureau isn't getting a damned penny out of that. We had X million allocated, I think like

three or four million [dollars] of the project cost allocated to irrigation repayment.

So we kind of together conjured up a deal. Why don't we go to these irrigation districts in the lower Republican in Nebraska and see if they'd be willing to buy some of that water from us. Sure enough, oh, yes. Hell, yes. The first irrigation district down the line, the Frenchman-Cambridge putting it into Trenton, which would be the shortest travel, they said, "Yes. We'll put up some big bucks and buy some of that."

Now, this was almost in the days before you had impact statements and all that, because we just cut a deal. And I guess it come out in the paper that, hey, we were selling so many thousands of acre feet of water to Frenchman-Cambridge out of Bonny Reservoir.

Boy! Immediately I was called into the State Attorney's Office in Denver, Colorado, They said, "This is contrary to state water law." We kind of held our ground, because it was kind of funny, in another court in the state of Colorado, they said we hadn't jumped through all of the hoops we were supposed to jump through to get the correct storage right on Bonny Reservoir. Now, this was some thirty years after the thing was built. But they were saying, "Hey, you didn't get proper storage right." Well, we provided letters saying, "Hey, we did just exactly what you told us to do, so don't come to us. It's your damned problem." So they were saying we didn't have an adequate storage right.

I always kind of jokingly said at these meetings, "Well, if we don't have a storage right, I need to empty that storage reservoir of all its conservation storage. How do you guys want it?" (laughter) But they had another law that it's illegal to export

water that belongs to the state of Colorado out, and they were threatening to throw me into court, and they would ruffle their feathers.

Anyway, the results of this is we did end up selling this water, and we moved it down to Trenton Reservoir. But immediately we started negotiating with the state of Colorado to buy that conservation storage in Bonny Reservoir.

Storey: For them to buy it.

Kutz: And they just wrote us out a check. I think it came in two payments, one year and another two or three years later, and we sold that conservation storage to the state of Colorado for their operation and control for–as I recall, it was like 3.4 million [dollars], but it was kind of a bluff job by Willis Irvin and I, and we kind of cooked it up. (laughter) And it worked. We got the 3.4 million.

Storey: You got the repayment.

Kutz: You bet, for the federal repayment out of that reservoir.

Storey: Was Bonny out of the McCook Office?

Kutz: Yes, see, because it's on the south fork of the Republican. It's just barely over into Colorado.

Storey: Right. I've been out there.

Kutz: And so it was under our jurisdiction, even though it was in Colorado, because, there again, we went on river basins originally. And they really haven't changed too much since then, but they've changed the designations or names of the offices.

Storey: I guess that must be where Colorado gets involved

in the Republican River Compact then.[14]

Republican River Compact

Kutz: Oh, yes. Being involved both as position in O&M and Project Manager, for years I'd gone to the Republican Compact. Almost from the time that I began attending it, Kansas and Nebraska were squabbling. Kansas just felt that Nebraska wasn't computing its water use accurately because Nebraska claimed that groundwater wasn't intended to be administered by the compact. Well, Kansas says it is, and I tend to agree with the state of Kansas, unfortunately. It doesn't take a rocket scientist to understand the compact.

The compact says it's for divisions of the virgin water supply of the Republican River unaffected by the activities of man. Now, it doesn't say the virgin surface water supply; it says the unaffected water supply, virgin water supply. So I think it's a slam dunk against Nebraska, this lawsuit.

Storey: The current thing that's going on?

Kutz: Right. Just at the end of last month, the state of Kansas filed in federal court a lawsuit against Nebraska on the Republican Compact.

Storey: How is Reclamation involved in all of this?

Kutz: We're involved because we send a big portion of the water supply to Kansas out of Harlan County Dam, which is actually a Corps reservoir, but the

14. On December 31, 1942, representatives of the states of Colorado, Nebraska, and Kansas signed the Republican River Compact that provided for the equitable distribution of water from the Republican River. For more information, see Republic River Water Conservation District, "About the Compact," http://www.republicanriver.com/CompactInfo/RepublicanRiverCompact/tabid/159/Default.aspx (Accessed August 2016).

Congress, in its infinite wisdom, gave Bureau the authority to market that water, which tends to have us at odds with the Corps, because the Corps don't want any water sold out of it, because it fluctuates their reservoir for their recreation people, which they administer recreation on a Corps reservoir, not the Game and Parks. They do. And so they consider those recreation people their clients, and irrigators are not, even though the Bureau is selling that water out. So we have had a lot of arguments with the Corps on that, and still are.

So we send a lot of that water that's stored in Harlan County down to this irrigation district in Kansas, the Kansas Bostwick Irrigation District. Now, some of it also goes to Nebraska Bostwick Irrigation District, but the bigger portion goes to Kansas. In the late seventies, there wasn't enough water supply. I think they got like nine or ten inches, which is about half of what they want. So Kansas is saying, "Hey, we were shorted." Well, it's true. If you were to interpret the compact the way Kansas interprets it, and the way I think is correct, yes, we did short them.

But on the other hand, from an operational standpoint, I had a water contract both with Kansas and Nebraska Bostwick Irrigation districts that says, "Hey, we agreed in any year there's a shortage, we will share that shortage." So what do you do? So we kind of more or less ignored the compact unless the Compact Commission itself told us to do otherwise. Now, the problem with the commission is there's three commissioners: Colorado, Nebraska, and Kansas. Each has a commissioner. They must all three agree on anything before they can act on it. So Nebraska would always vote no to sending more water into Kansas. So it was just a stalemate. I told them, "Hey, quit fighting and take it to court

if you've got a problem."

So that's the difference, that we kind of bypassed the compact because of that provision in these contracts. I'm sure there's some clause in that same water supply contract that, "Hey, we're going to abide by all state water laws and compacts, etc., etc." But I don't know. It never was a big issue. They're right now renewing those contracts, so I'm sure it's going to become a big issue in the renewal of those contracts, and I would guess that Kansas Bostwick isn't going to sign a contract for the renewal of their water supply that says, "Hey, we're going to share with Nebraska." Not anymore. So that's pretty much the situation with Republican, its operation, unless you have some other questions.

Storey: Do you happen to know when the contract was signed?

Kutz: Oh, goodness. Those are forty-year contracts, or fifty-year contracts. Fifty years, ten-year extension. So it would be in the forties.

Storey: I believe the compact might have been signed in '42.

Kutz: Yes.

Storey: Or approved in '42, maybe.

Kutz: But another thing, you have to really read the legislation and the background information and stuff on the compact, but in the compact it also provided for monies to the federal government to look at and record groundwater levels, different stations, in the basin. So they were quite obvious that, hey, groundwater levels was on their minds even back at that point.

Storey: So they were thinking in terms of that water.

Early Groundwater Studies

Kutz: Right. And even before we started building Enders Dam up there, we were building an extension, a large extension, for the irrigation canal out of Enders. We helped sponsor with the [U.S.] Geological Survey a study that was started in the forties. I can't remember, I think maybe it was finally published in the early fifties by a couple of gentlemen in the Geological Survey who did a fantastic job on it, and this was before computers and so forth, by the named of Cardwell and Jenkins.[15]

So we were telling these guys, "Hey, there's been some development up here, irrigation development. Is that going to affect the groundwater supply?" So they did this study of what they felt was possible irrigation development and how that would affect the flow. Well, you must understand that in the middle to late forties, nobody had ever invented a center pivot irrigation system. So all they were looking at was flat level lands that could be irrigated by gravity, which was very limited up in the upper areas of Frenchman Creek above Enders Dam. So the lands that they looked at for probable groundwater development and irrigation were very minor to what's happened now since the fellows invented the center pivot irrigation system and just opened up, literally, millions of acres to irrigation development from groundwater. So it just changed the whole ball game. That stream is now about two-thirds gone because of the development above Enders Dam.

15. W. D. E. Cardwell and Edward D. Jenkins, *Ground-Water Geology and Pump Irrigation in Frenchman Creek Basin above Palisades, Nebraska* (Washington, D.C.: U.S. Government Printing Office, 1963.

Storey: The groundwater development has reduced the surface water, that's what we're saying?

Kutz: Right. And then from the same standpoint, some of these people are saying, "Oh, Kutz, you're all wrong. It's because of soil conservation practices," or flat channel terracing or just terracing. I say, "I don't care what it is." I said, "The compact says activities by man. It doesn't matter whether it's groundwater or terracing or whatever, it can't be depleted by activities of man."

So even if it's conservation, it falls under the compact. So, in other words, Kansas is going to win. Now, the biggest thing Nebraska's got going is that Nebraska, to this point, I don't think can show too terrible much damages other than a couple of years like in the late seventies there, maybe once in the early nineties or so, where they've had tremendous shortage of their need for irrigation.

You know, they could probably build up a case that, "We've shut down a lot of our groundwater irrigators in the lower Republican because we aren't getting the minimum flows in the stream." Because they have minimum flow requirements, and if they don't have those minimum flows, they can shut down groundwater irrigators close to the streams. So it's hard to tell what they can prove.

That, in general, covers the Republican operation and our water laws. But I'm sure that the compact or the Compact Commissioners are going to be more involved. I guess if you'd shut off your machine for just a second–[Tape recorder turned off.]

Storey: While we were taking a break, we were talking about the Budd [phonetic] family, and that

recalled to my mind that there used to be Reclamation housing in McCook. Was there any still there when you got there? That would have been in the early sixties, right?

Reclamation Housing in McCook

Kutz: Well, the early housing that they had related to the McCook Office, in the earliest development of the Reclamation office in that area, it used to be at a prisoner camp north of Indianola, Nebraska, which is about seven miles east of McCook. And, yes, there was lots of housing out there, and the people lived in those houses out there. I think they were getting pretty old and dilapidated, but it was in this prisoner-of-war camp and buildings and so forth is where they first set up the Bureau office.

As it started to grow, the program, they saw that, "Hey, this is pretty dilapidated facilities," number one, and, "Maybe we shouldn't be in the big housing business ourselves," because they could see that this was going to be lots and lots of employees. So they moved to McCook. After they moved to McCook, I don't recall that there was any housing connected to the McCook Office. Now, we did move a couple of houses on our land there at McCook, but we used those not as residences. I don't think anybody ever lived in them. We had them for soils labs or things like that. In other words, we had facilities in those for offices, not residences. I just don't recall that the Bureau ever had–once they left the prisoner-of-war camp in Indianola, that they–of course, the Reservoir Superintendents out at the dams, we had residences, and all of those were built by the government. So that was all.

Storey: By the time you got there, they'd moved out of Indianola.

Kutz: Right. I think that occurred not long after I went to work for the Bureau, probably while we were constructing, I would say in the late forties or very early fifties, that they moved out of the prisoner-of-war camp to McCook, into the big dance hall.

Storey: Into the dance hall. That was the Quonset you were talking about?

Kutz: Yes. The Gay Way.

Storey: And was that the same office you were in all the time you were in McCook?

Kutz: Yes.

Storey: Until you moved up here?

Kutz: Right.

Storey: Is it still used by Reclamation?

Kutz: Well, the Quonset part isn't. The Quonset part is kind of the back end of it that's, I think, only inhabited by some of these old files that are never used and maps and contour maps and so forth, them and the mice. (laughter) There's a better portion that's kind of a brick addition on the front of this Quonset that made it a better, nicer-looking building. That's where mainly all the offices are now. They have some meeting rooms and so forth down in this Quonset portion of it. We were having a heck of a lot of trouble with leaks in the roof and so forth, but apparently they've fixed those and used some of the Quonset for a meeting room.

Storey: One of the notes I wrote down was about irrigation techniques. You talked about center pivot, which I guess is mostly groundwater.

Kutz: Oh, yes.

Storey: But were there other irrigation techniques that came in that would use Reclamation's surface water that improved efficiency or, for instance, that eliminated the need for ground leveling and those sorts of things in your area?

Irrigation Techniques on the Project

Kutz: I'm sure that in certain instances–I know on one project, specifically the Ainsworth Project up in the Sand Hills, they pump a lot of our Reclamation water through center pivots. In other words, they deliver this water to, say, a big pond or so forth, and then they pump it out of that pond into the pivot. So, yes, some of it is delivered through the pivot.

There's mainly the center pivot, the gated pipe deliveries, and, of course, re-use pits, are the three main conservation items that's come into being in my time. Re-use pits is where the water running out the end of the row is collected and put into a pit, and then it's recycled back to the beginning of the row. Instead of just wasting it out to the ground water or to the stream or something, they pump it back up to the head into the field again and let it run down through the rows again.

Storey: Is that a common technique?

Kutz: Yes. Lots of re-use pits, yes.

Storey: So they get more water for their money, as it were.

Kutz: Well, more efficiency.

Storey: You've been talking about efficiency. I recall that when Joe Hall was Regional Director of the

Lower Missouri Region, he was very interested in water conservation.[16] Was that this era, or was that a little later?

Kutz: Well, I would say it was in the same time frame. I'm sure Joe Hall was–

END SIDE 1, TAPE 4. JUNE 9,1998.
BEGIN SIDE 2, TAPE 4. JUNE 9,1998.

Kutz: . . . that Joe was the Project Manager when we were installing–

Storey: The Regional Director.

Kutz: Yes, the Regional Director when we were installing this pipe lateral system on the Frenchman-Cambridge for 5.5 million, during most or all of his tenure as Project Manager. So, yes, he had to be big on it to support it, I'm sure.

Storey: Who was the Regional Director who selected you to be Project Manager?

Kutz: Jim Ingles.[17]

Storey: He was one or two people before Joe, I believe.

Kutz: I couldn't tell you. Boy, there was a rapid procession of them after a while, and I just couldn't tell you exactly when. There were three

16. Joe D. Hall served as regional director of the Lower Missouri Region (1975-1980) before becoming Bureau of Reclamation Deputy Commissioner (1987-1993). Mr. Hall also participated in Reclamation's oral history program. See Joe Hall, *Oral History Interview*, Transcript of tape-recorded Bureau of Reclamation Oral History Interviews conducted by Brit Allan Storey, senior historian, Bureau of Reclamation, in Denver, Colorado, edited by Brit Allan Storey, further edited and desktop published by Andrew H. Gahan., 2015, www.usbr.gov/history/oralhist.html.

17. James M. Ingles was regional director for the Lower Missouri Region from 1968 to 1975.

or four of them–boom, boom, boom. They lasted only a year or so.

Storey: Did you have any other notable water conservation successes that you can think of?

Efforts at Water Conservation

Kutz: Well, a couple other environmental things that I've helped kind of push is that we had an irrigation district clear up in the Panhandle. It's called the Mirage Flats Irrigation District, and it gets its water out of Box Butte Reservoir.[18] This project was started even before the war, and I forget which particular act–it wasn't built or started under Reclamation law. It was some soil and water conservation act or something like that.[19]

Anyway, they built Mirage Flats, and the technology that they used to do the hydrology was like the back of a matchbook cover type of hydrology. To say the least, it was reconnaissance grade even for an engineer in those days, in my opinion. I just can't understand them building a dam with that rough of hydrology. But that plus there was some depletion of that stream. So it ended up that, hey, Box Butte doesn't have enough water to supply the irrigators in Mirage Flats surface irrigation project. So they put down groundwater wells to supplement it, so they had kind of a dual-purpose area up there, some surface, some groundwater. And it's worked well for quite a number of years.

18. Box Butte Dam and Reservoir are features of the Mirage Flat Project in northwestern Nebraska on the Niobrara River. For more information, see Leisl A. Klajic, "Mirage Flat Project," Denver: Bureau of Reclamation History Program, 2000, www.usbr.gov/history/projhist.html.

19. The act Mr. Kutz is referring to is the Water Conservation and Utilization Act, Act of August 11, 1939, ch. 717, 53 Stat. 1418.

One of the problems that came up was that every year, and I mean every year, the irrigation releases would lower that reservoir so far that it was just really devastating to the fisheries. The Fish and Wildlife, Nebraska Game and Parks Commission, was administering the recreation, fish and wildlife activities on that reservoir, as they do all Reclamation districts in the state, except maybe Davis Creek now. But anyway, they said, "Boy, we'd sure like to come up with some kind of a deal if the irrigation district would agree not to lower that so much every year." You know, it came down to money. I said, "Are you able to put up the money?"

So it pretty much went on without my involvement for a while. Pretty soon I get calls–I think it was calls–from both sides, the Game and Parks and the irrigation district, saying, "Hey, we thought we were going to cut a deal up here to leave more water in our reservoir, and the Game and Parks were going to pay us X amount of dollars for so many years." But the thing fell through, and they wanted me to see if I could resurrect it. But I hadn't been in most of the negotiations there for a while.

Anyway, I went up and listened to both sides, and really I felt that they weren't that far apart. So I did some more computations to show the district what amount of water they were losing from evaporation by leaving it in a bigger reservoir, and it didn't amount to that much. So for dollar of acre feet, they were getting a pretty good bargain. Then they were going to take this money and improve their lateral systems with pipe and save, hopefully, the amount of water they were losing by holding the reservoir higher. The computations pretty much proved that they weren't too far off.

So I presented these calculations to both sides, and they got back into the agreement negotiating phase, and we did end up finally negotiating that on the Mirage Flat Reservoir. What kind of bothered me about it, it wasn't a perpetuity agreement. It was like a twenty- or thirty-year agreement, and after that it's a start-over-again kind of thing, which kind of amazed me that Game and Parks would go for that, but they did.

But anyway, I forget the exact amount of dollars involved. I wrote that in my article here, but the district took that money and spent it, $395,000, and they took that and improved their lateral systems with it. Since I was involved trying to keep that on track and the final negotiations of it, and kind of help them smooth out the actual writing of the agreement, the Bureau got quite involved right at the last. I think the commissioner came in, flew in, to be in on the signing of that agreement. I thought that was quite a big deal.

Fish Hatchery on the North Loup Project

One other thing in the fish and wildlife end of it that I helped was is that in part of the project up here, the North Loup Project, we ran short of money, which we thought we were going to do anyway, because the original plans didn't figure for putting the laterals on pipe. Well, as engineers and prudent measure, we just thought it was ridiculous to start a project with outdated technology. The technology is to put all those laterals in buried pipe. So we started putting in buried pipe. Of course, with that and other overrun issues, we were running short or money, and we had to go back to Congress to get more money.

To kind of help sweeten that deal, the Game and

Parks Commission of the state of Nebraska said, "That reservoir, the Calamus Reservoir, just has superior water up there, and we'd like to build a fish hatchery up there, a large fish hatchery." I think it was something like a four- or five-million-dollar fish hatchery. That helped kind of grease the skids of this reauthorization, to increase the amount of money for the project. But where the fly hit the ointment was that that meant that the fish hatchery had to apply for and get a water right for some of the water out of that river.

Now, what we're talking about is the consumptive use by a fish hatchery, which is damned little. In other words, all it is is the evaporation off the ponds and the net evaporation off the ponds, because all the rest is just recycled-through water that recycles through the hatchery and back to the stream. The majority of that water just cycles through, but there is some loss because of the evaporation. Well, the amount of water that we were talking about losing for evaporation was just so minor compared to the total flow of the Calamus River at the Calamus Dam, it was hardly worth arguing about, but the irrigation district was vigorously opposing that water right.

So that's where I stepped in and helped negotiate that. I forget, the Game and Parks Commission had some other agreements with the district where the district was supposed to pay some things to offset environmental impacts on the project, so they kind of waived those to give something to the irrigation district. Finally the district withdrew their objection to the water rights and smoothed it all out. So I was given a lot of pats on the back by the Fish and Game for helping with that water right on that fish hatchery.

Then, of course, I think it was like two-thirds of

the money for that hatchery came through the project as federal money, and a third of it was state money. So we were pretty high on their nice list when all that money was going through. So I had excellent relations–well, I always had with the Nebraska Game and Parks Commission. So that's another thing I kind of helped. In fact, by my desk in my room at the lake, I've got a picture of the Calamus Reservoir and a thank-you note from the Game and Parks Commission for my help on the Calamus Fish Hatchery. It's really a neat picture.

Storey: I can imagine with budgets tightening up in the last few years the way they have, that they'd be looking for more money from Reclamation all the time.

Impact of Budget Cuts

Kutz: Well, the North Loup Project up there, they even threatened to stop it when we were like two-thirds done with it. We'd just started Davis Creek Dam. What was the guy's name? Representative Miller.

Storey: George Miller.[20]

Kutz: George. I couldn't remember his first name. I thought I'd never forget that. But anyway, when the conservatives more or less took over, he was going to stop that project. Well, we went about–and it was very truthful that for us paying damages to the contractor because we'd already let the main contract to build Davis Creek Dam, and we'd have had to pay for it anyway, probably, through damages to the contractor, a heck of a lot of damages. To close the thing down, it was probably cheaper to finish it. So we ended up

20. California Congressman George Miller served in the House of Representatives from 1975 to 2015.

proving to them that, hey, we're so far down the road that it just doesn't make sense to stop this at this point.

Through proving that and through Congresswoman Virginia Smith, she was just the greatest in fighting for Bureau of Reclamation projects.[21] I've got a lot of thank-you letters from her. In fact, she came here to visit our project office on occasion, which doesn't happen very often. I think that's in here somewhere. Yes, the top picture there. It kind of tickled me. I called the Regional Office saying, "Virginia Smith's stopping in to visit our office," and they pretty much said, "Well, you can't talk with her." (laughter) "Any issues with Congresswoman Virginia Smith have got to come through the Regional Office." So I said, "Well, she didn't mention she's got any particular issues. She just wanted to visit with us."

So I had to call her office and find out what she had on her mind. She said, "Nothing. Just wanted to say thank you."

So finally the Regional Office let us go ahead and accept her thank you, but that's what happened in the later years of the Bureau of Reclamation. You couldn't even hardly talk to a congressman without regional approval, which got to be a little ridiculous. In fact, they even named the dam up there Virginia Smith Dam. I guess the locals didn't want to change all their signs or whatever, so it's still Calamus Reservoir, but it's officially Virginia Smith Dam. Even our Democratic senators helped pass that.

Storey: Did you ever have other politicians contact you

21. Virginia Dodd Smith was a Republican member of the United States House of Representatives from 1975 to 1991 from the Third Congressional District of Nebraska.

about anything?

Dealing with Politicians

Kutz: (laughter) Yes. I'm sure that at one time there, gosh, the Senator's office, specifically Senator [J. James] Exon's office, one of the his aides knew me, and, my gosh, he was calling me all the time about what's going on here and what's going on there. I'm sure Region would have had a tizzy knowing that I was talking to him all the time. (laughter) But, yes, we had good relations and we did communicate. If anything came up, an issue or policy, I always wrote it up as "discussed so and so" and if they made anything smell like it was making a decision of any kind, you almost had to really get your butt in a jam.

Storey: What about local political figures, governors and state legislatures and so on?

Kutz: You deal pretty closely with the governors. You become well acquainted with–right up all the various staff that he has that are related to the Water Resources Department, the Conservation and Survey Division, and the different areas that work directly with water and soil conservation. So their staffs, and right up through the governor, you get quickly acquainted with the governor. So, yes, you deal with them directly. I dealt and knew most of them. Senator Exon and Senator [Robert] Kerry, I worked with him fairly closely.

Storey: Did the Game and Parks Department ever try and get money out of Reclamation to support their activities? How did that work?

Working with Nebraska Game and Parks Department

Kutz: We have some things that help them, like in our reservoirs, if there's too much of a noxious weed

problem, and, boy, there's some bad noxious weeds around this area, we would help them with the chemicals. Otherwise, they just wouldn't do it. Because you have to understand that like marijuana to the Game and Parks Commission is not bad; it's good, because marijuana seeds are good feed for the quail. Now, the marijuana that we grow around here has such little of this chemical that drives people batty that it isn't hardly worth harvesting. Some people do and cut the good stuff, I guess, or whatever. Around this area we have wild marijuana, just acres of it. Just acres of it. Hell, I have some that grows in my back yard if I don't pull it, keep it torn out of there. It just grows everywhere, wild marijuana, or hemp. So they don't want to kill it, but it's on the top of our noxious weed list, those and Canada thistles and so forth. So we help them with things like that.

If there's bank erosion that's threatening recreation facilities on a reservoir, we help them with buying riprap. But to say, other than that–and then we helped them with the hatchery. Of course, on the new project that we were consulting on up there, there were all sorts of mitigation measures, like, I think, some of the initial stocking was financed with federal dollars, of the reservoir. A lot of these mitigation lands and so forth was with project money. But once they're constructed, it's pretty much they're on their own, no direct dollars to Game and Parks now.

Storey: So we don't have the pressure, for instance, that their budget's been cut and they're going to withdraw if we don't help or anything like that?

Kutz: No. They've threatened to. We've had some irrigation districts that are kind of hostile. We had one in particular that was quite hostile to the

Game and Parks Commission. They threatened to give that reservoir back to me many times, but I knew they wouldn't because it was one of their premier fishing reservoirs. It's one of the best ones in the state, and it's stayed that way, so they aren't about to give it up. But it would be a problem if they ever did, because I don't think the Bureau wants or should get back into administering recreation facilities, and to give it to some lower tax entity like a natural resource district or something like that, I just have a problem with.

Now, the Davis Creek up there, it's a small reservoir that we fill in the spring, and it doesn't have a natural source of water, it doesn't have a stream running into it. We just run water down a canal into it in the spring and fill it up and then release it to irrigation. So it goes quite low in the fall, and it's poor fishing. Now, that one I'm pretty sure we've turned over to the Natural Resource District for management, but there's very little recreation facilities there.

Storey: Do we have any problem with water quality in this area?

Water Quality

Kutz: Boy, you know, we didn't think we used to, but we're starting to see or hear–I guess a couple of things that have happened are that, number one, technology has helped us to measure minute quantities of various chemicals more accurately, and the other thing is that we've done lots of studies, apparently, and researched to find that maybe lesser and lesser amounts of some of these chemicals are bad for you. So a couple things have come along here in later years.

One of the things that we have to watch out for

is selenium. Selenium, because not too far down is a good shale under most of the area, especially in southwest and northern Nebraska. There's a shale, and selenium is in that shale, and it leeches out of that shale into the groundwater and water supplies. I think there's several areas maybe on a pretty high probability that they're getting close to a problem area. But as far as most of them, no. We are getting a lot of nitrogen or nutrients in some lakes where we're getting quite a bit of algae and weed growth in some reservoirs.

Storey: You became Project Manager in '74, I think we decided. Did you apply for that job?

Becoming Project Manager

Kutz: Sure. You bet.

Storey: Filled out a form?

Kutz: You bet. Competed with other folks.

Storey: Did you get interviewed, or how did that work?

Kutz: I don't recall ever being interviewed for it, because the selecting official knew me extremely well.

Storey: That would be the Regional Director.

Kutz: I assume he knew the other applicants. Of course, maybe in those days it wasn't the law that you had to interview them all. Maybe he just interviewed the ones he didn't know. But I don't recall being interviewed.

Storey: Where were you and what were you doing when Teton Dam failed?

Teton Dam Failure

Kutz: When did it fail?

Storey: '76.

Kutz: '76? I'd have been in McCook Office.

Storey: Did the failure have any effect on your office?

Kutz: Boy, it lowered our morale. Hey, it was a bad notch on our name, yes. It was bound to have an effect. It gradually wore off. There isn't any question in my mind what caused that failure, either.

Storey: What's that?

Kutz: Settlement failure.

Storey: In the embankment, you mean?

Kutz: Yes, they had a little arm up here that wasn't very much fill, and then the big block of the dam was down here, and the big bulk of the weight of the dam was down here. And this settled, and this up here didn't settle because of the sheer plane. What amazed me was, hey, why did that dam fail clear way up the dam, high up the dam where the pressure is lesser? It was way up the dam. It wasn't clear down here where all the pressure's at. It was like halfway up the dam or more. Well, it had to be a sheer plane.

Hell, all you had to do was look at the cross-section going across that dam, and here was part of this dam up here on this embankment like this, and then it dropped sharply down into this huge, deep reservoir. That huge block of earth is bound to settle in there. It's so much weight that it settles. It settles several feet. Even our dams up here, even though we put them on good rock shale, they settle some because of the weight of

that earth. That was even more so because it was a high earth dam. Settlement failure. Oh, yes, it cut our stature.

Storey: When you moved from McCook up here, was that another position you had to apply for?

Moving to Grand Island Project Office

Kutz: I don't recall. No. I was just reassigned. The Bureau pretty much said, "Bob Kutz, if you want any more paychecks, you'll get them in the Grand Island, Nebraska." That kind of a deal.

(laughter) Let me tell you something funny about that. Bill Martin was our Regional Director at the time.[22] Have you interviewed Bill?

Storey: Yes.

Kutz: Bill said, "Hey, what I'm going to do is I'm going to appoint a four-man group of people to study the McCook and Grand Island Projects." Because Bill had worked at Grand Island, and then he saw McCook over here, and he thought surely there should only be one office in Nebraska. So he wanted these four guys to study this. I came out, and I saw the list of the four guys that was to study it. Well, three of these guys were real good friends of mine. (laughter) Here I was in McCook, in my home country. I'd lived there all

22. Billy Martin served as regional director of the Lower Missouri Region (1980-1985) and remained regional director when the Upper and Lower Missouri regions merged and became the Great Plains Region (1985-1990). From there he went to become Bureau of Reclamation Assistant Commissioner, Resources Management (1990-1992). Mr. Martin also participated in Reclamation's oral history program. See Billy E. Martin, *Oral History Interviews*, Transcript of tape-recorded Bureau of Reclamation Oral History Interviews conducted by Brit Allan Storey, senior historian, Bureau of Reclamation, from1994 to 1996, in Sacramento, California, edited by Brit Allan Storey, 2010, www.usbr.gov/history/oralhist.html.

my life. Had two sisters in the area that live still there, and my home was Cambridge. It's a little east of there. I knew all the farmers, where I could go hunt around there, all the good fishing holes. I didn't really want to leave.

So, of course, I put up a lot of arguments as to why it shouldn't be reorganized. Lo and behold, they came out with the decision, leave them like they are pretty much. God, that made Bill mad, because he thought sure they were coming up with a decision to–he didn't tell them, "I'd like to combine these offices. Give me a report that says that." But anyway, he just more or less threw the darned report in the trash can, bucked the politics, and said, "Hey, I'm going to reorganize these offices and move most of it to Grand Island."

With people that in their distant history had people and political backing like the R-V-C-A and etc., etc., this was a hell of a blow to them. They squawked all the way to Congress, I'm sure. Bill got a few calls from a bunch of them.

Anyway, it was pretty much a deal where they said, "Bob, you're going to McCook." I was just more or less reassigned. Because at this time, the Project Manager was vacant here, see. The guy had left. So you had a vacancy here. I was Project Manager over there, and he was wanting to combine them.

Storey: In terms of the number of projects, what happened to the Project Office responsibility? Did it double, more than double?

END SIDE 2, TAPE 4. JUNE 9,1998.
BEGIN SIDE 1, TAPE 5. JUNE 9,1998.

Storey: This is an interview by Brit Storey with Robert D. Kutz on June 9, 1998.

We already had–

Project Office Responsibilities in Grand Island

Kutz: The lands that we had under our jurisdiction for O&M, they had already, a few years prior to that time, turned the operation and maintenance of the reservoirs under this jurisdiction over to us. In other words, this office didn't have an O&M office. We were doing it out of McCook. So, in other words, even though Merritt Dam up here and Sherman Dam and Box Butte Dam were in the river jurisdiction of this office, we did the O&M of those dams and irrigation projects.

Storey: Why was that?

Kutz: Well, it's just because we were staffed and they felt that we could do it, and no sense in bringing a few people on board to duplicate services. It was just a manpower thing. So we were already overlapping.

Storey: What was this office doing?

Kutz: Well, they were planning projects and getting on line for this North Loup Project, and then they were trying to promote a Midstate Project out here on the Platte River west of us and then an O'Neil Project up on the Niobrara River, and neither one of those other two came about.

Storey: That midstate thing would have included the Narrows, would it?

Kutz: Narrows?

Storey: The Narrows Project.

Kutz: No. It's a different project totally. It's just out west of here on the Platte, but it would have used

Platte River water.

Storey: So you got to move, having lived in Cambridge all those years.

Kutz: Well, or McCook.

Storey: Or McCook.

Considering Retirement

Kutz: Yep. And, you know, our first decision was we'd move over here and I'd retire at first opportunity, which would probably have been when I was fifty-five, you know, without taking a big knock on your retirement annuity. But by then I was really enjoying the job, and my wife had come to–we just love where we live. We live out on a lake east of town here that's almost like a resort area. And I just loved my job. I hated to retire. But I retired partly because of my wife's health, and we wanted to do some traveling. So even up to the time I retired, I put out a press release so I wouldn't back out. I loved the job that much. I love retirement, too. No regrets. No regrets.

My career goal was to work till I was sixty-five and then totally hang it up, because I had a lot of people wanting me to go on the road as a consulting engineer trying to get jobs for them because of all the people I knew around the states, mainly Kansas and Nebraska, but I just didn't want to be a hustler. So my goal was to work till I was sixty-five. Just a little short of that, they came up with the money-out thing. The Bureau needed to reduce the number of people they had on board, and they offered us money to step aside, and I said, "Show me the money." (laughter) I think I was the first one in this office to sign up.

Storey: And then did you stay the full period of time, or

did you leave? I think you could have stayed about two years.

Kutz: Yes. I went out fairly shortly. I think that came about the spring of '94, and I went out in July.

Storey: Of '94?

Kutz: Yes. I felt strongly that the Bureau, overall, needed to reduce a lot of manpower. Some managers had to be in that, so since I'd had more than my share of years, I was a good possibility to do it.

Storey: How many years of service was that, then?

Kutz: Well, I think it was either forty-five or forty-six. I see this write-up said forty-five, didn't it?

Storey: I don't know.

Kutz: I can't remember. I was thinking the plaque says forty-six. This says forty-five years. Maybe it's forty-five.

One of the things that kind of amazed me is after forty-two years of service, you max out on the amount of money you're paying into your retirement fund. I think it's like forty-two or forty-three years. After that, you've maxed out on percentage.

Storey: Yes. I knew that you couldn't go above eighty percent of your salary in retirement.

Kutz: But they keep taking that money out.

Storey: They keep taking your retirement contribution.

Kutz: Yes. And you get that back. It tickled me that a lot of our Regional people didn't know how to

handle that and said, "God, we've never had anybody to do that before. So we don't know the laws." (laughter)

Storey: Don't know how to deal with it.

Kutz: Don't know how to deal with it.

Storey: How did Reclamation change over the years you were with it?

Changes in Reclamation Over the Years

Kutz: Like I mentioned, the communication. Good Lord! Before, you had telephones and cars and automobiles to get to meetings, but the communications from fax machines and P-Cs just totally opened up communication. It's just unreal, the amount of communication you have now with all areas of the Bureau, not just with your Regional Office, with other offices and Denver Office and just all over. So the communications has been a big issue.

I briefly mentioned it before, that projects used to be on their own. In fact, I can almost remember Jim Ingles saying, "Do your job out there, Bob. I don't want to hear any phone calls." He didn't want any problems issued with your projects. In other words, if you run your projects out there by yourself, administer policy and don't bother him, you were doing your job. Of course, that meant that there were always those issues, like big issues, big-dollar issues, big contracts or something like that, of course you had to obviously go through Regional Office. But gradually you'd see that change and change and change. My God, the Region gets more and more involved with decision-making. Maybe that came with the communication. I always said it came with too many regional people.

My later years, I battled Billings very strongly that they weren't reducing staff and that our program dollars were going down but their regional staff wasn't. So for those people to have something to do, they got more and more involved with project work and activities. So, yes, it changed a lot.

The politics end of it changed a lot, too. Politicians used to help support our program and so forth. Now they're hand and foot in a lot of the decision processes, like, "We want to do this. Help us accomplish this." "We want to transfer this project. Help us accomplish that goal." Reclamation busted butt to do it. So the politicians have gotten really into the decision process.

Reclamation Led the Way

Of course, early on, the Bureaus were the leaders. We went out and helped form irrigation districts, led them by the hand through the process, almost packed their bag and said, "Get to Washington and do this." That's all changed. We used to give a lot of technical support. After an irrigation district was even operating a system, we were out there looking over their shoulder, giving them advice and so forth. We just don't have the time or money to do that anymore. So they're more on their own out there. To some degree that's good. To some degree that's good.

Storey: Does it cause problems, though?

Kutz: Yes, sometimes, sometimes, because you have some managers out there that they're the nicest people in the world, but they're just poor managers, number one, or they just don't know how to accomplish good maintenance or water deliveries and so forth. They just don't know the

technicalities of what they're doing. And I'm afraid gradually that's going to happen to the Bureau of Reclamation, that they lose a lot of their technical or engineering expertise, which I see them doing. They're just not hiring enough young engineers. They're not hiring *any* young engineers.

Storey: The new commissioner is committed to that, but it's still difficult sometimes to get what you need.

Kutz: Probably maybe even a little difficult to recruit and hire people.

Storey: I don't know. I haven't heard anything about it.

Project Manager Meetings

What kind of meetings did you go to as Project Manager, Reclamation meetings, to sort of keep you up to date on what was going on and so on? Were there, for instance, Project Managers' meetings?

Kutz: Oh, yes.

Storey: So you guys would get together and talk?

Kutz: Yes, and some of those were good and some of them were just a total waste of time. I've even had some of those where I'd look at the schedule and I–I remember one, I called Bill Martin and said, "Bill, I've got too darn many problems out here." We were in the midst of building this project here. I was knee-deep in problems, and I said, "They're just batting the same old issues over, and it's just a goddamn waste of time. I ain't going." And of course he said otherwise. He said, "Pack your bag. You're going to get your butt to this meeting." So I did. But some of those were good, some of they weren't.

Storey: There was one, for instance, in Alexandria, Virginia, I think, in about '83, maybe '84, where things got a little warm.

Kutz: Sure did.

Storey: Tell me about that one.

Kutz: (laughter) Oh, goodness. I can't quite remember all the details, but–

Storey: Neil Stessman told me about this meeting.

Kutz: I can't even remember the individual's name involved. But let me just put it in generalities. We had one manager that felt that the way to manage was to kind of stomp on people a little bit, and he got a little carried away with stomping on folks. Goll damn, you know, this is one meeting where I felt totally inadequate, because, believe me–and we separated into groups to critique his presentation. Oh, boy, did they cut him to shreds, this particular manager that we'll leave unnamed. So, my goodness, some of those guys that got up–you know, like each group had a spokesman. Well, I happened to be a spokesman for my group, unfortunately, because I felt inadequate after following some of these other people that got up and absolutely crucified this fellow. They did it in such a way that was just unbelievable. They should have got awards for the way they handled it politically, but there was no getting around their mincing around their words. They chopped him to pieces.

Now, I guess I'm kind of a conservative. I did it more in–not a jovial manner or political. I just attacked some of the things that I felt were incorrect. I didn't really realize what was happening, that this was kind of his management style. I didn't know that much about this

individual. Boy, after a few beers later in the evening, I found that out, but it got pretty hot, yes.

Storey: Were there any other meetings like that?

Kutz: Well, like I mentioned before, I've got up in a lot of meetings where they'd say how lousy the managers were, we were. And I pointed out to them that we couldn't have been all that bad of managers that run this Bureau before us–and I'm saying "us" because I'm in the latter end of the history of the big construction projects. But, my God, they built a lot of fantastic projects, and you can't tell me that the Ellis Armstrongs[23] and those types were poor managers. They had to have some management skills, or at least they had enough moxie to hire people under them that had enough management skills to accomplish the programs that they set out or envisioned in their minds.

I'm sure there's a lot of techniques and skills to make things smoother and make the Reservoir Superintendent down there feel more the group type of techniques and these type of things and skills that we've learned over the years that would have been nice for them to accomplish. But to say that they were lousy managers, no, I just don't buy it at all. And I've got up at many meetings and said, "B-S, I don't buy it at all."

Storey: Is there anything else we should talk about? What about the Platte? There's a river compact on the Platte, too, right?

Kutz: Well, you see here, on the Platte [River], most of the consumptive use of that water is on the irrigation projects that are clear up in the

23. Ellis Armstrong was Commissioner of the Bureau of Reclamation from 1969 to 1973.

Panhandle. So the source of that water is out of the Wyoming reservoirs. So that's out of the Casper, Wyoming, Office and not under this office. So we were not really that involved with the Platte.

Planning for Future Projects

Now, we were on planning for like the Midstate and these projects down below here, but I felt from the beginning that Midstate was down the tube. I was still over at McCook, and John Mane [phonetic] was the Project Manager here. The Reclamation law that formed that Midstate Reclamation District had a termination thing. If they hadn't begun construction by a certain date, they had to go back for a vote of their irrigators. Everybody said, "Well, let's go back. We'll show them, by God, we've got support."

Storey: "We'll knock them dead," huh?

Kutz: Yes. "We'll knock them dead" type of thing. And I called up John Mane, and I said, "Hey, don't take the chance." I said, "If your supporters are gung-ho for building this, you get them to get a goddamned dragline out there and say that you've begun construction. Build a drain down through a goddamn roadbed. I don't care what you do, but begin construction. All you've got to do is technically begin construction." "No, no, Bob. We're all right. We've got support."

It went down the tube. Now, they tried to resurrect it with a smaller phased-down thing, but by then the endangered species were coming on strong here, the bald eagles, terns, plovers, whooping cranes, everything else along the Platte River.

So we did a lot of planning activities, but I felt

in my heart from the beginning it was a waste of damn federal money. A waste of money. So even on the planning activities, I pretty much turned it over to my head of Planning Division and said, "It's your baby." Because we were building a construction project, and between that and O&M, I had enough problems to keep me busy. Of course, I had some meetings I went to in planning, but it just didn't consume very much of my time, let's put it that way. So the Platte, no, we just weren't that involved, other than we did lots of planning.

Storey: I believe Johnny Mane went to the University of Nebraska also?

Kutz: Yes.

Storey: I think Roger Patterson told me a story about him, his professor there. Did you ever hear that story?

Kutz: No.

Storey: About they kept telling him, "We're training you to irrigate the American West," and then when he got down to graduation, they pulled him aside and said, "You understand the American West means Nebraska, don't you?" (laughter)

Kutz: (laughter) Well, I think that the fellow that I preceded as Project Manager of McCook was in the same graduating class, and I'm not sure, they might even have been roommates, John Mane and Win Hedges, but I think they were in the same graduating class in engineering in the University of Nebraska.

Storey: You mentioned to me Roger Patterson, whom you'd hired, and when he came on, one of the things I believe he did was project operations modeling with the computer. Do you remember

anything about that project?

Student Trainees

Kutz: Gosh. Boy, I sure don't. We hired him as more or less a student trainee-type status, as I recall, where he'd work for us during the summer and during Christmas break if he had time. That's kind of how he got his start. It was a good program, in that we could kind of size these fellows up, and if they weren't worth a damn, we could kind of drop them without any major hassle. But the good ones like the Roger Pattersons we tried to keep under our jurisdiction and get them hired and find them a position. So, yes, we hired him.

I wasn't his direct supervisor, head of the O&M Division. I don't think I was head of O&M when we hired him. I might have been. But I can't even remember signing the paper. You sign so darn much in your career. He did a lot of work in our O&M Operations Office that we still maintain over at McCook. That's a good area to get an overall knowledge of dams, irrigation projects, and maintenance and operation problems related to it. So it's a good place to get an overall education, it really is. If you get into planning, you don't get the idea of the real world that's happening out there on the farm and on a real irrigation project.

Storey: Anything else we ought to talk about?

Kutz: Boy, I'm getting near the end of it, I think.

Storey: Okay. Well, let me ask if you are willing for people to use the information on these tapes and the resulting transcripts for research purposes.

Kutz: You bet.

Storey: Good. Thank you very much. I appreciate you coming in.

Kutz: I feel the Bureau owns it as much as I do.

Storey: Good. Thank you.

END SIDE 1, TAPE 5. JUNE 9,1998.
END OF INTERVIEWS.