INTERVIEW WITH LEON “BUTCH” KOEHLMOOS
BY GAYLE STARR

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MR. STARR: This is an interview with Leon “Butch” Koehlmoos, and that's K-o-e-h-l-m-o-o-s.

MR. KOEHLMOOS: Very good.

MR. STARR: And Butch is the Manager of the Lower Loup Natural Resources District and has worked for them for a number of years. This is part of the NRD History Project. And the interviewer is Gayle Starr and we're doing it at the NARD Annual Conference at the Embassy Suites in Lincoln. And with that, Butch, why don't you give me a little history of your background?

MR. KOEHLMOOS: Okay, well, again, I'm Leon Koehlmoos. I go by Butch. I don't answer to too much else than that, otherwise I get confused easily. Originally from northeast Nebraska, east of Norfolk. That's where my folks' farm was at. I grew up, kind of got an ag background because of that upbringing. I went into the service in '72 after graduating from high school, spent four years in the Air Force working as an eye, ear, nose, and throat specialist at a regional hospital down in Texas. Plans were to go to optometry school when I graduated, got accepted to the school in Chicago. But after finishing two years after the service at Wayne State College, I had a young son and another baby on the way. So, I felt maybe four or five more years of college was going to be a little much with that large a family. Knew one of the directors that worked for

the Lower Elkhorn, Dick Chase, and Dick had been a good family friend for a long time, and I called him wondering if there were any opportunities with either the Soil Conservation Service or with the natural resources district. Well, being a good friend as he was, he gave Steve Oltman, who was manager of the Lower Elkhorn at that time, a call. Said he had a young, punk kid that he knew pretty well and thought he, you know, that I would be a pretty good asset to the district and talked Steve into hiring me for the summer of 1978. Worked for him out as Maskenthine Lake, planted some trees, did a lot of conservation work for Steve, but at that time, he didn't have a spot on the -- in his staff for a full-time employee. He happened to know that out at the Lower Loup, Dick Beran was needing an assistant manager and gave Dick a call. I interviewed on a Monday, was hired on Tuesday, and I started work on Wednesday. So, it was kind of a --

MR. STARR: What year was that?

MR. KOEHLMOOS: In 1978, April 1st is when I started with the Lower Loup, so 35 years ago. And I've enjoyed every minute of it. I was assistant manager there until Dick's retirement in 2000. That's when I was appointed to be general manager, and it's been 14 years ago. And like I said, I've enjoyed every minute of it.

MR. STARR: Why your interest in natural

resources? Were you looking for a job as SCS and the NRD?

MR. KOEHLMOOS: Well, yeah, it's because I did have an ag background when I went to college. My goal was pre-med. I was actually going to become an optometrist, but I've always had an interest in chemistry and biology. That's where I got my degrees at Wayne State. Actually, that was kind of when the water quality programs were just getting started, and I think that was the reason Dick picked me up was that they had just started collecting water samples there at the Lower Loup. We were one of the first districts that did establish a water quality program across the NRD. I remember we had a little hot kit, you know, some two-dollar vials that we were working with at the time. You know, I had 200-some sampling stations that I picked up the first year and within about five years, I think we had over 1,000 sites that we were visiting for taking samples. Did most of the analysis in the office, you know. And after that, you know, things have changed. Now we send all those kind of samples out to a private lab. But it was pretty hands-on when we started back in the '70s and '80s.

MR. STARR: Was that strictly groundwater?

MR. KOEHLMOOS: Yes. And then the focus was more for water quality for domestic use. So, we did a lot of household wells, and, you know, that was the emphasis, make sure that what people were drinking out there in rural

Nebraska was safe. Sometimes, I kind of wish we had broadened that right from the start, because we found a lot of point source problems because of the location of the wells. And again, we were identifying that to caution people that maybe they did have a nitrate or a bacterial problem with their domestic wells. But, it skewed the results somewhat. Sometimes, the analyses from early years make it just look worse than maybe what we really were.

MR. STARR: When you went to work for the NRD, what surprised you? What was kind of a --

MR. KOEHLMOOS: I say it over and over that when I went to work for the NRD, we were a service agency. Things have changed a lot over the years. We used to check people's water for their safety. We used to build dams. We'd plant thousands of trees. We helped people and provided services. Over the years, conditions have changed. We've become more regulatory. Now, we're essentially telling people how to farm, where they can put their wells, how much water they can apply. It's not like the old days when we started. Things have evolved considerably over the years and we've become more of a regulatory agency versus a service agency.

MR. STARR: And how has the board evolved to meet that change?

MR. KOEHLMOOS: We still have two directors that

were original directors from 1972. Yeah, so they've got over 42, 43 years of service. I think the consistency of that kind of situation has been good for us. We are one of, I believe, three NRDs that still have 21 directors on our board. Sometimes that seems like a lot, but with the size of our district, we're nearly 8,000 square miles in size. We run 180 miles east to west, 90 miles north to south. By having that number of directors, we get a good representation across the NRD. If we have a situation in one location where it's a neighbor on neighbor situation, you know, and the board -- maybe those local board members are hesitant to make a decision that might be regulatory to their neighbors, we have enough diversity across the district that that's taken care of. And it's worked well for us.

MR. STARR: Yours is perhaps a diverse a district as there is in the state from heavily irrigated areas to heavily range land. How has that affected the way your board thinks and the way the staff has to work?

MR. KOEHLMOOS: Well, we're as diverse from east to west across the Lower Loup as the state of Nebraska is from east to west. We're approximately 60 percent range land and Sandhills to 40 to 50 percent. Now that margin's kind of moving cropland. We have over one million acres of irrigated crop, so that's 11,000 irrigation wells that we

take care of. And, you know, it's a big job. It's just gotten a broader base.

As far as the directors, we've had ranchers, farmers on the original boards. It was more of an ag group. But now we have professional engineers, we have NPPD directors that are corporate individuals that know kind of how corporations have to work. And the diversity of the board has been a real plus, because we've got bankers, lawyers, farmers, ranchers, a good diversity. So, we've got a lot of expertise there.

MR. STARR: You had much issues of getting people to serve on the board?

MR. KOEHLMOOS: Yeah. We don't have a very big turnover. A lot of our directors have been there for 12, 14, 18, 20 years. I mean, there's not a big turnover. Most of them had an interest in natural resources when they got on the board. There's not a lot of competition. They just seem to, you know, keep running for their seats. And it's been good. Sometimes, you know, maybe we would look for new ideas, new blood. We have gotten a couple of new directors here in the last couple of years, young guys that are, you know, are more progressive, a little more technical as far as agriculture. So, I can't complain. I've got a great board, a great group to work with. You know, and I wouldn't change any of them anytime.

MR. STARR: How has your staff evolved? I know, when you started out, you were probably a staff of a handful or less.

MR. KOEHLMOOS: Yeah.

MR. STARR: And now a lot more.

MR. KOEHLMOOS: I think when I started with Dick Beran out there, we had six of us that were pretty much running. And then we had, naturally, being a large NRD, we had a number of field offices. So, our contact with field office, headquarters office was probably a little more substantial in those early years. We had field technicians, conservation technicians that are still active in picking up samples, working one-on-one with the landowners. But we went to a professional engineer. We have a full-time forester on staff, a couple of bookkeepers, a whole lot of water staff that keeps track of certified acres and working with landowners on acre transfers and irrigation matters. So, I think we went from five to 27 now. I believe I've got 27 on staff.

MR. STARR: How has the relationship or working relationship with SCS, now NRCS, how is that and how has that evolved over the years?

MR. KOEHLMOOS: Well, it's probably not as close a relationship as it was in the early days when we were doing more of the service-type functions, planting the trees,

building the terraces, providing technical assistance to NRCS to -- because of some manpower needs. Today, everything's technical. You know, the NRCS doesn't spend as much time out in the field. Most of the planning is done on computer with all the aerial photography and everything. You know, they're able to do it within minutes, whereas before, we would have to make contacts, maybe see two landowners a day out in the field and do it manually. So, they've gotten more technical. We've gotten more technical. We're still partners. We still have a strong interlocal agreement with the NRCS. We meet quite often for conservation programs, et cetera. But we're not quite as close as what we were in those early years.

MR. STARR: You mentioned regulatory. Where are you -- where's your history at in terms of regulation? Where's your --

MR. KOEHLMOOS: Well, we have a moratorium in place. We were one of the first districts -- not the first, but one of the first districts to put a moratorium on new wells back in 2006. We put a moratorium on the expansion of irrigated acres in 2008. We did most of our regulatory work through the Groundwater Management Protection Act. We felt that was an appropriate way of handling -- actually, taking a more proactive, slowdown approach in irrigation development, so we didn't get into some of the conditions

that they have found down in the Upper Platte/Republican Basins. Personally, it was Ron Bishop, one of the icons and water masters of the state, that just said, “Don't get yourself in the situation I'm in down here, you know, that you overdevelop, and now you have to buy those acres back. Try to take a proactive approach, take a look at where you're at, and just don't get yourself in a bad situation.” And that was the best advice I've ever gotten.

MR. STARR: A lot easier to look forward than to try to back up.

MR. KOEHLMOOS: Yeah, it's very expensive to give acres away and then have to buy them back at a later date.

MR. STARR: In terms of you regulation, when some individual landowner says, “I want to drill an irrigation well,” what do you look at? What's the criteria?

MR. KOEHLMOOS: Well, there is a moratorium in place, but if we're not -- you know, we haven't squelched development. What we can do is we've worked on a transfer basis where, if that landowner can find existing acres that maybe aren't in the prime location, and those irrigated acres could be retired and transferred to a new location that fits our criteria, he can go ahead and develop. We're not as concerned anymore about the number of wells that they drill. We're more concerned with the acres irrigated, and we're trying to regulate by consumptive acre. So, a lot of

districts have gone to allocation. They've gone to limiting the amount of water pumped. We feel that the crop uses a certain amount of consumptive use. It's offset by the amount of grass that used to do the same thing, only maybe not quite as broad. And I think we've done pretty well with that. We do require meters in certain parts of the district, but it's for water quality management, not quantity. Right now, we're blessed with a fair amount of water. We're in good shape. We've got some areas where we have over 1,000 foot of saturated thickness. These landowners think, well, I've got water forever. The problem is that through the years, we've learned, you know, and it's been quite a learning experience, is we can only manage the top three, four, five foot of water before we start causing consequences with stream flows, wet meadows, all of the above. And now all of a sudden that 1,000 foot of water really isn't available to us without consequences. And so, we've come a long way in that, you know, with modeling, with, you know, a lot of the technology, with working with the University to determine what are our water uses and how can we become more sustainable.

MR. STARR: Have you had domestic irrigator conflicts?

MR. KOEHLMOOS: 2012, everybody had problems. We weren't as serious as most places. And I think what

happened was, we didn't have a water shortage problem as much as we had an old well problem. I mean, a lot of those wells that were going dry, pumping air, not performing were old wells that were drilled 50 years ago, and now they -- you know, they were put in the top part of the aquifer. The pumping was less. Windmill situations, maybe old pump jacks and jet pumps. So, I think it was really a well situation, but a lot of it was livestock wells, and it was so droughty, that most of the guys had to pull cattle off of the hills and they didn't know that their wells were dry, because they didn't have cattle to use them in the first place. So, we got along pretty well, unlike some of the districts over east like the Lower Elkhorn, the Lower Platte North.

MR. STARR: You're a district that has several irrigation -- surface water irrigation projects.

MR. KOEHLMOOS: Yes.

MR. STARR: Some of which have been there for a long time, some of which are a little more recent, plus you have private individual pumpers from the various streams (indiscernible) district. How have you worked with them and how does that fit into how you're doing in terms of regulation and --

MR. KOEHLMOOS: That's a good question. We have six surface water projects across the NRD. They're very important to us. I think one of the reasons we're in such

good shape as far as groundwater supply is because of those surface water projects. We've -- we spread water over areas that have recharged and allowed us additional groundwater pumping because of those projects. They've gotten smarter over the years, though. They're starting to put a lot of those earthen canals into pipe. And it has shown up. You know, we've got some areas now that maybe aren't as good a shape as what they were years ago. But we've got a close relationship with the irrigation districts. We have a Loup Basin Water Association where it's five of the Loup Basin -- Central Loup Basin districts come to meet with us on a -- oh, not a formal basis, but when situations arise, we try to meet at least once or twice a year. And, you know, we're just letting each other know what we're doing and how things are going. And it just kind of -- we talk about various projects and things that are coming up in the future. And it's been a good experience.

MR. STARR: In terms of water quality, do you have the significant point source issues? You know, you think of the obvious example is Adams at Broken Bow. But, do you have a lot of point source issues with water quality or is it more just a general thing?

MR. KOEHLMOOS: No, I think we do have point source problems. There's no doubt about it. You know, we could have a well that runs three or four times the public

health service standard and all of his neighbors are fine. It's usually, you know, a situation from the past that, you know, we've picked up. We do have one area that is a Phase 3 water quality management area over in Nance and Platte County. It's approximately 50,000 acres. That is three and four times the public health standard.

MR. STARR: Because of nitrates?

MR. KOEHLMOOS: Yeah, because of nitrates, right. And we have put some additional regulation in over there. They've been a Phase 3 area for about eight years. We've tried to do management over there on a voluntary basis, and it really hasn't been very effective. So, we're slowly but surely requiring more mandatory measures to try to control that. The problem we got is it's an area that's been highly irrigated for a number of years by gravity. It's shallow water tables, coarse-textured soils, everything against it as far as farming, except the fact that it's productive. And the landowners over there, naturally, are trying to make a living, grow corn on corn, have a number of livestock in the area, spread a lot of manure, spread a lot of fertilizer, grow good crops, but, you know, we do have a water quality problem because of it. And we're dealing with it, but it's slow.

MR. STARR: How about with the communities in the district? Do you have some wellhead protection areas?

MR. KOEHLMOOS: Yeah, we were one of the first districts that started a wellhead protection program. We have a young kid that we hired here a couple of years ago, Jason Moudry, that works with the communities. He's our wellhead protection coordinator. And, you know, that's a slow process trying to win over the confidence of the communities in our area. I have 45 communities in the Lower Loup, so we've got a number of towns to work with. One in Class 1, Columbus, is our largest metropolitan area. So, we're doing more with the urban now than what we have in the past. Our concentration had always been more rural, but we're trying to switch that over and be more proactive with the communities, as well.

MR. STARR: Getting back to your board, over the years, there've been several changes in how directors are elected in terms of going the one-to-one and all that type of stuff. How did your board adapt to that and was that a challenge?

MR. KOEHLMOOS: No, it actually worked out pretty well. Our board said right from the start that we would try to maintain a one-to-one ratio as close as possible. In the early years, we were three-to-one, like most districts. Naturally, when you start, not everybody's comfortable with each other and the rural guys thought maybe they were going to get taken over by the urban because of population. It

has had a major effect on us. You know, half of our population is in the eastern third of the NRD around that Columbus area. That's where most of the people are and that's where most of the directors are coming from. Our western subdistricts are very, very large. Our eastern subdistricts are fairly small and highly populated, but it's been a good blend. We've never got into this east versus west within our board. It's come close. It's been a challenge, but the board really looks at the big picture. They understand that the east has different problems than the west, which is more range land situation versus the urban. And we try to balance it as best we can. I think it's helped us, actually, because of the fact we've gotten more professionals from that eastern part of the district to blend in with the agricultural interests, and it's given us a good diversity. A good insight.

MR. STARR: One time, perhaps 25-30 years ago, our Commission met in Ord at your office, I think. And before the meeting, Dick had arranged to take Commission members and some staff on an aerial tour of the development that was occurring, center pivots in the Sandhills, mostly. Is that still an issue or is that kind of --

MR. KOEHLMOOS: Well, yes and no. You know, we still feel that the Sandhills were meant for raising cattle and not corn. Although, I'm not sure if I can use their

name in this situation, but that particular development, you know, was very large scale. You know, gosh, it's been a lot of years ago. Our board was concerned that they were going to become nitrate problems and pollution problems because of converting that Valentine sand into farm land. And so, we tried to put in a patrol area at that time. That's what was available to us as, you know, a regulatory authority. But it was meant for quantity, not quality. And we kind of pushed the envelope on that and we were turned down. So, you know, I think we've gotten -- you know, we did a lot of monitoring. We worked very closely with the developer in that area. It was a boon and bust type of situation, so a lot of it didn't last very long. The big insurance companies from Chicago and New York were buying up Sandhills land because it was so cheap, putting pivots on it, selling it high. Somebody took a loss. I don't know exactly who. I suppose stockholders somewhere.

MR. STARR: Somebody.

MR. KOEHLMOOS: But we converted a lot of that back to grass. And the CRP program helped a lot. We kind of paid them a bonus to fix a mistake they -- you know, we knew was going to happen someday, but it's kind of in the past. I think we're in good shape now.

MR. STARR: Did any of those quantity/quality problems that your board feared actually develop

(indiscernible)?

MR. KOEHLMOOS: No, because the bust came fairly quickly, it was those years in the early '80s when corn was three and a half, four dollars, wow! You know, that was, like, unheard of. And development was rampant. When it dropped back down to that $1.80, $1.90 level, it cooled off. CRP came in, kind of rescued us. Some of those areas I seeded back to grass a couple of times, but, yeah, it just wasn't feasible. We knew it wasn't going to be feasible and it turned out to be correct.

MR. STARR: So, a few years ago, you know, the price of corn went back up to six, seven, eight. Was there a lot of pressure came back then?

MR. KOEHLMOOS: Well, high commodity prices are the scourge of conservation. All reason seems to go out the window anytime corn goes over $4. And the $8, it was a boon for the landowners. There's more debt paid off than I've ever seen. There's less debt in our district now than ever. I don't know that there's ever been farm land that's been totally paid off like it has been today. But, you know, like I said, more fertilizer used, of course, the cost of fertilizer has been a benefit to, you know, it's gotten so expensive. Landowners are just smarter, you know, farmers are smarter. They have to -- they have a very small profit margin, normally. And they have to be very, very precise in

their applications. Technology has made a tremendous difference. And so, we don't see the big mistakes that we used to see in the past.

MR. STARR: Well, you know, Butch, I've about run out of questions.

MR. KOEHLMOOS: I appreciate that.

MR. STARR: Is there anything else that you --

MR. KOEHLMOOS: Just that it's been a hoot. I've been with the district for 35 years. I am starting to think a little more about retirement, but I really hate to give this up. It's great people to work with.

MR. STARR: Well, thanks a lot, Butch, appreciate it.

MR. KOEHLMOOS: Yeah, thank you.

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