ORAL HISTORY INTERVIEWS
ROBERT [BOB] L. BARTA

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George Petershagen
Historian
Bureau of Reclamation

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Oral history of Robert (Bob) L. Barta
STATEMENT OF DONATION
OF ORAL HISTORY INTERVIEW OF

Robert L. Barta

1. In accordance with the provisions of Chapter 21 of Title 44, United States Code, and subject to the terms, conditions, and restrictions set forth in this instrument, I, Robert L. Barta (hereinafter referred to as "the Donor"), do hereby give, donate, and convey to the National Archives and Records Administration (hereinafter referred to as "the National Archives"), acting for and on behalf of the United States of America, all of my rights and title to, and interest in the information and responses (hereinafter referred to as "the Donated Materials") provided during the interview conducted on December 21, 2023, at 453 Main Street, Chula Vista, CA.

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Oral history of Robert (Bob) L. Barta
INTERVIEWER

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

Date: ____________________________
Signed: __________________________
Archivist of the United States
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.

In the case of the Newlands Project, the senior historian consulted the regional director to design a special research project to take an all around look at one Reclamation project. The regional director suggested the Newlands Project, and the research program occurred between 1994 and signing of the Truckee River Operating Agreement in 2008. Professor Donald B. Seney of the Government Department at California State University - Sacramento (now emeritus and living in South Lake Tahoe, California) undertook this work. The Newlands Project, while a small- to medium-sized Reclamation project, represents a microcosm of issues found throughout Reclamation: water transportation over great distances; three Native American groups with sometimes conflicting interests; private entities with competitive and sometimes misunderstood water rights; many local governments with growing water needs; Fish and Wildlife Service programs competing for water for endangered species in Pyramid Lake and for viability of the Stillwater National Wildlife Refuge to the east of Fallon, Nevada; and Reclamation’s original water user, the Truckee-Carson Irrigation District, having to deal with modern competition for some of the water supply that
originally flowed to farms and ranches in its community.

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

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

Bob Barta was born in Omaha, Nebraska, on October 20, 1918. He attended schools in the rural community of Ashland, Nebraska, and graduated from Ashland High School. From there he entered the University of Nebraska where he took a Bachelor of Science Degree in Electrical Engineering.

In addition to his degree from Nebraska, Barta received a commission as a Second Lieutenant in the Army Corps of Engineers as a result of his participation in the Civilian Military Training Corps (CMTC) and Reserve Officer Training Corps (ROTC). He was on active duty at the time the United States entered World War II and was assigned to the building of the Alaska-Canada (Alcan) Highway. Later tours of duty included assignments in the Aleutian Islands. Released from active duty following the war, Barta continued his service as an officer in the Army Reserve, eventually becoming an artillery officer.

Returning to his home territory Barta sought employment with a number of electrical firms in Nebraska and Missouri, but it was Reclamation that made the first firm offer of employment. Accepting that, Barta moved on to Denver where he located family housing and began his duties in the Powerplant Design Section.

In 1947 Barta transferred to Billings, Montana, where he spent the largest share of his career with Reclamation. Continuing in powerplant design he progressed "through the ranks" in Billings in both Reclamation and the Army Reserve. Before leaving Billings he had risen to the position of Assistant Regional Power Supervisor.
When the regional power supervisor position opened with the Mid-Pacific Region in Sacramento Barta applied and was selected. Shortly after reporting he was given a temporary assignment in Washington, D. C. Eventually, he was able to return to Sacramento to become acquainted with a new staff and a whole new slate of projects to manage. Retiring in 1974, Barta engaged in consulting work for five years before fully "retiring" to an active life of volunteer service.

George Petershagen, Bureau of Reclamation historian, interviewed Bob Barta at the Barta residence in Citrus Heights, California, on June 21, 1994. Barbara Heginbottom Jardee transcribed the interview, and Petershagen completed the editing.
Oral History Interviews
Robert [Bob] L. Barta

Petershagen: This is George Petershagen conducting an interview of Bob Barta on behalf of the U.S. Bureau of Reclamation. Today's date is June 21, 1994. We are in the Barta residence in Citrus Heights, California, and this is Tape 1, Side A [1]. Mr. Barta retired from the Bureau of Reclamation as the Chief of the Power Division here in the Mid-Pacific Region in Sacramento.

Bob, to continue the administrative duties to begin with, I need to make sure that you state on the tape that you agree to be tape recorded.

Barta: Yes, that's okay.

Petershagen: And that you understand that you're making a gift of this interview to the United States.

Barta: Yes, I understand.

Petershagen: Thank you. Let's get into it then. Would you please tell us where and when you were born?

Born in Omaha and Raised in Ashland, Nebraska

Barta: October 20, 1918.

Petershagen: Where was that?

Barta: Omaha, Nebraska.
Petershagen: And you went to school in Omaha?

Barta: No, negative. I was raised in Ashland, Nebraska, and I attended the public schools there.

Petershagen: Through high school there?

Barta: Yes.

Petershagen: And graduated from high school in Ashland?

Barta: Yes, that's correct.

Petershagen: And went on to college from there?

Barta: That's correct, University of Nebraska.

Petershagen: The University of Nebraska?

Barta: That's correct.

Graduated from the University of Nebraska in 1945 with a Degree in Electrical Engineering

Petershagen: And you graduated from the University of Nebraska?

Barta: Yes, I did.

Petershagen: With a degree in?

Barta: Electrical engineering, a BSEE in electrical engineering.
Petershagen: And what year would that have been?
Barta: I took my degree in 1945, I believe.

**College Interrupted by World War II**

Petershagen: So your college career was interrupted, then, by the Second World War?
Barta: Yes, it was.
Petershagen: And you had told me earlier that you were in the Army, correct?
Barta: That's correct.
Petershagen: When did you join the Army?

**Spent a Summer Camp in the Civilian Military Training Corps at Fort Snelling, Minnesota**

Barta: Oh, my military career starts back when I was actually in high school yet. I spent a summer camp at CMTC in Minnesota, Fort Snelling, Minnesota. Then I got into ROTC [Reserve Officer Training Corps]² when I

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2. Note that in the text of these interviews, as opposed to headings, 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.

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**Oral history of Robert (Bob) L. Barta**
was down to the University of Nebraska.

Petershagen: I see. You used the abbreviation CMTC. What does that stand for?

Barta: (Chuckles) Civilian Military Training Corps.

Petershagen: So that was kind of an introductory ROTC? Can I say it that way?

Barta: Not really. It was a program that was set up by the military, I believe, at that time to acquaint young men—well, we weren't really men—young boys, with the idea of military life, or what military life might be like. And I think I spent about six weeks up there that summer.

Petershagen: I see, so it might have been comparable to boot camp, maybe, then? Or not as rigorous as boot camp, since you were still civilians, I don't know.

Barta: No, we were part of the military, as I would interpret it, at least. And we trained. Yes, it would be similar to a boot camp—not so lengthy, perhaps, but we did train on . . . . Oh, the unit I was with trained on French .75 artillery pieces.
Petershagen: And were they real artillery pieces, not the kind of mockups that I've seen in pre-World War II movies?

Barta: Absolutely. This was right out of War I. (Laughter)

Petershagen: I see! Then you mentioned that your college career was interrupted by the Second World War. When did you actually go on active duty with the Army?

**Went into the Army in September of 1941**

Barta: September of '41.

Petershagen: September of '41? So you're a pre-Pearl Harbor soldier then.

Barta: Oh, yes.

Petershagen: Did you enlist in the Army, (Barta: No.) or were you a commissioned officer when you started out?

**Commissioned as a Second Lieutenant**

Barta: I took my commission as a Second Lieutenant through ROTC, and I was a Second Lieutenant at the time I went in. I was (Sigh) in my fifth year at the university, so I had completed all my ROTC requirements at that time and had been commissioned.

Petershagen: I see. And where was your first duty station...
in the Army?

**Assigned to the 110th Engineers in the 35th Infantry Division**

Barta: Fort Belvoir, Virginia. I was back there for six weeks in a refresher course, I think they called it, for officer personnel. And then I was assigned to the 110th Engineers, a National Guard outfit out of Kansas City, and they were located at that time in Little Rock, Arkansas–Camp Robinson.

Petershagen: Okay, and then where did you go from Camp Robinson?

Barta: Well, after Pearl Harbor—I guess that's what initiated all of this—we were transported, the entire division was transported to the West Coast. The 110th, by the way, was part of the 35th Infantry Division. We were transported to the West Coast, Fort Ord, California. That's where we ended up initially, and then down to Camp San Luis Obispo, south of Fort Ord.

Petershagen: And how long were you there?

Barta: Really, not too long. We moved out in mid-December, put it that way. We were down at San Luis Obispo when I moved out. As I recall, it was about mid-March, or thereabouts, of 1942 at that time.

Petershagen: And were you married by that time?

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**Bureau of Reclamation History Program**
Barta: Oh, yeah. I was married in October of ’41.

Petershagen: So just about the same time you went on active duty with the Army then?

Barta: I think it's more than coincidental, yes.

Petershagen: (Laughs) Would you care to explain that a little bit?

Barta: No, no, we had planned to be married. My wife was working at the time, at Beech Aircraft in Wichita. I had worked down there prior to being called to active duty. We had planned on a marriage in the fall, as soon as I got through school. The Army just pushed it just a little bit faster than we would normally have otherwise.

Petershagen: Did she go with you to California, then, or to any of these other intermediate places?

Barta: Oh, yeah. She was with me from the time I came back from Fort Belvoir. We were married then, down in Little Rock. She, as a matter of fact, got to Fort Ord before I did. The ladies in the unit had a very excellent intelligence capability—I'll just put it that way—and knew where we were going before we did.

Petershagen: I found that myself, oftentimes, when I was in the service, that I could ask my wife what was happening next.

**Transferred to the 18th Engineers at Vancouver**
Barracks, Washington

Barta: Then in mid-March or thereabouts, I was transferred to the 18th Engineers, then located at Vancouver Barracks, Washington.

Petershagen: And how long were you in Vancouver?

Barta: Well, we left the states in April, as I recall.

Petershagen: Still of 1942?

Worked on the Alcan Highway Beginning in April of 1942

Barta: Oh, yeah. We were the initial troops on the Alcan [Alaska-Canada] Highway, starting at Whitehorse, Yukon Territory, and built the Pioneer Road from Whitehorse to the Alaskan-Canadian border around Beaver Creek, Yukon Territory.

Took a Nap in the Bed Ulysses S. Grant Slept in

Petershagen: Okay, before we get too far involved that far north, I want to make sure I get on the tape that I believe you told me in our initial meeting that when you were at Vancouver you slept in the same bed as General [Ulysses S. Grant] Grant? (Both chuckle)

Barta: Well, yes, I did, very briefly. My wife was with me at the time, and we did have quarters off the post. But I did take a nap or something. Anyway, I was in his bed. (Laughter)
Petershagen: So roughly in April 1942 is when you went north to work on the Alcan Highway?

Barta: I believe that's correct.

Petershagen: Now, with being a young man in the Midwest, in just a few months' time you saw just about every different climate you can find in the United States. Did you have any physical reaction to that at all?

Barta: Not particularly. If you live in eastern Nebraska, where I was born and raised, you become acquainted to the extremes of temperature quite early. I had seen twenty below temperatures in Ashland, the little town I lived in. But the first night I was in the Yukon, it was as cold as I'd ever seen it. I think it was twenty-five below zero that night. But we had clothing and we were well equipped to handle that sort of thing. No, there wasn't any particular trauma involved in this.

Petershagen: I see. How about with the machinery or the equipment? Anything special that you had to do with regard to the cold?

“Of course, gasoline was furnished to us in fifty-five-gallon drums, and we learned to use that fifty-five gallon drum immediately. It was not left, say overnight, half empty. Small crystals of ice would form in the gas and fog up the gas lines in vehicles. . . .”

Barta: Well, of course, we really didn't get into
the . . . In April, it was starting to thaw out up there, and we didn't have that much problem with the machinery until the coming winter. But yes, we learned to use the gasoline in . . . Of course, gasoline was furnished to us in fifty-five-gallon drums, and we learned to use that fifty-five gallon drum immediately. It was not left, say overnight, half empty. Small crystals of ice would form in the gas and fog up the gas lines in vehicles. So yes, once the temperatures turned extreme that coming winter, most vehicles were kept running around the clock, for the reason (Laughs) otherwise they didn't get them started very well.

Petershagen: (Laughs) How long were you involved in the highway construction?

Barta: We went in in April, and we left, as I recall, in about January the following year. So that 300 to 400 miles we built was constructed in that time, or that segment anyway.

Petershagen: So as far as highway construction goes, it wasn't all that much different from a highway project here in the lower forty-eight then?

Barta: Oh, I think it's quite different.

Petershagen: Oh, you do. Okay.

Alcan Highway Construction Had to Be Adapted to the Presence of Permafrost
Barta: Oh, yeah. In the first place, here in the lower forty-eight, you scrape off the vegetation and you put your stuff down, your road shell. Not so in the Yukon. We found quickly there, early on, that you did not disturb the vegetation on top of the ground. It acted as an insulator to the permafrost. And once you disturb that, the permafrost just kept melting, and you were in big trouble. So we built the road, instead of clearing the territory, or the right-of-way, as it were, with bulldozers down to bare earth . . . . For instance, we were going through small timbered areas, a lot of them. Those trees were cut and laid across the right-of-way in sort of a corduroy fashion, and then the road shell was placed on top of that. We were particularly interested in staying on the sunny side of the slopes, because those were the slopes that would perhaps not have the permafrost in them. In any case, they built the road the same way, as far as I can recall, once we learned how to do things properly.

Petershagen: I see. And then from the highway project, where did you go?

**Transferred to Kodiak Island and Staged for Construction on Adak and the Invasion of Attu Island**

Barta: We were transferred to . . . . We went to Kodiak Island just at the, I guess the eastern end, you'd say, of the Aleutian Islands, and
staged—got all our equipment there—and then moved from there on out into the Aleutian Islands. Continued staging and doing some construction on Adak, and then acted as backup troops or reserve troops for the invasion on Attu, bypassing Kiska.

**Landed at Chiginagak to Build Roads and an Airfield**

Once the area was pretty well secured on Attu, we were then landed at Chiginagak [Bay], Alaska, and the unit constructed roads, buildings, and an air field and the other utility facilities that were required.

Petershagen: Did you get, in the course of your time, with the Corps experience in utilities and so forth, then, other than just road-building and runway construction kind of thing?

**Served as Designated Electrical Engineer**

Barta: No, I was never in the—once we were in the islands I was designated as the electrical engineer on the island for our unit, and planned and hard hat constructed the electrical facilities, such as they were. I was permitted to order out to cover the entire island, including wiring. We wired all the buildings that were constructed there—that is, my crew.

**Had Two Crews, One for Inside Wiring of Buildings and One for Transmission Lines**
I had, actually, two crews. I had what I called an interior wiring crew, then the line crew, and the line crew built the distribution lines–we'll call them that–around the island to the points where power was needed.

**Both Crews Worked When They Built Powerplants on the Islands**

We also used both crews when we were constructing small powerplants all over the islands. It's been several years, as you know, since all this occurred, and I don't recall how many powerplants we had, but there were, oh (Sigh) essentially a powerplant in each major unit area.

On the island we had Seabees who did some of their own, but we also had Air Corps people–called Army Air Corps at that time. We furnished the power for their electrical facilities including runway lighting, the hospital . . . . We furnished the power to the hospital. Of course, wired up all those buildings on the hospital area, including the installation of the backup or emergency generation system that they had for their surgical area. If our power went off, then that generator was to kick in and keep things lighted so that the doctors and the nurses there could continue with whatever duties they were doing at the time.

**Petershagen:** So there is a tie-in then with what you did during the Second World War and what you did later on in your civilian career?

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**Oral history of Robert (Bob) L. Barta**
Barta: Oh, yeah, very definitely.

Petershagen: If we can take a little tangent here, you said, I think, you worked for Beech Aircraft before you went in the Army?

**Worked Briefly for Beech Aircraft**

Barta: Yes, that's correct.

Petershagen: And about how long was that?

Barta: Oh, not very long. Let's see. It was after school was out in probably late May or early June until I got my orders in early September.

Petershagen: I see. And when you say you got your orders in early September, was this a call-up or did you volunteer to go on active duty?

Barta: No, no, no, this was a call-up. They called reserve officers back to active duty at that time, yeah—(Petershagen: I see.) quite a number of us, as a matter of fact. It was not unexpected. The Guard had been called out in December of the year before, and we were to augment those Guard units. Of course, they were up for only a year, while we were actually called back for only a year, too. The year kind of got extended, however, but . . .

Petershagen: It's always said that everyone that was alive then can remember exactly what they were doing on Pearl Harbor Day. Is that true of
Bob Barta?

Barta: (Chuckles) Well, yes, I think pretty much so. We were in Little Rock in our apartment as I recall, and were preparing to go out for dinner with a friend of mine. He was assigned to the same unit. As a matter of fact, he was best man at our wedding. We were both called to active duty at the same time, had gone through university together, and called to active duty at the same time, and was assigned to the same unit. So, yeah, we were waiting to go.

Petershagen: And what was your reaction when you heard the news?

Barta: Well, I guess we were astounded. That, too, has been a long time ago. We were rather apprehensive, I suppose, inasmuch as we knew things would be quite uncertain from then on.

Petershagen: I see. Have we just about covered, then, your active duty military career?

Barta: Well, the active duty part of it, yeah. After the war, I continued in the Reserves, and ended up completing the requirements for retirement in the Reserves.

Petershagen: And that was in the Army Reserve, not the National Guard, correct?

Barta: No, no, no, this is Army Reserve. That's correct.

Oral history of Robert (Bob) L. Barta
Petershagen: And I believe you told me before that eventually you were no longer associated with the Corps of Engineers. You were in an artillery unit?

Served in the Corps of Engineers During the War, but Was in Various Non-Corps Units While in the Reserves

Barta: That's true, yes. Of course I was released from active duty as a Captain in the Corps of Engineers. I joined, among others, but I joined an anti-aircraft unit that was then active in Billings, Montana. This was a Reserve unit. I, of course, kept my commission in the Corps of Engineers, but I ended up as . . . Well, first I was the adjutant in the unit, then I ended up as the executive officer in that unit. That unit then was converted to field artillery, and the commanding officer that we had at that time in the ack-ack [anti-aircraft] chose not to go along with the field artillery, and I did. I commanded that unit then, oh, for quite a while, a number of years. And prior to (Chuckles) getting a promotion commensurate with the duties that I was performing, I had to convert to artillery through a series of quite extensive correspondence courses that I took. I don't recall how many hours of correspondence, but my family rather suffered because of that, for about a year-and-a-half or so. I spent all my time working on correspondence.
Petershagen: I see. And you were discharged from the Army immediately after the war?

Barta: No, I was just released from active duty.

Petershagen: Released from active duty, excuse me.

Barta: There's a big difference. (Petershagen: Right.) They still had a hold on me because I chose to stay in the Reserves.

Petershagen: So you're now a civilian after about four-and-a-half years, I guess, of active duty. What led you to the Bureau of Reclamation? Did you go straight there from the Army?

**Once Out of the Army Talked to Sentry Electric, GE, and Westinghouse**

Barta: Yes. I guess as a practical matter it was not exactly straight. I came back to Lincoln, Nebraska, after the war, and had interviewed for a position with Sentry Electric, and, well, I had contacted Sentry Electric and General Electric and Westinghouse in St. Louis at that time. Sentry Electric had offered me a position. It wasn't particularly attractive, but it was a good outfit.

Then I guess my next interview was with General Electric–GE, I'd better say--and they were on strike at the time and would not commit themselves to anything. No, no, let's back up on that. I contacted Generous Electric [General Electric] after I had been to St. Louis. The offer came from

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Oral history of Robert (Bob) L. Barta
Westinghouse in St. Louis. Seemed to me a better way to go in comparison with Sentry Electric. So I accepted. But it was necessary that I return to Nebraska–Lincoln we were staying in at the time–to get my–well, get better prepared–clothes and material and all that. When I got back to Lincoln the next morning, I had a telegram from a Westinghouse representative who said in words that I had talked to the wrong person and I needed to . . . They were not able to offer me a position at that time. So I then contacted General Electric who also were on strike. That didn't work well. They just couldn't offer me anything and kept my application on file.

**Interviewed with Reclamation Through the Employment Agency in Lincoln**

In looking around I found the Bureau of Reclamation, I guess through the employment agency there in Lincoln. I interviewed, and it seemed like it would be a reasonable use of my talents for the work, so I accepted that position out there.

**Went to Work in Denver in the Powerplant Electrical Design Section**

Petershagen: By "out there," you mean in Denver.

Barta: In Denver.

Petershagen: And what was that first position?
Barta: I was a P-1 engineer— I guess you call them "junior engineer"— in the electrical, Powerplant Electrical Design Section. (Aside to cat) That's the way my career started, after I'd been working there for about... Oh, I might even add that during this time I had contacted other agencies, too, one of which was the Corps of Engineers itself, since they were right there in Omaha.

**After a Few Months at Reclamation GE Offered Him a Trainee Position**

And anyway, after I'd been working for the Bureau for a matter of, oh, (Sigh) several months, I'd guess two or three, maybe even longer, General Electric then came back and had offered me a position back in Schenectady in their training program. I declined on the grounds that I had just started this job, and I didn't want to flip-flop all that fast.

Petershagen: "This job" was the Bureau of Reclamation?

Barta: Yes.

Petershagen: Let me stop you right there, because this side of the tape is going to run out on us real quick.

END SIDE 1, TAPE 1. JUNE 21, 1994.

Petershagen: Bob, we left you with some brief tenure with the Bureau, and you had just declined a job
offer from General Electric in favor of the Bureau. Can you maybe give us some thoughts on what immediate-post-World War II Denver was like and settling your family in, in Denver?

**Housing Was Scarce in Denver**

Barta: Well, yeah. After the war, the housing of course was very tight, all over the country, I expect, and it certainly was in Denver. Denver was a nice little town at the time, compared to what it is today, at least. It was a fairly large city, even then. I did have some friends—they were family friends—that I stayed with prior to finding a place for my wife and our first youngster. It was a basement room, but in the same area I found, riding the bus back and forth to downtown where we worked at that time in the Golden Eagle building—one of the fellows on the bus mentioned that his family had an apartment that was coming vacant. Of course, I inquired immediately as to its availability, and we did then rent that place and stayed there until we left Denver. Well, anyway, we stayed in Denver, let's see, I can't recall when I first went to Denver. It seems to me around May or thereabouts. And that fall I remember a terrible snowstorm, as I remember around Thanksgiving time.

By the way, my wife and I would spend our weekends from time-to-time, back in Lincoln. It was a rather lengthy drive, even
those days, but this one Thanksgiving there, I think we were about approaching Thanksgiving . . . It wasn't either, it was prior to that, it was—we were going to have a few days off during the election in that year, in early November—terrible snowstorm (Chuckles) went through there. Four feet of snow all over every place. We didn't make it.

But generally speaking, our experiences in Denver were very cordial. We met lots of nice people and even proposed to buy a house out in, I guess it would be called, East Denver. Denver seemed to be moving out (Chuckles) in that direction. And several of the fellahs lived out in that area.

Petershagen: By "several of the fellahs," you mean your coworkers?

Barta: Yes.

**Worked in Denver for a Little over a Year and Then Transferred to Billings in 1947**

Petershagen: How long were you in Denver?

Barta: Well, this would be the next year, the Bureau had a reduction in force took place, so we left Denver in about June—or I did, anyway—May or June of the following year. So I was in Denver for a year, but not a year-and-a-half.

Petershagen: I'm losing track now. When you say "the
following year," we're talking about 1947 to '48?

Barta: Let's see, I came back. Our youngster was born in '46. I went to work in '46. Then in '47 is when we were transferred to Billings. They had a reduction in force down there. Johnny Walker who started the regional supervisor of power in Billings and visited the unit and was looking for people to be transferred to Billings. I guess he thought I'd be all right. I checked with some friends of ours who were Montana folks, living in Colorado, by the way, at the time, in Denver—well, in Boulder—(Chuckles) to see what this north country was like, this Billings stuff. (Petershagen chuckles) They assured me it would be satisfactory. So I accepted that and we were transferred then to Billings. That would be in '47.

Petershagen: I see. Then was this a move that you really looked forward to, or you kind of approached it with the attitude of, "Well, I guess I have to do it if I want to stay with the Bureau" or what were your feelings about that?

Barta: Well, the employment situation wasn't all that great yet, and it was going to be an experience, (Chuckles) I guess. The way it was explained to me at the time, it seemed like it might be an adequate place to—I would be comfortable there.

Petershagen: I see, and this was in roughly the equivalent
position of what you held in Denver?

Barta: Yeah. I can’t remember whether I was promoted in Denver. It seems to me I was, from a P-1 to a P-2. So I went to Billings as a P-2, as I recall anyway. But you're still pretty junior engineers. In Denver I was doing a lot of work in powerplant electrical design.

**In Denver Worked on Design of the Powerplant at Davis Dam**

Principally I worked on the Parker-Davis Project work, and specifically the Davis Powerplant–the Davis Dam and Powerplant. I expect I drew a hundred different drawings of Davis Dam Powerplant and it's facilities in regard to the electrical facilities necessary. I was introduced there to isolated phase bus arrangements, which I had not been aware of prior to that time–they were new to me, and I think they were fairly new to the industry.

Petershagen: What does that term mean to me? And how is it different from whatever you were used to? (Both chuckle)

Barta: In effect, it was the conductors that took the power from the generator to the transformers, still in the powerplant area. Usually they used a cable gallery to do that. This powerplant was designed in such a manner that . . . . In the construction of the powerplant, they discovered a fault under
the area that that powerplant would be resting. The dam had been constructed, so they were now figuring out the powerplant. The powerplant had to be moved to an angle. Normally, the powerplant is immediately downstream from the dam. Well, this meant that the powerplant was separated by several, something like thirty degrees—I don't recall exactly, but quite a bit, from the downstream face of the dam. So the cable runs from the far generators down to the transformer deck became a problem, and that's the reason they went to this isolated phase bus arrangement—rather than cable galleries. It just wasn't feasible to put a cable gallery in, I guess.

Petershagen: Now, in considering this move, how much is your career in the Army Reserve a factor as you move around? Obligations there become a consideration at all?

Barta: Well, no. They were not a factor in whether we moved or didn't move. While we were in Denver I had no assignment in a Reserve unit. As a matter of fact, I wasn't doing anything in the Reserves, I was just assigned to the Reserves.

Petershagen: So your name was on a list, essentially.

Barta: That's all.

Petershagen: Then when you went to Billings, did you join a Reserve unit there?
Barta: Yes, I did. Billings (Chuckles) made up at that time of a lot of professional people who were ex-Army or ex-Navy or ex-military, at least, and a lot of them had stayed in the Reserves. Happened to be one of the fellahs that was in the Power Division started a composite unit where we just took in everybody into this unit. It was pretty informal sort of training, but we were organized into a commander and the executive officer and the staff personnel, and then the engineers that were available were segregated into engineer units, and the Navy was into Navy units. And ultimately, the composite unit was disbanded, and the various units remained. The Navy had quite a nice installation there. The Army had infantry units, artillery units, and the engineering units, all separate, at that time.

Petershagen: And it was in Billings that you started gaining your artillery experience, I take it?

Barta: Oh, yeah.

Petershagen: This relationship then of so many professional people in Reserve units, and some of your fellow workers in those units, must have worked together somehow in Billings "society"—I'll say that for lack of a better word.

Barta: Oh, yeah. We had people in the Bureau who were Navy. As a matter of fact, one was a Navy Captain, equivalent to an Army Colonel, bird Colonel. And he was, of
course the head man in the Navy section, but he worked at the table next to me. Let's see, there was at least another Navy person there. Army people, there were several of them around, yeah. The anti-aircraft artillery officer that ended up commanding that unit was the Bureau's field solicitor at that time.

Petershagen: So you had an on-board support group, even, so to speak.

Barta: You might say so.

Petershagen: And how long were you in Billings?

**Worked in Billings about Twenty-three Years**

Barta: We were there about twenty-three years.

Petershagen: Just got acquainted, huh? (Chuckles)

Barta: Well, no, we raised our family there, of course. And Billings is still pretty much home to us. We have no family left there, but we have a lot of friends there—more so than we have in California, even though we've lived here longer than we lived there. And I think the reason for that is that our kids were growing up, and so we got very well acquainted with other families, and those families, some of them, are still there.

Petershagen: Did you involve yourself in kids' kind of activities—their schooling, Little League, any of that kind of stuff in Billings?
Spent a Lot of Time on the Reserves, Including Vacation Time

Barta: Not personally, no—not as much, perhaps, as I should have. Looking back, I should have. I spent an awful lot of my time in the Reserves working on the unit's problems, going to summer camps almost every summer. This is how we spent our vacations. No, my wife was quite active in the Cub Scouts. We had two boys and they were both cubbies. I think she did some work in the Girl Scout units—I recall those as Brownies, I guess. But I'm sorry to say I was too occupied.

Petershagen: You mentioned your two sons. Did you have girls, too?

Barta: Yes, I had one girl, one daughter.

Petershagen: Now Billings was a regional office at the time you went there? (Barta: That's correct.) And what did we call that region?

Barta: That was Region VI of the Bureau of Reclamation. And it covers primarily the Upper Missouri River area: Montana, North and South Dakota, parts of Minnesota, Iowa, Nebraska, and a little bit of Wyoming.

Petershagen: A fairly large Region, then, it's safe to say?

Barta: I'd say so.

Petershagen: Now, in that Region, part of the projects, as
I understand it, are part of the Pick-Sloan Missouri Basin Project, and others are not—correct?

Barta: Well, back up just a moment. When I went up there, it was the Pick-Sloan Plan that was being constructed. The main stem of the Missouri River facilities were a Corps of Engineers, part of the Army. The off-stream—that is, off mainstream—developments were all Bureau of Reclamation. The Bureau's projects remained the water storage projects, as I would term them. The Corps' projects were storage projects, but for a different purpose—the main purpose being navigation and flood control, with some irrigation storage space made available. I suppose you could say the Bureau participations in the off-mainstream reservoirs were storage for irrigation purposes and for flood control, rather than navigation. The Corps' were all the huge projects—the Bureau's were, by comparison, rather small.

Petershagen: Where does the term Pick-Sloan come from? What did that mean?

Barta: Well, General [Lewis A.] Pick was the Corps of Engineers or the Army person who planned the development of the Missouri River; and [William G.] Sloan was the Department of Interior man who had a similar plan for the development of the Missouri Basin in regard to... Of course, Pick was for navigation and flood control,
and Sloan primarily supported irrigation development of irrigation projects. And it was recognized early on that there had to be a compromise of some type, apparently. So by the time I got there, that compromise had been completed, and we were working under, quote, "the Pick-Sloan Plan."

Petershagen: Was that really any different as it applied to your work from any other project? Was there anything special in the Pick-Sloan Plan that affected how you went about your work?

**Pick-Sloan Missouri Basin Program (PSMBP)**

Barta: Well, of course, all the work that was done on the main stem dams and reservoirs was coordinated through the Corps' office in Omaha. We, the Bureau, in Region VI at least, worked with them on—I rather hate to call it consulting, I don't think that's quite the term—but they developed a management team for the development of all this, which I suppose was in concert with the idea behind the Pick-Sloan Plan anyway, but the Bureau—our personnel—did advise on the releases of water and were consulted as far as the facilities that would be placed in the dams.

**Reclamation Controlled Power on the PSMBP for Both Reclamation and the Corps at the Control Center in Watertown, South Dakota**

For instance, the power facilities, the
Bureau—our office—had a lot of work in coordinating the development of the power facilities in the Corps dams, from the standpoint that these reservoirs would be producing rather tremendous amounts of power, had to be fitted into the power requirement characteristics of the area, and ultimately would be coordinated by the Bureau of Reclamation's control center that was ultimately installed in Watertown, South Dakota, after the power system was pretty much, pretty well, developed. That is, the transmission lines were constructed, distribution facilities, substations and the like, the power has been sold, and the operations then were coordinated between Watertown and Omaha as to where the power would be generated, when, and in what amounts, and that sort of thing.

Reclamation Marketed PSMBP Power

Petershagen: And the power was marketed by the Bureau, even though it came from Corps dams, correct?

Barta: That's correct. The Bureau had its own hydroelectric units in the area. Well, in the Upper Missouri we had Canyon Ferry, then later on—well, there's Boysen. Now Boysen was an early small powerplant there. I believe that was marketed down through the Region VII area, which would be the Lower Missouri Basin. And Yellowtail, which was marketed through the upper area. But as I say, primarily . . . . There were a few other
smaller plants that the Bureau had, but they were not of the capability of the large Corps plants.

Petershagen: You went to Billings as a P-2 Engineer, I think you said. (Barta: That's right.) So at that time you still were not in any sort of a supervisory position, is that correct?

**Worked in the Resource Development Section of the Power Division in Billings**

Barta: No. I was just one of the engineers in the Resource Development Section of the Power Division there. There were three principal sections in the Power Division: the Resource and Development—well, this is the way it was worked throughout the Bureau I believe—the Resource Development, the Marketing and Sales, and the Operation and Maintenance. At the time, early on, when I first went to Billings the big need was in Resource Development, and we had more people in that section. Marketing was one or two people, and Operation and Maintenance I think consisted of one or two people. Most of them were in Resource Development.

Petershagen: And about when did you actually move into a supervisory position?

**Became Chief of the Resource and Development Branch in the Mid-1950s**

Barta: Well (Chuckle) I should have looked this
Petershagen: Okay. If you could look back in those early years and identify somebody that may have been a mentor, who would that be?

Barta: You asked me that question before, and I've been thinking about it, and I can't come back and say that there was any one person who was a mentor. There was nobody looking out after my interests particularly, as I recall.

Petershagen: I see. Anybody that you really looked up to that you may have admired in the Bureau?

Barta: Yeah, he happened to be the field solicitor for the Bureau. Well, he was not the Bureau, he was with Interior.

Petershagen: And who was that?

Barta: Well, his name was Al Buelfeld, the field solicitor at that time—well, until he retired, even after I left there. He was also my commanding officer in the Reserve unit.
Petershagen: I see a real integration between your work with the Bureau and the Reserve unit in your life. (Barta: Oh yeah, I think so.) There's a real connection there that may not have been in other people's careers.

Barta: Perhaps not.

Petershagen: In our initial meeting . . .

Barta: I have to back up and say there's a lot of people that I suppose influenced a person as they go through their career. I can't think of anybody I classify as a mentor. That's what you were asking specifically?

Petershagen: Right, specifically that. It's interesting that some people can put their finger right on one individual, and others would be just like you . . .

Barta: I think I worked quite well with a number of people, starting, I guess, when I first went to work in Denver. I know (Chuckles) Sid Evans was the head of the powerplant electrical design at that time, and he came around and after I'd been working six weeks, something was said, "What was my gains in life, and my aims what I might do?" And I said, "Well, right at the moment, I'm looking at your job." (Laughter) I don't know if that had anything to do with my being transferred (Chuckles), but . . . No, we got along all right. I enjoyed working with those people. I knew lots of them. They became real good friends.
Petershagen: I would think that in a smaller town, such as Billings, that the professional community would really be kind of a cohesive group, whereas in larger areas, such as Sacramento here, we're scattered all over.

Barta: Well, that's true. There were several groups that we associated with--"we," my wife and I--either together or separately. The people I played golf with--there was a golf club that started there--and I knew these kind of people. They were all walks of life in Billings. There's the lawyers and the bankers and the doctors and whatever. They had a small country club at the time, but not . . . A lot of people played at the public courses. Then there was, of course, the people that I associated with when I was in the Reserves. The people that we square danced with, again, all different walks of life. People that I skied with were a different group. Some of them might be overlapping, but not too many. Some of these people worked for the Bureau. Many did not. Many were from other private groups.

Petershagen: All right, let me stop you right there, because I think this tape is about to run out on us once again.

BEGIN SIDE 1, TAPE 2. JUNE 21, 1994.

Thomas Judah Headed the Planning Division in Billings

Bureau of Reclamation History Program
Petershagen: Bob, during your career at Billings you had told me in our initial meeting that you came across a gentleman named Thomas Judah. (Barta: Oh, yes.) And I believe you said he was the grandson of Theodore Judah? I believe that's correct.) I've been kind of curious about that ever since you mentioned it, because I think really Theodore Judah didn't get his due here in California until fairly recently. It was engineering societies, I think, rather than historians that really made his name prominent in California. I wonder if you ever had a chance to talk to Thomas Judah about his grandfather. And if you could follow that up with, it seems to me, if my last name were Judah, and I were an engineer, I would somehow want to get myself back to California, eventually. Did he ever express a desire to do that?

Barta: Well, you got a couple of points in there, too fast I guess, or at least I didn't follow them. In the first place, I didn't know that Tom Judah—when Tom was still alive in Billings, I didn't know that his grandfather was Theodore. I didn't know that until I came out here. If I knew it, it didn't really register as being very important at the time. I've done some reading about him since, and you're absolutely correct, I didn't think that

3. Theodore Judah was the Chief Engineer of the Central Pacific Railroad during its organization and initial construction. [Ed.]
he got the recognition—that is, Theodore didn't—that he should have. Now Tom Judah was the planning engineer, head of the Planning Division in Billings, comparable to Johnny Walker, regional supervisor of power. I became acquainted with Tom not only through the work, but we both joined the YMCA, and we worked out three times a week. And you get to know a person pretty well, doing that. I liked Tom. He's all right.

Petershagen: Did he ever express a desire to transfer to California?

Barta: Not to my recollection, no. Now, after he passed away, his wife did come to Sacramento. I think she may have had a sister or somebody here in Sacramento. I think their son, at least one of their sons, was in San Francisco at the time. I've lost track of them since. I don't know where they are. But ironically, I don't think any of his sons became engineers—at least I don't know if that's so. I think the one in San Francisco was a musician. His wife was a very accomplished musician, by the way—a very nice person.

Petershagen: That's certainly off the subject of Bob Barta. (Barta: Yes it is!) But it's a point of interest that is worth getting on the tape.

Barta: Well, it was after she came here and I had an opportunity to talk to her that she mentioned that Theodore was his grandfather. I don't think it was great-grandfather. It could have

Bureau of Reclamation History Program
been, but I don't recall now, but I don't think so. Anyway, after that, I got kind of interested in Theodore and I went and did some reading and came to the conclusion that you just stated that he didn't get the recognition at the time.

Petershagen: Let's get back on the subject of Bob Barta.

Barta: Okay. (Laughter)

Petershagen: What was the "relationship," I'll say, between Denver and the Billings Office? A lot of times field office people have a tendency to feel like the headquarters guys are always messing in their business. Did you ever have any of those feelings?

**Relations Between Denver and the Region**

Barta: Oh, I don't think so. I felt that there was pretty much a matter of cooperation between the two. The professionals in the field recognized the expertise of the people in Denver. They had their specialties and we relied heavily on them for such things as cost data. The Bureau I think early on had the idea that, well, they were all run by civil engineers, rather than the whole spectrum of engineers, as, you know, mechanicals, electricals, and all the rest. Anyway, the powerplants should be designed to produce power on the basis of a fifty percent load factor. If there was a controversy–and I can't really classify it as that–no, I wouldn't say that at all. I'd say they recognized that
the field people had other ideas about how powerplants should be operated, and particularly, once we got into the marketing of power and realized that all of your power generation doesn't have to fit a particular load. Some powerplants are base-loaded plants, which the mainstem Corps of Engineers dams are pretty much what you call base-loaded. They have a given amount of peaking power in them.

**Steam Generating Plants Tend to Be Base-Loaded and Hydropower Plants Are Peak-Loaded**

But if it's necessary—well, and say a steam plant is most efficient when it's running a hundred percent along, and they don't like to swing it up and down, as wherein capacity. So when you get this kind of generation—and hydro, by the way, is very adept at making the peaks. And so if there was a controversy in that regard, it was whether the Bureau's plants should be base-load plants or fifty percent load factor plants or whatever. I think we got agreement all the way around that the field was in a position to . . . Well, and I think the people in Denver recognized it immediately, getting the powerplant generation possibilities and under a load curve, were very desirable from the standpoint of generating revenues. Peaking plants capacity is usually your higher cost commodity, and that's what you'd like to do when you can.

Petershagen: If you're in the business of selling, you like
the higher cost idea, huh?

Barta: Well, you like the higher revenue,
(Petershagen: Right.) not necessarily the higher cost, but the higher revenue. The electrical industry, as a matter of fact, in the field I found, we worked with the engineers from Pacific Power and Light, which had their headquarters—I think still do—in Portland. But they had a small area in Wyoming at the time, and we coordinated our activities with them. And I think early on, one of the points that they pointed out—at least it stuck in my mind—was the desirability of having as much capacity in a hydro plant as you can, from the standpoint of getting peaking in it, because they had the powerplants, they had the steam plants, and we needed to coordinate the operation of the two. And of course that's being done, has been done now, over the years. We don't run the power system—the Bureau of Reclamation—we don't run it. It's an area of operation, and Bonneville is an excellent example of that.

Navigation and Flood Control Dams Are Better Able to Carry Base Load than Is an Irrigation Dam

Petershagen: I understand. Is it safe to make a generalization that by their nature as largely navigation and flood control dams, that the Corps' dams would tend to be able to carry more of a base load then, than say an irrigation kind of project dam? Or am I misreading what I thought you said?
Barta: No, I think what you understood is what I had in mind anyway, that were it economical to put in more capacity—they could operate more in that peaking operation. But there are restrictions in site—you can only put in so much. And that meant that you were utilizing them more into the base load area. Now I didn't say that they were strictly base-loaded—they do swing. (Petershagen: I understand.) As a matter of fact, they built several dams for the simple reason of being able to swing out. I think Big Bend below Owyhee, and Gavins Point below Fort Randall are reregulating reservoirs similar to Nimbus out here in the Folsom Project. This is typical. They could run lots of power out of, say, Fort Randall, swing it up and down, and then regulate the flow in the river below Gavins Point by the storage that you have capacity, storage, in Gavins Point.

Petershagen: I see. And we're, I think really into your area of expertise here, when we start talking about these issues, because as I understood what you told me in our initial meeting, one area that you worked in to a great degree was to establish the criteria by which you would develop generating facility size or capacity versus reservoir size and capacity. Did I say that correctly?

Barta: Well, (Chuckles) it's a little more complicated than that, I guess. Usually, the Corps-built projects, their dams, to the—if I remember this correctly—the mainstem
reservoirs were built only to the maximum of the site. The Bureau didn't necessarily do that. Well, like I think in one case at least . . . Of course you realize that this goes back many, many years. In 1904 I think, when they built Shoshone, they built what they built! (Chuckles) In recent years they've raised the dams somewhat in there. Now the Corps started off by maximizing the development of the site for storage. They were interested in a lot of storage capacity, and they got a lot of storage capacity. The hydro facilities then were incidental because . . . As a matter of fact, the hydro facilities were incidental as far as the Bureau was concerned, too, early on. That's why if there was some controversy between the field and Denver, it would be on the basis of the thinking at the time of, "Well, you just don't need a lot of power in there." (Chuckles) That's when it got to where it was costing money and the Power Division would say, "Well, to generate revenues that could pay off irrigation projects." Thinking changed all over, I think. It's my feeling at least.

Petershagen: I see. Now you obviously were personally involved in the design of many powerplants, many generating facilities.

Barta: Well, I mean . . . (Laughs) If you're talking about structural design, I didn't have anything to do with it.

Petershagen: No, but the electrical design.
Barta: The capacity of the units, yeah. You might say, yes.

Petershagen: What was your position when you left Billings? What did you call your job then?

**Was Assistant Regional Supervisor of Power Before Leaving Billings for Sacramento**

Barta: I was assistant regional supervisor of power. Region VI had a lot more activity going on than most Regions. I think it was probably one of a few that they decided that the power manager there needed some help. And so I was promoted to the position of being the assistant regional supervisor of power there.

Petershagen: Over the course of the time you were in Billings, given a Region that is that large, I'm sure you spent a lot of time on the road. Is that a fair assessment?

**In His Early Years at Reclamation He Did Not Travel Much**

Barta: Well, in my early years up there, that's not so. (Chuckles) I spent a lot of my time in the office. (Petershagen: I see.) The big bosses would be the people who went here and there. Later on, I did *some* traveling, yes, particularly to . . . . The fellow who was the regional supervisor of power, I assisted him in these day-to-day operations of the Division. He kept his finger on that too, but as well as in coordinating activities.
with the Corps. But even so, we both traveled. The Bureau had an aircraft stationed there that was utilized by all the Divisions. I expect the Power Division had more than its share.

**Being in the Reserves and Working at Reclamation**

Petershagen: You spent two weeks a year doing your Reserve active duty. Weekends were drill meetings, however they were organized. Were they in Billings?

Barta: Yeah.

Petershagen: So two weeks a year committed to the Reserves, plus your travel with the Bureau. Was your wife able to travel with you on any of this?

Barta: No.

Petershagen: So she kept the home fires burning, huh?

Barta: Well, when I was on active duty during my summer camps, sometimes I was able to take another week, and she would bring the family out to wherever we happened to be, and this would be at Yakima Firing Center in one case, I think, and Fort Lewis in another case. But in the case when the whole Division, the Reserve Division we were assigned to, goes out here at Hunter-Liggett Military Reservation, we came out by train and she did not come.
Petershagen: Did you have any other periods of active duty? I focused on World War II. How about, did you get called up at all during Korea? (Barta: No.) So you were able to really focus on your job at the Bureau (Barta: Pretty much so.) without any extended call-ups.

Barta: Yes. I did have other tours of duty other than the regular summer camps, but they were short duration. They were schools here or there or somewhere else. I spent time in Fort Stillwell. I was at the USN ATB, naval amphib. [amphibious] training base in San Diego for three weeks down there–not associated with the Unit itself, but other training.

Petershagen: Your military experience, I'm sure you would say, probably made you a better supervisor and manager in the Bureau?

Barta: Oh, I think so. I think it also got me into a position where I was better acquainted, particularly, with Montana politicians, if you please. A lot of the–well, not a lot, but there were a number of Reserve officers who were also politicians and . . . Anderson, Leroy Anderson was a congressman from Montana–real good friend. I met several of the other people: Another, a Congressman, not Mike Mansfield, but his associate.
Senator up there at the time: the two "M's" and he was the other "M." (With exasperation) Ach! [Senator Lee Metcalf].

Petershagen: That's, okay, I can look it up and we'll add it as a footnote.

Barta: Okay. But anyway, yes, I became—and several of the people in the Unit, by the way, at least two, a couple of them, are aware, had political aspirations. Well, one of them was a lawyer and ran for, well, I think every office in Montana! (Laughter) I don't think he was successful on any of them, but he did. But yeah, through that association, yeah, I ran into a lot of—well, not a lot, but more so than I think the average person would.

Petershagen: How about within the Bureau itself, when you first moved into a supervisory position, did you have some formal training leading up to that in personnel management or supervision?

**Management Training Programs Began Just Prior to His Move to Sacramento**

Barta: Ah, no. I'd say essentially no. In moving to Billings, there'd probably be little problem in that regard—everybody grew up together there and knew pretty well everybody else's capabilities and accepted that. They had just started that sort of a program just prior to my coming to Sacramento, but it was not because I was coming here—it was prior, I
think, before this job even opened up. We had one session, I believe, that I attended. After I came to Sacramento, though, this became a big thing here in Sacramento.

Petershagen: I think in my conversations with Jake Ossofsky, he mentioned that about that time the Bureau as a whole changed its management style, so I think that's probably what you were referring to. (Barta: Yes, that's right.) And I think from Jake I got the impression not only was he a big believer and practitioner in the new way of doing things, but it seemed that out of the Bureau, probably here in Sacramento it was more openly and warmly received than in some of the other regions.

Barta: Probably so. Probably there was a need for it here, more so than others.

Petershagen: I see. Now, you mentioned skiing. You've been a life-long skier?

**Started Skiing about 1960**

Barta: Oh no! No, I didn't start snow skiing until my youngsters were grown and going to university. So I didn't start skiing until about, oh, it had to be about 1960.

Petershagen: So you were in your forties when you first started skiing?

Barta: Oh yeah. I had been working out three times a week up there, during this
time—winter and summer—particularly all winter long, and was in fair physical condition—excellent, let's put it that way, even if I do say so. But I had not skied up until that time, no. Friends of mine were skiers. My son wanted to start skiing if he had to go to school in Montana. He wanted to go to school somewhere else. So he got a ski outfit, and I had to find out what this skiing was all about. So his younger sister and I visited the ski hill. That was on Sunday, and on Monday we were buying our equipment because Mom wasn't going to let us do this, (Petershagen laughs) but we did. And I would recognize at that time that there were people in Billings that we were well acquainted with who were on the Ski Patrol and wouldn't let me get on the slope without having a lesson. I had to have a lesson to learn how to fall and how to recover. I got quite interested in skiing. It's a great sport.

**Joined the Ski Patrol**

Petershagen: Now at some point in time you became a member of the Ski Patrol yourself. (Barta: Yes, I did.) Was that while you were in Billings? (Barta: Yes.) And then you continued that here in California. (Barta: That's correct.)

Well, let's get back into Bureau issues and off the slopes for a few minutes! (Barta: All right.) Your experience in the Bureau, I think, was largely in conjunction
with construction, correct? At least we haven't talked about a whole lot of O&M [operation and maintenance] stuff.

Mostly Did Planning for Construction Work

Barta: No, but it was more in the planning, rather than in the actual construction. I did very little in the way of supervising construction.

Petershagen: Okay. What I meant was, associated with new projects—I'll say it that way.

Barta: Yes, that's right.

Petershagen: And my impression is that that has to be a whole lot more exciting and a whole lot more fulfilling than O&M kind of work. Do you feel that way about it?

Barta: Yes, I would say so. I didn't interest myself too much in the operations and maintenance of the—particularly in the maintenance of the facilities. In the operation of them, sure.

“We were quite interested in making sure that somebody saw that they were maintained well enough that they did operate, and that they did operate in the manner in which we felt was most efficient. . . .”

We were quite interested in making sure that somebody saw that they were maintained well enough that they did operate, and that they did operate in the manner in which we felt was most efficient. I'm talking now
Oral history of Robert (Bob) L. Barta

Petershagen: It just seems to me that if I were in your line of work, there would be a whole lot more fulfillment in saying, "Well, I had a hand in designing or building that thing," rather than "I spent thirty years making sure that it stayed on line."

Barta: I have that feeling. I have that pride. You bet!

Petershagen: I not only hear it in your voice. I can see it in your face, too!

Managed to Convince Reclamation to Increase the Designed Capacity of the Yellowtail Powerplant Thus Making it a Better Peaking Power Facility

Barta: I particularly refer to the Yellowtail Powerplant. The dam was under construction. They had, of course, contracted for the penstocks in the dam. It had to be part of the dam construction. When it came to my attention one way or another—or the Bureau's attention, our top gun put it in my attention—and I was able to convince my supervisor and the regional director that we really ought to be putting more capacity in that powerplant. Recognizing, of course, that the penstocks had an influence on how much capacity it had, the hydraulic engineers looked at the cavitation that would occur at high flows, based on empirical formulas. And I recognized that this was, of course, a
limitation. But when you increase the capacity of the unit from whatever it was to what it became and was being recognized, I think it was, 36,000 kilowatts of capacity, and I felt that they could easily put in 50,000, which doesn't sound like a lot, but it was enough. And it would increase the peaking capability of the plant a lot. The period of time of erosion on the penstocks would be quite limited, because you could only put huge amounts of velocities through those penstocks for the peak hours of the day only, and then that would be shut down or it would be closed down to more normal, even less than normal.

It took some convincing. The chief engineer particularly, in Denver at the time, Barney Bellport, was not willing to accept that. But we were able to convince the designers that this would be acceptable. And so they did.

Petershagen: Let me stop you right there, and we'll turn the tape over.

END SIDE 1, TAPE 2. JUNE 21, 1994.

Petershagen: Now Bob, you were speaking of the Yellowtail installation with a good deal of pride as we ended the other side of the tape. And I wonder, do you single that one out as the high point of your career, or the thing you look back on with the most pride?
Barta: Oh, no. No, I feel that the input that I had insofar as the powerplant capacities in the mainstem reservoirs were equally satisfying. Well, let's see, I guess I had a hand at Garrison, probably a greater hand in Big Bend. But no, there were other (Chuckles) "points of pride," yeah.

Petershagen: If I ask you to name the single-most point of pride, what might it be? Or am I trying to pin you down too much with that?

Barta: You're pushing pretty hard.

Petershagen: (Laughs) Okay.

Barta: I can't point to any particular . . . I guess it would be my contribution to the . . . putting capacity in powerplants, wherever they happen to be.

Petershagen: I see. Now, your Billings career, I think, if I understand the course of events, was terminated somewhat early by, well, Jake Ossofsky's heart attack, I guess, by the need for somebody to take his place here in Sacramento.

Barta: No, no, that's not so.

Petershagen: That's not so? (Barta: No.) Well, can you correct me then? Put me straight.

Applied for the Job in Sacramento Because it Was Unlikely He Could Find a Promotion in Billings
Oh sure. The person who had the regional supervisor of power's job here, his name was Stokes [J. Stokes], and I knew him from back when he was Chief of R&D [Research and Development] in Denver, but he, in the interim, had moved out here as the chief of the Power Division here. But he had brought along with him several people from Denver, and notably . . . (laughs) All I can say is his front name, Bill [William Keating]. Well, it'll come. And anyway, I think he was getting to the point where he wanted to retire and wanted to get back to the Denver area in order to retire. So he took the position of being head of the control center, I believe in, they call it the Flatiron Area. Anyway, it was back in the Denver Area, and that left a vacancy here in the regional supervisor's job. (Petershagen: I see.) At the time I could see that there were no possibilities, or very limited possibilities for promotion in Billings. My supervisor there, the fellah who had the job of regional supervisor, wasn't that old. I could see him holding onto this job for years. So when this vacancy came here, I applied for it.

I see. My sense of that situation is that there is almost a generation of people whose careers roughly patterned yours: World War II veterans that then went to the Bureau of Reclamation, and it looks like, as you progressed to higher positions within the Bureau, you were all about the same age and all competing for those same positions, so a
lot of times it would look like maybe you got as far as you could go because you knew that your boss was going to be there for ten or twenty years, and you did have to start looking at other places. Is that a fair assessment?

Barta: I guess so. Even so, though, my boss in Billings was older than I. He had not been involved in the war itself. What he did during the war, I'm not sure. I think he worked in Denver for the Bureau under Harvey McPhail, who had the whole Power Division of the Bureau was in Denver. I don't believe they were in Washington at the time. But like I said, I guess, it wasn't that we were all growing old together—of course we were all growing old. (Petershagen chuckles)

**Supervisor in Billings Retired a Few Months after He Left to Go to Sacramento**

He was not that old that he wouldn't have, in my estimation at the time, that he wouldn't have stayed on. But as a practical matter (Laughs) after I took the job here, for whatever reason—I took the job here I think in August—and in December he retired.

Petershagen: So you perhaps could have stayed in Billings in hindsight.

Barta: (Laughs) Perhaps, perhaps.

Petershagen: But your move to Sacramento was more
voluntary than I had led myself to believe. (Barta: Oh yeah.) There was, I'm sure, some sadness associated with leaving Billings, though?

Barta: Oh, absolutely.

Petershagen: Did you feel like you had adequately prepared yourself, or been adequately prepared for the move to Sacramento?

Barta: No. (Laughs) I don't think, in retrospect, I was prepared to make that.

Petershagen: And how so? Small town to a big city? Or differences in the way the regions were run?

The Regions Were Run Differently

Barta: Yeah, especially that, exactly. Difference in the way that they were operated.

Petershagen: Were there any particular differences you can point to? I don't necessarily mean to say "pick which region you liked better," or like that.

Barta: When you come to a new region like this, I didn't know the people who would be under me, and I think they, not knowing me, felt a certain amount of suspicion. "What kind of a guy is this guy? I've heard all kinds of things about him." And I'm sure there were rumors all over the place.

Shortly after Arriving in Sacramento Was Put on
Temporary Assignment to Go to Washington, D.C., for about Six Weeks

I was here for a very short period of time, maybe a week or two weeks, at the most, and I was asked to go back to Washington. And I think I was back there for six weeks. So the office operated out here without my being here.

“Well, anyway, I was not interested in going to Washington at that time . . .”

Well, anyway, I was not interested in going to Washington at that time.

Petershagen: Was this trip back to Washington a detail, a temporary assignment?

Barta: It was a temporary assignment back there.

Petershagen: Did it look like you were going to be permanently assigned in Washington?

Barta: Bill Keating was the person that I referred to, was the chief of Marketing and Sales here. He left to go back to Washington as the chief of the Power Division back there. And that's about the same time that Stokes decided he was going back to Denver. He was going to retire. Now, he was ten years older or more. But when Keating got back to Washington--and this is some period of time involved in this--he became the assistant commissioner.
He Was Placed on Temporary Assignment to Be the Chief of the Power Division in D.C.

And so that left the Power Division without somebody in that chair, and they wanted somebody back there. And so I was detailed back there as a "trial run," if you want. I think I . . . . Well, like I said, it was not for me.

Petershagen: It didn't take you long to figure that out, is what I hear you saying.

Barta: That's correct. It was so totally different from (Chuckles), well, really from Billings to Washington. The stop in Sacramento was very temporary at that time.

Petershagen: But then you came back to Sacramento and actually established yourself. (Barta: Yes.) And I'm sure there were differences between Billings and Sacramento, just in the way things were run.

It Took a While to Become Comfortable in the Sacramento Office

Barta: Yes. And working in Billings, I'd worked there, of course, for twenty-three years, working up through the ranks, as it were, and I became well acquainted with the chiefs of all the different divisions, and for that matter, most of the people who worked in Billings. And when you come to a new office, as I did when I came to Sacramento, I did not have that background with these
people here, who were, of course, well established in their own fields. It took a little bit of time to become comfortable with that.

Petershagen: I think I hear you saying that you had some of the same feelings about this job that I've experienced, and I know in talking with other people, they've experienced, as coming into a new job from a different area and feeling like you're an outsider and you're trying to find exactly what your niche is in this particular organization.

Barta: Very well put.

Petershagen: Now, besides coming here as a Bureau of Reclamation employee, to this new position, you also came here as an experienced, by then, member of the Ski Patrol. Were you still in the active Reserve when you came to Sacramento?

Barta: No, I had retired by that time.

Petershagen: And I guess I should ask what year was that?

Moved to Sacramento in 1969

Barta: Oh, I came here in 1969.

Petershagen: In '69, okay.

Barta: August '69.
Barta: You established yourself with the Ski Patrol someplace locally, as I understand it.

Barta: Oh yeah.

Petershagen: Almost immediately upon your arrival?

Barta: Very shortly, yeah. I was associated with the Sugar Bowl Ski Patrol. There were people who worked for USGS [United States Geological Survey]—one person worked for USGS, and another one worked for BLM [Bureau of Land Management], all in the same building. And yes, I looked them up. I looked up somebody and was referred to them. And they happened to be, by the way, associated with the same Ski Patrol up at Sugar Bowl.

Petershagen: I see, but nobody from the Bureau of Reclamation was on the Ski Patrol with you?

Barta: No.

Petershagen: How about in Billings? Were there a number of Reclamation people on the Ski Patrol with you?

Barta: Well, I can only think of one.

Petershagen: So that was really an independent activity, away from the office altogether.
Barta: Oh yeah, pretty much so. Yeah, they all got a kick out of it when I came in one day on crutches. I had ruptured a (Laughs) muscle in the calf of my leg. But then you can expect that sort of a thing. The only other person that I can think of that was associated with the Ski Patrol in the Bureau, was in Billings, and this would be quite early on. She was on the Ski Patrol, she was the secretary for one of the divisions, I don't recall which. But I was always chiding her about getting hurt. (Laughter) And what a stupid thing this was to be, skiing. (Laughs)

Petershagen: So you had to pay the price when you walked in on crutches.

Barta: Yeah, that's when I paid that. She didn't know it, but she got a leg up on that one, yeah.

Petershagen: (Laughs) Any other community kind of activities that you may have participated in here in Sacramento when you arrived?

Belonged to a Masonic Lodge in Sacramento and Did Church Work

Barta: Well, I belonged to one of the local lodges here, the Masonic organizations. But that's about it. Oh, besides our church work. We do attend church occasionally. (Chuckles.)

Petershagen: I see.

Drove for Meals on Wheels for Several Years after
Retiring

Barta: Oh, back up! (Petershagen: Sure, go ahead.) After I retired—particularly after I retired—I was kind of chided for not doing something, so I got interested in doing some volunteer work, and I drove and delivered "Meals on Wheels" for this organization for about three or four years. When that particular program quit, I guess the higher-ups decided it wasn't economical for them to continue—I always say it's the only job I ever got fired from, a volunteer job. (Petershagen laughs)

Did Volunteer Work at McClellan Air Force Base

But anyway, then I met some people associated with the local air base here out in McClellan, and I've been working out there now for about the last three or four years, doing volunteer work out there.

Petershagen: As what?

Barta: Oh, I worked in the Pass and ID, issuing passes and identifications for about maybe about a year. And I also worked out at the commissary, checking IDs. As people come in, they must have proper identification or they cannot use that facility. Then more recently I've been with the Retired Activities Office. I'll answer any questions that come in during the period of time that I'm there. I was there on Friday mornings, now I'm starting Friday afternoons when I get back.
Also trying to help them out on a data base on a computer that I'm really not very familiar with (Chuckles) at the moment. They want to get the many people who are volunteering their services out there, or have, and get them down in a form that they can utilize and show that these people have put in so many hours or so much time. Over the years, some of them have been working there for, I guess, as long as twenty years.

Petershagen: Wow! This is getting way ahead of where I intended to be right now, but let's just continue with one or two more questions along this line. You have pretty much the same privileges as a retired reserve officer as if you had retired from active duty: commissary and medical and that sort of thing, correct?

Barta: Well, when you complete your good years of service and you retire, you are retired as if you had been on active duty. (Petershagen: Right.) You have all the same privileges.

Petershagen: Do you and your wife take advantage of those things? Do you shop at the commissary and the PX at McClellan, for example?

Barta: Very seldom. Very seldom. I don't think my wife's been in the commissary. When I was working out there in the commissary, after I got off, I'd pick up a few groceries, but it didn't amount to much. No, we don't
make use of those facilities very much at all.
(Petershagen: I see.) I'll back up. I guess I
do, as far as my medications are concerned.
I can get my medications out there.

Petershagen: Now, let's get back to the Bureau of
Reclamation! (Barta: Again!) (Laughter)
What was the position title you came into in
Sacramento?

**Became Regional Supervisor of Power in
Sacramento**

Barta: Regional supervisor of power.

Petershagen: And can you give us a two- or three-
sentence description of your job?

**Operations and Maintenance in the Power
Division**

Barta: (Chuckles) Well, I guess you'd say I was
supervising the activities of the Power
Division, which included the Resource
Development, the Marketing and Sales, and
the Operation and Maintenance, to the
extent that we did things differently or
separate from the Operations Office that was
here. We furnished, as far as operations
were concerned—operation and
maintenance—we furnished technical
assistance in that regard. Our people were
experts in mechanics, mechanical engineers,
electronic and electrical engineers to assist
in setting up the programs for maintenance
of the facilities and the operation of those
facilities.

Marketing and Sale in the Power Division

Under Marketing and Sales, which was really the principal job here when I came here—and to my knowledge has continued to be the biggest reasons for having an office here—was the marketing and sale of power, coordinating with other agencies in buying of power at wholesale and retailing it, if you want to call it that. We actually did not retail any power. All of the power is wholesale. Then the resource development here, at that time, was pretty much, all the resources were pretty much developed, there weren't any programs going on in any extent.

“. . . biggest problem that we had then was in the matching our rates with our repayment. . . .”

Their biggest problem that we had then was in the matching our rates with our repayment. Of course this was happening all over the Bureau, and I had extensive experience in this while I was in the Denver area and Billings. Over the years I made up many, many rate repayment studies there.

About the Time He Moved to Sacramento Repayment Studies Were Being Computerized

About the time I came down here, we were transferring the mechanics of actually performing repayment studies to a
The Way Repayment Rates Were Calculated Before Computers

When you do it by hand, you had to take one set of rates and run it through and hope that things worked out. If it didn't work out, then you had to start with another set of rates and work through until you got an answer that said, "with these rates, the project will pay off." We developed a program there, and I think it was used down here, too, or became . . . . Yeah, we did use it here—not the same program, but a similar program.

"Each region has small differences with their facilities in the way they allocate costs to different functions. You can't take one program and say it's going to work for the Bureau all over. . . ."

Each region has small differences with their facilities in the way they allocate costs to different functions. You can't take one program and say it's going to work for the Bureau all over. That's my opinion at the moment anyway. And so we did develop one here that worked for Region [II] ＷＦ.

And there we were working with the idea that we knew for a fact that our alternate sources of power to assist this project were becoming quite extensive. We were buying power from a steam plant in Centralia in Oregon [Washington - Ed.].
That seemed to be breaking the Bureau's appropriations for purchased power. We're utilizing almost all the Bureau's capability for purchasing power back here in Sacramento. And so that was developing into the need for raising rates. The question was how far do you raise them, and what do you put the cost on? Do you put it on kilowatts or kilowatt hours, different load factors and the like? So these rate and repayment studies became quite important. We could run through it a given set of rates and punch the button and out would come a response. Either it worked or it didn't work. And if it worked and it was too much, then we could go back and we could adjust the rates down to get the optimum rate to make the repayment.

**About the Time He Retired Reclamation Was Involved in Controversy Due to Raising the Rates in the Central Valley Project**

And one of the biggest factors we ended up here with about the time I retired was the raising of the rates in the Central Valley Project. It became quite controversial. Nobody, of course, none of our customers, wanted those rates raised. And they were quite critical of every step of the way, every assumption that was made in these studies. As we became more conscious of their demands and they became more conscious of our requirements, things worked out, are working out. Kind of interesting.

Oral history of Robert (Bob) L. Barta
“... Ken Holum ... couldn't understand why I was coming to California, because everything had been settled in California. ...”

When I first came down here, the [Assistant] Secretary of [the] Interior[-Water and Power Development] at the time, Ken Holum, was from South Dakota, and because of my activities in the Missouri Basin I became well acquainted with him. When I came out here, he just couldn't understand why I was coming to California, because everything had been settled in California. (Petershagen chuckles)

Another Major Issue Was Reclamation’s Contract with PG&E

Well, another big problem that we had was in the contract we had with the PG&E [Pacific Gas and Electric] Company. We would bank power with them, and they would return it to us. And there was a given amount of toss going both ways. And how much capability we had depended upon the agreement we had on what the hydraulic conditions were going to be, or had been. And so the administration of Contract 2948-A became a major undertaking here, and became also a very big part of our rate and repayments and our rates that we were charging for power. So the kind of work I was associated with doing here was quite different than (Chuckles) what needed to be done in the Missouri Basin. I think in the interim, I mean, since that time, they've had their problems up there, too.
Petershagen: How long had you been here when you began on this, Bob?

Barta: Almost immediately.

Petershagen: When you speak of the reactions of the customers: SMUD [Sacramento Municipal Utility District], I don't know, City of Redding, whoever it might have been, did they know you were the new guy from Billings? I guess what I'm asking is, did somebody suggest, "Oh, we got this new guy from Billings and he's here to raise the rates"?

Barta: No, I didn't have that feeling. (Petershagen: Okay.) Many, not many, but some of the people that you referred to, like Redding, I think there was a turnover and these were different people up there and they didn't have those feelings. If they had them to begin with, they didn't have them any longer–those same thoughts, anyway.

Petershagen: And how long were you in this position?

**Quit Working in December of 1974**

Barta: Let's see, I came down in 1969 in August, and I guess I actually quit working in December of ’74, as I recall.

Petershagen: And that was the result of a heart attack, correct?

Barta: Yeah, I had a heart attack in December of
'73.

Petershagen: And that was while you were out on the ski slopes?

Barta: That's right.

Petershagen: As a ski patrolman.

Barta: That's correct.

Petershagen: And you were one of those that was supposed to be telling everybody, "Well, you should know better!" kind of a guy, right? (Laughter)

Barta: Well, I suppose. No, I had been under a doctor's care for a long time for high blood pressure, ever since I came down here. When I ended up with a heart attack, his first remark to me was, "I would never have expected you to have a heart attack." He was well acquainted with my physiology or whatever. But that's where he was, same way. By the way, I still have him. (Laughter)

Petershagen: Well, you still look like you're in good shape. You must be following his advice. You keep care of yourself.

Barta: Well, I try. Last summer my son was down and helped us during a rather difficult period we had here. His comment before he left was, "You need to get into a health club of some kind, a physical conditioning
program," and so we did. And that's where we are.

Petershagen: So, Bob, I think that brings us then to the end of your career with the Bureau of Reclamation, and it sounds like, from all your description of your activities that you've carried out since then that the end of that career was certainly not the end of your activities within the community.

**Did Some Consulting Work after Retiring**

Barta: One thing I didn't mention to you: I did do some consulting work with a local firm here for about four or five years prior to being a volunteer.

Petershagen: I see. And was that with the state or the federal government?

Barta: No, neither one. It was a private organization.

Petershagen: No, I mean who did they consult for?

Barta: Oh, we . . . .

BEGIN SIDE 1, TAPE 3. JUNE 21, 1994.

Petershagen: Bob, I heard you chuckle a little bit as I said "Tape 3." I'm remembering you as the person that greeted me with "Well, I don't have much to say." (Both chuckle) After a career as long and as involved with the

**Oral history of Robert (Bob) L. Barta**
Bureau as yours, it turns out there really is a lot to say.

As the tape ran out, you were describing your employment with the consulting firm, so maybe you could just give us a couple of minutes and describe what that was about.

Barta: I'd be pleased to do that. It came about by the Bureau. After I retired the Bureau was still holding meetings with their customers concerning these rate and repayment studies and the rates that they were proposing. I was quite interested in this and particularly how it was working out as far as PG&E was concerned and Contract 2948-A. One of the participants or attendees at one of these meetings happened to be a person who had worked for the state and was in our office from time to time getting data from us—that is, when I was still working on power matters, and I became acquainted with him—not well, but I became acquainted with him, I knew who he was. Well, anyway, when we met at one of these meetings, he advised me that he was now in consulting work. He had the office here for James Hansen and Associates, a consulting firm in Vermont, that opened this office here, and suggested that maybe I'd like to come to work for them, and that Jim would be coming out and I could interview with him. So what the heck, why not? So I went out and talked to him, and they did hire me. They were a firm that was involved in the development of low
head hydroelectric projects, powerplants, specifically like where there was a canal drop. Throughout this Region there are several opportunities for that, where they'd either pump up to an area and into a canal, and in this one instance when a customer down here, that's what they were doing, and we were trying to convince him that he could also operate that . . . Well, because the water supply now had been changed because of the state's canal going down the valley, it was delivered at a higher elevation. So instead of having to pump up into this area, he could get his water delivered into that area directly. But we could also utilize the power, the water that was delivered through that same canal to the lower area, by just operating this pumping plant, you might say in a reverse direction. And besides that, we were trying to convince him this would help his power factor requirements as far as PG&E was concerned.

**Worked with the Truckee-Donner Public Utility District Which Buys Power from the Powerplant at Boca Dam**

We also worked with the customer up in the Truckee-Donner PUD [Public Utility District] in helping them get an allotment of power from the Bureau. They were entitled to such, but were never able to get the arrangements done to be able to do that, to actually transport the power up there. And so being the firm did do that sort of thing, that is, they did get the application
in, the customer was allotted the power, and then we had to work like fire to see how and then where we could get it delivered. Well, the upshot was, they never got any of it delivered, but the Bureau did develop a small powerplant up in that area. And I think Truckee-Donner now buys the output of that powerplant. And we were instrumental in working with the Bureau, that is, this consulting firm was, in working with the Bureau and getting a powerplant installed in that little dam [Boca Dam - Ed.] that's up there.

I guess I worked for this group for . . . . I was going to say about three or four or five years, I think. When the firm went out of business is the reason I quit. The same fellow that was here went to work for another fellow here on his own, and I worked with him on one or two jobs that he had, too. That's just prior to when I was doing volunteer work. After that, I had time and I—you can only play so much golf, I guess. (Laughter)

Petershagen: I see! Well, that certainly describes a long and varied and, I'm sure, really fulfilling career. I think from what I heard you say, fulfilling from the standpoint of your association with the Army and fulfilling from the standpoint of your association with the Bureau of Reclamation, and also with all of your other activities.

And I guess we're at the point now

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where it's time to say thank you for participating in the Oral History Project, and I need you to acknowledge once again that you understand that this does become a gift to the United States government that will eventually find its way into the federal archives [National Archives - Ed.].

Barta: I understand that. I think it's a very small contribution, however! (Laughter)

Petershagen: Okay, thank you very much.

END OF INTERVIEWS.
(Intentionally blank)