MEMOIR OF HARLAN E. MOYER

His Early Life and Career

first with

Clair A. Hill and Associates

then with

CH2M HILL

Interviewed May 2005

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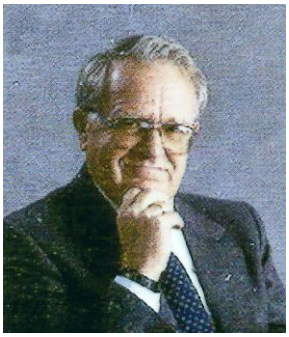
*[**Editor's note:** The following is a summary of Harlan Moyer's original memoir. The summary focuses on key events and issues that impacted CH2M HILL's history as recalled by Harlan.]*

Memoir of Harlan Moyer, May 2005.


Harlan Moyer

THE VALUE OF THE FIRM'S HISTORY, HARLAN'S EARLY YEARS

How can historical information about the firm's past be useful today?

The history of the firm is replete with so many instances of what I call doing the right thing. By that I mean, we pride ourselves on satisfying the clients' needs and doing whatever it takes, irrespective of whether or not there is money there to provide for what it is we have to put out. That is the most important thing I can think of, to be able to point to the fact that this firm has thrived on doing the right thing in the client relationships and the strengths we have—going back to the beginning of the firm with some of those clients. There's no monetary value you can put on that; it's so important. And I want to make sure that all those people in this firm, and there are 13,000-plus today, understand that doing the right thing is what we're all about.

Now that doesn't mean that we can lose money on every job. Usually, the able person can do the right thing and still return a reasonable profit to the firm. That's not always the case; but the vast majority of the time, it is the case. So that's why I think this is important. People tend to make the same mistakes again and again. Sometimes there is historical information to guide them. That problem, whatever it is, it has probably been solved a long time ago at some point. The need to be able to have that information available, so people can see that "Hey, we faced that problem before; and here's how we solved it." So, for all of those reasons, I think this historical information is very important.

It might be a theme to this entire project—how a firm builds itself on doing the right thing. Let's go right back to the beginning. Tell me where and when you were born.

Oh my gosh, well, I'm a native Californian. I was born in Napa, California, in 1926. My parents were also native Californians, and their parents had homesteaded in the Napa Valley. So we have a long history going back in Napa Valley. My father was an 8th grade graduate. He never went to high school. He was in his late 40s when I was born. He was a self-taught mechanical engineer. He had a machine shop in Napa; and, out of that, he developed the business of setting up gravel plants—rock crushers and gravel plants. Right after I was born, he had the opportunity to go to Alturas, California, which is way up in the northeastern part of California, near Nevada and near Oregon. It is a very desolate area and a very remote area. At that time, in 1929, it was very remote; he went up there and set up the business of Moyer Gravel Company. At the time, it looked like a great thing because it was the height of the boom. A year later or so, the Great Depression set in and so business conditions were not amenable for the gravel and construction business.

But we survived. I went to grammar school throughout the decade of the 30s. I never went hungry, always had shoes on my feet, but we were a long ways from the rich family. I had three older brothers plus my mother and father, so we struggled. By the time I was 12 or so, I was learning how to operate equipment, drive a dump truck, and do those kinds of things in the family business. Then as the '30s closed and World War II loomed in 1940, business started to pick up all over. During my high school days, things really changed because we did a lot of defense work throughout the northern California area, working on air bases and army camps and ammunition dumps and things of that nature. The economics changed rather dramatically while I was in high school.

I graduated in 1944 and joined the Naval Air Corps and was called up later in 1944 after graduation. I spent time in the U.S. in training; but the war ended before my training was complete, so I never saw combat. I did have an older brother who was in the 8th Air Force, and he flew 30 missions over Germany. He saw all the combat the family ever needed to see and then some. I was very fortunate. My experience of 2-plus years in the Navy gave me the opportunity to go to college on the GI Bill of Rights. When I look back in my life, that was one of the great turning points because the Moyers were not rich. There would have been no way I would have

been able to go to college without having to work full time and having to support myself.

So that was very important. And not only that, when I got out of the Navy in 1946, I spent a year working at home for the gravel company; and a couple things happened that were important to me. One was I continued a relationship I had with my high school sweetheart, and we decided to marry in 1947. The other thing that happened in that year, 1947, when I was driving one of those gravel trucks up on a new state highway that was being constructed up there in Modoc County. I was working at least 14 hours a day driving a truck, starting early in the morning until 8 or 9 o'clock at night.

And as I moved up, I was hauling base rock up on this road grade over the mountain. I noticed after a while about 9 or 10 o'clock in the morning almost every day, 5 days a week, a relatively new shiny car would come tooling up the grade; and a couple guys would come out of the car. They were dressed in clean khakis, and they pulled out an instrument that you set up on a tripod and start looking around at things. Finally, I asked them what they were doing; and they told me they were state highway engineers. And they were responsible for this project getting properly constructed. And I said, "Oh." I noticed they showed up at 9 or 10 and they left at about 3, so I thought to myself after a while, "There might be something to this being an engineer rather than spending the rest of your life driving a gravel truck."

So with my background in the construction business observing my father, who was more or less a self-taught mechanical engineer and knew a lot about engineering feats and engineer items and how to do things, I came to the conclusion I would study engineering.

Prior to that, when I graduated from high school, I had in mind I was going to study law; but my service in the Navy and my year of working really put that out of mind.

So I married. Two or 3 weeks after we were married, we went to Reno. I matriculated at the University of Nevada, which at the time was the only University of Nevada—University of Nevada, Reno. It was a fine engineering school.

What year was that?

That was 1947, September of 47. That was the largest class, as a matter of fact, that ever entered the University of Nevada, something like 1,700 students that year. And quite a lot of them were veterans, some of them much older than I; so it was a little different collegiate environment than you see now.

I graduated in 1952. I took a year off in between my sophomore and junior years to go back to Moyer Gravel Company to make some more money because, by that time, we had one child and another one coming.

INITIAL INTEREST IN ENGINEERING, EARLY EDUCATION, MILITARY SERVICE

What else about engineering attracted you?

Well, from the exposure I had in the gravel and construction business, I enjoyed very much seeing a project under construction, developing, and completed. When I was in high school, I spent a summer building a dam on a ranch. I really enjoyed doing that. I knew what the purpose of the dam would be, and to see it start from nothing and ultimately be completed was something I really enjoyed doing.

I also enjoyed watching my father as he developed different types of equipment. A lot of the gravel plant was designed and built by my father. It was interesting for me to see how he managed to do that. To see him sitting at home at night in front of a drawing board. He would prop it up on some books on the dining room table; and he had a set of drafting tools and instruments, and he would be setting forth his rudimentary designs.

It was interesting for me to see it go from his mind to paper and actually out to the gravel plant and be constructed. A lot of that was interesting. I realized that was what engineering was all about. I said to myself, "You really don't want to be a lawyer, you probably could do much better being an engineer." And am I ever thankful I did that too. Not that I have anything against lawyers (laughs).

Why did you want to be a lawyer initially?

Oh, probably because in high school I had a facility for being able to do a certain amount of public speaking. And my English teacher encouraged me to think about a profession such as law or one of the things where you need to be able to do is express yourself fluently and clearly, obviously. I also enjoyed study in civics and history; they were some of my best subjects. Actually, I did better in high school in those subjects than I did in some of the science and math subjects. So as I recall, one or two of my teachers told me that they thought I could be a good lawyer if I wanted to study law. They thought that was an area that I could do well in. I suppose that is as much as I ever thought about it.

It continually happens in the 1940s when I was in high school that the war was the single big thing. World War II was completely

different than anything that has happened since then—the Korean Police Action, the Viet Nam War, and what's going on today in Iraq. In World War II, this country came together and was united in just one goal. And that was to beat the Germans and to beat the Japanese, to get this war over with as quickly as possible, and preserve our way of life and our freedoms. And there was a huge patriotic movement. Teenage boys were, for the most part, caught up in that movement.

Including you?

Oh sure. And my classmates. I was young. I was 17 and a half years of age when I graduated from high school; but when I was a junior in high school, my classmates before they turned 18 were joining the service. At the time I graduated, there were no more than seven or eight boys left in the class out of probably 30 at the beginning. My point is the focus was not on what we were going to be in the future. Our focus was on, by golly, am I going to be a Marine, or join the Army or the Navy; and we are going to go out there and do whatever it takes to be sure we win this war, to defeat Germany and defeat Japan. School was; I had to stay in school. I could never get permission to join. You had to be 17 to join; and, at 18, you were subject to the draft. My father never wanted to allow me to join even though I wanted to. He did finally agree after I graduated that summer to allow me to join. I told him, "I got a chance to join the Naval Air Corps here," and I passed the test. If I didn't, when I turn 18, I was going to be drafted into the infantry, which was ok; but I would rather be in the Air Corps. I felt I'd make a greater contribution and felt the Air Corps would provide me with something more than just a rifle.

The reason I'm saying this is because the focus at the time was really not on any profession; the focus was getting out of school and joining one of the armed services and helping to win the war. That’s what it was all about.

You mentioned it was fortunate you didn’t have to go into battle. But, at the time, were you disappointed about that fact?

Oh sure. There was a certain amount of disillusionment once you join and become part of the military. But, you're 18 years old; how much do you know at 18? Well, not a lot. Nevertheless, it was still a goal for most of us to be able to go out there and personally help to

win the war, knowing the way we're going to do that was to go out there and get shot at.

Was engineering out of your mind at that point?

Oh, yeah, nothing was in my mind about going on to school at that time; and there was no thought about what profession I might follow. That didn't happen until after the war ended, when I came back to Alturas and spent another year working with the gravel company. By that time I was 20 years old, nearly 20, and was beginning to get a bit more senses than I had at 17 and 18. I was thinking, "You know, there is more to life than driving a dump truck."

Being back at the gravel company for a year reminded you of that?

It certainly did. It certainly did.

You mentioned you had a high school sweetheart.

Oh, Betty. Betty and I knew each other from very casual dates when I was still in high school. But after I joined the Navy, we started writing; and I saw her a few times when I came home on leave. We started dating; and when I came back from the Navy, she was out of high school and working there in Alturas. So we started going steady at that time. We went steady for a year, that whole year I worked; and, as I said, I made up my mind to go on to school. So I asked Betty if she would marry me, and recognizing that I was going to go to school and things would be pretty tight. So we were married, and she went to Reno with me. And we went to the kind of places with people with no money and a lot of enthusiasm would live.

She was an excellent, just an excellent person, supported me in every possible way. And the fact that the year that I laid out, because our oldest son had been born and we were going to have another child, and I said we just had to have some more money or we were not going to make it. So we went back to Alturas. And she just didn't like being in Alturas at all. At one point during that year, I was kind of discouraged because I had not done academically all that great my first 2 years in college. I came from a high school that had had a very limited ability to give me proper training in physics, chemistry, and mathematics; so in all those elementary subjects that all engineers have to take, I was not doing all that great. I

wasn’t in danger of flunking out of school, but I was having plenty of problems. And if it hadn’t been for some understanding professors, particularly a mathematics professor who offered to help me, I don’t know if I would have made it.

In any event, I said, "I don’t know that I want to go back to school." And she said, "Well, if you want to see me and the babies, you better come to Reno, 'cause that's where I'm going. I'm not staying in Alturas." So I decided I would go back to school and finish. So that's what we did. And gosh, it was great.

I owe her a lot. Unfortunately, she died in 1982, at a relatively young age. Terrible cancer; those things happen.

I went back to school, and good things happened. In the upper division courses, when I was a junior and a senior, I did much, much better in those courses. A solid A, B student all the time in those upper division courses. And the interesting thing, I was talking, as a mentioned earlier to David Miller, a little earlier about parallel track between myself becoming part of CH2M HILL and Ralph Peterson becoming part of CH2M HILL. In my case, at Nevada, I was elected president of the student chapter of the American Society of Civil Engineers, ASCE, when I was senior. The Nevada engineering community was so small there really wasn’t an ASCE section in Nevada, so the Sacramento section sponsored the University of Nevada student section. Every university that had a student chapter of ASCE required a section sponsor, so Sacramento agreed to be the sponsor of the Nevada student chapter.

And as luck would have it, Clair A. Hill, who had started his consulting engineer business in Redding after the war—actually he started it before the war, then he went into the service and came back—Clair was a strong believer in professional societies and professional society work. By 1952, he had been elected president of the Sacramento chapter of ASCE. He commuted ever week from Redding to Sacramento; he had his own plane. So he flew, about an hour, and he made all the Sacramento section meetings. He was such an active member that he was, as I said, elected president of the Sacramento section.

One of the duties of the president was to go to student chapters during the year. There was always a senior banquet for engineers who were going to be graduating that year. So Clair Hill came to Reno to our senor banquet in the winter of 1952. And as student

chapter president, I had the responsibility to be the host and to introduce him to the group to which he spoke that night. So that was my first contact with Clair Hill.

It was 4 or 5 months before graduation, the winter of 1952; it may have even been late fall of 1952, but while I was a senior, though. That was when I first met the man.

INITIAL YEARS WITH CLAIR A. HILL AND ASSOCIATES

What was your impression of Clair Hill?


Clair Hill

I thought he was a very fine man, very interesting to talk to. I thought to myself, "How can he do much in Redding, California," because I knew Redding, since it's in the same geographic area as Alturas, about 150 miles away. I knew Redding. I had been through it many, many times as a child, and the thought never crossed my mind about asking him for a job at all.

Interestingly enough, later that year, just before commencement, our civil engineering professor took the seniors every year on a 4- or 5-day trip to see engineering works, to see what the real engineering world was like. Our trip that year went from Reno to Las Vegas to Los Angeles, back up to Sacramento where the culmination of the trip was to have lunch with the Sacramento section of ASCE. Of course, Clair Hill was there.

By that time, graduation was a week off; and I had applied for, passed the test, and been accepted for employment as a junior civil engineer by the California Division of Highways. Specifically, I asked to be located in Redding because we wanted to be located in Northern California. So I had a job to go to Redding to work for the California Division of Highways just as soon as I got my diploma.

Well, I met Clair at that luncheon; and we got to talking, and I told him I was coming to Redding to work for the California Division of Highways. He said, "Well, how would you like to work for me instead?" And I said, "Gosh, I don't know much about engineering; and I don't know much about being a consulting engineer. What do they do?"

And he asked me where my family was, because he met my wife when he had been in Nevada earlier in the year. And I said, "Well, they're waiting for me up in Alturas, for me to go on up and pick them up after this trip." And he said, "Why don't you fly up to Redding with me, and I'll show you our office and show you what we do." Since I had to go that way anyway, I said, "Fine, OK."

So we took off in his plane right after that luncheon was over, flew up to Redding, and he showed me around his office, which was in a small house right across from the Shasta County courthouse. He introduced me to a couple of fellows who were there. And then he said, "Well, what do you think?" and I said, "Well, what will you pay me?" And he said, "Well, I'll pay you the same as the state would pay you." And I said "Great, I'd much rather work for you than work for the state," because my upbringing had been in private enterprise and my father was never very happy I was going to work for a governmental agency, anyways.

So that is how I went to work for Clair A. Hill and Associates. Happenstance. I didn't respond to any employment advertisement. He wasn't advertising for any engineers as far as I knew. But I guess he saw something in me, and he was willing to take a chance and offered me the job. So I was smart enough to take it.

How big was the firm then?

Gosh, I guess the total staff was probably maybe 20-25 people. He had a couple of survey crews, and four engineers working for him—two of which were already licensed and two of which were fairly recent graduates. So I was the fifth engineer that he hired.

In the history of CH2M HILL, you read about the influence that Fred Merryfield had on these students who became CH2M. He was the professor; he saw something in those guys that caused him to bring them altogether. And he also said that right after World War II there would be an opportunity for good smart engineers in a lot of different areas. Was the same thing going on at Clair A. Hill and Associates?

Oh yes. The difference with Clair, of course, Clair didn't have the direct tie to the university that developed from Merryfield and his three students; they were at Oregon State. And you look at the CH2M pedigrees; well once they got started, it was very rare for anyone to be hired by them that wasn't an Oregon State graduate, for quite some time. That was common sense because they were centered in Corvallis, and that's where Oregon State was. It was an excellent engineering school, and Fred Merryfield was still there teaching; and so he knew the good students and the best students.

With Clair it was different; he didn't have that kind of contact. And Redding was not a metropolis by any means in 1952; it was a town of 5 or 8 thousand people. It was growing slowly; it's at the north

end of the Sacramento Valley. But there was no major industry, nothing there that would tend to attract people. Some of the students or engineers who Clair would have liked to hire didn't really want to come up to Redding; they preferred to be located more in the center of things—the Bay Area, Sacramento, Los Angeles, whatever. So the ones he was able to hire were the ones who had a desire or an affinity for the small towns and the rural areas.

I thought it was great because that's where I wanted to be in the first place. I had an offer to go to work for the Pacific Gas and Electric Co., and they were the big electric utility in California based in San Francisco; and they told me I would start and have to work for some period of time in the San Francisco Headquarters. Boy, I just couldn't see living in the city of San Francisco, neither could my wife. That was not the life that we wanted. What we wanted was a small town—something bigger than Alturas—but not as big as San Francisco. Fortunately, we compromised on Redding—one of the better decisions of our lives.

How many children did you have?

Four. The third was born just before graduation, in April 1952. I graduated in early June. So I went to Redding with one degree, a bachelor's degree, a wife, and three children. Today I think most of the people are the other way around. They probably have three degrees and no children. But that's beside the point.

The following year in Redding, we had our fourth child. So we wound up with three sons and a daughter, all of whom are very happily married and enjoying their own lives today.

Let's talk about the early years in Redding with Clair A. Hill and Associates. What was it like to work with the firm when you first started there?

Oh, it was an interesting experience. To give you a flavor for it, I told him back when I agreed to come to work, "I need this week as I am graduating on Monday, June 9." And I was working part-time for the power company in Reno and had agreed to work until the end of the week. He said, "That's okay, you can come to work on Monday, June 16," and I said, "Sure, wonderful."

So I spent the weekend moving my wife and my family from Reno to Redding in a wonderful little shack we were able to find there that

we could afford, and I went to work at 8 o'clock Monday morning. I walked up the walkway to Clair's office and there was a young woman sitting at the desk, in the reception area, a very little reception area. I introduced myself and said, "I'm Harlan Moyer," and she said, "Who?" It didn't register with her. Clair hadn't told anyone I was coming to work. And he wasn't there. It was his habit, I learned subsequently, to come to work at 5 o'clock in the morning, then work until 7:30 or so. Then he would go home, have some breakfast and see his two boys while they got off to school. And then he would come back to the office. And he would usually get back to the office about 8:30-9 o'clock. And then he worked the rest of the day and the night, too.

But anyway, so there I was, the new kid on the block, no one really aware that I was coming to work, until Clair showed up. But that got settled very quickly. And it was wonderful; it was a small organization. And as I said, I was the 5th engineer he had hired, so I had an opportunity to do a number of different things right away, a variety of engineering tasks.

One of the things I got into later that summer was doing a lot of survey fieldwork. I liked to work in the outdoors, and so for the first 2 years of my career with Clair, I spent a lot of time out of the office doing surveys—land surveys, property surveys, quite a lot of construction surveys. In fact, one of my first job's was doing construction layout, and part of the design for the first Veterans' Administration subdivisions that came to Redding. I got a real indoctrination to how things were designed and built.

Interestingly enough, with the help of Clair, it developed later that year that I was able to buy one of those houses myself, which was really wonderful for us. So I had a real opportunity in those early years to do a whole variety of different kinds of projects and different activities.

Another advantage I enjoyed, because I think the company was so small and there were so few of us, about anything that came down the pike, one or the other of us had a shot at doing it, or jointly all of us had a shot at doing it. Today, perhaps it's a little more difficult, because it's a much larger organization.

But then, like some say, "Jack of all trades … ." That was not quite true. There was quite a variety of engineering; we were not specializing in being a structural engineer or wastewater engineer,

or any specific discipline. It was a pretty well-rounded experience that I gained in those early years, and I feel it helped me a lot.

Clair would oversee projects?

Clair really primarily was doing nothing other than developing business; that was his job. He could see that in order to keep business coming in, somebody had to be out there getting it; and that is what he did primarily. He did some design work, and he was always available for discussion and consultation on any project; but as I said, one of his primary functions was to develop business. He did this in part through his strong professional associations in Sacramento, the ASCE section, and as a member of the Engineers Club in San Francisco. He also was a strong supporter of the local Rotary Club in Redding. So he was active in these community activities and professional activities that brought him into contact with a large number of people. And out of that contact flowed a certain amount of work.

What kind of work was he developing at that time, and that the five of you were doing?

Some of the early projects were surveys and location surveys, designs for the Pacific Gas & Electric Co, for major transmission lines that went from Redding to Eureka on the coast, and huge hydroelectric development in the Pit River and McCloud River complex above Shasta Dam. That was all in the early '50s. He became known as one of the water resource engineers in the State of California. He was very actively involved in the preparation of the State of California Water Plan. A lot of the work that came in was water resource related.

But at that time, PG&E was the first really large client; by that I mean a job that would go on for weeks and months, rather than for a few days or a week. Typically, most of the jobs that came in at that time were small jobs. They would take a day or a week to do. But these PG&E things were big. He changed that again in 1956 when, through his connections, we developed business with the U.S. Army Corps of Engineers. He made contact with the Sacramento District of the Corps of Engineers. They gave Clair a major job locating the so called "gap filler" radar stations, which were part of the Air Defense Command. We were supposed to fill in the lower gaps in the system. He gave it to me as the project manager. It was

a one-and-a-half-year project, locating radar stations and *[inaudible]* facilities.

It was a good experience for me because I got exposure to the client. The project brought a whole different level of detail; that's what the Corps of Engineers brought to the job. They were a well-established bureaucracy, excellent work, and up to that time, one of the most important projects we had worked on. It gave me quite a lot of field location work. Many of the stations were located on mountaintops; and the job involved locating and design of an access road, sometimes 5 or 10 miles long. I felt, well, the design work was not terribly difficult; but plans had to be modified for each new location.

We did that and we were very successful, and we built a good reputation for Clair A. Hill and Associates. That led to the next major project, the Beale Air Force Base, the first project where CH2M and Clair A. Hill and Associates had a significant amount of work together. It took a lot of electrical and mechanical expertise to pull that off. The Beale Air Force Base project went from 1957 to 1966.

EARLY INTERACTION WITH CH2M

A few years before that, in 1955, Clair had to bring in a consultant. He didn't want to bring in somebody up from Sacramento or San Francisco for obvious reasons. But one of the fellows who had worked for Clair knew of the CH2M firm, and mentioned it to Clair. Clair, of course, had gone to Oregon State for a year in the 1930s, so he knew of Fred Merryfield. Anyway he called up there, and they said sure. So one of their principals came down, Ralph Roderick, wonderful man. I worked with him a lot in later years. So he was one of the first real contacts any of us had with CH2M. And I worked with Ralph on that Redding project. So did another one of my associates. So CH2M wasn't new to us.


Ralph Roderick

But when we got this Beale Air Force job, that set up a whole new environment because this was a job that would go on for years. It put me in contact with several of the CH2M engineers who were in the mechanical and electrical disciplines so I worked alongside them and got to know those fellows very well. And they got to know me and the other HILL people who were working on the project because it took a lot of our staff to get it done.

CH2M brought the electrical and mechanical expertise. What did Clair A. Hill and Associates bring?

We did all the civil engineering, which was the water systems, the sewer systems, the streets, the buildings, and the development of all the building sites. We also did the architecture on the homes. By that time, we had two architects working for us; but we also engaged a local architectural firm in Redding, which helped because it was a big architectural job. So there was a lot of work to be done besides the mechanical and electrical work. CH2M did all the heating and air conditioning design on the houses and the other buildings. They did all the electrical distribution systems, all that kind of work. I don't know, probably 20-25 percent of the work went to CH2M, and 50 percent went to Clair A. Hill and Associates and another 20-25 percent to the architects. That's the way it broke out.

This was to build Beale AF Base from scratch?

Yes, Beale the housing project. Beale Air Force Base is located in Northern California, north of Sacramento a ways. It was an army camp in World War II. But at the beginning of the Cold War, the Strategic Air Command was building air bases all around the country; and Beale was chosen as a Strategic Air Command base for B-52s. There was nothing there except for the old Army barracks and that kind of stuff, which wasn't much help for the air base.

There was a huge runway, taxiway, tower, all the things necessary for a B-52 base. But in addition to that, there had to be family housing to take care of the officers and the noncommissioned officers who had been assigned there. So the first part was for 570 family housing units, and right after that was another one for 400, and right after that was another for 320. So we created a city—a town—from scratch, out in the foothills, about 10 miles east of the base proper because that's where the colonel, the base commander, wanted it. It was a good choice, up in the hills. Had oak trees and creeks and some water flowing around, so it was very nice, a very nice development.

How many years was this before the merger? Did this major project precipitate the merger?

It was one of the major reasons. It was in that same timeframe, starting in 1960, when Clair A. Hill and Associates became the engineer for the South Tahoe Public Utility District over by Tahoe; and I was fortunate enough to be given the project manager job for that client. The first jobs over there were a matter of designing sewage collection systems, which was interesting work. But soon it developed into a major task to find a permanent solution for effluent disposal for the Tahoe Basin. Lake Tahoe is one of the most pure lakes in the world, particularly at that time; it was very clear. And fortunately both the State of Nevada and the State of California prohibited any direct discharge of sewage effluents into the lake.

The only alternative at that time was to dispose of sewage effluent on land by irrigation, which was not satisfactory because obviously during the winter time it was very difficult to irrigate over there. The other alternative was to develop a treatment process that would eliminate sufficient of the nutrients, primarily phosphorous and nitrogen, from the conventional sewage effluent. Develop what we called a third stage or advanced stage process that would remove nitrogen and phosphorous, remove the color and the taste and virtually all the bacteria, and hope that would be sufficient for the

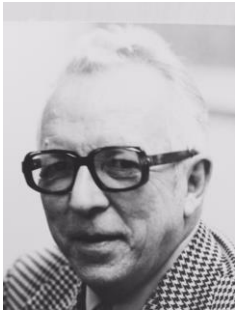
state to change its mind and allow a discharge back into the lake of that highly purified, highly treated, sterile effluent.

The other alternative was to export the sewage effluent out of the basin, out of the Tahoe Basin. Well, as you can well imagine, the people who lived on the other side of the divide weren't particularly interested in receiving Tahoe's sewage in their streams; and so that export option never got off the ground. But I felt and others felt, if we could successfully develop an advanced waste treatment plant and process, even if we could not ultimately discharge into Lake Tahoe, having that highly purified effluent—drinking water quality effluent would allow it to be exported out of the Basin, people would welcome it some place, within reason.

So that's when we started. When the South Tahoe Board and I … I talked to them about this advanced waste treatment because I had talked to Ralph Roderick who was the head of the CH2M wastewater group at that time. Ralph, great fellow and always thinking about how to do things better, he told me he felt it was possible to develop an advanced waste treatment process that would achieve those goals, so I brought him down to Lake Tahoe one day. He talked to the Board, and they became enthused; and the longer he talked, the more enthusiastic they became. They authorized us to go ahead and develop a pilot study, a pilot plan, providing we funded part of it ourselves, which we agreed to do.

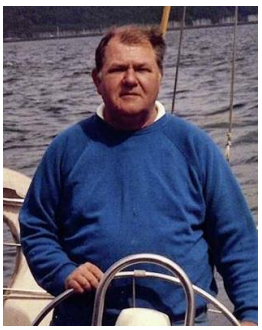
That was the start of the South Tahoe Public Utility District Advanced Waste Treatment Project, which made a lot of news starting back in the 1960s. Still does.

That was another case where the CH2M staff was working closely with the Hill staff. We had no one on our staff who had sufficient technical knowledge to get into the depth of advanced waste treatment design. CH2M did. Gene Suhr, who I worked with for years and years, also another man, Russell Culp, came down who had great ideas and great knowledge in that area. So during the 60s, the two firms also jointly worked on South Lake Tahoe and became very well acquainted with each other. The Beale project and the South Lake Tahoe project were two very important projects in what ultimately led to the merger.


Russell Culp

But Beale was the first association, right?

That was the first major job where we had association over a long period of time with several individuals from each of the firms. That was where we began to really get to know each other. Then Tahoe followed almost immediately within 3 years or so; and there again, in the case of the Lake Tahoe Project, my association with CH2M people became very close over an extended period of time. It was a different group of people than the Beale job because different talents were necessary.


Gene Suhr

But I worked with Gene Suhr who was at that time relatively new at CH2M, but Gene was the principal designer of the Tahoe Advanced Waste Treatment Process plant. There were others who were heavily involved with him as well, but Gene was the principal person.

The project manager?

The project manager of the design, I was the overall project manager, the project leader, the person who interfaced with the client and all of the government agencies; and there were 40 or 50 who had to be a part of this whole process. But Gene was the technical guru and stayed that for many years. Still is, even though he is retired now and has been for a number of years. He is an engineer's engineer. An extremely intelligent, very bright person, and one of the leading lights in the wastewater treatment field.

Who else did you work with on that project … Hill was the initial firm, right?

Yes, we got … Clair A. Hill and Associates was the firm that actually became the engineer for the South Tahoe Public Utility District, and it was within the first year of our assignment there that I was tasked with the problem of coming up with a solution to the South Tahoe District's effluent disposal problem. As I said previously, that is when I thought of Ralph Roderick, whom I'd previously met and who had great ideas on how things could be done. So I brought him in and he said, "Yes, yes, we can do this," this being create an advanced waste treatment plant that had never been done before. And so Ralph was the real spark; but Gene was the person who really implemented the job, really did the detailed design and developed all the processes that went into that.

Can you tell a story about working with Ralph and Gene that really stands out?

There are so many they are hard to tell. Gene and I worked together for so many years at Tahoe and then later. After the merger, the first year of the merger, we were selected to be the engineers for the Upper Occoquan Sewage Authority in Manassas, Virginia. That was a case where the State of Virginia had decided there needed to be an advanced waste treatment plant constructed in order to protect the drinking water supply in the Occoquan Reservoir there in northern Virginia and Washington, D.C. It provided the drinking water for some 500,000 people at that time, and it was grossly polluted with sewage effluent from a number of upstream sewage treatment plants. The solution to that was to form this authority and create a new advanced waste treatment plant that would replace all these old obsolete plants that were polluting the reservoir.

We competed for that job. This was in 1971, right after the merger. We competed for that job against some 20 of the largest and best known sanitary engineering firms in the USA at that time. We were upstart kids from the West Coast.

Were you smaller than all those other firms?

Oh yes; we didn't have the reputation, like Camp Dresser McKee, Metcalf & Eddy, others who had been in that business for a century in many cases and had long-standing reputations. But they had never done a Lake Tahoe project; and the State of Virginia, the people who had created this policy for the Occoquan Reservoir, dubbed that policy "Tahoe East." It was modeled after the South Lake Tahoe Plan. So with a lot of effort on our part, our part being primarily myself and Gene Suhr, we were able to convince the Board of Directors for that authority that they should select CH2M HILL for this project.

So in one fell swoop we jumped from our 13-western-state policy, which the merger said, "Yes, we're going to concentrate in 13 western states." We jumped across the nation to the East Coast; and I set up an office in Reston, Virginia, in 1971. Gene Suhr joined me there very shortly, and we started working with others from the firm immediately on preparation of the engineering report, Gene and I. Actually, we became known at that time as the Odd Fellows

because we roomed together in an apartment in Reston. We had lots of, lots of, lots of time together. He was an excellent chef, so he did the cooking and I did the dishwashing. He was a poor judge of wine, so I selected the wine.

So he and I had a long, long-standing relationship; did up to the time I retired; we still do. We still communicate with each other from time to time. Anyway, we got off the track here on that.

The Tahoe relationship between CH2M and Clair A. Hill and Associates was basically the precursor to the merger?

It really was.

MERGER WITH CH2M

Let's talk about how the merger happened.

My recollection is that, it was in the, oh maybe middle 1966 timeframe or somewhere in there that Jim Howland and Clair Hill first started talking about the possibility of a merger. Because by that time we had Beale AF Base going strong, and we had the Tahoe experience behind us, which was a huge success. We had received national publicity. There were articles in *The New York Times* and in *The Wall Street Journal*, and the *Reader's Digest*, all sorts of publicity about the success of the Tahoe project. So the name CH2M HILL was in the national media. As my mentor, Archie Rice said at one time: "We didn't any longer have to tell people where Corvallis is." So it became a very big thing. And that spurred the Beale experience. And oh, there was another significant project, the American River Hydroelectric Project where we had worked together. All those things spurred the thought that, hey, joining together would be better than staying apart. Because inevitably, considering we're in Redding, California, and CH2M is in Corvallis, there's going to be, we're going to be competition. And CH2M knew they had to move into a California market because California was a much, much larger market than Oregon and Washington, and any of the NW states.


Archie Rice

So that initiated the discussions. And as those things go, they don't happen overnight. But … this probably was 2 or 3 years after those first discussions between Jim and Clair began to get more serious. By 1968, Clair in this timeframe had taken five of us in as owners. We were buying part of the Clair A. Hill and Associates firm. So where Clair had been an individual proprietor, and CH2M had been a partnership, now Clair A. Hill and Associates was more like CH2M. Instead of one owner, there were now six owners.

So Clair and Jim became much more serious about the possibility of a merger and investigated the advantages and disadvantages on each side.

Did you play a role in those discussions in 1968?

Oh yes, oh yes.

Describe your role.

I was the person on the Hill side of the equation who knew the most about CH2M, the fact I had been the PM on the Beale project and PM on Tahoe, and I had worked with so many of their people. I was the interface there who had the most intimate knowledge. And the same thing—CH2M had more knowledge of me than anyone else in Clair A. Hill and Associates.

So you were really the person who was ...

I wouldn't say I was the focal point; but the happenstance was, because of the way things had developed, I was closer to them than anybody else at Clair A. Hill and Associates. In fact, they had offered me a job a couple of times.

Did Clair Hill rely upon you to ...

What he relied on me for during that time period was my opinions relative to the people, whether or not we seemed to be compatible in how we went about doing things. Whether we had the same value systems in place. He also, being an individual proprietor for so long, he had reservations about how successful it could be to have to work within a partnership. If you read his oral history, you will see that he always had reluctance about partnerships because he had seen too many of them that did not work.

And this is a very big difference before 1968 between Clair A. Hill and Associates and CH2M, which had been a partnership from the beginning. So talk a little about the culture difference. It seemed there was not so much a values difference as a culture difference.

Well, the major difference between the two firms was that CH2M firm started as a partnership. And then they expanded that partnership as more and more people came into the firm; so by the late 60s, they had taken in another approximately six more junior partners. The partnership by that time was seven plus six. There were probably 13 partners, at about the time we're talking about, the merger. And, there was Clair Hill, as an individual owner; and then five more of us became owners so there were six. But Clair was still, in the case of Clair A. Hill and Associates, he was still the principal owner. And in the case of CH2M, four partners started out with 25 percent ownership, obviously, each. And then they brought

in Rice and Roderick, and those two were offered 10 percent. But then shortly after that, the four original partners decided that Rice and Roderick were so valuable it wasn't fair to have that split; so they just divided it equally. So what, 100 divided by 6 is what, 13 and something. So, when they took in the additional seven partners, the ownership of the six original partners was decreased some; but the new seven partners did not have nearly the same percentage.

The point is they managed in a consensus fashion. There was much more discussion among the partners about decisions and what to do and how to do it than there ever was with Clair Hill and myself and the others.

How would you describe the philosophy there?

Well, Clair had been a one-man show for a long time. I wouldn't classify him as an autocratic individual at all because he would ask for opinions from me and from others, but there was no question about who was to make the final decision. In the case of CH2M, the final decision was always more of a consensus decision between Jim Howland, Holly, and the others, the other senior partners. So there was that difference in, what would you call it, management philosophy, between the Clair Hill organization and between the CH2M organization.

Another difference was profit sharing, wasn't it?

Well, not really. CH2M by that time had a pretty formalized partnership agreement and how the fruits of the firm were to be distributed. Clair A. Hill and Associates did a similar but much less structured distribution of profits. In fact, the first year I was there, I was surprised; he paid me a small bonus. I had never heard of such a thing.

This even after the retaining wall incident?

Right, after one of my screw-ups.

What happened there?

Oh, I just made a mistake in surveying.

How did Clair Hill handle that situation?

Very calmly; he didn't berate me or anything. The only thing I can ever remember he said was, "Be sure and check your work," or, "Did you check your work?", words to that effect. And forever I remember that; and from that point on, you can be darn sure that I checked my work every time I did anything.

You got a bonus that year.

Oh yeah, Clair distributed money to keep people in the organization. It was not a formal program the way CH2M was based. But that's a minor difference.

Did that difference cause any problems after the merger?

By the time we actually merged, CH2M had become a corporation. Now CH2M was a partnership; and Clair Hill, even when he was the sole owner, was a corporation because Clair could see the advantages in being a corporation, the advantages in liability protection among other things. So one of the things that CH2M did in the late `60s, and this happened with a lot of discussion between Jim Howland and Clair Hill, CH2M converted from a partnership to a corporation. And there was some resistance by some of the CH2M partners to that; they didn't really want to do that. So when they made the decision to go ahead and incorporate, they also made the decision to try to make that corporation operate and look as much like a partnership as possible. So this ownership program which CH2M created at this time, they gave it the name of the Key Employee program, which is really kind of unfortunate because it intimated that the only "key" employees were the ones that actually became owners.

Anyways, it was called the Key Employee program. That was in place at the time we merged, and it was the intention of the merger that over time the Clair Hill group and the CH2M group would all be on the same program insofar as compensation was concerned, starting with salaries and including bonuses for the entire staff. The whole group of people in the firm and then the owners, the Key Employees, and the way the Key Employee system worked at CH2M, each year, profits permitting, a bonus was paid to the owners. Basically at that time the rule of thumb, the Howland rule of thumb, was a third to the firm. A third was retained by the firm in order to build its capital account and provide for working capital and growth, etc. A third of the profit would go to the entire staff of the firm in the form of a general bonus, which was a cash bonus paid to

everyone in the form of pension benefits and other benefits, but those were the two principal ones. And a third of the profits went to the Key Employees, in the form of the Key Employee bonus. That bonus was paid in stock, except to a few people. There was a limit on how much stock you could have, the original partners and Clair Hill all had that limit once the merger took place, so they never received more stock—their bonuses came in cash.

But for the rest of us, the employee bonus was paid in stock and with sufficient cash presumably to take care of the income tax requirements of that bonus. So at the time of the merger, based upon CH2M's analysis, it appeared that for at least a 5-year period after the merger that those new Key Employees who would be coming from the Clair Hill side, which would become CH2M Key Employees, those Key Employees would receive over a 5-year period, 50 percent of the bonus paid to their equivalent CH2M person. In other words, if I was graded at a particular salary level with someone in CH2M who was my peer, that person would get a full bonus, and I would get a half bonus.

How did the key employees at Clair A. Hill and Associates feel about that?

Oh, there were a couple who felt it wasn't the right thing to do. I felt that—I was very strongly in favor of the merger. Some of the others in my peer group were not. But I felt it was the greatest thing since sliced bread, and it would give us an opportunity to really become a major force over time.

And Clair, bless his soul, he agreed to it. And at that time, as I said, Clair still had the controlling vote of the Hill stock. So as long as he agreed to it, there wasn't very much that anybody else could do. But he agreed with it, and I enthusiastically supported it; so that's what we did.

The 50 percent bonus was worth doing to make the merger happen?

Absolutely. You could argue about the correctness of it. But that's a subjective matter. My attitude at the time was, if that's what it takes to get the merger done, let's do it. We're talking about a 5-year period; that's not forever. And so for the first 5 years, that's the way it worked. And that was really interesting because in 1971, '72, '73 and '74, the firm made a profit; and we all received a Key Employee bonus, the Clair HILL people receiving half of what they're

counterparts received at CH2M. And then in 1976, for the first time in history, guess what—we didn't make a profit. That was the first year we would have had the full bonus. So we got our full bonus all right; but it was zero, just like everybody else on the CH2M side got a zero bonus that year.

Anyway, that's the way things worked.

Many mergers do not work. This one really worked. Why do you think it was that the merger of CH2M and Clair A. Hill and Associates worked?

I've thought about that for 40 years. I think it worked because we were both relatively small firms; the founders of those firms were, if you read Tom Brokaw's book, The Greatest Generation. The founders of those firms, and myself and others who were working for them, all were part of the Greatest Generation. So, the concept of those men, those men being the founders of CH2M and Clair A. Hill and Associates, was that they wanted to do the right thing; and they believed their success was dependent in large measure upon the people they brought into the firm, and the people they mentored and gave responsibility to. They were not selfless people, but they were smart people; and they recognized that if they wanted to see their organizations grow, they needed to keep good people. They needed to have people as smart and capable as they are, and committed in the same way; and so the way to do that was to make those people owners. Give them the opportunity to become owners in the firm.


Jim Howland and Clair exchanging stock

But I think, more importantly, the two firms were so much alike in terms of their size, they were both created in a small town environment. They weren't big city slickers. There was nothing smooth about any of these people. They weren’t blue suede shoe types at all. They were just down to earth, honest hard-working people who wanted to do the right thing; and they all had that same belief.

Interestingly, I have been with the firm since 1952, longer than I wanted to think about, to tell you. And in all my years, in all my

years with the firm, with Clair and then with CH2M HILL, I never ever once had the feeling that somebody was out to get me. I never had the feeling that somebody would be willing to stick a knife in my back in order to advance their own career. That kind of corporate environment never existed, never existed at this firm. I hope, and I think, it's still the same way, even though we're 13,000-plus today. So I think, you asked why it succeeded. It succeeded because these men had the same value system. They had the same work ethic. They had the honesty, and ethical people. They never ever, did I ever hear of the founders suggest we take a short cut to get something done. No, it was always … we've got to do this, even if we lose money on that job, it has to be done correctly. We have to be sure we are doing it right, and we are filling the needs of the client.


Holly Cornell

And so it is hard for me to put into words, but it is really those values. They were there and Clair Hill had them. And Holly and Jim and Burke and all the others had those same values. They weren't people who were out to line their pockets. I never heard any of them say, "I want to be a millionaire." That was never their goal. And it was never my goal. I always felt after working that all I had to worry about was doing a good job for the company; and if I did a good job for the company, the company would do well and the company would take care of me. I never spent any time plotting my fortune with CH2M HILL.


Jim Howland


Burke Hayes

And I know that Jim and Clair, they lived relatively simple lives. You would be surprised, I think, if you looked back at that time period. The leaders—I met a number of them, after I became, well, before I became president; but after I became president and CEO, I had obviously much more contact with other firms, our competitors. And it was a constant source of amazement to me to see how many of those firms were led by people who had egos that were, in my opinion, much larger than their capabilities. Very few people I would class as humble. I'm not saying Jim Howland or Clair Hill were particularly humble people, but I am saying they were

honest as the day is long. And the word integrity was coined to describe what those men stood for.

BECOMING CEO

The merger occurred in 1971. Howland stepped down in 1974, and then in 1977 you took over as CEO. Let's talk about that timeframe.

Well, starting with when Jim made his decision to step aside as president, he had led the firm for over 25 years by that time, Holly Cornell took over for the next 2 years or 3 years as president. His whole purpose of being there was to provide a transition. And being the firm that it was and the people that they are, they went about this changing of the guard in a very well-defined manner. The first thing that was done, they appointed a committee. They, being the Board of Directors, appointed a committee, including two outside people, businessmen of note from the Northwest to study the firm and recommend the roles the new leaders should have. They settled on, there would be a full-time chairman of the Board, which had never happened before; and there would be a president, and the decision was made the president would be the CEO.

This committee actually prepared the job descriptions for these two positions. Not only that, those job descriptions were included in the company bylaws; so there was no doubt about what the responsibilities of these two people would be.

And these two positions did not exist before that time?

Not prior to that time.

This was 1974?

'76 - oh, wait a minute, '77; I'll get it here in a minute. The year in which the selection was actually made.

So let me describe the selection process. They created these two positions and job descriptions for them; and then the next step, they appointed another committee, which was the selection committee. This selection committee was made up entirely of employees, senior employees, but employees. And so the selection committee developed a long list of candidates they felt could be considered for these two jobs. Now, back up for just a moment; I said two jobs. It was a given that when Holly Cornell stepped aside as president, he would for the next 2 years be the chairman because that was the way the transition was set up. So he was going to be, he was going to be the chairman of the Board and be there for a 2-

year period to help the new president with the transition. And that was a good decision.

You realize here this was a big, big step. For the first time ever, we were changing from the founders' leadership to a second generation leadership. So, again, a side light here. In my own case, I had already been through that because in 1974, when Clair Hill reached 65, and it was mandatory when you reached 65, you stepped aside from senior management positions. Clair Hill stepped aside as the Redding office manager, that is, the California corporation president; and I was selected to take over for Clair Hill in 1974. So I became the Redding manager and head of the California operations.

Even though this was 3 years after the merger, is it fair to say you were the top Clair Hill and Associates person in the overall firm at that point?

It's probably fair to say that. I think Jim Howland and Clair Hill had decided as early as 1971 that I should take over from Clair; they didn't tell me that. But Jim, I have a memo from Jim that he wrote to me in his ineffable fashion that basically said, "Don't get too wrapped up in things because there are a number of opportunities that are going to be occurring that you'll need to think about."

By that he meant, don't get too wrapped up in any kind of project?

Oh, any kind of project, or whatever was going on. Don't get my mind set on any specific career track was what he was telling me. So anyway I was selected as Clair Hill's replacement. Actually that was the first change from a founder to a second generation. Then here 2 years later, 3 years later, came the major change, the leadership of the entire firm.


Sid Lasswell

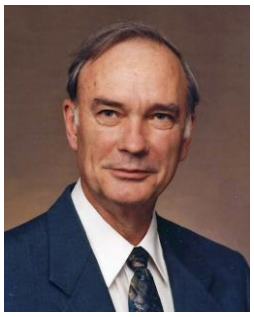
So the selection committee developed a long list of candidates and whittled it down to five finalists. Of the five, I was one, (laughs) which was interesting; I was from the Hill side of the merger. Realize then it was still "Hill" and "CH2M"; we had only been a merged firm for 6 years, and there was still "we" and "them" going on; and there probably is some of that today, too. But at any rate, the other four were men of my, approximately my age, some a little older, some a little younger, but all CH2M career employees. Sid Lasswell, who was one of the early employees, I

think, 1948. Earl Reynolds from Boise, who was also about a 1948 employee. Then Jim Poirot, who was up in Seattle as the Seattle manager; Jim, a few years younger than I am. And Les Wierson, who is probably 8 years younger than I am. He was in Portland at that time.


Earl Reynolds


Jim Poirot

So there were the five of us who were the candidates for the job of president and CEO. I never thought a lot about it because I believe I was happy in Redding. It was a great opportunity for me, and I just believed that one of the four CH2M people would be selected to be the next president and CEO. Because there were four of those and one of me. I didn't think there was much chance the Board would choose somebody from south of the border.


Les Weirson

But they went through a very formalized interview process. They had all of us interviewed also by an industrial psychologist, Dr. Robert Kucera (sp?), who I think still does some of that for the firm. And they built up quite a file on each of us who went through this selection process.

And to my great surprise, they selected me.

You didn't have any inkling that would happen until the selection was made?

No. I went through the interview process and I thought that … I knew what the questions were and I thought I gave them my answers. One of the things I told them during the interview process was that it would be, if I became president, it would be my intention during the time I was president, earlier rather than later, I thought we should move our corporate operations out of Corvallis to a metropolitan area. There had always been some discussion about, "Would we do better if we were headquartered in a metropolitan area rather than in Corvallis, Oregon?" So I said I think that needs to be done if we are going to continue to grow and become a major force in the business.

Did you say Denver at that time?

No, I just said a metropolitan area.

And what role do you think that played in the Board selecting you?

I don't know because I don't know what the others said. I don't know if it was a negative or if it was a positive. But I wanted them to know that because there were a lot of people, a lot of people in the firm, who felt strongly that Corvallis was the proper place to be. And Corvallis was by far and away the largest office; it had the most people. It had the founders. There was a lot there, a lot of roots in Corvallis. In Redding as well, but not nearly to the extent there was in Corvallis.

It seems to me that was a factor in your selection, as if it were some sort of statement, "Yes, CH2M HILL needs to be in a major metro area for its second generation future?"

Well, like I say, I don't know whether that was a positive or a negative. But I wanted the Board Directors to know what I believed needed to be done. I didn't want to say, "Why, I'll move to Corvallis and stay here forever." I said "I will move to Corvallis as necessary, but my goal will be to make the transition from Corvallis to a metropolitan area."

Any other thoughts or theories about why you were selected?

Yeah, there is one. I had created over the years a very strong relationship with Archie Rice, one of the six original partners. And Archie was a terrific, just a terrific fellow, terrific man. Great engineer, very incisive, a very brilliant person. Archie was very impressed with what we had accomplished at Lake Tahoe, which was right down his alley, water treatment. Long story there I won't go into. But nonetheless, he was very impressed we were able to do what we did at Lake Tahoe. And he told me many times, "Harlan, what you've done there is just going to make this firm something that none of us dreamed it could ever be."


Archie Rice

Your strong relationship with Rice was one of the reasons why you were selected as president and CEO?

Yes, Tahoe, and moving on to the Occoquan project, which had such a tremendous impact on the firm at that time. Archie believed my role in those projects was very important, and he believed I had demonstrated management ability and also financial management ability in terms of managing not only our own firm's interest in those projects, but managing the clients as well, because the financial problems in both those projects were huge, in order to get money for the clients in order to create the projects.

So all those factors made Archie believe I was the right choice.

Did he advocate for you?

Archie was very persuasive. He was on the Board of Directors, a very direct, very outspoken individual. He could also be very smooth when he wanted to be. So I think he was a big factor, a big factor. And of course Clair Hill supported me, and Jim and Holly, the entire Board supported me, I know that in the end. I think my advocates were probably Archie first and foremost and then Clair second.

You said you were surprised you were selected. What other feelings were you having? Excited, overwhelmed?

Oh, yes, I was extremely excited, with a considerable degree of trepidation because even though I had had the opportunity to step into Clair Hill's shoes, so to speak, there in Redding back in 1974, I realized I was taking on an entirely different degree of responsibility here. And to think about the fact I had been selected to replace Jim Howland and Holly Cornell, as well as Clair Hill; my God, it was a tremendous honor. The greatest thing that happened to me in my life. To think that those people believed that I had the ability to carry on what they had started and had been so successful doing.

I knew I was not a Jim Howland; I knew I was not a Holly Cornell or a Clair Hill; I was myself. I realized this is really going to be (laughs), really going to be a task; Harlan, you better not screw up. So I started off January 1, 1978, with a ton of enthusiasm and half a ton of trepidation, and went from there. It was just fantastic. Wonderful support. One of the things—and to show you how we operated like a family—one of the things the Board of Directors did as well as making the selection of me as the president, they concluded they would expand the Board and put the others who were considered on the Board of Directors. So I started off with a

Board of Directors that had, you might say, four of my competitors for my CEO job on it. (laughs). But they were all, everybody came together; there was no backbiting. There were a lot of questions, particularly in the Oregon office about, "Who the heck is Harlan Moyer?" Because even though I knew a number of the people out of Corvallis, that was not the case in Boise, nor was it the case in Seattle or Portland. So it was "Who the heck was Harlan Moyer?" But I worked as hard as I could to get over that syndrome. I visited all the offices very quickly. And in 1977, we had also acquired the Black Crow and Eidsness firm, which is down, based primarily in Florida—Florida, Alabama, and Georgia, had offices in those areas—and they were about 250 people. They had just come under the CH2M HILL umbrella. They had been there for a year before I became president. We had that new hurdle as well to overcome.

DIVERSIFICATION

Let's talk about the agenda items you had right away as president. Besides the move, what were some of the other items?

One of the major items, I felt, was that we had to work hard at diversifying our services. We were too heavily concentrated in the wastewater and water field, although that made us—huge projects such as Occoquan—that's what made us. But if we were going to be able to compete effectively in the world market, and at that time the world market was primarily the United States, we needed to be recognized as more than just the firm that did Lake Tahoe. We needed to be recognized we had capabilities, and we did; we had lots of capabilities. We had capabilities in transportation, both freeway, highway, bridge design, airport planning, and airport design.

We had great capabilities in industrial waste treatment. In fact, Ralph Peterson was one of the young men at that time who was just starting to make a name in the private sector. So, I said, we needed to diversify our practice and spend more time, more money developing; as an example, the transportation field. We needed to spend a lot more time and effort developing our private sector work. We had an inroad there in our work in industrial waste treatment. Obviously, industry—working for industries. But we needed to do more things, not just waste treatment. We needed to diversify and gain more business from the private sector because we were 80-85 percent governmental business. At that time, governmental being federal, state, and local governments. To help ourselves in any swings in the economy, we should be more diversified.

How did you go about developing that kind of work?

Well, talking to the people who were already in it, and telling them our plans were to expand in those area, and what resources did they need, and develop a plan on how we were going to do this. And come back to me and we would work it out so we would get the resources and start making progress in that diversification. And the resources we were talking about were primarily people. We needed to be able to acquire or promote, or develop internally, more capability; and that capability is people capability.

So I said let's not just think about our internal development. We prided ourselves on having career employees and developing people

up through the steps, and that was great and still is. But in order to get to another level, sometimes you have to look beyond what you already have; and you have to go outside to find some experienced capability, a leader that can help you obtain those goals. And that's what we did.

Would you say that that was a little bit of an expansion of what CH2M HILL had been before you became president, more looking out to the outside for that expertise?

We had already done those things; I was just emphasizing what already had been put in place. We had made small acquisitions from time to time, of small firms that had a specialty, brought them in, and we had hired senior people and brought them in. What I was doing was following that same program, but doing that in a more structured fashion. I tried to set up a system to where we had … a system of goals and objectives, and measure progress toward those goals and objectives to see what we were accomplishing; and at the end of the year, see where we were compared to where we said we ought to be, where we planned to be. A more formalized structure.

I was not a student of management. I had never, at that time, been to any formal management training other than a few seminars, weekend seminars, that sort of thing. And I wasn't a great believer in the American Management Association or anything of that kind. But I had acquired some knowledge of the management profession and felt that we needed to have a more structured management system in place in our company if we were going to grow.

Because at the time I became president, there were, oh, gosh what was it, 1,400 people, including the acquisition of BC&E. So, we had maybe 1,150 people at the end of 197-, or at the beginning of 1977; and then we acquired BC&E, another 250, and we didn't grow a lot during 1977. So basically, we had, say 1,400 people. And we had a considerable variety of offices in geographic locations, and of different sizes. And so all of that needed to be, in my opinion, more closely managed and better structured—evolved—to help us.

What was the biggest success of the firm when you were CEO?

Oh, during all those years, from 1978 to 1992?

What are your most proud of, an accomplishment of the firm's? It's a long time, maybe list three.

Well, I guess the thing I would be most proud of, for whatever reason, I didn't screw things up so badly the firm disappeared from the face of the earth. And in contrast, the firm grew from 1,400 people and $60 million in gross revenue to 6,000 and $600 million in gross revenues over those years. We did that without any loss of our beliefs in doing the right thing. We continued to meet all our clients' needs and provide quality services. I think there were two things really that were major swing points in that timeframe. They changed the firm dramatically.

One was the Milwaukee Metropolitan Water Pollution Abatement Program. That had started the year before I became president, in 1977. It was the largest public works program ever undertaken in the State of Wisconsin, and by far and away the largest program that CH2M HILL had ever embarked upon.

Even bigger than Tahoe?

Oh, yes, of course, no comparison. The Milwaukee program was about a $2.2 billion public works program. And our involvement as program manager of that program—we formed a consortium of firms but we were the lead firm and performed over 50 percent of the work ourselves—that program went from 1977 to basically 1992; and it still has some offshoots today. That program took us from being a relatively small, regionally oriented firm, where we had a few extended projects. By that I mean, the Occoquan project was a huge project and went from 1971—actually we're still doing work on it today. So for a period of 30 years or more, we've been involved with the Upper Occoquan Sewage Authority; and that project was done in stages and continued to expand.

But the Milwaukee program was a different kettle of fish because we had to go in there and in a relatively short time and do all the planning and development for what turns out to be a $2.2 billion program and see that that program was properly designed, constructed, and executed. So we had a staff of hundreds of people who were committed to Milwaukee for over a decade. Some people in the firm referred to it as a black hole. You went there and that's the last they ever saw of you. So that was a major change in the firm's capabilities.

HAZARDOUS AND TOXIC WASTE

You mentioned two …

The other major change that occurred in 1980, the early '80s, was our entrée into the hazardous and toxic wastes field, and that was headed up by Ralph Peterson. By that time … talk about my mentors, well, I mentioned Archie Rice. Well, Archie Rice continued to work after I became president for several years and was one who felt free to come in at any time and give me advice. And Lord knows I needed plenty of advice. But I recall early on, probably 1978 still, we had to make some personnel changes, move some people around.

One of the changes we made was to move the man who had been the head of the industrial waste discipline, move that person over here to Denver to be a project manager, a regional manager, here in Denver. Archie was involved in those kinds of decisions at that time. He came to me and said, "You know, Harlan, removing Pailthorp, you've got to replace him as head of the industrial waste discipline. I have a recommendation for a man to take over." And I said, "Who's that, Archie?" And he said, "Well, Peterson." And I said, "Oh, I've heard of Ralph; he's the really bright young man, isn't he? He's been here for just about 2 years, but I understand he's really a very hard worker, extremely bright. He might even be as smart as you are." Archie laughed and said, "Yeah, you can count on that. He's at least as smart as I am." So we offered Ralph the job of the industrial process waste discipline director, and he took it with great enthusiasm.


Ralph Peterson

Being the kind of individual he is, he started to move things in a proper direction there. Not only that, but he became a student of what was going on at the federal level in terms of legislation for hazardous waste and toxic waste. By that time, Love Canal had been in the news. Ralph, as he is wont to do, made his own study and assessment of what was going to happen in the marketplace there. He made a couple of key hires, early 1980. He came to me in 1980, said he wanted to talk. Actually, we had dinner at the Class Reunion Restaurant in Corvallis. And he laid out for me what his vision of what was going to happen in the toxic and hazardous waste field, and what we needed to do in order to be a player in that

market. After listening to him, I concluded, gracious, if he's only half right, there's just a huge market out there that is going to go on for decades and is something that is right down our capability. We didn't have the entire capability at that time to pursue it, but a market and a type of environmental work I knew we could be very successful in perusing.

So I told Ralph, "Gee, this is terrific. Why don't you go get it. You can spend 10 percent of your discipline's revenues, or some number, I've forgotten precisely, to go out and start developing that business. It was more business than he expected, I guess, from what he told me in later years. But that's what he did. And we first started as a subcontractor to another firm who had just gotten into the business, CDM. But in 1982, the first major contracts from EPA were offered for competition. I can't remember the name, I think they were called "REM/FIT" contracts—I don't know, not important anyway. But these contracts were billion dollar contracts. Huge, huge things.

And these were waste cleanups under RCRA and CERCLA?

Uh-huh, right, RCRA and CERCLA. This first contract in 1982 was for the western United States, REM/FIT, (Remedial Planning and Field Investigation Team). Anyway, he came to me and said, "Here's our chance, and we are going to spend a lot of money on a proposal for this." And I said, "Great, spend a lot of money and let's get the job." And we did; we went at it. I say "we"; he did it. I didn't do anything. He and his group went at it. He had hired a young fellow who had EPA experience, Bill Wallace, who was up in the Seattle office. So Ralph, Bill Wallace, and others developed a proposal that turned out to be just an absolute top notch, whiz bang piece of work. They submitted it to EPA. At that time, EPA was asking for price proposals. So even though our proposal was not the lowest in price, it was judged to be far and away, overall, the best proposal. The right technical approach, capabilities we demonstrated we had, so we won, in 1982, that first contract, that REM/FIT contract.


Bill Wallace

How big was it?

I can't remember the numbers … huge, big … hundreds of millions of dollars.

And how many sites were involved?

All over the western United States. You didn't know how many sites. Nobody knew.

But not the DOE facilities at this point?

No, these were all abandoned industrial sites or active industrial sites or abandoned mines. Good Lord, there was all kinds of stuff out there they had to find. Following that, it wasn't long until EPA was throwing add-ons to that contract. I don't know how large that contract grew, but it was huge. And from that start, we went on and on and on. Several more contracts with EPA after the REM/FIT contracts. By the mid-1980s, we embarked upon an entire new market. All kinds of additional disciplines. Milwaukee was going on as I said, which was a multi-billion dollar program; and now we had two multi-billion dollar programs.

The difference between Milwaukee and the Superfund or toxic waste programs, Milwaukee was still the conventional wastewater treatment, something we were much more familiar with. We had done that for years. Milwaukee had this huge tunnel system to handle the storm runoff. While many things in Milwaukee were new for us, still, it was familiar to us; and we knew what to do and how to handle it.

On the other hand, in the hazardous waste field, this was something … the technology was still developing; there were no textbooks to tell you how to do it. We were developing the technology. And it turned out we were the leading edge in developing the technology. Ralph and his people became known to EPA as the go-to people. Not only from a technical standpoint, we had people … well, Wayne Selman, an administrative manager here who went back to Washington, D.C., to the zone office with Ralph and set up the business and project management controls and all the multitude of management controls that needed to be put in place to manage these huge, huge projects.

EPA was a relatively new agency, and they didn’t have a lot of experienced people either. So this became a case where we partnered—we were EPA's partner. They relied on … and Ralph can

do a lot better job than I can talking about this, but EPA had come to rely upon us because they knew we were doing the right thing. They knew we were not out to screw the government or anyone else. We soon developed to where by the middle of the decade, hazardous waste represented close to half if not half of the firm's total revenues; and we had hired by that time in 3 or 4 years countless numbers of people who were not engineers.

These were "-ologists" (laughs); they were hydrologists; they were hydrogeologists, zoologists; they were just, there was a whole new set of disciplines.

This was from 1982-1985. You were in Denver?

Oh, yeah, we moved to Denver in June of 1982.

So what you now had, and we talked about this a little bit yesterday, historically CH2M on Corvallis the relationship with OSU and the university to draw upon. One of the goals of the move was to have access to the institutions of higher learning in Denver, right? Is that how you developed the expertise in these areas?

Well, it helped, I knew that Colorado School of Mines was a quality engineering school, had a great geology capability, and Colorado State, the University of Colorado, all of that. Yes, having the ties ... We developed ties with the scientific and engineering branches of those universities. That was a help. But nationwide, we recruited to find and get the right people in there who we needed to carry out these what some people considered esoteric discipline activities, as compared to building concrete clarifiers and scraping the sewage sludge off of them.

Here we had a whole new story, most of which always existed underground. We had no idea where it was, had no idea what the characteristics of the waste were, where it was going. We had to identify the waste and what they were doing before we could even decide what to do with them. So there was a whole new branch of engineering here.

You were essentially creating it?

Oh, we were. We weren't the only ones. There were other firms out there who were doing the same thing. But we were the earliest in my opinion and the best. Because we had the right leaders. Ralph

Peterson was in my opinion almost solely responsible for creating the organization and building the capability that made this firm such a huge success in the hazardous and toxic waste fields.

And from that start, it was just a small step to moving into the field of nuclear waste remediation. I remember, still in the 1980s, late 80s, probably '87 or '88, we were selected to do a … oh boy, it's tough to get old, because you forget things. Tennessee, in Tennessee …

Oak Ridge?

Oak Ridge! I was going to say Forest Oaks! Oak Ridge, Tennessee—Oak Ridge, Tennessee. We were selected there to start doing some environmental work, and that actually led us, I believe, into the further recognition of, that there was a real hazardous waste market out there called the Department of Energy (laughs) and the weapons program that was no longer making weapons but had 50 or 60 years of neglect and what we were going to do with the residues from that program was beginning to show up very, very quickly on the radar screen.

So our emphasis on hazardous and toxic waste, Superfund work, I think was a precursor and lead us directly into the projects you see the firm doing today, the first and foremost of which of course is Rocky Flats. We were successful back in 1994, I think, after I retired, in achieving that program of the cleanup of Rocky Flats. Of course, there have been many, many more now. But that was the way the sequence went.

You ask, what am I the proudest of? Well, like I said, I guess I'm really proud the firm survived and grew and I was really proud we were able, during that period of time, we were able to further diversify ourselves. We did so much in the way of diversification. In the early 1980s, we created the firm OMI, Operations Management International. We created the subsidiary firm IDC, the Industrial Design Corporation. And both of those companies went on to do great things on their own. And today, they are hugely successful companies. In doing that in the early 80s was when we took our first step away from being a truly consulting engineering firm. We started moving in a direction that would put us in competition with the Bechtels and the Fluors of the world, eventually. I didn’t expect to see that happen when I was president, but I expected to see it happen because we were moving in that direction. In 1982, we

created CH2M HILL Ltd., the holding company, and restructured the corporate organization to accommodate these other subsidiary companies and give us an umbrella by which we could branch out further into such things.

FURTHER DIVERSIFICATION, TRIUMPHS, CHALLENGES

Now, we were not at that time competing with the "Bechtels." We were moving in a direction, however, that took us away from our traditional consulting engineering practice; and that occurred for more than one reason. As I said earlier, we had created the subsidiary OMI, the operations company, in the early 1980s. That company was a totally new experience because among other things the company—predominately made up of blue-collar workers, union workers in almost all cases—that company's business was to go into communities and take over the operation of sewage treatment plants or water treatment plants, in other words, to privatize the operation. In order to do that, it would take over the existing staffs that were there.

With the other one prior to the movement into hazardous waste, the other company, IDC, that I had mentioned, which specialized in the design of electronic facilities, clean rooms and the like for chip manufacturers … even there, we found the norm in that business was becoming the design-construct project rather than just the design and then a contractor constructing it. The owners were more and more looking to more of a single-source responsibility. The designer would also be the constructor.

So, we were getting our feet wet or at least our big toe wet in areas that had been heretofore foreign to the company, in those areas involving construction of facilities. And further, as we moved deeper and deeper into the hazardous waste and toxic waste business, we found many instances there where our client EPA would want us to serve as a design constructor and actually take on the responsibility of constructing facilities necessary for the treatment and disposal of hazardous wastes in such location.

So we were having, during the decade of the 80s, there was a transformation taking place not only moving to the huge projects, such as the Milwaukee and the toxic hazardous waste projects, but also moving more and more towards the true design-constructor. Which was then similar to the "Bechtels" and the "Fluors" and the "Jacobs," all huge companies that were design constructors.

There was a definite change appearing on the horizon because we recognized that in the future more and more clients, even probably in the municipal area, cities and towns and counties, would be

looking to design-construct. As I approached the end of my active career in terms of retiring at the age of 65, I began to recognize clearly that the handwriting was to some extent on the wall; and design-construct was going to be much more of a factor in the future than it had been in the past.

In addition to this being new for the firm, it was new for you. How did that affect the approach you took to leadership?

Well, (laughs), it was an area where the stakes were increasingly becoming higher because the minute we stepped into the design-construct field, the dollar amounts we were dealing with became much, much greater. Because typically in engineering and the planning and the design and the oversight of the construction, the construction management aspect, the fees for that traditional engineering effort averaged between 15 and 20 percent of the total project cost. So you could see the minute you took on the construction of a project, you were taking on 100 percent of the project cost, so that demanded a much stronger balance sheet than we had, and required bonding resources which we didn't have, a whole host of things.

I approached it recognizing we were not yet anywhere close to being classed as a design constructor, but that we had talent and we had ability to take us there. So we had a definite protocol established during the '80s that for any project that involved construction, it had to come to me for my approval, or for the approval of the director of technology, another position here I had great faith in. We were not actively seeking out these opportunities in any large scale, but we were reacting to them as they appeared in order to protect our historical work and keep our clients that wanted that, satisfied.

It was just to make certain that the people who brought them to me, that I was convinced they knew what they were doing, and that we knew how to manage the risk. Because in almost all cases those were fixed-price contracts; in other words, we had to agree to build whatever it was to be built at a fixed price and we had to agree to that before we did it. So we needed to be pretty doggone certain that we knew what we were getting into; because if we failed on many of those types of projects, we could have serious financial impacts on the company. Real serious. So we had to be very careful. We still are today. Even then, 20 years ago, we were being very, very cautious about our approach to that area, not because we were frightened but because we knew that it was important for us to be

certain we were right and that we could, if we accomplished one successfully, we could go on to another one.

As Clair Hill might say, make sure you check your numbers.

Absolutely.

Is there anything that happened when you were CEO that was a disappointment to you? One that you would view as maybe the biggest down point of those years?

Yeah, there were certainly some disappointments. Personal disappointments. I may have mentioned, I lost my wife. Professionally and businesswise, oh one of the disappointments that turned out … much to my surprise … much to my surprise, that we had a crook— in fact we had two crooks— that we had employed. We had two men that set about to cheat the company, and they did; and then subsequently they were discovered, the deception was discovered, and they were discharged. And later we brought them to trial because what they had done was in fact a criminal act. So it was a disappointment to me, to realize that … all the people we have, I always assumed everybody was honest. Well, I was surprised because here was a case where it was obvious that we had a couple of dishonest people who set about deliberately to cheat the company.

Certainly in conflict with the values of the firm?

Certainly in conflict.

How did the firm handle the aftermath?

Well, as I said, we handled that by, as soon as this was discovered, why the people who were guilty were discharged. We did bring them to court and sought recompense and obtained it from these people. Incidentally, one of the people who was involved in this later went on and became CEO of a competing business owned by a foreign corporation. And in his nefarious manner, he wound up in a much greater criminal activity with his business. He's now serving time, as far as I know, in prison.

He didn’t learn anything from that?

He didn't learn anything; that's right.

What was the lesson, if any, for CH2M HILL?

I don't think there was any lesson, other than the lesson you had to recognize that, as much as you would like to think otherwise, sometimes you're going to find a bad apple in the barrel. And I reflected on it and thought about it over the years. At that time, with 6,000 people in the firm, it's possible there is going to be a bad apple. You can't … how can you not recognize that sometimes those things might occur. That was a big disappointment to me because this person was a trusted subordinate of one of my right-hand people. So it was very disappointing to have to experience that.

What was your biggest challenge while you were CEO?

Hard to say what the biggest challenge was. The continued challenge was to see the firm grow and maintain that growth at a level we were confident we could properly manage. And by that I mean making certain we had the sufficient experience and tested people in any particular professional, technical discipline that we could rely on so that we knew we were doing our usual quality job. In other words, we couldn't go so fast that we had to keep quality control foremost in what we were doing. And that was a big challenge because we were growing, in some years, 10 percent would be the norm, but in some years we'd grow maybe 20 percent or more. And so we were bringing many, many new people into the organization. And to try to make certain those new people were properly indoctrinated and were mentored and, as I said, we had the senior staff available to ensure the work was being done. That was a big challenge. I didn't lose any sleep over it because I had so many good people who worked with me, and I was always confident we were going to be able to do that.

Nevertheless, it was a major challenge for me. I would say that was probably one of the most important challenges I faced.

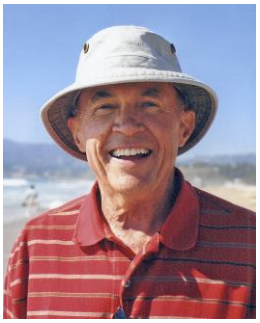
Name some of the key personnel during your tenure. You mentioned Ralph and the contribution he made when you were CEO. Who else was a really key contributor at that time?

Oh, there were so many, but the major people we organized at the time I became president, I organized the firm into … the firm operated on a matrix management system. We had the regional offices and we had the technical disciplines, and everyone that was

in a regional office had a technical discipline boss. So we had the matrix system, but we had so many offices and we were always in the business of establishing another office. I concluded that it would be best if we established a more formal geographic arm and established a district system. So I created four geographic districts in the United States, east, central, northwest and southwest districts.

I had four district managers who reported directly to me. And then on the other arm of the matrix was the technical arm of the matrix; we had a position that was called the technology director, who was responsible for all the technical disciplines. The leaders of those technical disciplines reported to the technology director.

So I had five people in the operating sense who reported directly to me. And when I started, why, in the northeast district, the district manager was Jim Poirot, who was one of the candidates for the president's job. He later became chairman of the Board. In the southwest district, the manager was named Phil Hall, who is here in Denver now. He also became chairman of the Board. He's now retired; he works part time. And the central district, the first district manager was … I got to come back to that, and the eastern district manager was a man named Joe Worth, soon to be replaced by another individual. And so those district managers were the key operating officers of the company, along with the technology director. The technology director was Sid Lasswell. Sid had held that position before I became president for a number of years. By the way, he was also one of the candidates for the president's position. Those were very key people for me. In addition to that, we had the staff positions. The chief administrative officer and financial officer was a man named Mike Fisher. Mike held that position under Holly and under Jim. Jim Howland actually hired him during the 1960s. So Mike continued on as my administrative and financial officer.


Phil Hall


Joe Worth


Mike Fisher

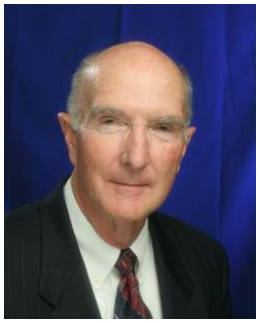
And we had never really had a complete personnel or human resources department; it was kind of a fractious

thing when I became president. So I asked Jim Howland to serve as the firm's first human resources director and to establish an HR department, which he did. So he went from being president and chairman back to being the human resources director, working for me, which is remarkable when you think about it, the humility of these men (laughs), Jim in particular. That was a key position.

And he was always known as a people person?

Oh, absolutely, he was an ideal choice for that job. Although he had no professional experience in human resources. He served just as an interim and subsequently in a couple of years, we hired a professional human resources director. And then we had another staff position, the director of marketing and business development. That was a man named Tom Gibbs, who had held that position under Jim and under Holly. He came to us in 1974. Tom was the person who was responsible for getting the Milwaukee Water Pollution Abatement Program. He was a major figure in the country in the water pollution business. He had been formerly the executive director of the Seattle metropolitan agency before he came with us. So he had contacts throughout the country in those positions, and it was that level of contact that enabled us to be successful in Milwaukee. So Tom went to Milwaukee just as I became president; he went to Milwaukee to become the first program director of that project. And that was a key position. That program was so large that it really didn't fit in with the rest of the organization. So Tom reported directly to me.

Speaking of Milwaukee, what was it like when the firm landed a big project like that?


Tom Gibbs

For me, even though we got the job before I became president, it was always a thrill to hear about our success in winning any large project or any unique project. It was also a thrill to hear we were successful in renewing our performance with our existing clients. You have to admit it's a big thrill when you have been selected to do a program or a project that really is a tipping point, and by that I mean something that has an immense impact on the firm and really sets the firm in a different direction. Those were exciting times, really exciting.

I remember in Holly's oral history Tom called Holly the night Tom knew we had landed Milwaukee. I can't remember exactly what Holly said, but it was just one or two words that expressed real excitement. A real exciting time.

Holly was a mentor to you, wasn't he?

Yes, he served, as I said, as the firm's first time chairman of the Board. He did that for 2 years in 1978 and 1979. He was a terrific mentor for me. A big help. He was the type of individual that would never come to me and say, hey, you need to do something this way rather than that way. Or he would never come to me and say I needed to do anything. But he was always there, and there were many times when I had some question or some doubt about what I thought I ought to do when I was able to walk down the hall and sit down in Holly's office and say, I need your advice. And he would listen carefully and give me solid advice. He would give me solid advice, which I greatly appreciated.

Clair Hill did the same thing when I became the manager in Redding. Clair was never one to walk in to my office and say, "Hey, Harlan, you need to do this or that." But if I felt I needed advice in a particular area, Clair was always there and always gave me sound advice. So those men were really, truly mentors. They were not the type to boss you around, but they were the type that would help you when you had a need for help. I really enjoyed my work with Holly. I was really privileged. I had the opportunity when I was president and CEO to work with three different chairman of the Board. Holly first, then in 1980, when Holly retired from active work, he continued as a consultant; but he retired the Board chairman position at age 65. The Board and I agreed that Earl Reynolds would be an ideal candidate to continue the chairman's role. Earl took over as chairman, and he and I worked together very well. Chairman is a job that had its boundaries and its responsibilities just as the president and CEO did. We were cooperating all the time.

Earl took an early retirement. He retired at age 63 because he had continuing eyesight problems, and he wanted to enjoy some more life while he felt he had the faculty to do so. So when Earl retired, the next choice for chairman was Jim Poirot, who as I mentioned, was … Jim and Earl were two of the fellows who were candidates for the president's job the same time I was.

Where is Jim now?

Jim lives in Oregon. He lives in Roseburg, Oregon. I saw him not too long ago. He's still quite active. He's a few years younger than I. He's had a history unfortunately for 30 years or more now significant heart problems. He's had two open-heart operations, and he's still doing pretty well. He was very active in professional society work. While he was chairman of the Board, he became president of the American Society of Civil Engineers, which was quite an honor for the firm. And he also served as president of the American Consulting Engineer Council, which was another real honor for us. So anyway, I had the opportunity to work with three different chairmen while I was the CEO.

LEGACY OF FIRST GENERATION, LEGACY OF SECOND

What would you say was the legacy the first generation handed down to the second generation? You were the initial leader of the second generation. What was it that they handed down to you?

I've said it before, and I'll say it again: The single biggest thing they handed down was that core of solid values, of honesty, ethical people, that you had to be honest, you had to be ethical. If you didn't have honesty and you didn't have ethics, you didn't have anything. I don't care how smart you were, or how strong you were in a particular area of engineering or anything else. The important thing was to be honest, to be ethical.

And they all created an environment of mutual respect. Everyone in the firm was treated equally, and there was no one who was discriminated against, openly or otherwise. They created the feeling and the belief that, hey, every job is important. It doesn't matter whether you're a top engineer or a word processor, or you're Bud Smith sweeping the halls of the Corvallis office. Every one of those jobs is important; every one of them is critical.

So it was this human touch. Jim Howland had a great deal of it, but he wasn't alone. Clair had it. It was maybe a little less obvious, but Clair was a very caring individual. A very caring individual. He gave me some help in my early years. My family was sick; oh, we had some tough times. But he was always there. Very helpful. Sent me home one time with full pay over Christmas Holiday when my wife had the flu, and four little kids … it was that kind of action that created in my mind the legacy that made CH2M HILL the success it is today.

And what's the legacy of the second generation?

Well, I hope it's the same. I do; I really hope it's the same. That I left the firm with the same rock-solid beliefs the founders started. Ralph was fond of saying, and it's correct, the success we enjoyed today and the success we enjoyed yesterday, was built upon the shoulders of all of those who came before us, and the founders were the ones that really established the rock-solid foundation that let us build this huge structure. This huge pyramid. We remind ourselves of that frequently because it's true. It's true.

And that is why this firm has survived. During the 60 years this firm has been in existence, since 1945, there have been hundreds, maybe thousands, of engineering firms that have come and gone. They have gone out of business or been acquired or whatever. But they are no longer in existence. I can think of dozens and dozens of firms that I knew of when I first went to work with Clair Hill and then later as I progressed through my career, that are either gone now or … many of them are still here, but they're still the same size or even smaller. I think about some of our competitors when we first started in the wastewater business, the firms, big-name firms, such as Metcalf & Eddy on the East Coast, Camp Dresser & McKee. There are dozens of others who were known nationwide, nationally; and they were the go-to firms.

CH2M HILL, who was that? Today you look around and CH2M HILL is a force in the marketplace, not just water and wastewater, but all marketplaces. We are so far ahead of those firms that were recognized as the leaders back 40-50 years ago, that it makes me wonder, "How did that happen? Why did that happen?" Well, the answer is, we had the right foundation; we had the right values; and we had the right stuff. We had the right stuff to make it happen. All of that was because of the good, not the good, the tremendous job the founders did when they started this organization. It's my hope this will continue. It has continued while Ralph Peterson has been CEO and as long as I was CEO, 13-plus years. The firm now is 13,000 plus people; it was 6,000 since I retired. It has now doubled in that time. I can't kid myself and say everything in the firm is like it was when I started. It isn't even like it was when I became president and there were only 1,400 people. But we try hard, very hard, to keep this sense of values inviolate and make certain all the people in the firm are aware of how important we consider the values. That they are not something to be paid lip services. They are, in fact, the business principles that guide us in our everyday pursuit of what we do there.

I'm confident that still exists. I'm confident that still exists.

Could you put that into a 21st century context, when so many companies are struggling with this question of ethics and values—the corporate scandals we've seen?

Oh, doesn't it make you sick? You read that book about [them] for heavens sakes. That literally physically made me ill, to realize we have people of that low caliber in our society. Boy, I'd say that's

criminal. I have no sympathy whatsoever for that. Those people, I think … the big difference, a big difference, a huge difference, is the fact that CH2M HILL is a privately-owned company. We're employee-owned. We've always been employee-owned. And we've always shared the ownership and we've shared the rewards. Not just the financial rewards but all the professional rewards in every way we possibly can. Give credit to the people who are out there actually doing the work and are the ones deserving the credit.

We don't have, in contrast, a Wall Street analyst calling every quarter the CEO and saying, "Hey did you make your numbers?" Some of those companies, not all, but some of those exist only to create profits for … they say for their shareholders, well, that's probably true but … they create profits for their CEOs and the like, and that's their goal. That's not CH2M HILL's goal. Not at all. Ralph Peterson makes a lot more money than most of the people in the firm, and I made a lot more money than most of the people in the firm, but still, we're not looking at the Bill Gates kind of riches when you look at this business.

RALPH PETERSON BECOMES CEO

Describe from your perspective the shape of the company when you retired in 1991.

Well, the company in 1991 was in excellent shape. It had a strong backlog of work and was continuing its growth as it had in the previous decade. I didn't see any dark clouds on the horizon; all I could see were opportunities that were about to be fulfilled. So I was very confident about the organization as a whole.

Six thousand people at that point, right?

In that neighborhood at that point.

Where was the radioactive business then?

We were not a player. We had gotten our feet wet in some environmentally related work at Oak Ridge, and some similar things. And we had done work for the Department of Energy for years and years, but this was small-scale stuff. We hadn’t taken a venture into the big arena.

Was Ralph signaling that was something he wanted to do as CEO?

Not at the time he wasn't.

How did he become CEO?

We knew, the Board, the Board of Directors knew that, of course, I would be retiring in '91 at age 65 because that was our policy. We didn’t want people to continue in leadership positions after age 65. They could continue to work for the firm, but in an appropriate position that they were capable of. But not as a major policy maker or leader.

So we started planning for the succession, the Board did, in '88-'89, somewhere in there. But actually I had started planning my succession long before that. I started it, when Archie Rice in 1978 said, "Hey, you better keep your eye on this fellow Ralph Peterson; he's a real comer." And so I put him in a discipline job in '78. And then in '80-'81, when he came to me with the idea of the hazardous waste market, I realized we really had something going here. So I gave him, I think I gave him, free reign to do what he could do to

build that market. And his success far exceeded anything I imagined.

So during that period of time, I was working closely with him even though he did not report directly to me. I was working closely with him. He had also served on the Board for several terms, so he was familiar with the Board and the Board responsibilities. I kept my eye on Ralph and a couple of others who I thought might be possible successors to me. But the more I worked with Ralph, the more I became convinced he was the person to lead the company when I left.

Now not everyone shared that view. Ralph is the sharpest knife in the drawer. He is a brilliant, brilliant man. He does not suffer fools easily. And unfortunately, during the period when he was growing and taking on ever increasing responsibilities, he would have a tendency at times to become very emotional, very emotional. And when he would get into that state, sometimes he would enter into a virtual tirade. Sometimes against an individual, sometimes against something else. But it was often times large, loud, and unfortunately profane. I'm no purist myself, but this was something that was very, very undesirable, and noticed by too many people. I counseled Ralph many times on that, and he recognized that it was a problem.

So anyway I had made up my mind, '86-'87 somewhere in there, that he was the man to succeed me. And in that timeframe, I encouraged Sid Lasswell, director of technology, who was nearing retirement age, I urged him to give up that position. He didn't really want to, but I urged him to give up that position; and I advanced Ralph to the technology director position. I brought him here to Denver and put him directly to work. As technology director, he was working directly with me. He was the key report, he and the district managers.

One of the five people?

Yeah, one of the five people in the matrix organization. The technology director was the most equal among the equals.

So he moved from where to Denver?

At that time, he was in Washington, D.C. He had moved from Corvallis at my request several years earlier back to Washington to take over the leadership and the active management of the

hazardous waste program. Actually the office was in Reston, Virginia; but it was the central office for all of our hazardous waste work, adjacent to EPA's headquarters.

Was that also your government affairs office?

No, government affairs was separate; it was in downtown Washington. So he had been there, and he had devoted 1981-1987, those 6 years, to the hazardous waste business and had been very successful at it. So I moved him here as technology director for two reasons. One, he was the right man for the job; and it was time for a change. Sid had performed the job admirably; but, in my view, the firm had outgrown his style of management and his Corvallis-centered approach to things.

So Ralph took over; and, as I expected, Ralph started making some significant changes for the better in that discipline organization. And they were sorely needed in my opinion. That was the first reason. And the other reason, frankly, that I brought him in here was that I wanted to be in a position where he and I were working more closely together. I hoped to be able to counsel him and help him surmount some of these undesirable characteristic problems he displayed when his emotions became too much for him. When the time came to make the decision about who's going to replace whom, we had a replacement for Harlan Moyer in the books. Jim Poirot, who was some years younger than I, Jim was chairman; and Jim announced in 1990 or so, he planned to take an early retirement. He would continue to serve as chairman if the Board wished until 1993, but he wanted to retire in 1993. So we should be thinking about a new CEO. We should be thinking about a new chairman.

In addition, I told you about the holding company in 1982. And I became the president and CEO of the holding company. I continued as the president of CH2M HILL Inc. as well as being president and CEO of the holding company.

I recognized it was desirable, more than desirable when I retired, that those jobs would be split. The Board had been urging me, not demanding; but there were those on the Board who had urged me to split it earlier, for several reasons. The most important reason being that I knew coming up on my retirement there would be a new CEO. This was maybe 2 or 3 years before I retired. And I said to myself, "If I were the incoming CEO, wouldn’t I like to select my own president of Inc., the person I would be working with?" And so I

said, "Of course, I would." I would like to have that rather than have to accept a *fait accompli*. So I said to the Board, "No, I'm not going to give up the Inc. job; I'm going to continue. I think the company's doing all right; and I know you think I'm spread too thin, and I probably am. But I still see that the company's functioning quite well. And since retirement's just a short time away, I think we should let the new CEO have the opportunity."

So anyway, we had really then three positions to fill: We had the president and CEO of limited, which was for me when I retired in '91; we had the president of Inc., which could be earlier than when I retired in '91; and then we had the chairman's job to fill 2 years later after I retired. So we had three positions.

And you wanted three different individuals?

Well, yes. But, unfortunately, the way things worked out, Ralph Peterson was my choice hands down and had been for a long time to be the CEO. However, there were some on the Board who weren't convinced he was the right choice. And I said, "Well that's my feeling, and I'm going to stick by him because there is no question in my mind he's the right choice." Well, unfortunately in my opinion, the Board decided that they should go ahead and replace the Inc. president before I retired. So that didn't really give Ralph, or the new CEO, whoever it was going to be, the opportunity to participate in who the new Inc. president was. So we had these three positions. So … this was, I could see I had a problem here I had to solve with the Board; and my goal was to make sure Ralph Peterson was the CEO. So I said, "Okay." And so we set about in 1990, making the selections of these three individuals because the Board felt it was important I turn over the Inc. president's job before I retire. A year, about.

I would continue as CEO for another year. That's what we set about to do. We went through the process, the Board committee, and we looked at a long list of candidates. It was quickly shortened. There was no doubt in the Board's mind or the committee's what my viewpoint was. And, to an extent, Jim Poirot agreed. What we came up with in the final analysis was a recommendation to the Board of Ralph Peterson to be the president and CEO of Limited, and Phil Hall to be the chairman of the Board succeeding Jim Poirot in 1993; and Ralph Peterson would succeed me in 91. A third player, a man named Lyle Hassebroek, whom I've not mentioned, he was a long-time CH2M HILL employee also who had worked very closely with

Jim Poirot. When Jim Poirot was in Seattle for many years, Lyle Hassebroek was his second in command. Before Jim became chairman, I asked him to go east to be the eastern district manager for a couple of years, which he did. And then when he came here to be chairman in 1983, Lyle Hassebroek went to the eastern district as manager of the eastern district, which was a tough job because the eastern district was still struggling to some extent. So everybody agreed Lyle would be a good candidate for the Inc. president's job. That's what happened. The Board selected Hassebroek to be the Inc. president and take office in July 1990, selected Ralph to be the CEO and take office in July 91, and for Phil to be the new chairman and take office in, I think it was March of 1993. So that was the Three Musketeers.


Lyle Hassebroek

Not long after Lyle he became president of Inc., circumstances changed; and the organization started to fall off dramatically as a matter of fact in a couple of years . . . . He had far more on his plate than he could handle. He stepped down as president of Inc. in 1993, I believe it was. And Ralph recommended to the Board and appointed a man named Craig Zeien, who was serving in Ralph's old position as technology director. He took over as director of technology when Ralph became CEO. So Craig became president of Inc. Craig was a great choice, the right man for the job at the right time; and he did a wonderful job for several years. But, unfortunately, he died of a brain tumor; doggone it, in 1998 I think, or '99. He was a fine man and one of Ralph's right-hand men. It really hurt Ralph, and it hurt the firm, to lose Craig. Craig was potential CEO material in my view, and I'm certain in Ralph's view as well.


Craig Zeien

That was the third generation succession. The thing about the third generation in my view, more than any other, now, once Ralph took over as CEO and he began to actively seek out these new major opportunities, including the Department of Energy nuclear waste cleanup opportunities. Rocky Flats didn't come by happenstance. It came because of planning, and Ralph and his crew believed firmly they could get that job and do it. Ralph in his timeframe recognized this movement I spoke of earlier of the firm changing from a pure

consulting engineering firm to a Bechtel-type design-construct-build-operate firm was moving, and moving faster.

Ralph proactively went out into the open market and brought in some people who were sorely needed for this firm. The first one he brought in was a chief financial officer, Sam Iapalucci, down the hall, a great young man. He replaced Mike Fisher, the man who was in place when I took over. Mike took an early retirement, somewhat early retirement. Sam brought a set of skills and financial knowledge we sorely needed in order to take the next step and move to a new level. And he's done just that. Done a magnificent job. The balance sheet of the firm today compared to what it was when I left is night and day.


Sam Iapalucci

The firm was in terrific shape when you left, right?

Oh, yeah, but not in shape to take on a $100 million program of cleanup of nuclear waste or to build a freeway or any of those things. You needed a really strong balance sheet to move up into that league.

The next person he brought in—and I'm not sure I have all this chronology correct, it's not important anyway—the next person Ralph brought in was a man named Jim Ferris. Jim came from the Basco Engineers, Willie Basco; he had an extensive background in construction and design construction. So he was a construction-oriented person. Besides that, he had knowledge of and experience with the nuclear field. So Ralph brought in Jim Ferris, and Jim Ferris and Sam Iapalucci are our men who sit on the right hand of the CEO. So you see, that's really new. Because when I left, the people who sat at my right hand were all basically, not all, but almost all primarily lifers. They were people who had spent their career with CH2M HILL. And here, two very important positions where brought in and created by Ralph and filled with newbies.

In addition to that, another man, retired Air Force General Bud Ahern, who actually we had hired before I left. But Ahern, who had started off back east in the Reston offices—I think he was the Reston office manager for a while—Ralph brought Bud out here as a corporate


Bud Ahearn

employee. Bud has provided tremendous value to the firm in terms of his strategic thinking and his contacts and leadership abilities. A great leader and a strong believer in developing, developing leaders. He has taken it upon himself to develop a program, a leadership program for the firm. So here we have three men now, who are all relatively newbies sitting up at the right hand of the CEO.


Bob Card

Then we had two others that were lifers. One man named Bob Card who was here and had worked with Ralph for many years. Probably as bright as Ralph is, too. And Bob became the first CEO of Kaiser-Hill, the entity that's on Rocky Flats. After he was there a few years after George Bush was elected, Bob was lured away to Washington, D.C. to be the Undersecretary of Energy. But he returned to us a year ago now, so he has been back, fortunately.

Then we have another long-term employee, Don Evans, who's up there in the office of the CEO, too; he is a lifer at CH2M HILL. He started in 1971 or '73, somewhere in there. He worked with me a lot. My point is where in the second generation the people I worked with the most closely were people who were all career employees of CH2M HILL. They had come up through the ranks of CH2M HILL just like I had. Sid Lasswell, director of technology. The district managers, Bob Pailthorp and Jim Poirot and Phil Hall, Joe Worth. These people were all people who had started their career with CH2M HILL right out of college.


Don Evans

Tom Gibbs who headed the Milwaukee program, he was the only one that I had working with me one-on-one who was not a lifer. And he felt it, too (laughs). Not only was he not a lifer, he didn't even go to Oregon State. He and I had something in common. Cause I was a Nevada graduate, and he was a Washington graduate. All those Oregon Staters!

Anyway, the contrast I think, today, is that the organization, because of the work that we're doing and the different businesses we are in today, demanded a talent that we didn't have available home grown. Ralph, being the proactive individual he is, sought out and obtained some of the very best talent. In doing this, then,

people who Jim Ferris has brought in, a number of senior people in the nuclear area, construction, all of those things—many of the leaders today of the business units in the firm are people who have had experience outside of CH2M HILL.

What effect has that had on the firm?

In my opinion, nothing but a beneficial effect. And it’s interesting to me when I talk to people—Jim Ferris is an example. Jim Ferris you'd never know was anything but a lifelong CH2M HILL employee. He thinks that CH2M HILL is the greatest thing since sliced bread. And he marvels at our resiliency. We're not only the big firm, we're not only doing these huge projects, Rocky Flats, Hanford, and on and on and on. But here we are carrying on our usual thousands of clients in smaller projects every day. So we've got a whole spectrum of work that we do. Some of the same things we did 50 years ago, 60 years ago, and some of the same clients—some of the same size projects. But we also have these huge mega projects that have come down the pike in the last couple of years. So we're kind of an anomaly there that you don't see to often.

CONCLUDING THOUGHTS

Do you believe the values and direction of the firm are stronger than the individuals in it?

I believe they are. I believe that everyone who comes here recognizes that, hey, this is a good place to work. *Fortune Magazine* says it is; and, by God, it is a good place to work. You're treated like a human being; you're treated with decency. You're given credit when you do the right thing and do good work. You can be an owner if you want to be an owner. You can buy stock through the payroll plan or buy stock with your own money, however you want to do it. You can be an owner; and, if you're a real rising star, you can get stock options and incentive compensation. So, there are some people out there who think that CH2M HILL isn't the greatest firm in the world. Like I say, with 13,000 people, it would be surprising to find some that aren't. But I think on the whole, on the whole, the vast majority of people firmly believe that CH2M HILL is a fine place to work and a great organization. That, I'm very proud to say I have been a part of that. Still am, I hope.

Let's talk about the role you have played since you stepped down as CEO.

Not a very active role. When Ralph became CEO, there were a number of things hanging, several things hanging that he asked me to take over and finish out, which I did. We had a company called IOTECH that was a medical products disinfection company that used nuclear radiation, and the Department of Energy had to take back the cesium capsules that provided the radiation because they were defective. That was a problem that I worked on for a couple of years. Getting that settled and getting the money out of the DOE to compensate us for our loss.

We decided to divest ourselves of our environmental laboratories; so I worked with others in attempting, finding, disposing, selling our environmental laboratories. It was those kind of specific assignments that I would take on for Ralph, for the most part. The first few years after retirement, I probably worked at least half time, maybe three-quarters time in some years on different projects of that nature. And when I was here, I always enjoyed the confidence of Ralph. And many times, we would sit down and talk into the evening about things that were going on. And sometimes he would ask me for my advice on a matter, which I was proud and happy to

give him. Other times he told me of things he was doing and did I agree. And I said, "Absolutely, sounds like you are right on the right track." So I had a strong relationship with Ralph, still do, still do have a strong relationship. But as you expect, you know, I'm 78 going on 79 now; I still have vigor and energy. But not the same as when I was 69; and, if I make it to 89, I doubt it will be the same as it is today.

How does your relationship with Ralph compare to the relationship you had with Holly? Did Ralph seek out your advice when he first became CEO?

Oh sure. When I would be here, Ralph sometimes would come into my office and say, "Hey, let's talk." Or sometimes I'd stop by and say, "Hey, how are you doing?" And we'd sit down. And Ralph is one who enjoys talking. He does enjoy talking. So oftentimes we'd spend, I'd say, "Do you have a minute? I got something I'd like to ask you." And sometimes the minute would turn into a couple of hours or longer (laughs). But there were a number of assignments he would ask me to take on, and I would always report back to him on what was going on with those assignments. And inevitably that would sometimes lead to a discussion, a general discussion of things. We'd talk about our families; we'd talk about a lot of things that were not necessarily business-related. Because I always considered Ralph and I'm sure he considers me his friend. Even though I'm, what am I, 17 years his senior.

Will he be retiring soon?

Well, in a few years, he will. I don’t know. As you know, he's had a serious problem with stomach cancer. A major operation in December. And he's just now finishing up his last sessions of chemotherapy. God, what a struggle that has been. He's a strong individual, and he's going right back to business. But he recognizes this is a life-changing event, and I'm sure he is going to be changed. I hope he is going to change, to some extent, his lifestyle.

The succession planning is something that is active in the firm and has been and will continue to be. I won't predict the time. But within a few years at the most, Ralph is going to take on a different role.

What do you do in your personal life?

Oh, gosh, I have a farm out in Northern California; my youngest son is the farmer. He manages and runs it.

Where is it?

Up there near where I was raised.

Napa?

No, northeastern California, northeast of Redding in what's called the Fall River Valley, about halfway between Alturas, where I was raised, and Redding, where I went to work.

And what do you do there?

Oh, we farm a variety of products, a strawberry nursery, produce mint oil, and different products. What I do mostly, is, I have a home and about 10 acres of land that are pasture and landscape. I spend a lot of time working on the place, taking care of the landscaping and the pasture. Cutting brush and trees. All that kind of stuff, outdoors.

Your wife's name is?

My wife Carol, I married in 1986. She's a Denver native. She had two children of her own, so we have six between us. We have nine grandchildren between us, ranging form age 22 to age 8. Twins, the 8-year-olds are the twins, twin boys. We have a son, our youngest son Eric. My stepson is in Japan; he's a teacher, teaching conversational English to the Japanese over there. Our other kids are all in northern California with the exception of our daughter Ann who lives in Highlands Ranch, Colorado, the mother of the twins.

So we have family ties here, and we have a home here that we spend some time each year in. But the majority of the time we spend in California on the farm. We do some traveling.

Do you still ski?

Yeah, I do some skiing. And my sons who are golfers persuaded me to take up the game after I retired. Much to my dismay. But I enjoy that.

You didn't play before you retired?

No, I didn't; I never had the time to take that up.

A lot of the partners fished a lot, coming from Corvallis, Oregon?

Yeah, I've never been a fisherman, even when I lived in Modoc County as a kid. I never did like to fish. I never took that up. So I golf and I ski, and we travel some. We do a lot of work. My wife does a lot of volunteer work there in the small town in which we live. Hospice, AAUW (American Association of University Women) work. She stays quite active.

Is there anything we've missed?

I can't think of anything. You've got a pile of stuff there. Why don't you, when you get it transcribed, I'll have a better feel, I think after I read through it, as to how to answer that question, whether to add something. Probably my reaction today is to cut something (laughs). I need to see it before I can really respond. I just can't think of any particular area we've neglected.

End …