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Herbert Evison's National Park Service Oral History Project, 1952-1999

George Baggley
September 20, 1962

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George B. Baggley

Reel LXIX

Includes changes and corrections
offered by Baggley, March 1964

[START OF TAPE 69, SIDE 1]

Herbert Evison: This is Herbert Evison, at Rocky Mountain National Park, and today is the 20th of September 1962. I am going to be talking for awhile to George Baggley, who is one of the assistant regional directors in the Midwest Region of the National Park Service but who has been with the National Park Service for a very long time and in a number of responsible capacities. I first knew George in the beginning of, or fairly near the beginning of, the CCC program about in 1934, but even at that time he was an old-timer in the National Park Service.

Herbert Evison: George, when did you start with the Park Service and in what capacity?

George Baggley: Herb, I was a ranger to begin with at Yellowstone in 1928, started to work there May 18, 1928.

Herbert Evison: As a permanent or as a seasonal?

George Baggley: No, I was a permanent ranger. I think I was probably the first one to be appointed off of the Civil Service register in the Denver region as a ranger; and shortly after that others followed, including Fred Johnston, John McLaughlin, and others that you know. I am quite sure that I was the first one selected off of that Civil Service list.

Herbert Evison: All right, now give us a little round-up on your Yellowstone career, because I remember you were chief ranger there when I first knew you.

George Baggley: Herb, I think maybe what you have in mind is some highlights, and I might begin by saying that I arrived in Yellowstone on the 18th of May; spent the first year at Lake ranger station and in the east side of the park on mostly field work, telephone line, trails, building cabins, and so on. Then in the fall I met Mr. Albright, who was then superintendent. I had never met him at all until way in September the first year I was there. He called in from the East Entrance and was having car trouble and wanted me to come out and help him come in, so I did; rode a motorcycle out to help him come in. And I met him then, and that winter for some reason which I will never know, John McLaughlin and I were assigned to Hell Roaring station in the north end of the park where it's right in the middle of the winter game range.

George Baggley: We were there with instructions to take game observations and to find out as much as we could about the wildlife. That winter at one of the winter meetings — and I have forgotten that it was — Albright said, "Well, now, look: Mr. Woodring, the chief ranger, is going to be superintendent down at Teton and it could well be that some of you fellows, even a man who has just come to work, could be new chief ranger of Yellowstone next spring."

George Baggley: Nothing more was said. I worked all winter; so did John; and we did keep good records of our wildlife observations. Came spring I was asked to move into headquarters and work in the chief ranger's office. I could type a little bit and I knew a few office procedures. I had been there only just a short time when I took a few days' leave, went to Denver to visit because I had gone to school at Fort Collins; and while in Denver I went in to meet Roger Toll, who had just been appointed superintendent of Yellowstone. Visited with him and with Edmund Rogers a little while. And Mr. Toll came back later, in May I think it was, to the park, and he began passing me extra duties, things to do and so on. And Mr. Albright came out from Washington along in June, and I remember this so well: they told me about ten o'clock, "Won't you wait until after twelve; we want to talk with you." Well, I had no idea what they wanted to talk about, but I was working. So, they called me in about 12:15 and Mr. Albright said, "Well, Mr. Toll has selected you to be chief ranger." And I had been there only 13 months. You could knock me over with two feathers. It took me a while to get over it. At any rate that was it.

George Baggley: I was chief ranger and had a very difficult time for two years because: the rest of the group — thirty-some people — were all people who had been there almost since the Army days, you know. But they were really a fine group of people after all, and they worked out very well. Some of them raised Cain about appointing a new person as chief ranger but they got it out of their system and went along fine.

George Baggley: And quite a few things happened that first year that were interesting. We changed the ranger districts; we started the ranger grades from two I think to about four or five different grade levels, or as we could. At the same time Congress had authorized an increase in pay which helped to give opportunity to bring better people in, more experienced people. And Joe Dixon and George Wright, who had been working on this wildlife program with Ben Thompson, came in.

George Baggley: As you know, I think, Joe Dixon's salary was paid by George Wright. George contributed the money for the whole operation in the beginning.

George Baggley: And we were then having all sorts of problems with elk and other animals in the park, and no one had taken a scientific approach, or what we call today a research approach, of this wildlife problem. Joe Dixon and George and Ben introduced that. But there was a very definite animosity in the park against this approach to the wildlife problem because rangers had been allowed to kill coyotes. I myself the first year I was there killed about twenty; the hides were sold the following spring and brought $20 apiece, and we were each allowed to keep half the money.

George Baggley: The pelican — white pelican — up in Lake were controlled to keep their numbers down so they wouldn't consume too many fish. Things of that nature happened every day, so that we were in effect not filling our responsibilities to preserve the natural scene. And Joe Dixon and Wright were trying to develop an approach to this and to get park people themselves to understand what was happening.

George Baggley: Another interesting assignment I had as soon as I became chief ranger was to serve as treasurer for the Game Preserve group of New York. I have forgotten the exact name, but Bill Greeley and George Pratt and the Rockefeller people contributed money through a corporation called the Game Preserve, Inc., I believe it was, and I was given a checkbook and quite a bank deposit in one of the Livingston banks with which to buy land. We bought all of the private land in that triangle between the Yellowstone River, the old boundary, and Ross Creek [unclear]. I bought and paid for it with this private money which I kept in the bank down at Livingston, and did some of the appraising, and the Forest Service helped us with the appraising. But we bought all of those ranches and paid cash for it and moved the buildings and reverted the land to elk range.

Herbert Evison: Well, now, is that land that's inside of the park now?

George Baggley: That's inside the park now, yes, by the Act of I believe it was 1925, or 1930, rather, when the boundary was changed, the first change in the Yellowstone boundary that had ever been made, and included some areas along the east side and it changed the Gallatin corner a little bit. But we heretofore had been buying that land with private money on the assumption that the boundary would be changed, and then we would transfer it all to the government, which we later did, all in one block, you see.

Herbert Evison: In whose name was the land bought originally, this corporation that was set up?

George Baggley: This corporation, see? Just as Rockefeller did in Teton; and later you make one big transfer for the whole block.

Herbert Evison: That's a very interesting phase in land acquisition history that I had never heard of before, George. Certainly glad you mentioned it.

George Baggley: Well, it's one of those things, and these people send their directors out about once a year to see what we were doing, and we would take them over the wildlife range, and they all seemed happy. And when we would run out of cash all we would need to do was wire them and they would usually find some more money. And this led right into the work that Joe and George were doing. And after a period of about three years why, the

rangers in the park began to accept the idea that we needed scientific wildlife information.

George Baggley: This all led to our stopping control of the coyote, to protecting the birds up in the lake, ultimately to reduction in the number of Cutthroat Trout eggs taken in Yellowstone Lake.

Herbert Evison: Eggs: fish eggs?

George Baggley: Yes. The Bureau of Fisheries were taking up to twenty-five million eggs a year from the Yellowstone streams and Yellowstone Lake itself, because it was the one big reservoir of pure native Cutthroat Trout in the whole United States, and eggs were being taken there and shipped all over the country. That was changed and the Yellowstone Lake was allowed to go back to natural spawning and regeneration as it is today. Those are some of the things that came along.

George Baggley: And then the next big step, the next step of importance I think, was to begin getting more college people on our staff, to set up a professional forester. Fred Johnston, whom you know, was assigned as our first professional forester. We then later employed and assigned a man to wildlife, full-time wildlife studies. We began giving training to the rangers in ecology. We established in 1930 the first range study plots in the park; some twelve or fifteen plots were installed. And we set up a system of recording and photographing and reading them. They still are running them today and they have increased the numbers.

Herbert Evison: What kind of plots?

George Baggley: Range study plots.

Herbert Evison: Oh, yes. Fenced off?

George Baggley: Fenced off to exclude the elk so that you could see what was happening to the range and you could measure it in a scientific way.

Herbert Evison: Check plots.

George Baggley: Yes. Then we designed a system and started type mapping, and in three years we had a type map of the whole park, which is still in use today, the type map that we made in that period of ‘31 to ‘34.

Herbert Evison: Now, a type map means a cover map, types of cover?

George Baggley: Types of land cover for a whole area — the meadows, the shrubby section, the white pine, the lodgepole pine, the various classes of range. We are still working on it. I arranged this winter for the Michigan National Guard to take an aerial photograph of the north end of the park, and we are

having a mosaic made of that now, so we are still type mapping but in a different way, of course.

Herbert Evison: One thing that you mentioned interests me greatly, having lived through the establishment of a division of ranger activities and a sort of reallocation of responsibility for wildlife management work and the appointment or the selection in so many parks of a wildlife ranger or more than one wildlife ranger — now you appear to have anticipated that in Yellowstone by about thirty years.

George Baggley: I like to think that we sort of pointed the way to that, because well, this is indicative, Herb. You may remember that when I came to Washington in 1934 the basic reason that I came there was because of this interest in biology and so on; and if you will recall I worked for about four or five months in the CCC work with John Coffman, and then because George Wright wanted to expand this to the State Park program he asked me to stay on in that capacity. And strange as it may seem, I was employed there for two-and-a-half years as a biologist. Remember my training had been in forestry, but I still doubled over in this other job for two-and-a-half years.

George Baggley: And there in the State Park group you will remember we had twenty-two biologists.

Herbert Evison: You mean scattered around all over the country.

George Baggley: All over the country.

Herbert Evison: The Dan Beards, the Hans Hochbaums, the O. B. Taylors, and others.

George Baggley: Right. Those are the people that came into the Park Service through this State Park CCC group. And of course, you know where Dan is today; and Hochbaum is director of the waterfowl station up in Alberta and doing a very fine job, the author of several books on his work.

Herbert Evison: Yes, and a marvelous wildlife painter in the bargain.

George Baggley: Oh, yes indeed he is. Walt Weber: we employed Walt Weber, you know. Walt was a—. Victor Cahalane, who is now director of the museum up in New York State.

Herbert Evison: Yes. As a matter of fact, the Service got an awful lot of new blood at that time which has stayed in the Service and made its mark.

George Baggley: I don't know whether I should say so or not, Herb, but you remember the so-called Bloody Saturday, no doubt.

Herbert Evison: Yes, you bet I do, although I was not a participant in it. The big old argument about regionalization.

George Baggley: I think that was symptomatic of the time. As much as you love the men who were there and in control at that time, you can't help but think they made a mistake, because it seems to me it was the turning point, and if they had accepted Connie's ideas in those days to do what he wanted to do, what he saw was needed to be done, we would have been twenty years ahead of where we are today. We wouldn't be fighting this BOR problem anymore; it wouldn't exist. Because Connie foresaw all of this, you see, that's happening today, and he wanted to expand the Service and do it; but the preponderance of opinion that day was the other way, so the whole thing went the other way and tended to isolate the Service, I think, from the big problem.

Herbert Evison: Well, of course Connie ultimately won a lot of what he was working for at that time certainly — State cooperation; business on a permanent basis, regionalization first on a purely emergency activity basis —

George Baggley: The 1936 Act which was wonderful. Well, that's just an opinion, it probably isn't a fact, but—. And then I think we accomplished a lot with those 22 biologists working with the State Park system. When I came back to Denver and — well, first, some of the work we did under the State Park program: We did the Big Bend ecological study which is one as of the first that had been done, as you know. Doc McDougall and Walt Johnson did that. They started the deer study in Acadia through the State Park wildlife staff, because we had a man working up there and he had some work in Acadia and it sort of grew that way.

George Baggley: I went then to Isle Royale in the fall of 1935 with Vic Cahalane and Ade Murie. The CCCs were in there but they were working at that moment as a part of the Michigan State Park group. Shirley Allen was up there and Charles Shevlin; and we saw the moose problem.

George Baggley: Then I was moved back to Denver in 1936, as you will recall, as district officer. That period involved the supervision of CCC work in Colorado, Wyoming, and southern Montana, western South Dakota, and Nebraska. And I was at Denver for a little over a year, then transferred to Isle Royale as representative in charge — not as superintendent because the park was not established. Then the park was established about six years later, after we had completed the buying of land and all those things. In the meantime, we had a CCC program there, two camps each summer and practically closed up in the winter.

George Baggley: During those winters I worked three of them in Connie's office in Washington — rather, better say three of those years in Washington, one in Connie's office and two with Gable in the concessions office.

George Baggley: I worked two winters in the Omaha office on land, and parts of two winters in the Chicago office on — one winter with Connie's work and one with concessions there again. So that I think I had opportunity to get a number of assignments which helped to give me a little bit of a broader base than some had opportunity to get.

Herbert Evison: Well, now, when did you become superintendent of Isle Royale?

George Baggley: I'm sorry I can't tell you the exact year, Herb. I believe it was in 1943 or '44.

Herbert Evison: Now what kind of a situation did you face when you went in there as superintendent? What did you have in the way of staff, for example, and transportation and facilities?

George Baggley: Well, when we first went to Isle Royale even my salary was paid from CCC money. We got a small appropriation the following year I believe for a clerk, as I remember — Ray Mulvany was our first clerk. Yes, Ray was our first clerk, and Ray of course you know where he is today. It grew very, very gradually to when the park was made, established, and I became official superintendent, there was money for my salary and for two park rangers — no, one park ranger and a naturalist, Ray's salary, and money I believe for Captain Greenleaf's salary — he was then the captain of the boat, — and one marine engineer. And we had an old rumrunner, an old wooden rumrunner, as our transportation from Houghton to the park, back and forth across — an old wooden rumrunner that was ready to fall to pieces.

George Baggley: And we had one of the most widely known wildlife problems of any area — that is the overpopulation of moose — to deal with.

Herbert Evison: Well, how was it dealt with before the wolves came back on the Island?

George Baggley: Well, by trapping some. We trapped out about fifty moose and moved them to the mainland; and I restocked the Upper Peninsula of Michigan with moose. They had been completely extirpated from northern Michigan and we transferred I think fifty across to the mainland.

Herbert Evison: Weren't they a rather difficult animal to handle that way?

George Baggley: No, they were trapped in pole corrals on the Island and we cut browse during the — these were trapped in the wintertime, you see — and we cut browse each day and fed them just like you would a cow in a corral; and then came spring, why, they were each put in an individual crate, brought across on the boat to the mainland, taken by truck out to the point of release; and very good success with their transplant.

Herbert Evison: Well, now, who paid for all that?

George Baggley: Michigan Conservation Department paid for part of it, and we paid for part of it.

Herbert Evison: That moose overpopulation was of rather long standing, wasn't it?

George Baggley: It is the thing that attracted public attention first to Isle Royale way back as long ago as the early 20's.

Herbert Evison: Well, had the Michigan authorities ever transplanted any from there before this?

George Baggley: They had taken off a few before, but they did not have the manpower that we had to do this and probably not the public support that existed during this 1937-38 when we trapped the most of the moose.

Herbert Evison: Now did they supply the water transportation for this?

George Baggley: No, no, the United States Coast Guard did. The Coast Guard provided the boat, and our winter crews provided the crates and the trapping, and the Michigan people provided the scientific — Paul Hickey, whom you may have heard of, was the biologist for the State of Michigan. Paul later became regional director for the Fish and Wildlife Service and since has retired and is running a bank in Texas now. But it was quite successful, and we lost only a few moose. And the Upper Peninsula of Michigan now has a good population of moose.

Herbert Evison: Well, now, would those be adults, or would you try to pick out fairly young ones?

George Baggley: Those, Herb, would be animals between two years and four years most of them, as near as you could judge.

Herbert Evison: That is, you wouldn't take a big old bull moose?

George Baggley: You wouldn't take an old fellow, one with a little age on him, no, you wouldn't. Sometimes you got them in the trap and had to keep them there and feed them, but they were not taken across to the mainland.

George Baggley: We had to fly in in wintertime. We flew — we would go from — fly from Port Arthur, Canada, across, and could get in and out easy enough. We had two or three men that were quite ill that winter; get them out quick to a hospital in Port Arthur, and never had any trouble with isolation at all. We had radio communications. Worked out very well.

George Baggley: But then the big fire of 19—

Herbert Evison: '36.

George Baggley: '36, changed the moose picture because the fire burned 30-some-thousand acres, and for twenty years that provided an abundance of forest so that the

moose, instead of starving to death immediately after the fire, almost immediately had additional food supply; and that has continued to be good until now. Now the growth has been sufficient now so that the moose food is on the decline again. But during this period — this is 32 years now since the burn occurred — no, not 32 —

Herbert Evison: Twenty-six.

George Baggley: Twenty-six years; that growth is heavy enough so that it is now not nearly as desirable from moose browse point of view. So, the moose population is back now to I think the biologists say about 600.

Herbert Evison: Six hundred?

George Baggley: About 600, kept pretty well in check by 22 wolves that inhabit the Island.

Herbert Evison: That association maintains a fair balance?

George Baggley: They have now for three years maintained a very close balance. The wolves themselves do not seem to increase; they increased rapidly up to the point of 20 to 22; beyond that they are very slow; you see only one or two pups every spring, and the moose are within fifty of the same number all the time. It's a remarkable thing. Those wolves eat on an average of sixteen pounds a day and make a kill every other day during the winter. They have been observed in detail. The men that are out there during the winter have an airplane at their command and they fly every day that it's fit, and if they see a moose being chased by a bunch of wolves they will circle until that moose either is free of the wolves or the kill has been made. If the kill is made, they land and run the wolves off, examine the animal, and then watch what happens. And their records indicate that they do take about fifteen pounds of moose meat and hide, hair, and so on, each day over a winter feeding period; and that a moose — they do not get the moose, except rarely, under six years of age or one over a — let's see: between one year and six years, practically all the moose, very seldom do they ever take a small calf and very seldom do they take a moose that's five years old, let's say — four years old, but six years beyond is where most of their kill occurs.

Herbert Evison: Are they able to observe whether what they get are the weaklings of the herd, as a rule?

George Baggley: They are, almost entirely. The boys say that only once in sixteen times do the wolves ever take a moose that will stand and fight. They have observed this many, many times, and the ratio is one to 16 — sixteen times, one out of fifteen times a moose will lose and be killed by the wolves standing and fighting, but the other fifteen times if the moose will stand and fight, the wolves will go away. Usually the decrepit animal or

one that falls during the run, starts to run and falls over, they have seen them fall over a cliff or fall over something and the minute they fall they are done, of course, because the whole pack is right on them.

Herbert Evison: And they do hunt in packs, not a lone-wolf operation?

George Baggley: No. This 22, which is what they observed last year, is divided into three groups. Apparently, there are three and ten and the other number in one unit, and very seldom do they change; that's a sort of family relationship apparently and that is the way it stays.

Herbert Evison: Now, is that study going to be continued this winter?

George Baggley: One more year of it; one more year of it. It's being done by Durward Allen of Purdue University.

Herbert Evison: Yes, one of the top men.

George Baggley: Yes, a very good man. An article will appear in The National Geographic shortly on it.

Herbert Evison: Good. Well, I think that moose-wolf story is a wonderful one in Park Service wildlife history.

George Baggley: Yes, it's a big step to have replanted wolves, and I wish we could do so in Yellowstone. Some day we will, but right now the atmosphere isn't right for it.

George Baggley: Getting back to my own experience, Herb, then we left Isle Royale in 1946 following the dedication of the area as a national park and the installation of a lot of facilities, the building of some warehouses and residences and docks and so on, and the start of the operation of the concessions under National Park Concessions.

George Baggley: We went on to Lake Mead where we had eight years, eight interesting years, and that area was the Service's big recreation area, as you know, the first one to come in as a reclamation reservoir. And the Service learned a lot, as I did too, in its operation there over a period of years. It still is a little bit of a problem. Because it is so big it is difficult to apply certain land policies to it, because we lack basic legislation to give it any legislative life. It's purely a cooperative agreement, but it serves a tremendous number of people. Lake Mead and its associated Lake Mojave just below there behind Davis Dam serve more people and more people with boats and fishhooks than I think any other dozen areas in the whole Service.

Herbert Evison: I imagine so. Of course, I had the privilege back about 1951 of flying over that with you and who was it? Don Egermaier?

George Baggley: Yes, I guess it was.

Herbert Evison: And I remember that the water was very low at that time, and we saw unburied a buried city or town up there on the Virgin River arm.

George Baggley: Well, since that it is built back and some of those places that we saw where there was nothing at all, today they have residences, buildings, docks, and it's a big fishing village. Temple Bar, for instance, is quite a big fishing village now and a very successful concession.

Herbert Evison: Now you were there from '46 to '54. And Chuck Richey went in after you.

George Baggley: Chuck succeeded me when I came back to Omaha.

[END OF TAPE 69, SIDE 1]

[START OF TAPE 69, SIDE 2]

Herbert Evison: As you said, George, this was a new type of area for the National Park Service to manage. I believe Guy Edwards had preceded you there, hadn't he, but rather briefly? And much of that was still, as far as development and policy and so on were concerned, was still in the making.

George Baggley: Herb, what happened I think is that we had assumed we could apply National Park Service policies there at Lake Mead. That was exemplified by the fact that it started out with just one concessioner, instead of realizing that there were eight or ten places and that you could have competitive concessioner facilities. This one concessioner finally went broke, and we ultimately went to several. This introduced a whole lot of new problems to park people. We of course had certain relation with the city; the airport, for example, was on land which we managed; we had people unfamiliar with the park policies which we were trying to apply. We didn't want hunting, for instance, and it was perfectly legal for them to hunt anywhere in the area, according to State law. And we were simply proprietors of public land and not jurisdictional people.

George Baggley: They would go and build a water tank in the area that you didn't want them to get into. Some places we even had airstrips graded out because of people's lack of understanding of what we were trying to do. Over the years we come to realize that it was not a national park and that we could not apply national park policies, and as soon as we admitted that and approached it from the basis: here was a new area created by the impounding of water, and approached it from that point of view — in other words, tried to design rules that would fit the situation and not make the area fit the rule — we began to get some place.

George Baggley: And of course, it is the biggest reservoir in the United States; it has 134,000,000-acre feet of water, storage capacity which is far greater than

anything else in the country. Ultimately, we had eight concessioners; when I left there to come to Omaha there were eight different concession operators. I understand since I left there several of them have greatly improved. We also had four airstrips, not including the Boulder City strip; where we ourselves landed; we use aircraft to go from place to place. We did not have a fee. We had little or no control of travel over roads. We had grazing throughout the area. We had public hunting in much of it, and we had worked out with the States of Arizona and Nevada a plan where fishing licenses were reciprocal between the two States. This took us five years before we finally got the Governors together on the Lake one day — Howard Pyle and Charley Russell — and got them to agree. The following year we had this reciprocal agreement. Before that there had been tremendous difficulty between the two States and of course with us too. People would buy a Nevada license and fish and go to land in Arizona and be arrested. A perfectly innocent arrangement, yet they were being arrested all the time.

Herbert Evison: You didn't have the State line marked all the way through the reservoir!

George Baggley: As superintendent of Lake Mead, I was also a member of the city council of Boulder City. This was during the period when Reclamation was attempting to work out a plan to release Boulder City from government control. It was a city of 4,000 people and it started as a construction camp, and Reclamation kept expanding it, leasing lots and so on, but they were actually operating as a city facility. They were told by Congress to get out of it. Congress provided — the committees of Congress provided this skeleton plan for them, which included setting up a council appointed by the Secretary of Interior, of which the superintendent was one, a study of the city by the University of California public administration branch, and recommendation of a plan to change over. And I understand it since has been changed over.

George Baggley: But as a city councilman I remember a good many very interesting evenings there; but this was all good experience. I think the Service and the people who have been assigned there have learned a great deal.

Herbert Evison: That's another brand new one on me, George. I never realized you were a Boulder City councilman before.

George Baggley: Oh, yes, for a period of three years. We had a good many fights as all city councils do, apparently, but I think it was good experience. I look back on it realizing I could have gotten a lot more and not been quite so serious about it, it would have been lots of fun.

George Baggley: We came back to Omaha in 1954, and the rest is sort of history, I guess.

Herbert Evison: Well, now, here is another phase of that Lake Mead situation that I remember hearing about and even arguing about with Newt Drury, and that was the matter of summer homesites. Of course, Newt felt that the same restriction on the use of land should apply there as did in the national parks, and I tried to convince him that there was a difference, that in a place like that you could to a limited extent quite legitimately set up these places.

George Baggley: Well, as you know, Herb, I'm glad you mentioned that — we did select eight, I believe it was, seven or eight sites for homes, summer homes, so-called summer homes although they are actually winter and some of them are now year-round. These sites were selected. We drew up master plans for them and held lotteries, because applications were far in excess of the number of lots that were available. And before had we left there we opened up and buildings were built in six different communities — homes of all kinds varying from the single-room cabin to more expansive ones, four or five rooms. And today I understand that some of these original sites have been all built up and they are planning to extend them.

Herbert Evison: One of the problems that came up in that connection, as I remember it, was the matter of sanitation and the provision of water supply and sewage disposal and so on for those communities. Do you remember how that was resolved, who provided them?

George Baggley: Most of them went together and provided a community water supply. We did not do that. The lottery — the drawings were permitted on a basis that you would provide your own sanitary facilities, and we kept a strip between the nearest lot and the lake shore to provide public access. And I am sure that at least three of those sites they have since put in pumping systems and wells and septic tanks and so on; rather well done, I think. One, I understand, one fellow went in and sort of started a sort of public utility. The one fellow built a cabin and he just put in water and sewer for everybody and charges a fee for it.

George Baggley: Electricity was available in two of them, and of course the utility company ran electricity in to it, REA in one and I think Nevada Power in another, ran electricity in to it. It's quite an interesting thing to establish a fee for those and work out a form of lease and hold lottery drawings and all the things which we did there with little or no guidance, because this was the first one. And it was real interesting.

Herbert Evison: Of course, I am interested in the statement that you made that you retained a belt between these cottage sites and the water's edge so that there was no denial of public access to any part of the shore.

George Baggley: We did that and provided at least one wide street leading down through the area to the water line. But I think in every case we wanted to protect the shore and keep it for public use.

Herbert Evison: I was interested in that because oh, forty years ago I was in some Forest Service summer homesites layouts — I think the first one I ever saw was on Quinault, Lake Quinault in Washington — where the leased lots ran right down to the lake shore and public access to a great deal of the shore of that lake was cut off.

George Baggley: I did some research — this is aside from Park Service work — but I did a research project of my own on Lake Tahoe and Flathead Lake and Bear Lake in California and found of course as you know Bear Lake is wholly privately owned. You are unable to get anywhere near the shore of Bear Lake unless you are a property owner or are willing to pay a fifty-cent admission fee; and you cannot put your boat in Bear Lake unless you take out insurance of $100,000. And Lake Tahoe, as you no doubt know, is 127-mile shoreline, and up to the time we came back to Omaha in '54 there were only three miles in public ownership, and one-and-a-half miles of that had been bought back from private owners by the Forest Service as a campground area.

George Baggley: Flathead Lake in the same year of 1952, I believe it was, had only twelve miles of public ownership — twelve miles of the lake shore left in public ownership. By now unless it has been changed or something happened, there probably isn't five miles of Flathead Lake. And so, it happens with all these big lakes; the public loses access to it.

Herbert Evison: The tremendously increased interest in water use and water sites —

George Baggley: And the desire of some person to have a home on a lake, which of course I would like to do too, just as you —

Herbert Evison: Yes. One of my wife's greatest wishes, I think, to live on the water, at the water's edge, ocean or lake or river or what have you.

George Baggley: One more thing on Lake Mead, and then I have another item on Yellowstone I'd like to bring in if it's all right.

Herbert Evison: Good; you bet.

George Baggley: Formation of Lake Mead created a body of water, a tremendously big body of water, in an area where hardly enough water existed to take a bath before; and you had this great influx of boat people for the most part inexperienced with boats. And for the first several years we were there we would lose as many as a dozen people in a boating season by drowning, simply because they were inexperienced. There were no general rules. Here they were in the desert and they had money to buy a boat and they

had a boat, and of course they put it on the Lake. And that was the period when outboard motors were growing, and instead of using what people used — conservative people used — these people in the desert wanted 50 horsepower motors. So, we would have on one weekend — I remember there was a weekend of 1952 I believe it was, Fourth of July weekend, there were 450 boats put in and out of Lake Mead at two boat sites — 450 boats. And that's ten years ago, see?

George Baggley: Chuck Richey tells me that now there is in the neighborhood of eight or ten thousand boats up there in just a short period of time. And of course, now the loss by drowning has decreased a lot because people now know how to handle themselves. And we had training courses; we got the Coast Guard in to give training courses; tried to interest people in safety rules, but the big motor on that big lake just was too much for them and they'd get out there and get in a storm. As you know the desert winds come up quickly, and you'd go out in the morning and it's perfectly calm, and at 2 o'clock when you're through fishing and want to come home, waves are three feet high. And lots of people got in trouble.

George Baggley: I think one of the highest drowning — the highest number of people that drowned there in one year was about eighteen people in twelve months' period, and it just scared everybody. Since, it has dropped down. Now in recent years it's two or three a year, and much more experience in handling boats on that lake.

George Baggley: Now of course the first year I — no, the second year before I left there, we had the outboard races, the big class outboard motorboats, you know, Slo-Moshun, and others that ran, and they still run. They have had some wonderful races there. They had I think the first jet speed boat on Lake Mead, which if you remember what happened on the TV, they both made a big dive and went clear under water and went out of sight. That's three years ago, I believe it was.

Herbert Evison: Well, I remember a couple of years ago that they ran one of those jets up the river from Lake Mead for some distance.

George Baggley: This is a different kind of boat. Now this jet boat that went up the river has an inboard reciprocal engine and the jet portion is simply a big high-capacity water pump; it has an intake right under the hull and the jet is forced out under high pressure at the rear of the boat and that provides the motors power, and the jet is directed this way or that way to guide it.

George Baggley: Now the jet racing boat was a true jet engine. And I'm glad you mentioned this boat that goes up the river, because a very good friend of ours was the pilot — this young 17-year-old Belknap boy piloted the boat, that went on up the river.

Herbert Evison: That Bill Belknap's son?

George Baggley: Yes, Bill Belknap's son. But there again we used to get these parties coming down river from Navajo Bridge and occasionally they got in trouble, and we would have the job looking for them. But with the first trip up the river, it sort of took the edge off river trips. I don't know what it means, but we used to figure that if you had to go up the river to find a boating party that we would go up by air. And I still would do it that way if I am ever called on to search that canyon, because it's possible to take a small airplane on pontoons and just skip the rapids and work right up and locate anybody, if a lost party, and I'm sure it could be done with no little no trouble.

Herbert Evison: Of course, you used to fly yourself down there.

George Baggley: Yes, I was involved in an airplane crash there at Williams in 1948.

Herbert Evison: I remember that. You got into a —

George Baggley: Broke a leg and right ankle. I still have wires and some sewing in there.

Herbert Evison: Is that so?

George Baggley: You probably noticed the left side of my forehead is crushed in a little bit. And I still fly, of course. I didn't fly for about a year, but I soon got over that and still fly.

Herbert Evison: Well, now, while you were at Lake Mead you made fairly regular use of a plane, I judge, in the course of duty.

George Baggley: Yes. We also had Mount Wheeler, over in Lehman Caves as you know, and that's 300 miles north of there, and we used to fly up there most of the time.

Herbert Evison: Oh, you were supervisor — you were —

George Baggley: It was assigned to us. I think we were a coordinating area.

Herbert Evison: Coordinating superintendent, yes.

George Baggley: It was 320 miles, took all day to drive, and we could fly from Lake Mead to Lehman Cave, spend the day there and come home in the evening. We did use the plane quite a bit.

Herbert Evison: Well, now, the Service owned the plane?

George Baggley: Oh, no. We leased the plane. I think, Herb, that Everglades is the only Service area that owns a plane, as far as I know. And it has been very difficult to get authority to acquire an airplane and keep it.

Herbert Evison: Now one of the unique things about Lake Mead of course is that there the Park Service is the operator of a very considerable fleet of boats. You have a whole darned navy there, pretty near.

George Baggley: Yes. I don't remember how many but at least twelve or fifteen. And one real nice boat we had when we were there, a 42-foot Chris Craft cruiser which is about a $40,000 boat now. It was real nice, and of course it was used for searching, for looking for lost people under bad weather conditions, and taking out special parties, members of Congress, visiting dignitaries. We had the president of Turkey there for one whole day on Lake Mead; and several different times we had Atomic Energy Commission officials there; and because they would come out for a big test and the weather was bad and they couldn't test, they would come over visit us. And so Smythe, who later was A.E.C. chairman for a while of the early group, as you may know, and several others of the staff from Berkeley that were in on the early development, used to come there. And I was invited out to watch some of the tests at the proving grounds a couple of times, which I enjoyed very much.

George Baggley: Herb, going back to this item on Yellowstone, you can probably dub it in somewhere: when I became chief ranger, I think our total fire tools you could put in back of a small pick-up truck. We had a few picks, if you can imagine a pick in a fire case. Then in '31, I believe it was, when we had a big burn down on Heart Lake we had already started to acquire some fire tools, improve the lookout facilities and so on, but that was the final impetus to really equip the park with complete fire equipment. We did so. We put on fire guards which we hadn't used before, although we had had lookouts. And we put in a regular fire study system, measuring the fire conditions, the burning conditions, keeping weather records and all those things, which is the forerunner to the present highly developed fire detection system, fire suppression and training system, all of which has been done — it was really pioneered under John Coffman, but we did it in Yellowstone and did it I think rather well. Fred Johnston, as I said, was a forester; we later put an additional man whose sole job was just fire protection; and I think now they have three or four men plus smokejumpers in Yellowstone.

George Baggley: That, in addition to basic change in the wildlife policy in management, also ushered in a whole new era of forest protection.

Herbert Evison: George, wasn't that a period also when ideas about how to fight forest fires were evolving and a lot of different new methods and new kinds of apparatus were coming into wider use?

George Baggley: Oh, the northern Rocky Mountain Forest Experiment Station was established about 1930, I believe it was, and we of course took advantage

of their research. In fact, used to attend their training sessions and have them come and give training for us, so we were able to take advantage of their several different methods. A method was worked out for each type of forest. If you had an open type forest, why, you used the fire plough. Many a small fire we controlled in Yellowstone in just one hour with a horse and a fire plough. Other places we would use a small pumper. And it was designed to do a job, just like you would today design to do any job; it's highly specialized; you take tools and equipment and train people to do a certain job. And of course, the record speaks for itself over the years. The last ten years it's just tremendous the way they control the fires; they never get big anymore; they just don't get big. Although two years ago we did have seven or eight fires, I think they burned a total of 600 acres, but that is nothing in comparison to 1930 and 1931.

Herbert Evison: You mean in Yellowstone?

George Baggley: Yes, in Yellowstone.

Herbert Evison: Of course, we do occasionally have a nice big fire, a long-lasting one, somewhere in the park system.

George Baggley: Everglades is real tinder. And, Herb, there's another situation that's going to give us some trouble, and I think it's part of this philosophy of abundance or period of abundance we now have. We have places like Badlands where, as you know, during the formative years we were required to allow grazing. The property was acquired with the proviso that you may graze for ten years or twenty years and so on. There from the early stages they were allowed to graze for twenty years, but last year was the twentieth year and grazing was supposed to terminate. But because of the tremendous drought last year we again this year allowed them to graze. This will be the last year.

George Baggley: What's happening there under protection now, we are getting a tremendous growth of grass and annuals and shrubs and things are coming back to a point where we do not know what we are going to do, because if a fire occurs as it surely will someday, that whole area will burn off in a flash and the fire would run outside and would burn off four or five farms, the Service would be in a very difficult and embarrassing position. What I'm saying is we are at a point where we're going to have to do some control work on the vegetation. We think we might begin by mowing strips along the fences or along the roadside or up to a stream depression, to segment the thing so as to get —

Herbert Evison: Fire breaks, essentially.

George Baggley: Yes. We might even have to cut some hay occasionally to reduce the fire hazard. But in all of these new areas now where over the years we have

had certain objectives in mind, we are beginning to reach those objectives in certain areas. In many small areas in Region II, or Midwest Region as I should say, we have completed development, plans ready to go, now it can fulfill its mandate to provide education, inspiration and entertainment for the visitor. But the ecology of some of these is very difficult; it is again a thing that requires some pretty long-headed study, not only in what you shall do but how you will introduce it to the public.

George Baggley: We have for twenty years told the public in South Dakota we wanted to get rid of grazing in Badlands. Well, now we are getting rid of it and I'm not so sure but what we may not have a problem.

Herbert Evison: May have leaped out of the frying pan into the fire.

George Baggley: Even though we will put in some buffalo and some antelope and perhaps some mountain sheep, bighorns, in Badlands, what little forage they will use will not keep this down by any means. And if plant succession takes its normal course in twenty years, we will be getting trees coming in there, and shrubs will take over the grass area and you will have a completely different ecology, a completely different period and different landscape. Now, whether that's what we want to do or not I'm not sure, but that's just one of the situations we have to cope with there.

George Baggley: I hope — this is forecasting, looking ahead a little bit — that we can make use of a lot of these visitor centers to provide conservation education for all levels of society that want it. As you know we have completed about eight of them in the Midwest Region and the facilities are there with a staff, the equipment and everything to do a much bigger job than we are doing. And we are experimenting with a plan to start some conservation education. That is to say, in Effigy Mounds for example, we would say to schools and colleges, "If you want to schedule a trip out here during the winter with some of your classes in American government or in history or what have you, we will give you one or a series of programs on this area, on the Park Service in general, on the work of the Department, on the historical areas, on the areas of the Southwest, archaeological areas, and we will give those classroom approaches to your people right here in our visitor center." We think that may be something we ought to do because, Herb, there never was a better time than now to start conservation education. No agency can do it any better than we can. We have these facilities, we have the people, the need is there, and I think we should do it. It seems to me that the Department and certainly we would benefit greatly by it.

George Baggley: We are going to try to experiment with it this year in the Midwest Region. It may lead us into something new and it seems to me it would be good.

Herbert Evison: That sounds wonderful to me. Certainly, what it really means is making fuller use of the resources that we have, and a darned important one.

George Baggley: Well, where we go from here in the educational and in the conservation field or in the park field, call it which you will, it's all related — depends on a lot I think on our educational approach to the whole thing. I think you can say we should have a park here for these reasons, but if you can do some educational work and have the people in that area say, "We want a park because we think we need one," that's something different and that's the way it should come, rather than we say, "Now you need a park here," and then we go into a battle to get them to agree with us and support the park idea.

George Baggley: If Kansas, for instance, in the grassland area would say to the Department, "Well, we think we need a grassland area and here is a typical piece in Kansas. Won't you people consider it?" Approach will be completely different. Well, with the right educational background in these communities, that will happen ten years from now. Begin with the children, Herb, begin with the young people in the educational field and you can do anything you want in the conservation field, or almost any other field.

Herbert Evison: I think that's so.

George Baggley: Well, there may be other questions you would like to ask, to pinpoint things, but—

Herbert Evison: I don't think of any. When you go into a subject, George, you cover it in such a well-rounded way that you don't leave very many questions for me to ask about anything that you have touched.

George Baggley: You're very generous. I enjoyed visiting with you about these things, because it's very close to me. I think it's important.

Herbert Evison: Well, I'm immensely obliged to you, George.

George Baggley: You're sure welcome, sir.

[END OF TAPE 69, SIDE 2]

[END OF INTERVIEW]