Oral History Cover Sheet

Name: Herb Dill
Date of Interview: March 9, 1988
Location of Interview:
Interviewer: Kevin Kilcullen

Approximate years worked for Fish and Wildlife Service: 34 years **(**1935-1969)

Offices and Field Stations Worked, Positions Held: Biologist at Arrowwood National Wildlife Refuge, CCC Program at Tule Lake National Wildlife Refuge; Refuge Manager, Ruby Lake, Nevada; Swan Lake National Wildlife Refuge, Missouri; Manager at Sand Lake National Wildlife Refuge, South Dakota and satellite areas in North Dakota; Mud Lake (Agassiz) National Wildlife Refuge, Minnesota; Regional Refuge Biologist, Minneapolis Regional Office.

Most Important Projects: Changing Mud Lake National Wildlife Refuge name to Agassiz National Wildlife Refuge, invention of cannon net; established Tewaukon National Wildlife Refuge

Colleagues and Mentors: Howard Thornsberry, Forest Carpenter, Fran Gillett, Don Gray, Ira Grabrielson, J. Clark Salyer, Bill Green

Most Important Issues: condors; before Dill's arrival at Mud Lake (Agassiz) farmers blowing up dam; realtors selling land to people that was too boggy and marshy to farm on and they nearly starved to death

Brief Summary of Interview: Mr. Dill started with the Biological Survey in 1935 working with CCC's at Arrowwood NWR. He mentions the various refuges and offices he worked, inventing the cannon net, issues on the various refuges, the name change to the Fish and Wildlife Service in 1939, establishing refuges, changing Mud Lakes name Agassiz, and his family.

Keywords: history, biography, employee (USFWS), refuges, military, CCC Program, refuges, some hatchery related work, waterfowl, banding, cannon net, Ira Gabrielson (First Director of USFWS), J. Clark Salyer (Chief of Refuges), Biological Survey

Biographical Sketch

I was born on October 23, 1912 at Iowa City, Iowa. My parents came from Maine; my father was a professor, Museum of Natural History State University of Iowa from 1906-1958. I graduated from Iowa in 1934 with a B.A. double major: psychology and zoological sciences. I joined the Biological Survey in 1935 as a biologist in the CCC's at Arrowwood National Wildlife Refuge, transferred and promoted to the CCC Program at Tule Lake National Wildlife Refuge, Tule Lake, Ca. March 1936. I was married to Elizabeth Bestick, Detroit Lakes, MN in June 1936. Elizabeth passed away in Jan. 1974. I was married again to Hazel Macey, Arcadia, MO March 1975. I have four children, John, Zoe, Patricia, and Donna; Hazel has two daughters, Rosalind and Teresa.

At Tule Lake, CA in 1938 I took the Civil Service exam for refuge manager, passed and was assigned to Ruby Lake, Nevada; the first manager there. I served at Ruby until June, 1978 with the exception of two years in the Navy. In 1948 I transferred to the Swan Lake NWR, Sumner, MO and was there until June, 1951. I managed the Sand Lake NWR at Columbia, S.D. (and satellite areas in North Dakota) until June 1956. Then I was transferred to Mud Lake NWR (now Agassiz) and worked there until Jan. 1963. Then I was assigned to the Minneapolis Regional Office as Regional Refuge Biologist where I worked with NWR's throughout the 11 state central area. I also coordinated the research program with the Bureau's Research Centers at Laurel, MD and Jamestown, N.D.

Kevin: To start off, if you could identify yourself, tell me when you started working for Fish and Wildlife Service or whatever agency's name was at the time, just general information about your career, how long you worked for the Service and when you retired.

Herb: I'm Herbert Dill. I graduate from the State University of Iowa at Iowa City in 1934. I went to work for what was then the Bureau of Biological Survey in September of 1935 in the Civilian Conservation Program as a biologist. I started at Arrowwood, North Dakota, near Kensal and was there a relatively short time. I transferred out to Tule Lake in California.

Then I took the Civil Service Examination and became qualified as a refuge manager and was assigned to Ruby Lake, Nevada in 1938. I functioned as a refuge manager from then until 1963, both in Region 1 and back in Region 3. The last 6 years that I worked--I put in 28 years as a manager--the last 6 years, 1963 till 1969, I was the biologist in a regional office in Minneapolis. I retired in 1969.

Kevin: Could you mention some of the refuges you were at or where you were stationed?

Herb: Of course, I was at Arrowwood, ND; Tule Lake, CA; Ruby Lake, NV; then Swan Lake, Missouri; Sand Lake, SD for 5 years; then I was at Mud Lake, MN, later the name was changed to Agassiz, in fact, I was the guy that changed the name of the refuge. We didn't care for the name Mud Lake; there were 101 Mud Lakes listed in the state and we decided a more appropriate name would be Louis Agassiz from the original, historical Lake Agassiz. Salyer commented, "Well Dill, at last you have a name that few can pronounce and no one can spell!"

I knew Ira Grabrielson quite well. Of course he was an ornithologist and he came to Ruby Lake and visited with me at the time he was the director; this was in 1939.

Later, after I went to the Minneapolis regional office, I had as one of my responsibilities to select about 125 student candidates for summer employment. Many of these students were undergrads but some were working on a master's thesis. I reviewed their work and made recommendations for their employment. We worked mainly with the Land Grant Colleges located in the Middle West.

Kevin: The system, the way Salyer had his concept as to the way the refuge system was set up, was it very controversial at the time? Did things go smoothly the direction he was taking?

Herb: At my level, no. I always had the feeling that J. Clark was more into the day to day management of any given area that he visited. He'd have some very positive ideas about what we should do. If you differed with him, you could discuss things pro and con and he liked this. I'm sure he liked the fellows to show some spark and not always be in complete agreement with the boss, so to speak. I liked him and worked well with him. He was always a good supporter. I believed in the program, there was no question about that. I thought it was the only thing.

On a program of that type there are some conflicts, of course. A good example would be Agassiz. Most of the land was acquired through the Resettlement Administration. Are you acquainted with that? It was a government program in FDR's time whereby poor families that were on marginal lands and just couldn't make a living were bought out and moved to a better location. A lot of the refuge lands were acquired in that way. Some of these people didn't want to leave. To complete the refuge and round out the boundaries, we had to have the land. Some of these cases wound up in court and of course, there were conflicts, but ultimately the acquisition program was achieved and we had the project going.

You were left with a small group of people that were bitterly opposed to the program and the manager's job was to somehow reconcile these people to the program and what it stood for. Then, of course, there was the problem of crop depredations. Waterfowl don't know the boundaries and go over and eat the neighbor's crops. So you have that to contend with.

At Agassiz these were two problems I had to attempt to solve. I can tell you an interesting story about Agassiz. When it was started and one of the main water control systems was put in, a group of farmers got together at night and went down there and dynamited the dam. I wasn't there at the time, but one of my predecessors tells the story and it is a matter of record. The biologist on the project who was assigned to a CCC camp located there had the courage to go down there at the time this was going on and recorded all the license numbers from the cars. Later he succeeded in getting an injunction against these people. The dam was restored and development continued.

Years later, when I was manger there, maybe 15 years, I was going through the old records and came across a copy of this injunction in which was listed all these folks. Well, I read the names and lo and behold, 4 of them were working for me! They were on the crews. I thought that was interesting. (laughter) Of course, I didn't mention it to them and they continued to work there. By that time it was water over the dam and everybody was pretty well reconciled as to what had happened.

Agassiz constituted and immense marsh and bog area in northern Minnesota and had been purchased, developed, and sold to people who wanted to farm. They migrated there by railroad, horse and buggy, or anyway they could get there. It constituted a big hoax because it was not land that could be successfully farmed. These people were nearly starving to death at the time the refuge was started. Actually, to my mind anyway, the refuge was a great improvement and it eventually restored a wildlife resource that was historical in that part of the country. Together with the state ownership, we had between 60,000 and 80,000 acres under management.

Kevin: If you could sit back and recall a little bit, in your opinion, if you could pick up two events or landmarks or milestones in the development of the Service or the refuge system in your career, what would two or three of those be? What were the most important changes or milestones that you can recall?

Herb: Well, I suppose that more of the physical development was accomplished with the CCC program than any other program that we had. Many of the road and other facilities were built under that program. Considering the limited resources, a great deal was

accomplished with the CCC. I lived in a CCC camp for 2 years, so I was well acquainted with what was going on. All around me I saw where young boys were brought in and got some training and experience that lasted them and had an impact for the rest of their lives. So, the CCC program was a wonderful program at the time. It fit the circumstances and the results were generally good.

Beyond that, of course, the name of the bureau was changed to the Fish and Wildlife Service about 1939. Things gradually progressed to the programs that we know today. As we learned more about the populations we were working with, it was changed to fit their needs. Aside from the CCC program, I can't single out any other particular thing.

Public acceptance was a big factor. As time went on, the managers learned this and they also learned that these projects had to fit the local community. My principal was to work children. I put great emphasis on working with the schools in the surrounding area. Thus the students became what we were doing and why we were doing it. As a matter of fact, many adopted this approach. In other words, the program became functional as part of the community and part of the natural resources of the community.

Kevin: I'd like to ask you a question about that. Is there a point in time where you can remember where the service became more cognizant about trying to get the public involved and trying to get visitors to come to refuges? Is there a particular period where that is starting to be recognized?

Herb: No, I really can't. I think that each manager recognized the need for this sort of thing. WE had our get together every two years, we'd have a refuge conference and the fellows would all get together. We knew where the money was coming from. You had to make the thing fit to some degree in the scheme of things with politicians. This is my own opinion but you'd hear some of the guys say, "Dill, how can you afford to fool around with those politicians?" Well when you consider that, in most cases, the local Senator or Congressman sat on one of the committees that dealt with appropriations; I saw a very practical thing there. There was just no way to ignore it. No matter how high minded or how you might consider your program in relation to the resource, if you didn't

have the cooperation and the understanding of those people, you'd never get off the ground with it. I'm sure that is true, and most of the guys recognized this.

Now, when you speak of public relations, there are several elements involved. There was always a lot of pressure for hunting and fishing. Here you often run into direct conflicts with the use of the area by wildlife. In other words, you can to a degree have both public use and maintain the resource, but somewhere along the line it has to mesh with use by wildlife. That had to be worked out. I always personally felt that hunting and fishing should be minimized, that such uses should be subordinated to the principal objectives. While some public use could be accommodated, some could not. For example boating, some cases, as at Ruby Lake, this precedent was established in the 1950's and has been troublesome ever since.

Kevin: Let's go back to one thing you were just talking about, the name change in 1961 and I know there was a reorganization in the mid-1950s where the Fish and Wildlife Service actually had two bureaus under it which was Bureau of Sport Fisheries and Wildlife and then the Bureau of Commercial Fisheries. Do you recall how those reorganizations effected on the ground operations of everyday?

Herb: To some degree. On a refuge where you had a fishery resource it was difficult under the original set up to find knowledgeable people in fisheries to help you with management. As time went by, and the two services were combined, I remember Fred Foster became active in the regional office in Region 1. We had a significant trout and bass fishery at Ruby Lake, and I was involved in fishery management to some degree. This came along about the time when we needed some good technical assistance from fishery people. Yes, when whose two things happened, it was much better.

Ruby Lake was the only refuge I ever had that had a trout fishery and a hatchery. For example, Agassiz there were game fish on the refuge and there were game fish in the river that bordered the refuge. Because public fishing was in conflict with waterfowl production, no fishing was allowed.

Kevin: Were you involved in the creation and the development of any refuges, any particular refuges?

Herb: Yes, when I was at Sand Lake, we had some satellite areas, easements, in North Dakota and there was one near Cayuga, North Dakota named Tewaukon. I became acquainted with some of the local people who wanted to do something more with this area, Tewaukon, other than just put signs around it and call it a refuge. They wanted it developed and managed. Here again, there was a fisheries involved, so I helped these fellows to the extent that they organized a sportsman group and requested that land acquisition be done to acquire what was just an easement area. So Tewaukon was established under my administration at Sand Lake. Forest Carpenter was in Minneapolis at the time and he and I worked on establishing Tewaukon.

Kevin: What kind of problems or obstacles did you encounter in trying to set up or creat a refuge?

Herb: Tewaukon was established from the grassroot level. I had learned that there are one or two key people in any community that are the real movers behind such projects. I talked with these people and sold them on what we were doing at Sand Lake, S.D. and invited them down to see it and see how it worked. They knew a local banker who handle real estate and they talked him into going out and buying or taking options, or purchase contracts, on all of these lands that were needed for Tewaukon. Then the whole thing, through him, transferred ownership to the Fish and Wildlife Service. This was accomplished over a period of 10 years. This arrangement worked well. In other cases an individual owner with extensive holdings might wish to cooperate with the Fish and Wildlife Service by selling to the Bureau. In the case of Tewaukon, a leader was needed locally. The president of the conservation club filled that requirement very well.

At Agassiz, I cooperated actively with the state of Minnesota in forming wildlife management areas. These areas were adjacent to the refuge and complemented refuge objectives by providing additional space for wildlife, both waterfowl and big game managed hunting was provided on these areas which were administrated by the state. At

most refuges I managed, I was well acquainted with the state conservation departments and worked cooperatively with them. The exception was Ruby Lake. Ruby Lake was a different story all together being highly controversial and political. Over the years every manager that was there had a difficult time. By all reports, it's still the same way.

Kevin: In recruiting refuge employees, what qualifications did you look for to get people to come to work for you at the various refuges?

Herb: I spoke of the student assistant program, which proved to be an important source of people qualified for refuge employment. After a summers' employment at a refuge we were able to assess their aptitudes for refuge work. Most of these men and women ultimately attained a master's degree at the conclusion of their employment one or two years later, they would write a report stating what they thought about the program, and their accomplishments. In many cases valuable research was done. If they were working on a dissertation for their master's we would assign them to a project that would contribute to the management of the refuge. At the conclusion of their employment they would take the Civil Service Examination and we'd hire them. It was an excellent program in terms of producing people that we could use.

Kevin: Were these with state universities for these particular students?

Herb: Yes, most student employees were hired from the Land Grant Universities such as Michigan State, Iowa State, et cetera, or from other universities which had wildlife management curricula. Following their employment as assistant managers, we had a training school at Arden Hills. These people would be invited to participate in a six week training course in Minneapolis and us refuge folks would serve as instructors. This produced good people, well trained, in terms of what we wanted.

Kevin: Refuge managers. What kind of qualities did you consider for an individual to have in order to be a successful manager?

Herb: The thing that I always looked for was the ability to communicate. If you couldn't tell your story so that somebody else could understand it and work with you, you were dead in the water. In other words, you should be able to write acceptable or a report to get across what you wanted to as well as what you are doing. As a refuge manager and line officer in the Bureau, you not only need to communicate with your superiors but you've got to be able to make the people on your staff understand what it its you're talking about. In most cases where there are conflicts, it is lack of communication.

Kevin: A difficult skill to master.

Herb: I agree.

Kevin: You were involved in the development of the cannon net.

Herb: When I reported to Swan Lake, MO, there was a small population of Canada geese visiting the refuge, 10,000 or 12,000 birds. We wanted to learn more about their movements and the dynamics of the population. This is accomplished by banding. Some of the refuge employees had been trying to trap these geese with very little success. They used what they termed a walk-in trap. They would bait them in and trip the lever on a gate that would fall. Unfortunately the geese were smart enough to know what the trap was, and they would not go in, in any numbers.

I looked at it and I thought, "…as long as they will respond to bait…if they'll come up to bait in a group, there ought to be a way to throw a net over them." So I started experimenting with this idea. We were short on money, so we salvaged some fish nets with 2 inch mesh, then we made some cannons. We took the drive shaft of a Model A, it's tubular steel you know, and it happens to be 2 ½ inches in diameter. WE bought some steel shafting 2 ½ inches in diameter and made projectiles. Put a loop on the end of the projectile, tied a rope to that and to the net, and started trying with propellants; we even tried dynamite. The Hercules Powder Company had a representative out there, he told us about propellants that would work a lot better that dynamite. One thing led to another and we finally got to the point where we had about the right combination with 3

cannons and the net. Then in 1948 we made our first catch of geese. I wrote the Regional office describing my work with the cannon net. Fran Gillett was there at the time but he thought shooting cannons at geese on a refuge was a bit unorthodox to say the least, but we finally convinced him. Actually, we got to the point where we could shoot the cannon net, Kevin, and the geese—you've heard of the Pavlov experiments—would respond to the bait, corn. The trap worked well and I published on it and ultimately it was used for catching wild turkeys and other species of upland game birds and mammals. It proved to be a real bonanza for catching turkeys, which are difficult to trap. Hence, the cannon net trap was a breakthrough for turkey management.

An example of the efficiency of the cannon net: with a crew of 5 men in 8 days we caught 10,000 geese, examined them, and banded them. It has also been used for catching deer. Marlin Perkins asked me to design a special cannon net for use in Venezuela. He needed to project net over a tree where monkeys had taken refuge from a flood. He wanted to rescue them and take them to higher ground. We designed this trap for him and it worked. He was a most interesting man; he got back to me and told me that it had worked. The only trouble was getting the monkeys out of the net; they bit you know. He said they could catch them but handling them was something else.

Kevin: What was the period of time that you developed that? Was that the 50s?

Herb: The trap was developed in 1948 and has been widely used ever since. They used it to capture the last of the American condors.

Howard Thornsberry was my assistant at Swan Lake. He did the welding and the cutting and the mechanical part. I came up with the idea and together we did it. After I left Swan Lake I collaborated with some people at the Crab Orchard Refuge who produced pyrotechnics. They showed me how to design a small, solid, state rocket, which was a major improvement. Then the Army suggested a much better propellant. These refinements added greatly to the efficiency of the net trap.

Kevin: Was there anything else you'd like to talk about? Any other questions or anything else you'd like to bring up that pops into your mind as being important? Those

were basically the questions I wanted to ask you, but feel free to talk or discuss anything else you'd like.

Herb: We were speaking about narrative reports, if you could get your hands on some of those dating back to the 40s you'd find them very interesting; I don't know where you'd find them now. I've been retired since 1969, and to go back…I know I saved them for years, and they began to mildew and gather dust to the point where I thought, what the heck, so I pitched them. The archives surely don't throw that material out; those things tell quite a story. You'd have to wade through quite a pile of material but there are some real nuggets in some of them.

Kevin: I read the ones that we get in now, and they are very interesting and some of them are very lengthy; some of them are pretty thick. They are fascinating reading; the details in there.

Herb: Especially the guys that had a dark room and took pictures. At Agassiz I had a first class dark room, and in fact, I did a lot of photography myself.

Kevin: And what was the date when they first started? In the 30's?

Herb: Yeah, it was in the 30's; Fran Gillett can you better. I was doing them at Ruby Lake from the start in 1938. I think by 1940 we were all preparing them. Once a month at the start and then they made it every three months. Finally, every four months, three times a year.

I would say this, I certainly don't regret my years as a refuge manager. It was a part of my life I wouldn't trade for anything. I have one boy and he's a journalist and at the moment he is selling advertising and brokers printing, but he's just as interested in the outdoors and hunting and fishing as I ever was. The problem now is getting a job. You spend all these years in school and get a master's and where are you going to work? I have talked to a number of people with degrees in wildlife management, they had to do

something else. At one stage of the game we were hiring quite a few people, but lately it doesn't work that way.

And we've seen women come in. There were no gals in the picture when I was working. Did you meet Nina Fuller at Santa Anna? Doing a bang up job by all reports; I don't know her, but there are a number of others around the country. Of course, I would occasionally have female writers or biologists turn up at my station, which was fine. We always encouraged them to come to the refuge.

One person you really ought to talk to who worked at the same time as I did would be Don Gray. He is retired now at Winona, MN. He had Lower Souris Horicon, and Upper Miss. And Bill Green was a biologist there at Winona for many, many years; he was on my staff. We did a lot of work on geese together. He has his doctorate from down here in Texas, Texas A&M I think. Bill is an interesting guy to talk to and a very bright individual.