

Earl S. Peirce

MULTIPLE USE  
AND THE U.S. FOREST SERVICE

1910 to 1950

An Interview Conducted by

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## PREFACE

In the spring of 1970 I addressed a formal report to the chief forester and staff of the United States Forest Service which recommended a program of original research, writing, and gathering of documentary evidence that would reveal the history of the forest service and the progress of national forest policy. A part of my report called for a fresh and professionally conducted series of in-depth oral history interviews with both retired U. S. Forest Service personnel and with persons currently employed in key positions within the agency.

In February of 1971 the plan had been thoroughly reviewed by chief and staff and by an ad hoc history committee of the Washington Office of the forest service and several cooperative agreements were written to launch a professional examination of the subject. Among these was one with the Forest History Society of Santa Cruz , California, which provided for six in-depth interviews with Edward C. Crafts, former U. S. Forest Service assistant chief for Program Planning and Legislation and former director of the Bureau of Outdoor Recreation; Frederick W. Grover, former director of the Division of Land Classification; Verne L. Harper, former deputy chief for Research; Earl S. Peirce, former chief of the Division of State Cooperation; Hamilton K. Pyles, former deputy chief for Programs and Legislation; and J. Herbert Stone, former regional forester for Region 6.

This initial oral history series puts its focus upon the origins and development of the multiple-use concept. The interviews are not intended to explore all the possible avenues of information obtained on multiple use but to determine what gaps in knowledge on the subject might be filled by going into the memories of six men who had viewed the developing history from different aspects. Others should now be interviewed, most notably former Chief Forester Richard E. McArdle, director of the Division of Legislative Reporting and Liaison, Reynolds G. Florance, and other key persons such as associate chief, Arthur W. Greeley, and former director of the Division of Budget and Finance, Howard E. Marshall.

The program was set up under the newly-created History Office of the U. S. Forest Service and its chief, Mr. Clifford D. Owsley. I would like to here acknowledge Mr. Owsley's assistance in planning this series of interviews. My thanks are also expressed to John R. McGuire, Gordon D. Fox, Richard F. Droege, Chester A. Shields, and many others

in the Washington office of the U. S. Forest Service who contributed to the planning. Dr. Harold T. Pinkett of the National Archives, Natural Resources Division, Dean Emeritus George A. Garratt of the Yale School of Forestry, and Mr. John F. Shanklin, chairman of the Special Projects Committee of the Forest History Society, made important contributions to the planning of the program.

Special credit belongs to the members of the Oral History Office staff of the Society for their tireless efforts to research the careers of each man interviewed prior to the making of the interviews and for their dedication to the highest standards of scholarly procedure in transcribing, editing, indexing, and publishing the six volumes of which this is a part. Dr. Susan Schrepfer was the chief figure in this work and was ably assisted by Mrs. Barbara Holman, Miss Claudia Mehl, Mr. Mark Singer, and Miss Janet Minx. The end products are, of course, the sole responsibility of their several authors--the respondents and the interviewers. Each interview series has been read and corrected by the authors, and whatever errors of fact may appear here are solely attributable to them.

Elwood R. Maunder  
Executive Director  
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## INTRODUCTION

Earl Peirce was interviewed in the small library of his apartment in Leisure World, a retirement community in Silver Spring, Maryland, where he had lived alone since the death of his wife. Our talks were held amidst the accumulation--books, furniture, and mementos--of a lifetime, including antiques from the Peirce homestead in Maine and a diagram of the family tree. Alert and agile at 85, Earl Peirce's activities include making picture frames for various bureaus of the federal government and writing a book on a new bidding system in bridge. Subsequent to this interview, on the 22nd of January 1972, aboard the *Oriental Inventor* en route to the Far East, Mr. Peirce remarried.

Although he had been retired from the U. S. Forest Service for twenty years by the time these interviews were made on the 24th and 26th of August 1971, his recollections, especially of the early years, were sound. Although few of Mr. Peirce's later forest service activities related directly to multiple use, the main topic of this project, his keen memory and advanced years allowed insights into the course of multiple use from the 1910s through the 1930s. He contributes, also, to our knowledge of state and federal cooperative fire prevention during the 1940s and 1950s.

Born in 1886 in Maine, Earl Peirce attended the Sheffield Scientific School and the Yale School of Forestry. In 1910 he received his first assignment from the U. S. Forest Service--forest assistant on the Bighorn National Forest in Wyoming. He was to remain in the Rocky Mountain Region until 1920; in the course of these ten years his work extended to the Black Hills and Medicine Bow national forests. Mr. Peirce describes this period as the developmental stage in national forest administration. During this decade the Bighorn and other national forests in this region were primitive, mountainous country having no towns; deserted shacks were converted into ranger stations. Beyond attempting to control overgrazing, there was little opportunity to put multiple use into action in this setting. There was only slight awareness of watershed problems and less of wildlife needs; recreational demands were, of course, nominal until the automobile came into common use. As one of the first to operate such a vehicle within the Rocky Mountain Region, Mr. Peirce relates several interesting episodes.

Indicative of the primitive character of early forest service endeavors is the fact, according to Mr. Peirce, that the rangers were local, nontechnical men and not always the most conscientious

administrators. Mr. Peirce represented one of the new breed--a trained forester imported from the East. He is quick to point out, however, that this reliance on local figures was very important in overcoming initial opposition to the forest service. He gives colorful descriptions of the early lack of respect for law enforcement and the resentment of local resource users toward forest service administration.

From 1920 to 1921, Mr. Peirce worked with the forest service's Division of Operations, which dealt with the apportionment of funds within the service. He relates how apportionment was accomplished as well as the service's first attempts at time and motion studies. He points out that at this early date the major efforts and expenditures went into timber management and grazing; recreation, watershed, and wildlife were considered natural assets not requiring special attention.

In 1921 Mr. Peirce left the forest service to become director of extension at the New York State College of Forestry at Syracuse. During his twelve years at this post his duty was to sell the idea of forestry to private landowners by means of publications and lectures. All uses of the forest were emphasized in this educational process.

In 1933 he returned to the forest service to serve for a year as CCC inspector for the service's North Central Region, consisting at that time largely of the Lake States. Mr. Peirce advances the belief that the New Deal, and especially the CCC, represented a significant turning point for the forest service, moving it away from merely custodial administration toward positive enhancement of the national forests' potential. He sees the CCC as a milestone in national forest administration. He recalls that the first use of the term multiple use by the service came in the 1930s, but he also insists that there had been a general awareness of the idea of multiple use ever since the national forests were first created.

In the capacity of assistant regional forester in charge of the regional Branch of Operations and then of the regional Branch of Lands, Mr. Peirce continued his work in the North Central Region through 1934. In 1935 he went to Washington, D. C., to temporarily replace the chief of the Division of Land Acquisition.

Then came a breakthrough in his career. In 1936 Earl Peirce was appointed chief of the Division of State Cooperation, and, although this division was to change its name several times, Mr. Peirce was to remain its chief until his retirement in 1951. In this capacity he focused his attention on state and federal cooperative forest fire protection. Here his activities were guided by the provisions of the Clarke-McNary Act.



Not surprisingly he compiled a report on the history of cooperative fire control; this study was published by the forest service in 1964. \*

During this fifteen years as chief of this division Mr. Peirce was involved with several other forest service projects not directly related to his primary duties. The years 1937 and 1938 found him making integrating inspection trips in the North Pacific and Northeastern regions. In connection with these trips he discusses such things as overgrazing, sanitation in the CCC camps, and racially segregated camping facilities. In 1938 he also participated in the New England emergency salvage project; this episode is amply covered in a manuscript entitled "Salvage Programs Following the 1938 Hurricane," which Mr. Peirce wrote for the University of California Bancroft Regional Oral History Office.\*\* During World War II a salvage project on the Sabine National Forest in Texas consumed much of his energies. The most notable aspect of this salvage work was the use of German prisoner-of-war labor. With a brief discussion of his feelings regarding forest service activities since his retirement in 1951, Mr. Peirce and I closed our interview.

The interview tapes were transcribed by Miss Claudia Mehl of the Forest History Society. Preliminary editing was done by the interviewer. With a firm hand, Mr. Peirce also edited the manuscript heavily, adding large portions to the text. Final typing of the manuscript was again entrusted to Miss Mehl. The completed volume can be purchased, in xeroxed or microfiche form, from the Forest History Society. The uses of the manuscript are governed by the copyright laws and a contract signed by the Forest History Society and Earl S. Peirce.

Susan R. Schrepfer  
Santa Cruz, California  
7 March 1972

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\*U. S. Department of Agriculture, Forest Service, Cooperative Forest Fire Control: The History of Its Origin and Development Under the Weeks and Clarke-McNary Acts. Compiled by Earl S. Peirce and revised by William J. Stahl. (Washington, D. C.: Government Printing Office, 1964).

\*\*Earl S. Peirce, "Salvage Programs Following the 1938 Hurricane," typed manuscript edited by Amelia Fry, University of California Bancroft Library Regional Oral History Office (Berkeley, 1968).

Susan R. Schrepfer graduated from the University of California, Santa Barbara, in 1963 with an A. B. in history. From 1964 to 1965 she was teaching assistant in Western Civilization at the University of California, Riverside, where she took her M. A. in history in 1965. She was an instructor in United States history at Mount San Antonio College in Walnut, California, from 1965 to 1966. In 1967 she returned to the Riverside campus as teaching assistant, where she remained until spring 1969. At that time she took a position as researcher for the Save the Redwoods League in San Francisco. From 1970 to the present she has been a researcher and interviewer with the Forest History Society, Santa Cruz, California; her special project is the multiple use of forest lands. Since 1970 she has also functioned as a historical consultant to the Sierra Club Foundation. In August 1971 she received her doctorate in American history from the University of California, Riverside. The dissertation was entitled "A Conservative Reform: Saving the Redwoods, 1917 to 1940." She has also published in Forest History.

## INTRODUCTORY REMARKS

Susan Schrepfer: This is August 24, 1971, and it is the first session in the interview with Earl Peirce.

Earl S. Peirce: In connection with any comments that I might make, I think several important factors should be considered. First, the time element. My experience in the forest service dated over a period from July 1910 to July 1951, some forty-one years, so my observations will be mainly based on that period. Since that was many years ago, what was reality then is not reality now. It is history. Many basic changes have taken place over the last twenty years which relate to forestry as a whole and the multiple-use concept of forest values in particular.

Probably this angle can be best illustrated by briefly outlining the overall forestry situation at the time of my first assignment in the forest service. It was as forest assistant on the Bighorn National Forest in north-central Wyoming. This area had been proclaimed a forest reserve in 1897 but had received little attention until it was made a national forest in 1905. It comprised an area of about a million acres, nearly a third the size of the state of New Jersey. It is about eighty miles north and south and thirty miles east and west. It was a primitive, mountainous country, with elevations ranging from 8,500 to 13,000 feet and covered with snow about eight months of the year. It contained no towns, no permanent residents, and the only buildings--aside from several temporary logging camps--were a few, shabby ranger stations, one, an old shack left by a defunct mining company. There were practically no useable roads. A few, so-called old ones, were so badly washed out in places, they could be transversed only with saddle or pack horses or on foot. Trails were few and far between. In fact, the whole tract was just about as nature made it. One fairly large timber sale was in operation, mainly for railroad ties, for which the extensive stands of lodgepole pine were best suited. As with nearly all Rocky Mountain forests, many so-called parks or nonforested areas were intermingled with

the forested lands. They contained excellent forage for livestock and so were in much demand by local ranchers for summer grazing privileges. Since the mountains were generally inaccessible and totally undeveloped, the first urgent need, aside from protecting the forests from fire, was for improvement of all types. About the only visitors were occasional local campers, fishermen, or hunters. So you might say that the forestry enterprise on this national forest had to start from scratch.

Now, with respect to multiple use, in which you are most interested. Although most foresters at that time had the idea of the multiple-use concept more or less in mind, there seemed little need or opportunity to put it into actual practice, other than for controlled use of the land for grazing. We knew that overgrazing by sheep does, in fact, interfere with or destroy forest growth, although many sheepmen disagree. This was a hotly contested argument between irrigation farmers and sheepmen in parts of Arizona and led to field investigations as early as 1898. That was probably the earliest publicized instance of the need for controlled multiple use of forest lands. It was not a problem on the Bighorn, however, for there grazing is confined almost entirely to open, non-forested areas. Furthermore, compliance with sound methods of range management were then and are now required; such as, open herding of sheep with bedding limited to one night. With all classes of livestock, the period of use and the number of stock is limited to the safe carrying capacity of the range.

All the rangers and the supervisor were local, practical, non-technical men. The rangers were mostly ex-cowpunchers or ex-miners with, at the best, not more than a high school education. The point I want to make is that in those early years we didn't think much about conflicting forest values. I don't believe there were any. They came into the picture later--about the mid-thirties--along with the rapid increase in use of the forest.

My first encounter with conflicting uses of public forest lands was in 1911 in connection with the Forest Homestead Act of June 11, 1906 and the resulting classification of possible agricultural lands, which could be filed on and patented under that law. The Bighorn forest was almost entirely too high for farming--the growing season was entirely too short for crops to mature. Nevertheless, there were some applications for homesteading. In most cases, the objective was to obtain a desirable summer camp or to secure valuable timber rather than a permanent farm home. In determining whether these areas should be homesteaded and thus turned over to private ownership,

we had to consider what was the best use of the land. This was in line with the slogan of the "greatest good for the largest number." I have in mind an instance where a homestead application bordered on a very scenic lake. The problem arose whether that area or any similar area should be homesteaded and eventually owned by a single individual or be reserved for public use. There was little doubt in this case. In some instances, it was a moot question. Anyway, the classification act of 1912,\* which designated the areas open for homesteading, largely resolved that problem.

The conflict between private versus public ownership dates back to the basic philosophy of even the pioneer advocates of forestry. One of the earliest was Carl Schurz, secretary of the interior from 1877 to 1881. He was an immigrant from Germany and knew what real forestry meant. Unlike some of his successors, he envisioned the potential of government-owned forest lands for permanent public use. I do not say this in any criticism of such government officials because their philosophy was entirely opposite. Their idea, with considerable justification at the time, was to get the public domain land into private ownership. This policy had strong support by influential local residents and their representatives in Congress. For one reason, privately owned property is subject to local taxation while government lands are not. To counteract that situation, 25 percent of forest service gross receipts are turned over to the counties in lieu of local taxes, and an additional 10 percent is spent for construction of local forest roads.

Since I left the Bighorn in 1915, this forest, like all the others, especially in the West, has been made available to automobiles. This, together with the growth in population and the increase in leisure time, has resulted in an ever-increasing use of the national forests by campers, fishermen, and hunters. Many visitors are local residents, but even more are from other states. Some tourists only pass through on the two main highways, but this scenic country attracts many campers. Campsites and other recreational facilities have been provided. The dude ranch originated in the Bighorn with the popular Eaton Brothers Ranch, which adjoins the national forest. This was started over sixty years ago. There are others in the vicinity. One of their main attractions is pack trips into the Bighorn Mountains, noted for their scenery and abundance of wildflowers. This high recreational use is an important multiple use in the Bighorn. Now

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\*The Agricultural Appropriations Act of 10 August 1912. 37 Stat. 269, 287.

about a tenth of the forest has been set aside as a wilderness area to preserve its unique natural values. Game animals are abundant, and fishing is excellent in the many small lakes and streams.

The great increase in use has necessitated many changes in forest management that were entirely unthought of in the earlier days. Furthermore, forest research has uncovered many points regarding better practices on forest lands that were not formerly in the picture. Also, they have emphasized the need for the multiple-use principle in proper forest administration, a policy now in effect on all the national forests, whereby all their resources--recreation, timber, forage, water, and wildlife--are given proper consideration.

I would like to point out, also, that my experience during the first eleven years in the USFS was limited to three national forests: the Bighorn in northern Wyoming; then the Black Hills of South Dakota; and later as supervisor of the Medicine Bow National Forest in southern Wyoming. In general they fairly well represent other areas in the central Rocky Mountain region. However, there are national forests in Washington, Oregon, and California and some in the Southwest where conditions were quite different. However, when I was in the Washington office, from 1936 to 1951, I had the opportunity to visit all the states with any substantial amount of forest land, some states many times. That gave me an opportunity to see most national forest areas in those states, as well as the state forests and much of the privately owned timberlands.

The third factor is that my recollections are based pretty largely on memory, and since I have not been very close to the forestry picture for many years, I find, unfortunately, that memory usually gets fussy with advancing age. However, I know one exception. My mother, who reached the age of a little over a hundred years, could recollect very clearly events that had happened many years ago but could not remember events of the previous week. I understand this is somewhat characteristic.

## CHILDHOOD AND EDUCATION

### Early Years

SS: Now, why don't we go to your own personal background.

EP: I was born in 1886 in Frankfort, Maine. My father was George Peirce. He was born in Frankfort, Maine. He became president of Mt. Waldo Granite Company, which discontinued business in about 1908. My mother, Emma (Patten) Peirce, was born in Bangor, Maine. Until 1902 I attended various elementary schools in Frankfort and nearby Bangor, where we used to spend most winters. In 1902 I attended Peekskill Military Academy at Peekskill, New York. In 1903 I went to Phillips Academy at Andover, Massachusetts, and was graduated in 1906.

### Sheffield Scientific School, Yale University

I spent the next three years at the Sheffield Scientific School, Yale University, graduating with a Ph.D. degree in 1909. During the last year at New Haven I took some courses in forestry and spent the next year at the Yale Forest School.

I took the civil service examination for forest assistant. The technical entrance into the forest service at that time was under that name. I passed the examination and, as directed, reported to Denver, Colorado, the headquarters of District 2. (Now they are called regions.) I was assigned to the Bighorn National Forest at Sheridan, Wyoming. Our supervisor, W. E. Jackson, was an elderly, well-known local man, who had been sheriff of Big Horn County for many years.

SS: How was it that the Sheffield Scientific School gave courses in forestry?

EP: It was in line with the then existing curriculum. At that time the graduates from other colleges had to spend two years at the Yale Forest School to get a M.F. degree. By taking some courses in

forestry during the senior year at Sheff, one could graduate with only one year at the Yale Forest School. It was decided in 1909 that that was not fair to graduates of other colleges. So they changed the rules to require two years at the Yale Forest School for all college graduates.

In my case, it meant that I would have to spend another year at New Haven to take, as I recollect it, one rather unimportant course. So I took the examination a year before I was supposed to. I passed the examination and went to work with the forest service. Incidentally, I had considerable information concerning the missing course.

#### Recollections of Henry Solon Graves

SS: You must have attended the Yale Forest School when Graves was dean there?

EP: Yes, Dean Graves was there then, and soon thereafter he became chief of the forest service.

SS: Did you ever meet him?

EP: Oh, yes! I knew him quite well. The summer camp of the Yale Forest School at that time was located at Milford, Pennsylvania, on the Gifford Pinchot estate. Mr. Graves was there the summer of 1909 while I was at the camp, so we became well acquainted. He was a fine man and a good teacher.

SS: Do you recall any particular incidents that were characteristic of him or his philosophy of forestry?

EP: I can't recall any particular incident. He was thoroughly sold on forestry and was an inspirational leader. I do remember one remark he made when I first talked to him about forestry, which at the time I thought was rather unusual. I was undecided whether I wanted to go into forestry. It was a new and unknown vocation in this country at that time. I started taking civil engineering, but the rumor got around that graduate civil engineers found it very difficult to get good jobs or even any at all. So with several of my closest friends,



I decided to switch to forestry. Ironically, I was the only one of the group to follow it as a profession. Even during my first year on the Bighorn National Forest in 1910, I still wasn't sure that I wanted to continue in forestry. However, I thought I would give it a trial, and I am very glad I did for it was very much down my alley. Let me see, does that answer your question?

SS: Yes, but you were going to describe an incident with Henry Graves.

EP: Oh, yes! When I first told him my situation and what bothered me, his very first question was, "Do you like and want to handle men?" Later, I found out that is an important requisite of all supervisory jobs. He then painted a picture of what I might expect if I went into forestry, which intrigued me. I suppose one important factor which influenced my decision was that I always liked the outdoors and had done a lot of camping, hunting, and fishing on trips in the Maine woods.

#### Recollections of Gifford Pinchot

SS: While you were at the Yale Forest School, the Pinchot-Ballinger controversy occurred. Do you recall your reaction?

EP: Yes. That stimulated considerable discussion among foresters for the reason that Pinchot and a few of his close friends were fighting, against strong opposition, to retain government-owned forest lands in public ownership. A powerful opponent was Secretary of Interior Ballinger. He had been a prominent lawyer in Seattle and then commissioner of the General Land Office before becoming interior secretary. His philosophy was based on turning over valuable public domain lands to private industry. Incidentally, he was backed by influential western friends and also was supported by powerful mining interests with strong Wall Street connections.

Of course, as mentioned before, Pinchot's philosophy was entirely different from Ballinger's. The specific question at that time centered on government coal and mining claims, known as the Cunningham Claims, on the Chugach National Forest in Alaska. Ballinger wanted the claims approved so the lands could be turned over to the Cunningham interests. Pinchot believed they should remain in public ownership.

Pinchot was outspoken in expounding his ideas and in several speeches was critical of Ballinger and his supporters. Pinchot was a man of very strong convictions. He knew that he was following a path that would eventually lead to his dismissal as chief forester. For one thing, he was going over the head of the boss, Secretary of Agriculture Wilson, which isn't wise in any organization and especially the government. His public criticism of Ballinger, of course, came to the attention of President Taft. Pinchot, as he must have expected, was dismissed.

Pinchot was a very close friend of President Teddy Roosevelt and was largely responsible for the creation of national forests. He was a wealthy man with very strong opinions, which he openly expressed. He, no doubt, thought that he could be more effective outside government service. Being a wealthy man, the then-small salary of his government position meant nothing to him.

SS: You knew Gifford Pinchot personally?

EP: Yes, I knew him quite well. Incidentally, when he was chief forester, before my time, he held what were called milk and gingerbread parties. He would invite members of his staff to his home for informal talks, pertinent mostly to forestry, particularly the angles relating to administration of the national forests. Invariably he furnished ample supplies of milk and gingerbread, hence the name.

This small group, under Pinchot's direction, was actually the nucleus which originated and launched the entire national forest program. I believe they deserve mention. Among those I knew and can now recall were: Overton Price, Pinchot's chief assistant; Herbert Smith, who headed up educational and public relation activities; and Albert Potter, who was a well-known Arizona sheepman and former secretary of the Arizona Woolgrowers Association and the main architect for formulating the grazing policies and practices. (Incidentally, they have needed little change since their inception, sixty-five years ago.) There was also Eugene Bruce, an experienced lumberman, who was largely responsible for policies and regulations for harvesting timber resources. Among the technical or semi-technical group, all of whom at one time or another held key USFS positions were: E. A. Sherman, Bill Greeley, Earle Clapp, Raphael Zon, Coert DuBois, Will Barnes, Smith Riley, Roy Headley, Earl Loveridge, Nick Carter, Brevier Show, Fred Morrell, Lee Kneipp, Clyde Winslow, Arthur Ringland, Chris Granger, and Joe Fitzwater. I may have missed one or two. Of that whole group, I believe Ringland is now the sole survivor.

I was not in Washington at that time. So I don't personally know much about these early gatherings. However, after Pinchot left the forest service, he retained a keen interest in it and occasionally invited groups of foresters to his Washington residence. I was fortunate enough to attend several such gatherings during the winter of 1919-1920. Multiple use of forest resources was frequently discussed! Actually, I had known Mr. Pinchot for a long time before that. During the summer of 1909, the Yale Forest School summer session was at Milford, Pennsylvania, and the Pinchot estate. On a number of occasions he invited us to his home, Grey Towers.

He was a gracious host and entertained us with interesting tales of his early experiences. He always was enthusiastic over the national forests, which were largely his brainchild. He visualized their many varied values and was an early exponent of what was later called multiple use. Again, in 1938, I believe, while on an inspection trip of the Region 7 national forests with Assistant Chief Chris Granger, we were invited to his home and again enjoyed his hospitality.

SS: Do you recall any interesting incidents relating to Pinchot?

EP: I can't recall any specific instances, but he did have interesting reminiscences about the early opposition to the creation of national forests, especially in Colorado, Wyoming, and South Dakota. But I don't recall the specifics. Incidentally, this hostility was very evident in that area during the first few years I was in Wyoming. That early opposition has long since vanished and has been replaced by general approval. I remember one story about an old homesteader in the Black Hills of South Dakota. His claim never went to patent, so actually he was a squatter, occupying national forest land illegally. Numerous futile attempts had been made to persuade the squatter to obtain a special-use permit to legalize his occupancy. He vehemently refused and threatened to shoot any forest service man who went through his gate.

A showdown was needed, so the forest officer decided to find out whether he would fulfill his threat or would back down. Ironically enough, he was one of those dyed-in-wool southerners who couldn't forget The War Between the States, and the forest officer's name was Sherman, which didn't help the situation. The old man came out of his house with a shotgun and stood at the gate and threatened to shoot Sherman if he took another step. The forest officer took the step and after a heated argument persuaded the squatter to comply

with regulations. Sherman must have had plenty of nerve, coupled with a high measure of persuasive ability. This incident depicts one of the minor problems which the early forest officers had to handle. The ones involving gunplay were exceptional, but I heard of a few. One occurred on the Gunnison National Forest in Colorado, but I don't know the details.

In all the western national forests there were a few squatters or part-time residents. They were mostly old prospectors with unlimited optimism. They always expect they will hit pay dirt the next day. Most of them are broke and barely make a living. Generally they are grubstaked by local storekeepers with the understanding, seldom in writing, that the storekeeper will have half interest in any rich strike that the prospector might make. I might add that in almost any creek in the Rocky Mountain region it is possible to pan out a little gold dust. The sixty-four dollar question is, of course, to find its source. In the Bighorn and Medicine Bow mountains no paying gold mines have been discovered. The Black Hills of South Dakota, on the other hand, is a highly mineralized area and contain several very profitable mines. One of the world's largest is the Homestake, which was formerly owned by William Randolph Hearst's mother. Some years ago, however, it went public, and the stock is now actively traded on the New York Stock Exchange.

## REGION 2 (ROCKY MOUNTAIN REGION), 1910 to 1920

## Grazing on the Bighorn

- SS:** In 1910 you became forest assistant in charge of reconnaissance, reforestation, timber sales, and general administration on the Bighorn National Forest. From 1913 to 1916 you were forest examiner on the Black Hills forest and, until 1920, supervisor of the Medicine Bow. In 1920 you became forest inspector for the Rocky Mountain Region. I would like to discuss the development of the multiple uses in this region during this period. How important was grazing on the Bighorn?
- EP:** It was one of the main activities next to fire protection. About a hundred and thirty thousand sheep and thirty-five thousand head of cattle and horses were permitted to graze on the forest. Grazing privileges on the forest were valuable and, in many cases, essential for ranch owners in the area. The mountain ranges provided the best and generally the only available summer forage for cattle, sheep, and horses, so permits were much in demand. They were sought, not only by ranch owners near the national forest, but also by nearly all stockmen in the general area.

Of course, better use of the forage on government lands was one of the objectives in the creation of the national forests. Prior to their creation, these public grasslands were up for grabs and were greatly overgrazed in most places. When the national forests were created, all grazing on them was placed under sound range management, and reasonable charges were made for grazing permits. As I recall it, the charges per grazing season were six cents per head for sheep, thirty-five cents for cows, and forty cents for horses.

The grazing season was short, from about June 1 through September 1. Due to the high altitude, a heavy snowstorm usually occurred early in September. Many sheepmen who owned over a band of sheep--approximately fifteen hundred head--paid very little attention to them once they were on government range. These owners would hire a shepherd, usually a Basque from Spain, who, with a sheep dog or two, would take care of the sheep. With more than one band they would usually have a camp tender to move the wagon and provision the herders. With sheep, each permittee was allotted a specific grazing area. It seemed strange to me that a sheepman with a heavy investment would rely so much on hired help and so seldom even visit the range. It wasn't unusual, after the first snow and the herders rush to get out of the mountains, to find maybe a dozen

or more sheep left behind, to perish or be killed by wolves or bears.

Cattle and horses, while on the forest, are mixed with those of other owners, but each animal is branded to show ownership. The general practice was for a group or association of owners to hire a range rider to look after all the permitted cattle and horses on a specified, well-defined area.

In many cases, because forage on the national forests was so nutritious, beef cattle would be shipped directly from the summer range to market without going through the customary fattening period. In the Bighorn country livestock was consigned mainly to the Clay-Robinson Company, large meat packers, at Omaha, Nebraska. (The Clay-Robinson Company was a large livestock commission outfit. The company probably helped finance some ranchers in the Bighorn area.) Of course, the ultimate market depended entirely on the nearest railroad point. In the case of the Bighorn, it was shipped via Burlington Railroad to Omaha.

Grazing privileges were not called rights because at that time they had to be annually allotted and, as I mentioned before, were in great demand. My recollection is that on the Bighorn we could only approve about one out of two or more applications. The forest service put into operation early needed guidelines or controls designed to improve the ranges and provide for their full permanent use without overgrazing. Criteria in allotting grazing privileges were based primarily on giving preference to nearby dependent ranchers who fed their stock during the winter, rather than those from more distant points who were less dependent on the forest ranges.

SS: Did they favor small grazers over large?

EP: Yes. Top priority is given to nearby small ranchers most dependent on the forest range in order to maintain a home unit. The large outfits usually owned or leased other ranges. The relatively small dependent owners were taken care of first. This is done through so-called protective limits, which represent the minimum number of livestock needed to support a family. This applied primarily to horses and cattle. In large measure, sheep are owned by larger outfits and are grazed the year around on public domain or leased nonforest lands at lower elevations. However, in 1910-1915 nearly a hundred sheep owners had grazing permits on the higher range on the Bighorn, compared to about twice that number of permits for cattle and horses.

SS: Did you encounter any trouble in attempting to enforce grazing quotas or collect grazing fees?

EP: No serious problems along that line. Grazing permits were in too much demand. For example, one of the first experiences that I, as the new supervisor, had in allotting grazing privileges on the Medicine Bow was a nice, new one-hundred dollar bill pinned to the top of a grazing application [laughter]. The applicant was a prominent and likeable person, but like many others at that time, thought all one had to do to secure a favor from a government employee was to give him a little off-the-record incentive. I was somewhat in a quandary as how to best handle the situation since I knew him quite well and didn't want to offend him unnecessarily. I could only properly approve his application in part, and, in doing so, I attached the bill to his permit with a notation that its inclusion with his application must have been an oversight on the part of his secretary [laughter]. Anyway, he never mentioned the matter afterwards. Neither did I. I had several experiences along that line, but that was the first.

I might add that gratuities of any kind have always been strictly verboden in the forest service, and I firmly believe there were very few instances where any occurred. I did hear of one or two cases where forest officers lost their jobs by not conforming 100 percent to this code of ethics.

SS: Was there ever any violence between the grazing men and the forest service?

EP: Not any serious violence that I recall. We got along pretty well. Probably a main reason was that most early forest officers were well-known and respected local residents. There had been, however, many conflicts and some killings in the Bighorn area, first between cattle barons and homesteaders and then later between sheep owners and cattlemen. Soon after the well-known fights with the Indians in the Bighorn area, conflicts began to crop out among the white residents themselves. The earliest was the so-called Homesteaders' War, which centered around the town of Buffalo. The trouble stemmed from the increasing number of homesteaders who began fencing off the best range and watering places for livestock, formerly used by the large cattle outfits. Various and many attempts were made to discourage further homesteading. There was considerable violence on both sides. With development of the West, homesteading increased and the large cattle barons dwindled in number and influence.

The final showdown occurred at a ranch south of Buffalo, where a group of the leading cattlemen were corralled by a group of homesteaders who had obtained a cannon from nearby Fort Kearney and threatened to use it unless the cattlemen surrendered. That final skirmish and, more important, the impending demise of the large cattle interests ended the violence and the reasons for it.

SS: When did this occur?

EP: It was before the Bighorn National Forest was created, sometime in the late nineties, I think. The story of the livestock business in that area is quite interesting. The early use of these northern public ranges was for fattening long-horn cattle driven up from the South. But in the 1870s and early 1880s, lured on by the free and unrestricted use of vast areas of public domain land, quick profits were anticipated in cattle raising in the midwestern states. Many wealthy Englishmen invested in the cattle business in Wyoming; some, including a few from aristocratic families, moved to America. Even today some fine ranches near the Bighorn Mountains are owned by Englishmen.

One such family I knew was the Moncrief brothers, William and Malcom. Another was the Wallops. Oliver Wallop, upon his brother's death in England, inherited some high English title; I believe it was the Earl of Portsmouth. Oliver had been in Wyoming many years and liked living there. Suddenly, he was posed with the question of whether to remain in the United States or return to England and take over the title and all that went with it. He finally decided to go back. That was about 1914. About two years ago I noticed Wallop listed in the Cody, Wyoming, telephone book. I presume they are Oliver's grandchildren. So apparently the family must still like ranching in Wyoming.

The Moncriefs, during the Boar War, had a big contract with the British government to supply saddle horses for the cavalry. They had cowpunchers buying broncs all over Wyoming, Montana, and adjoining states. One requirement was that they should be broken-- in other words, saddled and ridden for at least three minutes. That was rather easy for western cowboys. But I understand the broncos, after the long trip to South Africa, forgot they had been broken and gave the English riders [laughter] considerable difficulty.

To get back to the final phases of the large cattle outfits in the West. The period of substantial English investment in cattle in America came to an end during the late 1880s, mainly for the



same reasons that later brought on the Homesteaders' War--increasing portions of the public lands were passing into private ownership. Also, the risks involved were a factor. With large herds of cattle, the general practice was to graze them year around on open public domain lands. Owners had to gamble on the weather. About once in every ten years an unusually severe snowstorm would destroy a great many of their cattle. In 1886 one of the worst storms on record put most of the big outfits out of business. Commencing about then, and with few exceptions, the size of the herds have been greatly reduced and the grade of stock vastly improved. Today, three or four hundred head of high-grade Herefords or Black Angus cattle, fed during the wintertime, will be more profitable than were the former large herds of poor-grade longhorns.

SS: Were the range wars over by the time you came to the Bighorn?

EP: The major ones were, but there was still considerable friction between cattle and sheep owners. The year before I came to the Bighorn there occurred the worst and the last serious conflicts. Of course, wrangling over the right to graze specific areas generated the fighting. Generally, the cattlemen and sheep owners agreed on certain definite dividing lines, separating cattle range from sheep range. This was done, not only to avoid friction, but also because some ranges are better for cattle than for sheep and vice versa. In general, the higher areas are more suited for sheep, and the lower ranges are better for cattle and horses. Sheep like a weedy forage; whereas cattle prefer a grassy type. And sheep, unless moved frequently, do more damage to the range, due to more concentrated use and sharper hoofs. Incidentally, that is why one of the regulations on the national forests is that sheep can be bedded down in the same place for only one night and must be open herded. Quite often the herders would intentionally or accidentally cheat a little and let the sheep on the cattle side. I suppose the sheepherders would claim it was the other way around, but since sheep were under closer control, the herders were more often at fault.

In the 1909 incident, a shepherd was killed; his wagon burned; and his dog and many sheep shot. Prior to this, there had been a number of somewhat similar occurrences, which resulted in gunplay, but there never had been a conviction. In this case, the sheep owners decided to get top legal help. They had plenty of evidence and finally obtained a multiple conviction of several cattlemen. One of the cattlemen who was identified as one of the killers was a well-regarded, prominent ranch owner in the area. I believe he was president of a local bank and also president of the county cattlemen's association.

There were other factors that the jury probably considered in making the conviction. There had been a growing demand for better law enforcement. There was also resentment against the drastic practices used by the cattlemen in harassing the sheepmen. The cattlemen's county association had employed a so-called detective who had been overzealous. He considered his job as harassment of ranchers who had recently switched from cattle to sheep or were considering such a change. In an attempt to scare one rancher by shooting over his head, he missed and the bullet hit and killed the rancher's young son. There had been other instances of transgressions--probably on both sides--that had kindled public disapproval.

Soon after their conviction, the several cattlemen were put on a road maintenance gang, and, through connivance or carelessness, they escaped. Little or no attempt was made to apprehend them. At least the most prominent one sought safety in South America. The next summer, 1911 I believe it was, I was told his wife received regular letters from him from someplace in Brazil.

There were several places on the Bighorn forest where one could see burnt-out remnants of sheep wagons resulting from old conflicts. One reason why the hostility between cattle and sheep owners dwindled and finally largely vanished was that many ranchers thought there was more money in sheep because of the double revenue--wool and mutton--and switched from cattle to sheep [laughter] .

#### Early Opposition to the Forest Service

SS: Was there any conflict between the forest service and local users?

EP: Considerable opposition to the national forests was inevitable from many persons who formerly used these public lands. In grazing, for example, stockmen had been using public lands at no cost and with little or no restrictions. With timber, although the Timber and Stone Act allowed logging on specified areas, it frequently was not confined to such areas. In other words, there was a lot of fraud. Valuable timberlands were often obtained under the guise of mining or homesteading. Most former users just didn't like the idea of these areas being under any form of regulated use.

I don't recall any serious conflicts between local users and the forest service personnel. We used to love to get into a sheep camp on our trips out because you could always be assured of getting a good mutton meal. Of course, sometimes there were differences of opinion, but it was almost always possible to resolve them on the

ground and on a friendly basis. Local forest officers had considerable leeway to use their best judgment in handling most problems locally and without undue interference from either the Washington office or the regional Denver office. I have always thought that was, in large measure, the reason for the success of the whole national forest program. With some government programs, too much control is centered in Washington, in my opinion.

SS: Did you want to describe the Phipps incident?

EP: As previously mentioned, in Colorado, Wyoming, and South Dakota there was strong early opposition to the creation of the national forests. This opposition came, not only from influential local individuals who had been using these public lands for their own benefit, but also from the congressional delegations of these states and most other western states. Also, most of the local newspapers were antagonistic. The one with the largest circulation, the Denver Post, was especially hostile.

I had read and heard about the opposition, but concrete examples soon became evident. In fact, I encountered a rather clear-cut one on my first day in the USFS.

At college I became well acquainted with Lawrence Phipps from Denver. Phipps was in my fraternity at Yale and was a senior when I was a freshman. His father was a U. S. senator and a wealthy, prominent, and highly respected Colorado resident. He had formerly been associated with Mr. Carnegie in the Phipps-Carnegie Company, which was a forerunner of the United States Steel Company.

After reporting for duty at Denver on July 1, 1910, and being instructed to take a train that evening for Sheridan, Wyoming, I had some spare time and thought I would call on Larry. Anyway, after I got by a couple of secretaries, I was finally ushered into Larry's office. He was most cordial, and we had an enjoyable chat--until he asked, "How come you are in Denver?" Feeling very proud of the fact that I had a government appointment, I said, "I am going to work for Uncle Sam." He asked, "What branch?" And I replied, "The forest service." Immediately I felt a sudden change in temperature. He looked daggers at me for about a minute and then said, "You mean to tell me you are going to work for that S.O.B. Gifford Pinchot?" And I knew from his tone he definitely did not refer to the Senate Office Building [laughter]. And I said, "Yes." He said, "Well, I'll give you a good job."

Of course, his father had many local interests relating, more or less, to the newly created national forests in Colorado, and Larry was reflecting the senator's reaction to them, along with the then-similar opinions of many substantial westerners. I am glad to add the incident did not permanently affect our friendship, and the next winter, during a week's assignment at the Denver office, I was invited to be a house guest at the fine Phipps's residence. The senator was in Europe at the time.

The forest service, I think, was very wise in overcoming the early hostility to the creation of the national forests and getting them off to a good start by employing, as far as possible, local men as supervisors, assistant supervisors, and rangers. Most of the pioneers, however, began to drop out as the work became more technical. A case in point was the first supervisor of the Bighorn, a man named W. E. Jackson. At the time I was there (July 1910) he was probably in his middle seventies. He had been the first sheriff of Bighorn County and was well-known and respected in the community. I was told he had recently developed a heart condition and had to go into the country. Also, the years were beginning to take their toll, and his former vigor and enthusiasm began dwindling. This was beginning to become evident in his work, and he was soon to be replaced by a younger man. However, I did not know that at the time, and I don't think he did either.

There is one incident I might relate. Mr. Jackson had fallen into a rather bad habit, one not at all consistent with his position. He would read the morning mail and then outline briefly to his clerk how he wanted the letters answered, either yes, no, or with some elaboration. And then he would go down and spend most of the rest of the day playing poker at the Capitol Saloon [laughter] and then come back in the latter part of the afternoon and sign the mail to get off to Denver on the night train.

There had been one technical forester on the Bighorn before I arrived. Up to that time the personnel had all been local, non-technical men. This forest assistant was somewhat of a loner, intentionally or otherwise. He tipped off the district office at Denver that Jackson was slipping on the job [laughter]. Anyway, that was what Jackson apparently thought, for I had the distinct impression of being *persona non grata*. He was kind of cool, I thought, when I first showed up. He certainly didn't want me around the office and insisted that right away I buy a horse, saddle, and field outfit and go up to the tie camp at Woodrock, the main camp of the Bighorn Timber Company, about thirty miles up in the mountains.

I didn't see him again until fall when he had been replaced by Ed Karanagh, formerly a livestock owner in Colorado with considerable grazing experience, but then and afterwards he was very friendly. But, as I mentioned before, I think the hiring of competent, well-known and respected local men, such as Mr. Jackson, was a big factor in overcoming the early opposition and in the successful launching of the western national forests. It would have been a much more difficult task for men brought in from the East or other outsiders.

SS: I think that is a very good point. Why don't you tell the incident that you related when the tape was off?

EP: Oh, we were discussing the question of how we got along with stockmen, and you asked for an instance. I might say that the cornerstone of the forest service policy from the start was cooperation as far as possible with the users, and this applies very much to the livestock industry. I don't recall any serious differences we had with stockmen but remember many instances where we got along okay. Probably one reason was the supervisor and all the rangers were well-known locally.

An amusing tale demonstrating the service's effort to work out controversial matters in a cooperative manner occurred a few years after I left the Bighorn. It was during the prohibition period. The supervisor, Earl Tinker, together with one of the top officers of the local cattlemen's association were traveling together to a meeting at Basin, west of the forest. They had an old Ford car and thought they would take a short cut across the mountains. It was in early September, and they ran into a snow-storm. The engine began heating up pretty bad, and when they reached the top of the divide, it stalled completely due to lack of water.

There was an old cabin nearby, and they thought they might be able to melt up some snow and refill the radiator. They found an old kettle and a stove in the shack and started to melt the snow when they noticed three large burlap bags over in the corner. They contained bootleg liquor. Apparently they had run across a bootlegger's cache. Being rather cold they thought they would try out one bottle, and, after a snort or two, they got the bright idea of taking a few bottles to the meeting. They finally thought that as long as they were doing that, why not take all three bags along, which they proceeded to do.

They received a warm welcome, and I understand that was one of the best and most friendly meetings that the association had ever had. They gave full endorsement to the forest service's idea of where a certain drift fence should be located--the question had caused considerable friction--and went along enthusiastically on several other more-or-less controversial matters. Of course, from an ethical standpoint that probably was not the best procedure, but sometimes, and especially at that period, you could often obtain better results by not being over pious, especially if it didn't unjustly hurt anyone.

#### Guns and Bears and Hoboes

SS: Did you carry a gun when you were on the Bighorn?

EP: Yes, I usually carried a Luger pistol when on field trips. It was the general practice. One felt more comfortable with one. However, only twice in my life would I have felt more comfortable with a gun. As things turned out, it was probably best that I didn't have one.

The first was on a spring day in 1911 when looking for a government corner marker in connection with surveying a homestead application. There were three of us--the assistant supervisor and the local ranger and myself. We were walking along and talking. We didn't have a gun for we weren't hunting for anything but the corner marker. I looked down at a small opening, and there, under a big ponderosa pine tree, was a large brown bear. She started for us. I picked out a tree and started to climb it. These other two men said, "Oh, that bear won't come up here." The next thing I knew she was up under my tree, and the other two men were climbing another tree. I don't know how long she kept us up there; it seemed like hours. Finally, she went away in the opposite direction.

This is natural with all wild animals, to protect their young ones. She heard us and had sent the cubs up a tree. We didn't see them until later. She thought we would follow her away from her cubs. A partridge or other game bird will do the same thing. They will make

out that they have a broken wing and will run in the opposite direction from their chicks.

Finally, when we thought it was safe, we climbed down, and then we discovered that she had two cubs--one black and one brown. We went back to our camp, about a mile away, to get a gun. We knew that she would come back for the cubs.

We then returned, but the mother bear hadn't come back. The ranger climbed up the tree, and the two cubs didn't move until he almost reached them. Then they climbed as far as they could. He grabbed them and put them in a burlap bag. They were about the size of puppies. We took them to our temporary camp and put them in a nearby old, abandoned logging shack. We boarded up the windows and door for we knew the mother would come after them. But it snowed a little that night, and she apparently couldn't track us for any distance, although she tried to.

The ranger kept the cubs for awhile, and then gave them to a rancher as pets for his two children. Although they were cute as cubs, a year later they began to get ugly. I think they bit one of his children, so the rancher sold them or gave them to the Billings zoo in Montana.

The other occasion was an attempted hold up by three hoboes along an isolated section of the Union Pacific Railroad. I was driving a Model T Ford with my wife and two very young sons. We were living in Laramie, Wyoming, at the time. On a nice Sunday afternoon we thought we would take a short drive up towards Medicine Bow. The dirt road follows the railroad closely nearly all the way. We were well out of town and with **no houses** around nor any other travelers on the road. I noticed three men walking along the railroad tracks. I had a premonition they might try to hold us up, but there wasn't any place to turn around. I opened the glove compartment of my car, but I had forgotten to put in the Luger.

Sure enough, as we were nearly opposite the men, all three rushed toward the car, and one, a big Negro, stood in the middle of the road and with arms in the air yelled, "Stop!" I knew what that might mean, so I stepped on the gas and just grazed him as he jumped aside and shook his fist at me with a dirty oath.

Several miles farther on, a car with several men came along. I stopped them and explained our predicament. We followed them back to town, but the three hoboes had disappeared. As things

turned out, it is probably better that I did not have a gun along in both instances.

When I was living in Wyoming, there were city ordinances against carrying concealed weapons, but they weren't very strictly enforced. Contrary to popular T.V. western programs, I saw little actual gunplay during my eleven years in Wyoming, although many persons carried six-shooters, especially in the rural areas. Then, and more so now, one is much safer in Wyoming than in most large eastern cities.

#### Watershed Management

SS: Was there awareness during this period when you were on the Bighorn, the Black Hills, and Medicine Bow, between 1910 and 1920, of a general need for watershed protection? Could you, if there was such an awareness, describe the measures which you took?

EP: Oh, yes. There has always been an awareness of the importance of the forest cover, especially on the mountain sides, in holding back and regulating the streamflow and in preventing erosion. Primarily, the measures taken centered on protecting the forests from disastrous fires, which had been frequent in the past, most being caused by dry lightning. You see, getting away for a minute from the Bighorn, the awareness of the relation of forests and watersheds was the basic reason for the original Weeks Law of 1911, which authorized federal help to states in controlling fires on state and private forest lands to protect their watershed values. The Weeks Law referred specifically to the watershed of navigable streams. There always has been a controversy over what constitutes a navigable stream. I think one early decision--a far-reaching one--was that a stream was navigable if it could float a sawlog. So the definition was pretty broad. But the Weeks Law was used for acquiring lands only on navigable watersheds.

Then later when the Clarke-McNary Act came in, in June 1924, the acquisition program was expanded to include forest lands for timber production. Both laws provided for fire protection on non-government forest lands on a cooperative basis; the government could not spend more than the state and qualified private owners spent.



It had to be on a matching basis. It always has been, even to this day. But watershed protection was also a basic reason for creating the national forests. Stream-flow regulation at the time was especially urgent in the mountainous sections in southern California, the Southwest, and Northeast, but we all were well aware that forests on all mountainous areas have a beneficial effect in regulating streamflow and in preventing erosion.

SS: Can you recall any specific types of measures that you employed in watershed management in these areas?

EP: The main measures having to do with watersheds, aside from fire control, were reforesting barren areas. Some planting was done on the Bighorn in 1911 and a considerable amount on the Black Hills in 1915 and 1916. A great deal of planting was done by the CCC boys from 1933 to 1941.

My first planting experience on a national forest was in the fall of 1911. I was in charge of a crew of six forestry students cruising timber for a proposed sale, which never materialized. We were camped on a fork of the Little Bighorn, well-known for Custer's Indian massacre in 1876. There was a demand for Douglas-fir seed at the time. So for about a week I had the crew gathering cones. The main source was squirrel caches at or near Red Springs. To do so the boys had to kneel down and dig out the cones. Later on I was informed that this was a rattlesnake-infested area, unusual at that elevation. Maybe we were lucky for we didn't encounter any.

At several ranger stations we extracted the seeds by allowing the cones to dry on canvas bedroll sheets and then winnowing out the seeds from the chaff, but it necessarily was on a limited scale. Most of the cones were sent to a more efficient seed-extraction plant on the Harney National Forest at Custer, South Dakota, to which I was assigned for a short time the next year. Anyway, we did some reseeding of old, burned-over areas on the Bighorn, but we had very limited funds, and local workers were not available.

At that time it was a moot question which method of artificial reforestation was best--direct seeding or planting with small trees. The first was cheapest but uncertain, while the latter was more expensive but more successful. For us it posed somewhat of a dilemma for this reason. About 1910 the secretary of agriculture, James Wilson, had visited the Black Hills National Forest and was shown some good results from direct seeding and was convinced that was the best method, and his opinion--more or less of an

obsession--passed on down the line. Actually, it depends almost entirely on the amount of rain during the first summer, and the secretary's observations followed unusually favorable weather conditions.

Anyway, direct seeding, following removal of rodents by scattering poisoned wheat, etc., was given a good tryout on both the Bighorn (1911-1912) and later on a larger scale on the Black Hills (1915). That method was a failure and was replaced by planting. Planting barren areas in the Black Hills was a major activity in 1915 and 1916. The area contained many small homesteads, mostly Finn farmers, and local labor was plentiful. Planting was one of my jobs there, and on three occasions I had planting crews of about a dozen on the job, which was as far as our limited funds would permit.

A rather interesting incident occurred on these projects. The amount of work accomplished depended largely on the pace set by the lead man. The Finns were clannish and cagey, and if one of their group lead off, the pace was inclined to be slow. The best lead man was an old-timer, in his seventies, but rugged and still active. His name was Dick Clark. He claimed to be the Deadwood Dick, one of the early Deadwood characters, along with Wild Bill Hickok and Calamity Jane, whose graves were appropriately marked in Deadwood's Boothill, directly opposite our rented residence. He well could have been for he had one finger shot off, and several years later I saw an article about him in a leading magazine, and the accompanying photograph was the Clark I knew. However, I have some doubt as to its authenticity.

The importance of keeping all forest lands as fully productive as possible so as to enhance their full value for watershed, wildlife, recreation, future wood products, etc., was fully recognized in 1910, and reforestation measures were taken as far as our meager funds and limited manpower would permit. However, it wasn't until the CCC program began in 1933 that we had a sufficient regular labor force to undertake reforestation, and many other needed forestry activities, in a substantial manner.

I don't think that on the particular areas that I was on any significant specific measures, other than protecting the forests from fire, were needed. They would apply more to southern California, but in those areas that I was on there wasn't much erosion. Stream-flow protection at that time on the three forests referred primarily to protection measures and consisted of fire control, which, of course, was the overriding measure needed. If the forest cover can be

protected from destruction by fire, insects, or diseases, that is all that is needed. Before my time on the Black Hills, considerable work had been done in controlling destruction caused by the Black Hills bark beetle.

## Wildlife

SS: Do you recall any regulation or awareness of the need to regulate or protect wildlife during the period 1910 to 1920?

EP: Actually, there was little need for the protection of wildlife at that time for very few hunters or anglers visited the area. However, the Bighorn Mountains were, and I expect still are, one of the best wildlife areas in the United States. Wildlife of all kinds was plentiful--bear, including grizzlies (silvertips); elk; deer; mountain lions (cougars); bobcats; mountain sheep (Bighorns); antelope; wolves; coyotes--about every native wild animal except moose, and there was good fishing in the many lakes and streams.

Game protection is the state's responsibility. Even on government land, the state owns and has jurisdiction over the enforcement of game laws. In Wyoming, and, I believe, in other states also, the forest officers were all appointed ex officio game wardens, but without pay. That was a part of our job, but in the final analysis it was the state's responsibility.

Now, going back to the early days, when you're talking about protection of game. There wasn't, frankly, very much respect or support for law enforcement. It was difficult, if not impossible, to get a conviction although the evidence was absolutely cut and dried. I will give you one example of that. It was on the Medicine Bow in about 1918 when a ranger who was appointed an ex officio game warden found--I don't know if found is the word; well, yes, found--out that a rather prominent and well-known rancher had shot an elk out of season. The rancher at the time even acknowledged that he had shot the animal, but the case didn't come to trial until later.

In the meantime he had gotten advice from some smart lawyer to fight the case and to demand a jury trial. Well, the hitch was that in this particular case all the members of the jury were close

friends of his, some of them neighbors. And although the evidence was irrefutable and was so shown and it's a safe bet that everyone on the jury [laughter] knew the man was guilty, still they turned over a not-guilty verdict. That was the problem. Although you had a cut-and-dried case, if a violator wanted to fight it, it was awfully difficult, if not impossible, to obtain a verdict. I suppose now with a growing respect for law enforcement or law at all angles that that isn't the problem, but it definitely was then. Lack of public support dampened one's ardor for aggressive enforcement of state game laws.

SS: They just didn't think the law was just?

EP: Well, no, in some cases they didn't. Game was abundant, and the occasional shooting of a deer by a local resident wasn't considered a major offense. Now, you take in all those mountain areas, there were a few trappers and prospectors who would live up there the year around. Now, we knew and everyone else knew that they infrequently would shoot deer or other game for food. That's the difference. So a jury was reluctant to convict them. Of course, violators wouldn't come right out in the open and do it before your eyes. But even in a case where there was no doubt that a violator was guilty--in this case a prominent rancher--you couldn't get his neighbors--some of them might have been his relatives [laughter]--to convict him. To do so wouldn't be neighborly and might not be too healthy.

In connection with wildlife, one important activity even before 1910 was restocking the streams and lakes with small fish (mostly trout). The state furnished the young fish, but it was part of the rangers' job to get them to their destination--usually over rough mountain trails requiring pack horses.

I have a vivid recollection of one such incident, which didn't work out as well as expected. It was during the summer of 1911. A large shipment was to arrive at Sheridan on the afternoon train. We had arranged for a local man who had a four-horse outfit to haul the fish to the Goose Creek Ranger Station in the mountains about forty miles distance. From that point several rangers with pack horses would take them to various small lakes. The supervisor wanted me to accompany the driver as guide and to keep the twenty large fry cans properly aerated.

The train was about two hours late, and the driver spent the time at a nearby saloon. He had imbibed too freely, and finally when we got several miles out of town, he fell off the wagon. With

some difficulty I managed to get him back on the seat, but he soon passed out completely. I had had some experience with horses but not with a four-horse team over a rough, steep mountain road at night. We finally arrived at the ranger station just as the sun was coming up and my companion was waking up.

After the fish had been transferred from the large shipping cans to smaller panier-type containers, we started out with eight pack horses. When we reached the first lake, real trouble began. Some cold water had splashed on the back of one horse, not too well trained for packing. He began to buck, startling several other horses who apparently thought that was the thing to do. Before we could calm them, there were small fish in the air and all over the place, and, unfortunately, only about a half ever reached the water. This case didn't work out too well but most did, and regular planting of young trout has made the Bighorn especially attractive to anglers.

I don't recall any particular instance at that time where there was a conflict between the use of the forest for game and other purposes. That, if at all, came in a little bit later. It would be a question of whether a natural habitat was being spoiled, and there again, fire control was the answer.

## Recreation

SS: Was there any recreational use made of the national forests you worked on in Wyoming and South Dakota during the 1910s?

EP: Some, but not much. Hardly any on the Bighorn; a little on the Medicine Bow; most of it was on the Black Hills. We began improving specific areas for recreational use as needed. One purpose was to reduce the danger of forest fires, but another was to make available for the public certain essential facilities. Specific areas were set aside for public camping purposes, and improvements, such as fireplaces, maybe a pump for water, toilet facilities, etc., were installed. That came quite early in the game, and, of course, it varied by the demand for it.

As far as most national forest areas are concerned, the automobile wasn't a factor for many more years for the simple reason

that there were not many automobile owners and few good roads. I did some pioneering in that respect. When on the Medicine Bow I had a little Ford car, and that was the first car ever driven into places like Foxpark, Gramm, and Brooklyn Lake, among others. My wife and I, very often on Sundays, would try to see whether we could reach some of these places by automobile. For example, on the road from Centennial up to Brooklyn Lake, the grade was so steep (the old-type Model T car had a gravity-gasoline feeding system) I'd have to turn the car around and back up some of the steeper slopes and then turn around again and repeat the maneuver at the next steep rise [laughter]. In many places we got really stuck, but usually we finally made it. That was along in 1917, 1918, and 1919.

On the Black Hills it was different. It's a lower country. They had more roads, and you could get around much better. And some of the recreation facilities there, like Spearfish Canyon, were being developed for recreation even at that time. That came much later in the Bighorns. I can remember in 1911 the American Automobile Association sent out a scout or pathfinder car to try to locate a road across the Bighorn forest, and the supervisor assigned me to go out with the driver. Well, we started out from Sheridan and drove down to Buffalo without difficulty. Then we started up Crazy Woman Creek, and that was a tough climb. We finally made it and then wound around the south end of the range and on to Tensleep Meadows, which is now a lake, and then on down the equally steep west side to the town of Tensleep. (This is the Cheyenne Indian name for their camp on the tenth night of their customary visits to the Crow tribe in Montana.) But it was an awfully tough trip for an automobile. I think the driver was convinced that the AAA would have to find some better route or cut out some of the steep grades. Now there is a good road over that very route, and, also, there is a good road over the mountains further north from Dayton over to Shell.

SS: What was the attitude of the forest service men to recreation at this early period?

EP: Oh, we were all for it.

SS: The didn't feel that the visitors were getting in the way?

EP: No, not at all. The only criticism was that some of them wouldn't clean up the campsites. It is hard to understand why many persons, who are meticulous in keeping their homes neat and tidy, will leave their campsites so sloppy and untidy. But it happens. The forest

service's policy always has been to make all the uses of the forest available just as far as is possible and consistent with other important uses.

## Mining

SS: Was mining significant in these Wyoming and South Dakota forests?

EP: Yes, of course, legitimate mining claims have never been interfered with. That applies to national forests as well as most government lands. In many places there had been an awful lot of fraud connected with so-called mining claims because often their primary objective was to acquire valuable timberlands under the guise of mining claims. And it's very hard to prevent that because the mining-claim law itself is kind of indefinite. It read something like, the development work had to be what a reasonable person would be expected to do. It was a little bit fuzzy, and in many cases the mining claims were intentionally fraudulent. It was an effort to get control of either timberlands or some otherwise favorable site.

Incidentally, although not in connection with mining claims, there was considerable fraud in the exchange of railroad lands for national forest lands, supposedly of equal value. Appraisers were inclined to overvalue railroad lands and undervalue government lands. One well-known case resulted in a substantial claim against the Northern Pacific.

SS: Okay. Was there much problem with erosion from destructive mining?

EP: Not on the national forests I was on. I will give you one illustration of that, which wasn't on national forests but, I think, is a good case in point. I refer to the area east of the Deschutes National Forest in Oregon known as the John Day Valley. The valley is a fertile farmland capable of growing good hay crops, essential to the predominating cattle industry in that area.

Placer deposits of gold were discovered on some of the meadowland, and a big placer mining outfit from California became interested. It paid big prices--two or three hundred dollars an acre--for the good farmland. You can't blame the farmers; the quick money looked good.

Then the mining company brought in a big placer dredge, which moves along like a big steamboat. It digs up all the topsoil and underlying gravel, and, in the process, the gold is extracted. Then the gravel is dumped out in mounds as the dredge creeps along. The end result is that the former economy of the valley is changed, if not permanently destroyed. The same thing happened at Virginia City, Montana, which was pretty well-known for its gold mining activities and resulting lawlessness, some years ago.

Incidentally, the large placer mining operations at Virginia City, commencing about 1900, were financed by Gordon McKay, who was persuaded by Dean Shaler of Harvard University School of Mining that large-scale placer mining in that area should be profitable. Apparently it was, for McKay left Harvard some \$13 million, which was hay in those days [chuckle]. I think the same thing applied to Virginia City, although I haven't been there. I have a cousin who owned a ranch at Jeffers, near there, Victor McKay, whose father was Gordon McKay; that's the reason he was out there.

Getting back to the John Day Valley. In California they have a law that that land has to be replaced, topsoil and all, which is almost impossible to do because a lot of the topsoil has been washed away. But, anyway, there is no such law in Oregon, so the result is that what was formerly the essential part of that economy, that good meadowland, has been converted into a lot of piles of gravel and small stones. In other words, it's ruined. So there's a specific case where mining has interfered with other, more permanent uses.

### Timber Management

SS: Was there much pressure from the timber operators to cut more than you wanted to have them cut on the national forests?

EP: Yes. At first, yes, there was some. Usually they wanted to cut more trees on an area than we thought was good forestry, and sometimes there were differences of opinion regarding what trees to cut and what to leave, but there were no serious problems. Of course, there is wide variation in the best silvicultural practices for the harvesting of timber, and some have changed quite a good deal. They vary according to the type of the timber, its location, and



according to its age, among other factors. What was standard practice in 1910 may not be the best method today, and in many cases it isn't.

But anyway, the loggers [chuckle] always thought they should be allowed to cut more. Usually every tree to be cut was marked with U.S. stamped on the stump, and that stump had to show it. Then a U.S. snowblaze is stamped four or five feet up on the tree so it will show in the wintertime when most logging is done. There was always more or less arguments that this or that tree should have been marked. But that wasn't serious. We usually got along pretty well. The bigger kick was probably in requiring them to cut some trees that were more or less defective and wouldn't produce much good lumber. They didn't like that too well, but that's a part of the practice of forestry. There was some objection to cutting low stumps, especially when the ground was covered with snow.

In the old days, there wasn't very much technical forestry involved except that they couldn't cut a tree unless it was eleven inches DBH (diameter breast height). At first we used an iron, U-shaped caliper eleven inches wide. We put it up against the tree. All trees eleven inches or over would be marked for cutting; all smaller would be left. All defective trees that would produce merchantable material were also marked for cutting. The idea was to improve the stand that was left for future cutting. The biggest problem was disposing of the brush resulting from logging and which would involve a serious fire hazard. In most cases, loggers were required to pile the brush, which was later burned when there was a little snow on the ground, and at the start it was hard to get the loggers to make brush piles that would burn properly.

SS: Did you have contracts in which you wrote the terms?

EP: Oh, yes. Forest officers first estimated the timber and appraised its value. Say it was a certain area on a certain watershed, which would be defined. First, an estimate would be made of how much material would be cut; then a stumpage appraisal would be made to determine its value, and then it'd be advertised in the local papers. Then it would be sold to the highest bidder, and then a detailed contract would be drawn up and executed. The contract specified all essential conditions and requirements on both sides. Then operations could commence, but actual logging could not begin until the trees were marked or designated for cutting, and that was the job of the forest officer.

SS: Did these contracts call for watershed protection or wildlife protection?

EP: No. They were not specifically mentioned because they were not considered necessary at that time.

SS: In 1920 you were forest inspector in the Rocky Mountain Region?

EP: Yes. That was kind of an additional assignment. The district forester picked out three supervisors in the region and designated them as forest inspectors. It was their job, in addition to handling their own particular forest, to visit some other forests in an inspection capacity, and I was selected as one of them. I was still a supervisor. I think they gave the inspectors a couple of hundred dollars extra.

SS: You were supervisor of Medicine Bow National Forest, and then you were forest inspector for the Bighorn, Black Hills, and Harney national forests.

EP: They were the three other national forests assigned to me.

DIVISION OF OPERATION, WASHINGTON, D. C., 1920 to 1921

Function of the Division

SS: Then during the course of 1920 you moved to Washington, D. C., and became forest examiner in the Division of Operation?

EP: That's right.

SS: What were your duties in this division? What was the function of the Division of Operation?

EP: Well, the Division of Operation handles the operational phases, a kind of general manager, you might say. Not the financing; it doesn't handle actual money, but it handles how the money should be spent and how the work should be done. It's operation; it's organization. It has to do with the organization of the forest in general, the setup, you see. It doesn't actually pay out the checks; that's the Division of Finance. They had nothing to do with the way that should be spent. The Division of Operation would dictate very largely the way that it was spent.

Appropriations and Multiple Use

SS: Would you say during this period that there was much appropriation for recreation?

EP: There were no appropriations specifically earmarked for recreation as such. Generally, funds were not allotted on the basis of separate activities or uses. Practically work of all kinds, including most improvement work, was then performed by the regular personnel as part of their jobs. However, all field men kept daily diaries, so it was possible to keep track of the time spent on each major activity, even though funds were not so segregated.

In simplified form this is roughly how appropriations were obtained and expended. Since the forest service was in the Department of Agriculture, its annual budget was a part of the

department's overall appropriation. After approval by the Congress (usually considerably less than the amount requested), we knew just how much we could spend. Our budget was divided into two main parts: first, for administration and protection; second, for improvements (other than work performed by the regular personnel). The first category included all salaries for year-long employees and their travel expenses; wages for guards and other part-time men; cost of fire fighting and other needed equipment, etc.; in short, all essential costs and expenses for administering and protecting the forests. It would also cover all additional expenses for maintaining and servicing government-owned administrative buildings and property.

The second category included funds for other improvements, not performed by the regular force, which in 1910 was pitifully small on the Bighorn compared with actual needs. (Special projects had to be authorized and financed by special legislation.) A major function of the Washington branch of operations was to give to each of the eight field districts its fair share of the total USFS appropriation. At the district level the money was then allotted to each national forest on the basis of its relative need for overall administration.

So although appropriations were not earmarked for the various forestry activities, such as fire protection, grazing, recreation, wildlife, etc., they all played a more or less important role in the daily work of a forest officer. Their relative needs, of course, varied with local conditions. On all forests protection from forest fires always was at the top of the totem pole during the fire season. I expect it still is, even though the range and importance of other forest uses and activities have changed greatly during the last half century.

As early as 1912 serious consideration was given to evaluate specific forest uses and activities. The main thought was that such criteria might be used in establishing work standards to determine the area and volume of work on an average ranger district. It also had the implication at least that allotment of funds might be segregated by major uses rather than, as currently done, lumped in one appropriation for administration and protection.

At that time there was **emerging** a kind of mania for better industrial management, especially in factories. One leading exponent--Fletcher, I believe--published a popular book on the subject. Anyway, Roy Headley, chief of operations in Washington, and Fred Morrell operation division chief in the Denver office,

Region 2, decided to explore whether the so-called Fletcher methods could be applied in managing the national forests. The first need was to determine how much time an average ranger had to devote to each major activity. Several fairly representative ranger districts were selected in the Arapaho National Forest in Colorado, and I was assigned to secure the necessary data. For about two months in the fall of 1912 I accompanied the ranger on his daily work and with a stopwatch tallied the time he spent on each of his various jobs, such as travel time, marking a hundred trees, scaling a million board feet of logs, surveying and making out a special-use permit, repairing a telephone line or pasture fence, etc. Naturally it involved gathering and analyzing an awful lot of data.

I submitted a report, but I never did know just what wide practical use was made of the data, if any. But part of it seemed useful and might have been used for other purposes. I believe it was decided that, due to different situations, there were entirely too many variables involved to establish meaningful work standards or to evaluate separate forest uses. So the project was abandoned or temporarily put in mothballs. Maybe it was one generation ahead of the times. Anyway, it was, as far as I know, the first actual attempt to put one phase of the multiple-use concept into action.

I tell you, during that early period it was awfully hard to get appropriations for almost anything, I mean anywhere near the need for it.

SS: Was it easier to get appropriations for any particular use?

EP: Well, it was easier to get them for the absolutely essential things that you had to have.

SS: Like fire protection?

EP: Yes, and definite improvements. It was really a scrap for money because Congress wasn't very liberal minded. This was natural because forestry was a relatively new program, and it's hard to sell congressional appropriation committees on new projects. We'd meet, say in Region 2, with the chief of operations, who had charge of finances. I remember a couple of them were at Fort Collins, Colorado, where he'd have three or four supervisors nearest that particular place, and he'd say, "Look, we have so many thousand dollars that we can spend altogether on forests." And it'd be up to each of us to sell him on why our forest needs were more urgent than that of the other supervisors in the group. You could never

get in those days the money that you thought you would require.

SS: Among what later became called the multiple uses, were any stressed more heavily as far as the allocation of time and appropriations?

EP: Yes. The most stress was placed on the most important uses at the time. Of course, always forest fire protection would take the highest rating because that was always most important during the fire season. Then it depended on circumstances. If it was a forest that was selling a lot of timber, it would probably be along that line. You'd have to have appraisers, markers, scalers, and the like on the job. It depended on what was the major use on that particular forest.

SS: Were there any areas where recreation would be the major use?

EP: At that time it was not on the Bighorn or Medicine Bow because of their inaccessibility and few visitors. On the Black Hills National Forest, Spearfish Canyon attracted quite a lot of visitors, and on all three forests there were occasional anglers or hunters. It could have been in certain areas on other forests. Overall, and with a few exceptions, I wouldn't say recreation was a major use on the western forests prior to about 1920. Now it is on nearly all national and state forests.

SS: How about wildlife?

EP: Wildlife pretty much at that time took care of itself. I mean the forests were there. They were natural habitats for wildlife, and wildlife was taken for granted as a desirable multiple use, but it was not considered as a separate item.

SS: So then probably most of the money went for forest protection?

EP: You might say, first things first; that is, forest fire protection and basic improvements, depending on the greatest need in that particular forest.

SS: Generally between watershed, logging, and grazing?

EP: If it was timber sales, you had to handle it immediately, you see. I mean watershed or something like that is a longer-term proposition, but if the major work on a forest was timber sales, in order to handle those timber sales you had to first estimate the timber and appraise its market stumpage value. Then you had to mark the trees to be cut. You then had to scale the logs and supervise the whole operation

to see that all contract provisions were complied with.

Actually, there is little direct relationship between uses and their financial needs. It depended more on the time required in supervising them. For example, on the Bighorn National Forest grazing was the major use, but it required a relatively small amount of a ranger's time. On the other hand, timber sales was a minor use (except on one district), but one logging operation required full time for three rangers and part time for three others. Recreation could be the major use on a national forest or one district, but it would not necessarily require the most attention. Recreational use, watersheds, wildlife, and many other values were considered as more overall natural assets not requiring any special, urgent attention other than from fire. At the time it was impossible to foresee their recreational potential.

DIRECTOR OF EXTENSION, NEW YORK COLLEGE OF FORESTRY IN  
SYRACUSE, 1921 to 1933

The Extension Program

SS: In 1921 you left the forest service to become director of extension at the New York State College of Forestry in Syracuse, and I think we should probably spend a little bit of time talking about forestry education.

EP: I was in extension work. It was largely advising timberland owners how to apply forestry on their lands and also to sell the general idea of forestry. We made a lot of lectures, illustrated with pictures where possible. We'd go out to small places--even some that didn't have electricity, and we had to use lantern slides--the grange meetings, and all that sort of thing. And then we got out an awful lot of publications on forestry. The objective was to sell the idea of forestry by any legitimate means and to educate landowners on how they should cut the timber and that sort of thing.

SS: Did you have any contact with the general forestry education?

EP: Oh, yes. I mean a lot of it was. We'd gauge the talk pretty largely on the kind of audience it was. If they were farmers or the grange-type of meeting, we concentrated on how they should cut timber on their woodlots but also included a little overall general forestry in addition. We had a lot of appropriate slides made. We had several objectives. The talks were really double barreled: to sell them on general forestry and to sell them on specific practical forestry.

SS: Did any of your lectures cover problems in wildlife or watershed or recreation?

EP: Oh, yes. We brought in all angles. In a general lecture we'd start out with the need for and the early stages of forestry in the United States and then talk about the creation of the national forests and how and why they are created and then show them pictures. We'd always show good scenic pictures that would emphasize their recreational and other values. Also, we did a lot of actual sample planting. As a part of the forestry education, the practical part, we'd take some of our students out, and, in teaching them how to plant trees, we would actually reforest a small part of a farmer's land as a demonstration area.



One such demonstration was at Hyde Park on Franklin Roosevelt's estate. I didn't happen to have a hand in that one; it was handled by Nelson C. Brown, who was a professor at the university and, I think, knew Roosevelt. They became pretty close friends through this demonstration planting at Hyde Park. I understand Elliot Roosevelt later had them all cut for Christmas trees after his mother and father died.

SS: Nelson Brown was a professor where?

EP: At Syracuse, at New York State College of Forestry. He was a very close friend of mine, and, incidentally, he married a Milford, Pennsylvania, girl, Alice Baker, and she knew the Gifford Pinchots very well. He met her when he was at the Yale Forest School in 1908. Recently Nelson died, leaving \$150,000 each to the New York State College of Forestry and the Yale Forest School.

#### Multiple Use and Forestry Education

SS: In your education at Yale, do you recall having any courses on watershed, recreation, or wildlife management?

EP: Not as such. They were considered more or less in other courses, but they weren't singled out as specific courses at that time. You see, forestry has been greatly specialized since I was in the picture. I was in it mostly in the development stage and the primitive multiple-use stage, if you want to call it that. Forestry now has many facets not even dreamed of when I was at New Haven.

SS: Did you have courses specifically in grazing?

EP: No. That's one thing we had to pick up pretty much on our own after we got on the forests. You see, grazing is confined to a relatively few forests, and they're mostly in the Rocky Mountains. I don't think there is much grazing on the eastern forests. Most of the land in the East had passed into private ownership long before the national forests were created. There were a few exceptions, such as the White Mountains, where the government still owned a lot of land.

When you get west of the Mississippi River, almost all forest land was public domain, and because it was mountainous, it wasn't suitable for agriculture. Nearly all the land suitable for farming had long since been taken up and patented under the homestead acts. Homesteaders couldn't make a go of it in these high mountainous areas, so mostly they were left as public domain.

When Theodore Roosevelt became president, Gifford Pinchot influenced him on the need for proclaiming about one hundred fifty million acres as national forests. Of course, a few had been proclaimed a little before that, but the big impetus was when Roosevelt came in. In one fell swoop he created most of the western national forests, just before Congress took away such authority. They comprised mostly government land. You take on the Bighorn National Forest, there was practically no privately owned land. There might have been maybe a half of one percent or something like that. Now, in some forests there was a lot more patented land, and they complicated the administrative situation. In some places this was lessened by the land-exchange law, which, in order to consolidate ownerships, authorized the exchange of lands of equal value with a lumber company or other owners to round out a good sustained-yield unit.

SS: Did the New York College of Forestry teach any awareness of multiple use in the twenties, while you were at Syracuse?

EP: I really don't know for sure, but I think so. I wasn't in the instructing end, but I believe it was pretty well covered in the different courses, which included most important forest uses, except grazing. I am quite sure the dean, Franklin Moon, and Professor Nelson Brown would have emphasized multiple use more or less for they certainly were aware of the various values and uses of forests.

## REGION 9 (NORTH CENTRAL REGION), 1933 to 1934

## CCC Inspector, 1933

SS: Let's go on to 1933 when you returned to the forest service and worked in Region 9. You returned as supervisor of the Superior National Forest in Minnesota?

EP: Not directly. I think my title was termed CCC inspector. I first returned at the start of the CCC, and that was my first job.

SS: And that was CCC inspector only on the Superior National Forest?

EP: No, it was for the whole region then. You see, I was in the Milwaukee regional office for Region 9. That takes in the three Lake States and the new national forests that hadn't been created yet in Indiana, Ohio, Illinois, and Missouri. We also examined proposed acquisitions in Iowa, but they were never acquired.

SS: Let's talk for a moment about the impact the CCC had on the forest service policy and the administration.

EP: I think the CCC program, which was started in the early spring of 1933, had a very great impact on the forest service from a number of different angles. It provided many workers for various lines of forest work, which had never before been available, and through the program a large amount of forest land was purchased. In Region 9 the government bought a great deal of tax-delinquent, cutover forest lands and even some areas containing good, merchantable timber. You see, at that time no one had any money, and even if they had, they were afraid to spend it. The government purchased a lot of good forest land at very low, bargain prices.

The third factor was that, in the western regions particularly, where they had more need for roads and trails and lookout towers and telephone lines, etc., the CCC boys were used largely on improvement work. I think Region 9 under the CCC program did more technical forestry work--such as planting trees, timber-stand improvement, ribes eradication (the host plant of white pine blister-rust disease), etc.--than any other of the regions. My first job when I returned to the service was to recruit the supervisory personnel for the many camps that were being established in the Lake States primarily but also on the newly acquired areas in the other states.

I believe that on the Superior forest alone we had something like sixteen camps; I'm not sure about that figure because we had also some other work camps that we called the WPA camps. I might add that in Region 9 our idea was in selecting supervisory staff to appoint technically trained foresters, whereas in many of the other regions, and especially in the West, they employed mostly nontechnical, local men. I believe the advent of the CCC could roughly, in many areas at least, be classed as more or less the dividing line between the eras of improvement and development, including actual multiple-use practices.

SS: What did the CCC do in watershed or wildlife management?

EP: The CCC program contributed greatly to better forest fire control, which, of course, is the backbone of watershed and wildlife protection. In Region 9 we did a great deal of reforestation on barren, cutover forest lands, which has had a more or less beneficial effect on both wildlife and in regulating water flow. Also, the CCC helped in restocking streams and lakes. You see, a lot of these tax-delinquent lands were bought directly from the counties. They'd gone tax delinquent and largely were cutover lands that had good, merchantable timber at one time, but, due to fire or other reasons, natural reproduction wasn't coming back. So we planted a great deal of those barren areas. The CCC boys did a lot of timber-stand improvement work, that is, thinning out stands of growing trees that were too thick. That is, the CCC activities in Region 9 were pretty largely directed to forest replanting and other forestry practices, very much different than the other regions. The western regions used the CCC more for improvement work because that was more needed there then.

SS: Do you recall any outstanding conflicts between various uses on Region 9 during this period of the early thirties?

EP: Not any important ones. I suppose the earliest conflict that I had any experience with regarding relative use, or the established policy of "the highest use for the greatest number of people for all time," stemmed from the Forest Homestead Act.\* You see, when the forests were first created, the lands couldn't be entered through the regular Homestead Act, but later the act of June 11, 1906, was passed, which allowed homesteading on any agriculture lands within the national forests. The claims were then handled on a piecemeal

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\* Forest Homestead Act of 11 June 1906. 34 Stat. 233.

basis. A little later, areas open for homesteading were so classified, which simplified the situation.

But I can recall one of the first ones I had to examine, which you might call a conflict. There was a person that wanted to file a homestead on a very desirable section of a creek and a little meadowland. I was convinced that the claimant's primary purpose was just to secure a desirable summer home and some valuable timberland. So the question was, Which is the higher use? Should the forest service keep it for public use or turn it over for patent to someone who wanted it for purposes other than a permanent farm home? He probably wouldn't even live there more than a few months. So the claim, and others like it, was turned down.

Incidentally, through the abuse of the Homestead Act in states like Oregon or Washington or California, a great deal of valuable timberland was secured by the big lumber companies through dummy entrymen. They'd file on a hundred and sixty acres, and they'd comply with the regulations; that is, they had to put a building there; they had to live a certain length of time there; and they had to cultivate a certain amount of acreage. There was a lot of fraud in that connection. Many times they didn't even do that, but if they did, the understanding was that just as soon as they got a patent for the land, it would be turned over to the lumber company. That practice had been quite common, especially in the northwestern states and in California. There was not much in Wyoming because the timber there was far less valuable and was further away from railroad transportation.

SS: You mentioned earlier that you felt that the term multiple use had a history similar to the term environmental quality.

EP: I think that is so. I don't remember hearing multiple use as a phrase until sometime in the thirties, but there was always an awareness of the idea of multiple use. Long before the forests were created, in the late eighties or early nineties, a big forestry congress was held in Washington. Even then the idea of multiple use was in the picture. Then Theodore Roosevelt called a meeting of the governors, and that triggered the national forest program. The main objective then was watershed protection on the headwaters of navigable streams, but other nonconflicting forest values were also in mind, such as wildlife, recreation, limited logging, etc. Protecting watersheds from fire and destructive logging were the main points way back, and they underlie the Weeks Law and also the Clarke-McNary Act. Most of the national forests were not ready for multiple use because

it hadn't come to that point; they hadn't developed any controversy between the respected uses. That's all been a more recent development. I pinpoint it very largely to the tremendous increase in public use of forest lands. Now this increase can backfire; some attractive, but formerly remote, places are becoming overcrowded. Take one in your state, for example, Lake Tahoe.

#### Assistant Regional Forester

SS: In 1934 you became assistant regional forester for Region 9 in charge of the regional branch of operations and later in charge of lands. Is that correct?

EP: Yes.

SS: Can you describe the duties of the branch of operations?

EP: Operations has to do primarily with the organizational and house-keeping part of the forest service. It involves improvements, personnel, organization, and information. It pretty largely functions as the general manager would in a large private company. It determines the amount of money that's needed and how the available funds are allotted and for what major purposes.

SS: Would it be involved with the determination of how much money would go to wildlife, how much to recreation?

EP: Yes, but only in an indirect way for the allotments were not segregated by individual activities. They were not earmarked that way. An overall allotment was made for general administration and protection. It would represent how much money was needed for the regular organization, for salaries, travel expenses, and all other necessary expenses. The cost for temporary help, where needed, was included. The cost for improvements, other than performed by the regular force, was allotted under improvements.

SS: In other words, it would be up to the regional chief of operations to allot funds to each national forest.

EP: Yes. And then it's up to the local supervisor to use that money on

his forest and direct the work in what he thought was the highest use or the greatest need on any district. It might now be possible to allot special funds for individual activities, such as wildlife, recreation, watershed, and the like. But there would be many problems involved. Anyway, that was not the practice when I was in the USFS. Of course, a certain amount of money could be and was budgeted and spent on some specific project, such as improving a specific campsite, erecting a lookout tower, or some other designated project. Appropriations for specific activities were authorized by special acts of Congress.

SS: Okay, what about the branch of lands?

EP: Well, the branch of lands had to do with land use--special-use permits, purchase of land, exchange of land, etc. It was largely devoted to land acquisition during the CCC program because we were buying a lot of potential national forest land at that time.

SS: Can you remember any outstanding purchases that you were involved with?

EP: There were a lot of them. I can remember one rather outstanding purchase. It was with a large tie and timber company in Missouri which owned a lot of valuable timberland in an area in which we were acquiring land for a new purchase unit. You understand the forests in the Lake States--Michigan, Minnesota, and Wisconsin--were largely from public domain lands. But it was different when you got down to the rough area along the river in south Indiana, south Illinois, south Missouri, and Ohio. We bought a lot of those lands down there at low prices and created new national forests under the land acquisition program. Quite a lot of new additional lands were purchased in Wisconsin, too.

SS: What about the tie and timber company in Missouri?

EP: In that particular case the land contained valuable, merchantable hardwood timber. It was during the depression. The company needed cash, and we were offered the land at a ridiculously low price. We bought it at a bargain price. About a year later the company wanted to buy it back at nearly three times what we paid for it. Well, the government doesn't often sell. So Uncle Sam is still holding on to it. We made many other good purchases at the time, including a lot of delinquent, cutover forest lands from the counties in the Lake States. It was good land for growing trees but denuded at the time.

SS: Do you recall any purchases that were made of areas that were to be specifically devoted to recreation or wildlife or watershed?

EP: Not specifically for those purposes in Region 9. Actually, purchases of lands solely for recreation or wildlife were not then legalized and, as far as I know, are not now. The purchases were based on timber and watershed. Overall though, I think all these three values were considered. Sometimes we acquired, through purchase or exchange, lands needed for better administration or to round out workable sustained-yield units. We might have adjoining lands, but there'd be a small amount of patented land intermingled with it, and that makes management difficult. I imagine, but I don't know for I am not too familiar with the situation, that that was probably the problem at Lake Tahoe. Undoubtedly, private lands were there over which the government had no control, and it's very difficult to carry out a planned program unless you own all the land. That's why it is relatively easy for the National Park Service to keep the national parks attractive. They can control the kinds and types of buildings and facilities and their uses because they have complete jurisdiction over their land.

Another very attractive area that I understand is deteriorating is the Coeur d' Alene area in Idaho. Now, there is beautiful lake country, and someone told me recently that it is getting overcrowded and rapidly becoming honky-tonky. That's one big problem; recreation is kind of an uncertain long-range proposition. You don't know just what's going to happen in the future, which makes planning difficult; you can't foresee what the demand may be in any particular place.



## CHIEF, DIVISION OF LAND ACQUISITION, WASHINGTON OFFICE, 1935

## National Forest Reservation Commission and Harold Ickes

SS: In 1935 you moved to Washington and became chief of the Division of Land Acquisition under Leon Kneipp, assistant chief of the forest service in charge of land acquisition divisions.

EP: The reason I came into Washington was because Lee Kneipp, who was lands chief, went to Europe, and I was assigned to take his place temporarily. During that period we had a couple of meetings with the National Forest Reservation Commission. I had the opportunity to meet Harold Ickes, who was an active member of the commission. He could and did ask many pointed questions. So preparing and presenting land acquisition cases was my task. We would get requests from the different regions for the lands they wanted to buy. We had to prepare the cases carefully in order to go up and present them to the commission because they had to approve each and every case. However, I was in Washington only several months at that time.

SS: Can you elaborate on Ickes's actions at those meetings, his questions, or your impressions of him?

EP: He was a dynamic, outspoken, and active man. He was kind of an overpowering individual, thoroughly sold on his job.

During World War II, he was field administrator in charge of gasoline consumption. He figured out thirty-five miles, I believe it was, was the most economical speed in consuming gasoline. Every day he was driven from his residence to his office and back via Rock Creek Park Highway. He would note the license numbers of all cars that passed his at speeds over thirty-five miles per hour and then would write each owner a personally signed (or bearing his signature) letter reminding them they were using up too much gasoline. A rather unusual practice, which pretty well characterized the man. He was by far the most active member of the National Forest Reservation Commission and always wanted to know just why each proposed purchase should be made. And he sure didn't pull his punches. He always wanted the forest service, or at least the national forests, returned to his department and freely expressed that wish.

SS: What was your feeling about Secretary Ickes?

EP: Well, he's a very able man, but he was very aggressive and outspoken, and he renewed the fight, which had been smoldering all along. He renewed the fight to take over the national forest service, and that was one of his ambitions.

### Wilderness Areas

SS: Did you have anything to do with classifications, for example, of wilderness areas?

EP: No. Not personally during my short assignment in lands. The division had handled the classification of a number of the most rugged portions of some national forests as wilderness areas. For example, the Cloud Peak Wilderness Area in the Bighorn Mountains in 1932 and the Snowy Range Natural Area on the Medicine Bow National Forest were two.

SS: During this period what were your feelings about the creation of wilderness areas in the national forests? Did you feel they were necessary?

EP: Oh, yes. In 1935 I thought very definitely that some were needed and probably more in the future because of the tremendous increase in the use of the national forests. Many people want wilderness areas. They want to see and visit the forests as they were in their pristine condition. They don't want their natural values impaired by artificial improvements. They don't want a lot of hotels or other structures or a lot of roads, and I think that's wonderful.

SS: Did you ever meet Aldo Leopold or Robert Marshall?

EP: Oh, yes. I had met Leopold and knew Bob Marshall quite well.

SS: You did? Do you recall any incidents from your acquaintance with them?

EP: Not specifically. Aldo was greatly interested in wildlife and wrote many articles on the subject, some of which I read. But he was in

the Southwest, and I didn't see much of him.

Bob Marshall was the daddy of the wilderness idea. His untimely death early in the forties removed its first and most vigorous champion. I will always remember one of his pithy statements. In his argument for the need for wilderness areas, he said, "The Mona Lisa as a whole painting is worth millions, but if cut into small pieces, it isn't worth anything." I thought it was a rather apt simile and wholeheartedly concur. Incidentally, Bob's father, a wealthy New York lawyer, was a strong supporter, financial and otherwise, of the New York State College of Forestry at Syracuse, which Bob attended. I met him there on a number of occasions and knew Bob when he was a student there.

#### Relations between the Forest Service and the Park Service

SS: When you were in the Division of Land Acquisition, were you involved with any issues as to whether areas should be transferred to the National Park Service?

EP: Not personally while I was in lands. I believe there were some relating to the Olympics and Tetons, but I don't recall the details. Both areas had been national forests.

SS: How about Kings Canyon?

EP: I think Kings Canyon was one case I had in mind. I think that was where they wanted to buy a particular tract chiefly for its scenic value. S. B. Show was the regional forester, and he was in Washington at the time, and he attended a meeting of the National Forest Reservation Commission. He explained the special value of that particular land better than I could because he knew about it; I mean he'd been over the area, and that was it. It seems to me it was the Kings Canyon.

SS: How about your general feelings during the twenties and thirties?

EP: Well, if you mean regarding where the national forests belonged, I always thought that they should be handled by the forest service

because it was better equipped to manage them. They can be handled under proper rules and regulations without destroying them at all for recreational purposes. I've always thought that it was foolish in a way to turn areas like the Grand Tetons in Wyoming over to the park service because they could be handled just as well in the forest service. And it already was a national forest. Of course, I might be biased because I was in the forest service [chuckle], Department of Agriculture. But I was trying to think back to one of those cases that I distinctly recall.

Harold Ickes was one of the most active members of the National Forest Reservation Commission. He asked more questions about it than anything else, and it's very plain to me from the nature of some of his questions that he thought the whole federal forest program, all of it, should be handled by the interior department. It's always been a running argument. He was a man that said just what he thought, and that's undoubtedly what he thought [laughter].

SS: Do you think that the multiple use of the nation's resources as a whole would be improved if a department of conservation were created in which the forest service and the park service were put together?

EP: It might be; I don't know. I think that's in line with present thinking. There's no reason why one department--if they have a proper view of conservation--couldn't handle the whole thing, it seems to me, if they want to cut down expenses and overlapping functions. I think that's probably what's coming sometime. We wouldn't want the national forests to be too much considered under the general philosophy of the National Park Service, that is, where you can't go in and even cut out a dead tree. Certain areas should certainly be left entirely for wilderness, but I don't think that it would be a mistake to apply that restrictive policy to all the national forests.

SS: Do you think that the forest service has been slow in developing recreation?

EP: Well, I don't believe so. I'd say up to the time that I left the forest service, no, because visitors were few, and there was no need for recreational improvements. During the last twenty years I haven't been too familiar with changing conditions, but I know that the recreational demand has increased tremendously. As to whether or not today they have enough recreation facilities, I really don't know. I do know that some of the best sites are pretty much overcrowded.

SS: Do you think that some of the demands for the transfer of lands to the park service were a result of the forest service's failure to develop recreation?

EP: I don't think so, no. I don't know that the USFS has failed to keep up with recreational demands. If so, it is a more recent development. I have an idea it's more from a standpoint of visions of grandeur. As with individuals, every government agency wants to expand, and I think it's more from the standpoint that interior wanted to regain control of those lands rather than any honest conviction that it could handle them better. Certainly without an organization such as the USFS, interior would not be in a position to do so. They have some technical foresters, but most of them are park-minded people. I don't think they have any thoughts or know much about practical forestry because they don't apply it. They can't do so on their park lands.

SS: Did the park service use any special ways to sway public opinion or congressional action when the transfer cases were involved?

EP: I really don't know, but I expect there was some efforts to do so. Ickes was pretty strong in his views, and he made them pretty well known. In the park service the park ranger gives frequent lectures. I have attended only one of them, and he managed to get in a good plug for the national parks versus national forests. Maybe they all do. I wouldn't blame them if they do. I mean it's just natural. I expect I would do the same if I had his job.

#### Public Regulation of Private Forestry

SS: During the thirties did you agree that there was a need for public regulation, especially federal regulation of private forestry?

EP: That's kind of a broad and controversial question. Yes, I think there was a need for it during the thirties, but on the other hand, its urgency was lessening.

I should inject a little background material that more or less influenced my thinking. The greatest need for regulating logging practices on private lands was many years before when destructive

logging was at its peak, and it largely centered in the Lake States. As early as 1871 there was considerable concern over the Peshtigo and other large, disasterous forest fires resulting mainly from logging slash. However, it was pretty much localized and did not become a national issue. At that time it was common practice for timber owners to cash in on all salable material without any thought of future crops from the cutover lands. Of course, a lot of the lands were sold for farming, but most of it wasn't suited for agricultural crops. My point is that at that time and for years thereafter there wasn't a ghost of a chance of obtaining public regulation of any effective kind, either by the federal government or by the states.

The urgent need became a national issue about 1908 and resulted in the Weeks Law (1911), which considered, but did not contain, regulatory provisions. The question was given a great deal of attention by Congress during the period 1920 to 1924, and several bills containing different approaches were introduced. The big question was whether it should be by federal law or by state law with some form of federal and private cooperation. Interested agencies and groups could not agree, and there was so much controversy that no regulatory federal laws were enacted, although a few states enacted some partial ones.

I have always thought that federal regulation would be more effective and, since it would apply equally to owners in all states, would be the best method. But it would stand far less chance of enactment than some form of cooperation with states and private owners but under suitable standards or guidelines. My reasons for believing there was less need for public regulation during the thirties are based on the following facts. Eighty percent of the merchantable private timberlands had already been logged. The greatest need on these lands was fire control, and that was authorized under the Clarke-McNary Act. In fact, these lands were the basis for the federal cooperation; repeated fires had kept them denuded. On the remaining twenty percent of merchantable timberlands, the large owners were beginning to practice forestry voluntarily as good business, and they were being protected by their own protective associations, a big factor in the northwestern states, including Idaho and Montana.

However, small owners, farmers, etc., owned in the aggregate considerably more merchantable timber than the large companies, and it was in that area where regulation was most needed. These small owners and also larger ones were receiving some assistance from the USFS and a few state agencies, largely of an educational

nature, but most small owners were not very much interested. Many of the large companies were becoming interested in hiring technical foresters and creating so-called tree farms, etc., something they never thought of until they could see the beginning of the end of their old-growth timber. The Norris-Doxey Act (1937) authorized such activities on a much larger scale, but in the thirties there was definitely a need for regulating logging practices on all privately owned forest lands.

Starting about that time, maybe a little before, Weyerhaeuser, Shevlin, and Simpson logging companies, and all the rest of them--the big operators--began to practice real forestry, and they are doing more of it each year. The government has long cooperated with them in fire protection, but the owners themselves finally began treating their forest lands as permanent assets. It wasn't because of any altruistic urge; it was just good business. They're now geared to a long-term proposition. They have their sawmills and their plywood mills and a tremendous investment in it, and they know that if they're going to continue in business that they've got to grow trees and practice forestry.

## REGION 6 (NORTH PACIFIC REGION), INSPECTION REPORT, 1937

## Reforestation

SS: Let's go on to the integrating reports.\* In 1937 you wrote up the general integrating report on [interrupted].

EP: Where did you get those dates? I haven't any copies of that.

SS: It was in the Pacific Northwest, and you made the investigation with Earl W. Loveridge. I have a few questions I'd like to ask you after having read the report.

EP: Loveridge was chief of operations in the Washington office.

SS: Now did you find, do you recall, when you went into the Pacific Northwest national forests, that reforestation was on the whole satisfactory?

EP: Yes. We found some overgrazing in a few places.

SS: How about reforestation after logging?

EP: I think that was generally pretty good; it was occurring naturally without the need for planting.

SS: I understand there was some public outcry about clear cutting at that time.

EP: Yes. Well, you see, that's always been a controversy on just what is the best silvicultural practice in harvesting different stands of timber. Very often the best silvicultural practice is to clear cut even-aged stands in strips perpendicular to the wind. But that doesn't look very good to laymen, you see. The average person sees the clear-cut strips and, without knowing anything about it, will say, "Well, here you're absolutely denuding those areas." Actually, the prevailing wind will scatter the light seed over the logged strips and reforest them naturally.

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\*U.S. Department of Agriculture. Forest Service. "A Report on Forest, Watershed, Range, and Related Resource Conditions and Management, Pacific Northwest Region, 1937," by Earl S. Peirce and Earl W. Loveridge. Typed General Integrating Inspection Report. National Archives, Record Group 95, Records of the Office of the Chief.



## Grazing

SS: Now, in your report on Region 6 you described the condition of the range as shameful. Will you elaborate on this?

EP: In small sections it was badly overgrazed. There wasn't any question about it. But I wouldn't say overall that it was too important. Of course, out there grazing is not as important as in the Rocky Mountain forests; Oregon, Washington, and Idaho are mostly dense forest areas. That's where your big timber comes from. You don't get these big open parks like you get in the Rockies. So grazing I don't think was so important.

SS: Was it just a general need for the reduction of the numbers of the [interrupted]?

EP: Yes, it was simply a control problem that needed attention. It was on that trip that that illustration I gave you about the John Day Valley in eastern Oregon occurred.

There was an amusing incident in connection with that [laughter]. We got into John Day in the evening along about seven o'clock. It was a hot July. The supervisor's office was right over the bank, and we were sitting up there talking when all of a sudden someone yelled, "Fire!" We looked down the street, and a big warehouse was all ablaze. It looked as if kerosene had been thrown over it and lit all of a sudden--almost a spontaneous combustion. With about everyone else in town, we rushed down there, and while we were watching the fire, the bank was broken into and robbed. The robbers wanted to get [laughter] the sheriff and everyone else down at the fire while they held up the bank [laughter]. So if we'd only stayed there, we'd have been right over the action and might have upset their well-executed plans. Incidentally, all three were caught in a few days and most of the money recovered.

SS: During the thirties in the Northwest and other areas, too, was there much pressure for the conversion of forest lands into grazing areas?

EP: No, I don't think so. You see, you can't use much of that really heavy forest for grazing. I think it had pretty well naturally reached its own level.

SS: Do you recall any conflicts between big game and grazing during the

thirties with elk or something like that in the Northwest?

EP: Seems to me there was some, but it was not serious. I think that in certain sections there was quite a conflict with the deer.

#### Recreation

SS: How about your impression of the recreational developments of that area--the slash cleanup near recreation areas, near the roads, and this sort of thing?

EP: I don't recall that that was much of a problem either, although there might have been minor instances. I don't remember visiting any heavily used recreational areas.

SS: Any in the Olympic area?

EP: Oh, yes, the Olympic area. Yes, I think there were some instances. We didn't get into the Olympics too much. We were on the fringes but spent most of the time on logging operations near Shelton--the Simpson Timber Company. I believe there were a few instances on the Deschutes National Forest, but I don't remember the details.

SS: Was there much scenic-roadside protection of the area?

EP: Well, I don't know as there was a special problem; no, I don't know as there was a need for it really.

#### Civilian Conservation Corps

SS: How about your impression of the work of the CCC. I've heard some people say that the CCC was very hard on the forest areas, and sometimes they damaged things. Did you find this to be the case?

EP: I don't know what damage they did, but I do know the program was

very helpful. It was, in my book at least, a real milestone in national forest administration. No, I'd say it was pretty much the other way around, that the overall result of the CCC program was a great boost for the forests. For the first time it provided enough workers to carry on needed forest activities on a big scale, and it comprised the main fire-suppression forces during its nine-year existence (1933-1942).

SS: Was there any problem with sanitation there, as far as the camps went?

EP: It was somewhat of a problem on a few, but generally it was not serious. I recall one example. It was on a CCC camp in Region 9. The army had brought in a lot of reserve officers and put them in charge of the camp operations. And they didn't know anything about running a wood camp. In one case there was a question of sanitation and involved the location of a latrine. The army major had built it like a bridge, right over a stream, a beautiful stream where they'd use drinking water out of it, and it was just above a campsite. It was a bad situation, water covered with toilet paper, etc., that flowed down the stream. You'd think a guy would have more sense than that [laughter], but it was just the case of an inefficient and dumb major. Of course, we made them correct that situation just as soon as it came to our attention.

SS: After your inspecting report for Region 6, you commented that some people had criticized the situation for being "too much New Deal."\* Do you recall that the men in this region had used too much New Deal--too much resettlement or social welfare activities and this sort of thing?

EP: I don't think so. I don't recall that. It didn't impress me very much. It had political aspects.

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\*Earl S. Peirce and Earl W. Loveridge, "Memorandum for the Chief," 30 August 1937, p. 2. Typed. National Archives, Record Group 95, Records of the Office of the Chief.

### Leadership in Region 6

SS: Do you think Region 6 has characteristically been considered a problem region?

EP: I think Region 6 has always had more urgent problems. I think for awhile maybe Region 6 didn't get quite as good leadership as some of the other districts, but they have had some pretty able men out there. You see, Region 6 was and is our timber region. That's really where we get the big timber, and their dealings were pretty largely with the big lumber outfits--Weyerhaeuser and most of the other large companies.

## REGION 7 (NORTHEASTERN REGION), INSPECTION REPORT, 1938

## Recreation

SS: In July and August of 1938, you made a general integrating inspection report for Region 7.\*

EP: That was with Chris Granger.

SS: Yes. Do you recall any major differences between Region 7 and Region 6, which you had inspected earlier, particularly in terms of multiple use?

EP: I would say multiple use was greater in Region 7. Of course, the conditions were very different. You don't have that big timber in Region 7, but the recreational use is in places a great deal higher there. You don't have any grazing to speak of, and you have smaller timber sales. There was pretty heavy recreational use on some Region 7 forests, like the White Mountains, even then. You see, Region 7 forests are mostly near heavier populated areas, and more visitors mean more multiple-use problems.

## Segregated Camping Facilities

SS: Do you recall a campground you mentioned briefly in the report exclusively for colored people in Region 7?

EP: Let me see. Seems to me there was one major instance.

SS: On the Jefferson National Forest?

EP: I guess they hadn't thoroughly integrated. I don't recall, but it seems to me there was one instance. Did I mention it in the report?

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\*U. S. Department of Agriculture, Forest Service, "A Report on Forest, Watershed, and Related Resource Conditions and Management, Northeastern Region, 1938," by Christopher M. Granger and Earl S. Peirce. Typed General Integrating Inspection Report. National Archives, Record Group 95, Records of the Office of the Chief.

SS: Yes. Was that very common throughout the country?

EP: I think so at that time. I don't recall the details, but I remember there was a problem. At swimming pools and other camp facilities there were some racial difficulties. I think it was pretty much confined to one area.

SS: So they just built campgrounds in separate areas.

EP: They had to. I don't know how they'd handle that now. I suppose they'd have to go along and integrate, but that's a pretty tough proposition sometimes. You know, I ran into a rather drastic example on a recent trip in South Africa, where even the post offices had separate windows.

SS: Do you recall any problems in the northeast section during the thirties with farmland tenants?

EP: No, I don't think so.

#### Wildlife Management

SS: Now, who was Ding Darling? Do you recall?

EP: Oh, yes, Ding Darling. I met him on a number of occasions. He was a well-known cartoonist. He was at one time chief of the biological services. He was a very likeable person. He was a very strong advocate for conservation in general and better wildlife management and protection in particular. I don't know if he took any position regarding national parks versus national forests.

SS: Did you know him personally?

EP: Not intimately, but I've been to several meetings with him. He was a large man, and at one meeting he mentioned that he had once been introduced as being "too large for a man but too small for a horse."

SS: What about game management in the Northeast during the thirties?

EP: As I mentioned before, game belongs to the states, and its protection

and management is primarily the states' job. However, it is the government's responsibility to provide and maintain the best habitats for wildlife and give it proper consideration under multiple-use management.

We found an overconcentration of deer in a few areas, Pennsylvania in particular--a conflict between deer and forest growth. Aside from that, I don't recall any serious conflicts. Of course, again the game, you see, is the states' responsibility. I don't think even if you own land that you can go in and shoot a deer on it out of season. I'm not sure how it works on national parks, but on national forests the state has jurisdiction over game. Even though they don't have the jurisdiction over the land, they do over the game and fish. In the eastern states the state game wardens are more active than those in the West, and, of course, there is a better public sentiment.

#### Watershed Management

SS: How about problems with pollution in the Northeast?

EP: Well, I don't know. At that time it wasn't given much thought, and I can't recall any special incidents on this inspection trip. Pollution is something like environmental control; it's been going for many years. It only reached the point recently where the public demands remedial action. Probably the best illustration of pollution in the East is our Potomac River right here. The trouble is, you buck up against entrenched, big business.

We've allowed cities, towns, and factories to dump refuse into our rivers without any restrictions and to pollute the air as well. It's awfully hard to clamp down and stop it all at once. It is very costly and requires combined action. We're doing a great deal, but much more is needed. It is a crime that we didn't start thirty, forty, fifty years ago and prevent the pollution rather than let it reach this advanced stage.

I don't think there are many cases of pollution on the eastern national forest lands, but there are cases of overcutting on some of the intermingled private lands. You see, when you talk about eastern

forests, you're not talking about 100 percent government ownership. In some cases maybe not over 50 or 60 percent is government land, so you haven't complete control. Take, for example, the White Mountains. I can remember we used to go up there in the summer-time, and you could see the whole side of a hill cut clean. Well, it was a poor practice. But you couldn't do anything about it. Private individuals or companies owned the land, and they could go ahead and cut it as they wanted, and usually they cut everything that was merchantable.

SS: Did that cause much erosion?

EP: Well, it did then, yes. Not as much or as noticeable in 1938. You don't have the same situation that exists on those hills around Los Angeles and the nearby Malibu area where, when the chaparral is burned off, heavy rains follow; then you get bad erosion. As you know, the whole hill slides down and occasionally ruins a Hollywood millionaire's home. However, they insist on building expensive homes on these hazardous spots and allow the chaparral to come up within six feet of their backdoor. That's also why there's so many bad fires in that area in spite of the fact that this particular section receives the most intensive fire protection (in this case by the state and county forestry officials, since it is not on government land) of any forest area I know of. The chaparral becomes very dry in the late summer and becomes almost explosive. A fire starts in the nearby chaparral, and unless extinguished within seconds it will race up the steep hillsides and too often develops into a serious conflagration. Even if fire fighters and equipment can reach the place within ten minutes, it is often too late.



CHIEF, DIVISION OF STATE COOPERATION (1946 to 1947 KNOWN AS  
 DIVISION OF STATE COOPERATIVE FIRE CONTROL AND 1947 to 1951  
 DIVISION OF COOPERATIVE FOREST PROTECTION), 1936 to 1951

#### Functions of the Division

SS: You were chief of the Division of State Cooperation from 1936 to 1951. Can you explain the function of this division?

EP: Well, my particular task was in connection with the Clarke-McNary Act, which went into effect in 1924 and which primarily provides for the cooperation, with states and through states, with private timberland owners in protecting their land. Now, the government can't put up more than 50 percent. It's got to be at least a matching proposition. In many cases it's overmatched by what the states and cooperating private owners spend on fire control.

The job itself of fire protection on the ground is performed by the state forestry departments, but there are certain requirements before they can qualify for federal financial aid. They have to have adequate laws and an effective forest department. They have to conform to certain standards, guidelines so to speak, and they can include, under certain conditions, the amount of money that the private owners are spending for fire protection, but the private protection work has to be under the state supervision. That is, the states couldn't use as a base private expenditures on fire protection unless they were made as a part of the overall state system, and the private owners would agree to certain regulations. That's the way it worked. So all the states with any substantial amount of forest land now cooperate with the government.

When I retired from the USFS in 1951, we were cooperating with the state forestry departments in fire control on about three hundred and sixty million acres of nonfederal forest lands--about 90 percent of the land needing protection. It was estimated that about \$48 million would be needed to protect all the nonfederal lands needing it or about 10 cents an acre. Approximately \$30 million was spent in 1950, the federal contribution being about \$9 million or 30 percent. Although the Clarke-McNary Act contemplated the federal government would meet half the total cost, it had never done so. However, in 1949 Congress authorized annual increases of \$2 million up to a maximum of \$20 million. I do not think it has ever reached that amount.

Now about every three to five years we'd make a resurvey of the whole situation to determine how much the entire job would cost.

These periodic area and cost computations are needed to keep up with the ever-changing protection needs and costs, especially the latter, for some essential segments had trebled in the ten years since 1940 and probably at a faster rate since 1950. Aside from costs, fire-control needs, methods, equipment, etc., changed considerably. The resurveys provide a good opportunity to analyze the situation in each state and to determine with the state foresters how the federal funds can best be used by them in their state.

On the basis of these surveys we allot money to the states to be spent by them but with essential supervision by the USFS to safeguard the federal participation. It was based on two considerations: on how much they themselves spend and on the relative need for fire protection. Take a state like Florida, for example. They haven't got a lot of their land under protection at all, and many owners set fires simply because their grandpappy set them or to clean out the woods and kill snakes, rodents, etc. So conditions are different. In Florida the biggest needs were educational and to get more of the unprotected forest lands under organized protection. In other states it might be to strengthen protection on areas where control was inadequate.

In connection with cooperative fire control, I had a rather interesting trip. The year 1947 was a bad forest fire year, especially in Maine. Fires were rampant all over the southern part of the state. We were cooperating with the state under CM2 [Clarke-McNary Act, Section 2], but this was an emergency situation, and we wanted to see what additional help we could provide. The air force furnished a bomber, with pilot, and with Chief Forester Lyle F. Watts and State and Private Forestry Chief Richard E. McArdle, we took off for Augusta, Maine, picking up Regional Forester (R7) R. M. Evans at Philadelphia en route. At Augusta we conferred with the governor and the state forester. Then we flew low over Bar Harbor, one of the places most badly damaged. We almost touched the tops of many fireplace chimneys--all that remained of many expensive summer homes. About half the town had been destroyed, including an important cancer research laboratory.

The state authorities believed an experienced dispatcher--probably the key man in any fire emergency--was their most urgent need, and we concurred. So we immediately loaned them Howard J. Eberly, my chief assistant and just the right man for the job. The state forester told us he was a great help in marshalling and deploying fire-fighting crews and equipment, etc. He was on the job for about a week or so, during the remainder of the emergency. I mention the

incident to show that federal assistance was not confined entirely to advice and overall supervision; at times it included on-the-ground assistance as well. Cooperation with the state forestry agencies in fire control was the main function of my job.

SS: Did the Division of State Cooperation handle anything besides fire protection?

EP: Yes, it handled some other forestry activities, such as forest land taxation. This was authorized under the CM Act [Clarke-McNary Act].

SS: What did this involve?

EP: Inequitable taxation on forest lands has always been a deterrent to growing timber as a crop, so the taxation studies were aimed to assist states in devising laws which would encourage owners to practice forestry. Other divisions of the S & P [state and private] branch, on the other hand, authorized cooperation with state and private owners. It also involved cooperation with the farmers in handling woodlots and advising private timberland owners on forestry matters. Also it handled Section 4 of the CM Act providing federal aid in producing and distributing young forest trees to farmers for windbreaks or to reforest denuded areas, etc. The main activity was fire protection, but it handled all authorized forest activities with the states and private landowners and also matters relating to forest land taxes. My particular job was pretty much confined to fire control (CM2), but in addition, I was temporarily assigned to two other time-consuming tasks: the New England salvage project (1942 and 1943) and the Texas salvage project (1944).

SS: Were you involved with any of these other aspects of state cooperation?

EP: Oh, to a certain extent but not very directly, aside from the salvage project in New England, which involved cooperation with the New England states on many forestry activities.

SS: Let's discuss the salvage projects a bit later. When did these other aspects of state cooperation come into being? When the division was created, did it cover these things?

EP: When the division was created in 1936, we were confined mainly to fire control. Soon after they were broadened by other acts, such as the Norris-Doxey Act of 1937, the Forest Pest Control Act of 1947,

and the Cooperative Forest Management Act of 1950.\* The genesis of cooperation was the Weeks Law of March 1, 1911.

Of course, the old division of forestry did more or less cooperate with private landowners and the few states with forestry departments at that time, New York for one, in various forest activities. Providing information and advice was all it could do since it had no land under its direction.

Prior to 1936 all cooperative activities with the states and private owners were under the original Weeks Law, and later under the Clarke-McNary Act they were handled as a division of operation, I believe under the name of information. I believe the men who then headed up the cooperative activities in about chronological order were: William Greeley, E.E. (Nick) Carter, Paul G. Reddington, Robert Stuart, Fred Morrell, J.G. Peters, and William J. Stahl. In 1936 a new Branch of State and Private Forestry was established with Earl W. Tinker, who had been regional forester for Region 9, as its first chief. It had two main divisions; one was cooperative fire control, the other was cooperation in other forest practices.

SS: When you joined the State and Private Forestry Branch, did the USFS have other, separate divisions that handled recreation and wildlife?

EP: I don't think so in 1936, but they followed soon after. I don't remember just when, but I have here a July 1, 1946, organization chart which lists divisions of recreation and wildlife as well as watershed management, forest influences, and range management. So these separate divisions were created sometime prior to that, I would say in the late thirties. Before their creation, activities relating to recreation and wildlife were handled by the older branches of lands or grazing.

SS: During this period, while you were chief of the Division of State Cooperation, did you have any particular contact with multiple-use policies?

EP: Oh, yes, in a general way, yes. I mean forest protection is the first basic essential. If you have that, the other measures are academic. I can't think of any specific contacts for, although we were centering on forest fire protection, that really covered all forest values and uses--in other words, the whole waterfront.

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\*50 Stat. 188; 61 Stat. 177; 64 Stat. 473.

SS: It covered what?

EP: The waterfront, all angles because if you don't protect the forests from fire, you're lost. You've got to do that. That's the overriding, first requisite, you see. Then you can manage forests for timber production, for regulating streamflow, wildlife, recreation, and et. al., but first of all you've got to protect the forest from fire and also the many, destructive insect pests and numerous tree diseases, which cause as much, if not more, damage as forest fires.

#### Clarke-McNary Act

SS: This is your study on the history of the Clarke-McNary Act, entitled Cooperative Forest Fire Control: The History of Its Origin and Development under the Weeks and Clarke-McNary Acts.\*

EP: I went way back on that. I read congressional discussions on the Clarke-McNary and other related bills and in doing so found the multiple-use idea at least implied, although it wasn't mentioned as such. Although there had been more or less early concern over destructive logging and disastrous forest fires resulting from their slash, it did not become a national issue until about 1910. Congress passed the Weeks Act providing for cooperation in controlling fires on the headwaters of navigable streams, but that was not enough. A big problem was protecting the large areas of cutover lands that should be growing trees but were not doing so due mostly to forest fires.

Along about 1920 it became a big issue in Congress. A number of bills were introduced, among them the Capper and Snell bills. They involved different approaches and controversial features. Even foresters couldn't agree on important points. Congress knew that some remedial action was urgent, but it didn't know what form it should take. So the Senate appointed a Select Committee on

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\*U.S. Department of Agriculture, Forest Service, Cooperative Forest Fire Control: The History of Its Origin and Development Under the Weeks and Clarke-McNary Acts. Compiled by Earl S. Peirce and revised by William J. Stahl. (Washington, D.C.: Government Printing Office, 1964).

Reforestation to study the whole question and make recommendations not later than April 4, 1924. Twenty-four meetings were held in sixteen states and in Washington, D.C., with lumbermen, farmers, state and federal foresters, and other interested groups and individuals. The committee consisted of five senators, with Senator Charles L. McNary of Oregon as its chairman. Forester Bill Greeley accompanied the committee--in fact spearheaded the meetings and discussions. The committee published its report on January 10, 1924, and from it stemmed the milestone Clarke-McNary Act of June 7, 1924, which, with a few subsequent amendments, is the basis for the most important federal and state cooperation in forestry measures.

SS: Now a history report on this subject was put out by the Department of Agriculture in 1964?

EP: I compiled the data and wrote the report in 1950 when I was Chief of the Division of Cooperative Forest Protection. Then the original material was revised and brought up to date by William J. Stahl. Bill was my assistant. After I left, he brought it up to date as of 1964. Why the delay I wouldn't know.

SS: Prior to the passage of the Clarke-McNary Act, do you think that lack of fire protection caused heavier cutting on private lands?

EP: You mean to prevent losses from fire. Yes, I think that was an important factor.

SS: Heavier cutting because there was lack of protection. In other words, fear that fire would burn the forest before it could be cut.

EP: I think that was a big factor but probably not the primary one. Owners of merchantable timber wanted to cash in on their investments and wanted to cut everything that was saleable. Loss from fire was always a risk. If you have a big investment in merchantable timber, there's always a danger of losing it, but I think it was more a question of converting their timber into cash, and clear cutting was the orthodox method in the early days. If there was a good market for lumber or pulp or plywood, logging was geared to the heavy demand, you see, and owners wanted to realize as much as they could. Little or no thought was given to handling the lands for future crops of timber. That seemed too far in the future. Owners at the time were only interested in present values and heavy cutting was the general practice.

SS: One of the parts of the Clarke-McNary Act called for a study of

taxation laws?

EP: Yes. We did considerable work on that. It was included in Section 3 of the Clarke-McNary Act. It involved a study of current tax laws and their effect as well as assisting state and local taxing authorities in devising tax laws designed to encourage landowners to grow timber.

SS: Do you think the laws of taxation caused lumbermen to cut more carelessly, more rapidly?

EP: Yes, I think it was and still is an important element. Taxation needs to be adjusted so as not to discourage owners from holding land for timber production. That is a long-term proposition and requires lessening of the tax burden. It is a matter for county taxing authorities, and many have made adjustments, but more is needed to make growing timber profitable. It is a problem because the cost of all services have skyrocketed, and county officials are reluctant to lower the tax base.

Most owners want to get a reduction of taxes as much as possible. In certain states there were various angles in which, by the practice of forestry, they would reduce the taxes. But taxes always have been a pretty serious problem for timberland owners. For example, ten days ago I was in Maine visiting some close relatives at Bangor, the Webbers. They own a lot of timberlands in northern Maine, and Peirce Webber, who handles them, told me that high taxes almost put him out of business. Selling pulpwood stumpage off their large tracts of forest lands has supported at least three generations of several Webber families, so I expect Peirce is familiar with the tax problem. He doesn't operate; he just owns and manages the timberland. He only sells stumpage to various pulpwood operators who do the logging.

I think all forest landowners claim they ought to get lower taxes, and I guess they are right. I'm not too familiar with the current taxation situation. But I think there are different ways of getting some reduction of taxes, but owners claim the taxes are still too high.

SS: Did you find that Congress over the years has appropriated the sum that was anticipated in the Clarke-McNary Act?

EP: No, it never has. You see, you always, just like with any other appropriation, I suppose, ask for more than you get, and that's only

natural because you're selling the fact that you need a certain amount of money, and you're convinced that you do. You're sincere in it, but Congress has many other things to consider, and it's their job to keep expenditures within limits. Any agency that's worth its salt always asks for more than they expect to get. They're sincere in it. They think the world revolves around their particular line of work. They think the world would go to pieces if Congress didn't come through and grant them increases. Anyway, we never got the money that we thought we needed.

SS: Did you get the amount that had been envisioned when the Clarke-McNary Act was passed?

EP: No! When the act was passed in 1924, it authorized an annual expenditure of not over \$20,000,000 by steps, but the first year's appropriation was only \$660,000. There were small increases almost each year, but in 1950 it had only reached \$9,000,000.

When I was in there it was simply a question of putting up as strong an argument as you could and getting Congress to give you as much as possible. As mentioned, we made area-cost estimates about every five years or so. With the increased cost of labor and higher costs all along the line, it's natural that these revised estimates went up, not only for fire protection, but for all forest activities.

SS: Were you involved with any attempts to amend the Clarke-McNary Act?

EP: No. We were always under pressure to get more money but not to amend it in any major way because it was good as it was. The urgent need was more funds. The Weeks Law covered just headwaters of navigable streams. The Clarke-McNary Act covered all nonfederal forest lands. Later, other acts authorized and financed other cooperative measures. An important one was the Norris-Doxey Act of 1937, and there were other, more-specialized acts.

#### Working with Other Groups

SS: In dealing with states did you find that the states excelled or fell behind the federal government, especially the U.S. Forest Service,



in the practice of multiple use?

- EP: Of course, the states only had jurisdiction on state-owned forests. I'd say that generally they were behind, and in some states very much behind. Of course, it varied from state to state, but I'd say in most cases the forest service practiced more multiple use on national forests than the states did on state forests. The Adirondacks would be an exception. That forest was established long before most national forests, and that area is handled very much along the lines of the national parks. You can't cut timber, and there is no grazing, so it's primarily recreation. The highest use of the Adirondacks would be recreation; it's bound to be with its high scenic values, many attractive lakes, and its proximity to heavily populated areas.
- SS: Were there other government bureaus involved in the protection of watersheds of navigable streams other than the Division of State and Private Forestry?
- EP: You mean fire protection on nonfederally owned lands?
- SS: Yes.
- EP: Not at the time, as far as I remember. No, it centered in the USFS and was handled by the Branch of State and Private Forestry from 1936 on. Each state with any substantial amount of forest lands has now, and many did then, a forestry department. In the northwest states a number of protection associations had been formed and were operating. In some states, even before they organized a forestry department, some forestry work was carried on by private owners. Now, take as an illustration, Iowa. In 1933 we considered some purchase units there. There was no state forestry agency there. Forestry was handled by Professor Gilmour B. MacDonald of the Iowa State College, and when, in that connection, I was down there, he was most helpful. Actually, it was his idea really to create national forests in the southern part of Iowa, that rough part. We made a field examination and recommended a purchase unit. It never materialized because we ran out of money.
- SS: Then there are no other federal bureaus involved other than the forest service in the protection of these navigable-stream watersheds?
- EP: No. Not as far as fire control was concerned at that time. Other agencies came in later on in other phases, such as controlling destructive insects and diseases, etc.

SS: But there was never much conflict?

EP: No, no conflict. I was thinking back in connection with the New England salvage project. We had to cooperate there with a great many different federal and state agencies. It was largely a question of cooperation, getting them to all work together. More agencies usually mean more problems and make it more difficult for the one directing agency, which bears final responsibility. That was the case in the New England project, but overall it worked out pretty well, and most agencies and groups cooperated wholeheartedly. This was a really big project. I think you have a report covering it in considerable detail.

#### Recreational Developments

SS: Was the development of a formalized recreation program in the forest service in any way a response to the need for fire protection? In other words, campers, hikers, and picnickers setting fires. Was there a need to build recreational areas to cut down the problem of fires?

EP: Yes. That was one idea as well as for the convenience of the camper. From the purely forest service angle that was an important consideration in reducing the fire hazard by confining campfires to safe places--either a stove or a certain area, usually surrounded by rocks or bare ground. Many campers don't use good judgment and are likely to build a fire right up near some brush or debris that might easily catch fire. Campsite improvements are made primarily for the benefit of campers, but also they are pretty good fire-prevention measures.

#### Game Management

SS: We just touched very briefly on the fact that game is largely the prerogative of the state. I know you weren't directly involved with

game management, but do you think the fact that there was a question of jurisdiction hampered game management?

EP: I don't think that divided jurisdiction was a serious problem at that time for specialized game management wasn't considered to be needed on the forests I was on, but I can visualize where it could develop into a problem. You see, the fact that forest officers were ex officio game officials--that was the case in Wyoming anyway--we cooperated with the state game officials. Actually, the forest rangers were more energetic in enforcing the game laws than the few state game wardens. Without the government rangers, there would have been very little game protection on the national forests. You see, the state game wardens weren't very numerous. On the Bighorn forest, for example, we'd have maybe fifteen rangers and guards, whereas the state might have one game warden for a whole county.

#### Federal Aid to States: A Boon or a Threat?

SS: Do you feel that federal aid to states, especially financial, is in any way a dangerous principle?

EP: You mean, in other words, that control might be taken over by the government?

SS: Yes.

EP: I don't think so. In my opinion, the CM2 [Clarke-McNary Act, Section 2] approach is far better and more effective. I know now there is considerable pressure to turn the federal money over to the states and let them do as they want without any federal restrictions or supervision. And, of course, that would suit, I expect, some of the state foresters as well as most state officials [laughter]. But I think the other approach is a lot better. Of course, you get into a big argument of where the tax money comes from and where it goes, etc., but I'm in favor of the general principles of the Clarke-McNary Act, to go along with the states on a matching basis.

I don't think Uncle Sam should pay the whole tab unless the benefit is entirely federal. Well, now the benefit in forest fire protection isn't all federal. You see, the Clarke-McNary Act just

applied to state and private lands; it had nothing to do with government lands. The states and cooperating private owners are the primary beneficiaries, so why shouldn't they pay part of the cost.

The owners of merchantable timber should pay a large part, if not all, of the cost of fire protection, like insurance on buildings or other salable property. Possibly the federal and state governments should pay a small part to cover fire hazards over which the owners have no control, but public assistance to private owners should primarily be made for protecting the large tracts of cutover and denuded areas to encourage the owners to keep and manage such lands for growing forest products. In general these are the best and most accessible forest lands, and on them our future needs for forest products will primarily depend.

National forests, of course, will help, but they constitute far less total acreage and, except for the northwestern states and some limited areas, are largely mountainous and less productive. The Copeland and subsequent reports emphasize the urgent need for keeping and building up forest production on private lands--both farms and large holdings. They furnish considerable background material why the forest service has consistently believed that some form of regulating logging practices on privately owned timberlands is needed.

The pattern of the Clarke-McNary Act, which was based on cooperation up to 50 percent in protection measures, has worked out well and, I believe, is the most effective method. The standards are to be worked out by the forest service in cooperation with the states and the work performed by the states but under sufficient governmental supervision to protect the federal participation. Private owners who want to participate must coordinate their protection work with the state's program. I'm in favor of that approach and don't believe the government will take over control.

SS: You don't think that the state would do an adequate job without the federal contribution?

EP: I don't think so. I don't think it would do an adequate job on private lands. One state might under a certain administration or certain governor or certain commissioner of forests, where another wouldn't, and I think there's too much chance for that money going down the drain. I don't think you'd get the most effective results without some federal supervision. Of course, if I was a state employee, I might feel differently. But I think over the last sixty years the CM

[Clarke-McNary Act] method had demonstrated that it works and without the project being taken over by Uncle Sam. Of course, mistakes were made. It hasn't been 100 percent perfect. Nothing is, but I think overall it's worked very well.

SS: What do you think has been the attitude of the forest service in general toward federal aid to state and private forestry?

EP: Oh, I think it is strong for it.

SS: Do you think it has made an effort to help state and private forestry or has gone more into taking over the functions themselves?

EP: I think the first, very definitely! There is some danger that--what is the expression--"the fiddler calls the tune." Well, there is that danger that in federal-state cooperative programs there is too much federal control, but I don't think so with the CM project. I think a lot of the people who use that argument just want the money turned over to the states to use any way they want. I don't think you're going to get your best results that way.

SS: Do you think the forest service should acquire more lands than it has now?

EP: If you mean in large units, such as present national forests, I doubt whether there are many suitable areas left. I think in certain places they should acquire more land for administrative purposes. I think high priority should be given to trying to buy some of the private lands that are intermingled with the government lands so that they can round out practical administrative and sustained-yield units. Then you can manage the areas under sustained-yield plans and permanently support local industries and communities. I think that would apply more to the eastern forests, which contain more intermingled patented land than in the western forests.

Now to get back to the Bighorn; only a few mining claims had gone to patent. I'd say the percentage of government land on the Bighorn would be over 95 percent as against about half on some eastern national forests or purchase units. Small isolated tracts of land with special scenic value are more suitable for national parks or national monuments than for national forests.

## New England Emergency Project, 1938

SS: In 1938, while you were chief of the Division of State Cooperation, you participated in the New England forest emergency project. Is that correct? You wrote for the Bancroft Oral History Office a history of this project.\* So I don't think we have to go into it extensively here. But I think it might be relevant to ask whether there were any problems with soil erosion or excessive runoff as a result of the hurricane.

EP: I don't think so for the reason that it wasn't in a very rough country. It is pretty largely white pine, and it's on one side of the hill mostly. If it had been in a mountainous country, it would have been bad. Then, too, that area has grown up pretty fast. You go over that same area now, and you'd hardly know anything happened to it. But at that time it constituted a tremendous fire hazard.

SS: You mentioned that this emergency project involved a great deal of cooperation with other federal bureaus.

EP: A great deal. It was a cooperative effort all the way through. You see, you had to cooperate first of all with quite a number of other federal bureaus, then with interested agencies of the states, and then you had to cooperate with the towns, and then you had to cooperate with the landowners. And we had to lease sites for lumberyards or for water storage. We wanted to get as many logs in water storage as possible so they wouldn't rot or get bug or disease infected. So we had to arrange over six hundred leases and all that sort of thing. Then we had to cooperate with all the many different agencies in any way connected with the project -- federal, state, county, town, and interested private groups. It was really a cooperative project all the way through.

SS: Were there any bureaus you had trouble cooperating with?

EP: Oh, no, not of any major importance with federal bureaus. Some were easier to work with than others. There was, I believe, a little early friction with a few local agencies, groups, and individuals.

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\*Earl S. Peirce, "Salvage Programs Following the 1938 Hurricane," typed manuscript edited by Amelia Fry, University of California Bancroft Library Regional Oral History Office (Berkeley, 1968).

And there was wide variation in the interest shown, but generally everyone realized the need for quick action and wanted to be helpful. I didn't have close connection with the project in its early stages, but I don't believe there were any major problems. A few local groups and a few individuals thought they should have had more to say in handling the project. One had to do with news and publicity.

Some owners were slow in getting their wind-thrown or damaged trees cut into logs. You see, we didn't do any of the logging. We just set up all receiving sites where we would pay reasonable prices for logs delivered at each of the six hundred or more stations. The landowners had to do the cutting and hauling themselves or arrange for it, and there were a lot of people who held back on that. They didn't have the facilities for doing either. In many instances local groups were interested enough to go out and help the owners get someone to do the logging and hauling.

#### Texas Timber Salvage Program, 1944

SS: During the war you were involved with a project in Texas. Could you describe this?

EP: That was a little bit different, but in a way it was sort of something like the New England salvage project but on a smaller scale. In Texas, time was the element. It was a rush job. You see, in the South if the timber comes in contact with the ground, it'll rot or become unmerchantable in six or eight months, and it was a question of utilizing the material while it was usable.

Most of the land was on the Sabine National Forest, and we did the logging using prisoner-of-war labor. They had a lot of prisoner-of-war camps down there that year. We had to cooperate with several other government agencies. One was the army (Adjutant General's Office) since it was in charge of the POWs. The USFS's responsibility concerned only POW labor in logging and transporting them between the camps and the work areas.

SS: Did you talk about this in the volume that you wrote for Bancroft?

EP: No, that covered only the New England salvage project.

SS: Okay, let's go on with it.

EP: In Texas the biggest problem, first of all, was where to locate the camps. We wanted to locate them out in the woods near the work, but the army's viewpoint was to locate them in or near the towns.

SS: Who comprised your labor force?

EP: German prisoners of war. We used six camps and about twenty-five hundred POWs. Incidentally, they were mostly pretty high-grade soldiers from Rommel's first African outfit and generally well educated--doctors, dentists, engineers, and the like.

SS: They were captured and transported over?

EP: Yes, they were sent over here. One problem was the security angle, but there wasn't much real danger of them escaping. When they first started working in the woods, where roads cross in the timber areas, the army stationed a soldier with a rifle to prevent any POW from crossing the road. I think that out of the whole time there were only two prisoners who tried to escape, and they soon came back. They were glad to get back [laughter]because there was no place for them to go. Also, they were treated very well. They had their own camps; they had their own cooks, and I think they were even given a certain allowance a day for cigarettes or other extras. They had good treatment, probably much better than our prisoners fared.

Our difficulty was that we had to transport the POWs from camp to the work areas. The army wasn't concerned about how far we had to transport the men. Sometimes it was twenty-five miles or more, and that meant a lot of wasted time. It actually spelled the difference between whether or not we could make the project pay its way. Like the New England salvage program, we had to borrow the money from the Disaster Loan Corporation, a branch of R.F.C., to finance the project. And we were expected to repay the loan in whole. We found that impossible since in some places we had to transport the men long distances from camp to work and bring them back at night. It was impossible to obtain a satisfactory day's work in order to break even.

We explained the situation to the D.L.C., but there was a great demand for the wood for war purposes and a small loss was considered justified. Also, there was an urgent demand for a cleanup job to lessen the fire hazard and prevent the spread of destructive insects and tree diseases to other areas. Actually, although less conspicuous,



insects and diseases exceed damage from fire. There have been numerous serious epidemics, and they often stem from large accumulations of debris on the ground resulting from blowdowns. Congress later recognized this danger when it passed the Pest Control Act in 1947, authorizing cooperation with the states in insect and disease control.\*

SS: You didn't finish the story about the camps, why they [interrupted].

EP: The army officers, of course, wanted to locate the camps in or near town. They didn't want to be stuck fifteen or twenty miles out in the woods. I expect they wanted to be near town where they could go to a picture show or something like that at night. So the result was that since the army had the authority of the location of the camps, they were relocated near the towns, usually in the town square or fairgrounds or some nearby place. We'd have to pick up the labor force and haul them out to work and back. So it was difficult to get a satisfactory day's work done. Also, naturally they weren't going to exert themselves any more than they had to, so we had difficulty getting them to do a day's work. I think they averaged about a cord of pulpwood a day, whereas, if it was a normal business proposition, a logger would cut about twice that.

SS: What did they use this pulpwood for?

EP: We sold it to local pulp mills. It was used for various paper products, and I think some was used for explosives. Nearly all was used for war purposes.

SS: What was the date of this project?

EP: It was during the war. The project lasted from about March, 1944, to the end of that year. It was a short-term job. It was about an eight-month job. [Interruption.]

SS: You were speaking about Harold Breitchenstein when we had the tape off.

EP: Harold was one of the high-power dollar-a-year men executives of various industries that came in here to help out during the war. He was at the time, and I guess still is, president of the Owens Illinois

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\*61 Stat. 177.

Glass Company, I believe it is, or of the Corning Glass Company. Anyway, one of those big glass companies. His job was to stimulate the production of forest products--lumber and, particularly, pulpwood--use in manufacturing explosives. He was very much interested in the salvaging of pulpwood from this large area in east Texas where in January, 1944, a severe ice storm had damaged most of the trees on about 5 million acres. The damaged material was estimated to be nearly a million cords.

This federal salvage project had been set up, somewhat along the lines of the former New England salvage program, but on a much smaller scale. One big difference was that in Texas it was on national forest land. There were about twenty-five hundred German prisoners-of-war to cut the felled or damaged wood into pulpwood, which we then sold to local pulp mills. It was a rush job for trees on the ground rot or become bug infested within a year. Six POW camps were set up in the area, and a large quantity of pulpwood salvaged, which otherwise would have been wasted. Also it was beneficial in keeping destructive insects and tree diseases from spreading to other forested areas in the vicinity, just how much was never known.

It was a cooperative enterprise. The army operated the camps and provided the labor; the USFS supervised the logging operations; and the Disaster Loan Corporation provided the operating funds--about \$3 million was assigned to more or less direct the USFS's part at the Washington end.

In this connection I accompanied Harold on several southern air trips. We would meet with groups of leading lumber and pulp men at Atlanta, Savannah, or New Orleans, where Harold would give a good pep, and then we would look over the salvage operations. The field work was under the direction of Frank Albert and Arthur Hartman of the regional office at Atlanta and the local supervisor Al Miller at Lufkin, Texas.

I got to know Harold quite well. He was a fine, competent, middle-aged executive and a fine example of the many patriotic industrial leaders who so willingly gave their time and ability to help Uncle Sam in an emergency.

I recall one amusing, but not pertinent, incident at New Orleans. We had arrived a little late and were meeting with a small group at the Roosevelt Hotel. At about eight o'clock we began to get hungry and phoned Antoin's for a supper appointment. We were informed they were very sorry but due to a strike they were short on waiters and couldn't take care of us. At that very moment a local

lumberman entered the room and said, "Hold the wire." He took over the receiver. In about ten minutes we were all enjoying one of Antoin's famous meals. We were given the red carpet welcome and helped celebrate the millionth serving of oysters a la Rockefeller, as the proprietor proudly informed us, although I am not sure as to the number. Anyway, it is an interesting place, and we had an enjoyable evening.

Another large salvage operation was commenced in 1950, but it involved national forest lands so I personally had nothing to do with it. Bark beetles had killed most of the spruce trees over large high mountain areas in Colorado, which were of great importance for watershed protection, as well as for timber production. A gigantic long-term timber sale, involving some four and a half million cords of pulpwood, was made in order to salvage the dead or damaged trees on four Colorado national forests. One of the contract provisions was that the purchaser would erect a pulp mill on the western slope, thus founding a desirable new industry and providing employment in a largely agricultural community. Wouldn't this qualify as a pretty good example of the watershed measures the USFS has taken? I don't think it would have been possible under current national park policy or authority.

SS: You didn't do anything to prevent soil erosion or runoff in the Texas operation?

EP: No, there wasn't any since it was pretty flat and even with little danger of erosion. It was simply a question of salvaging the wind-thrown and damaged trees while it was usable, before the bugs got into it, and to clean up the areas.

#### Multiple Use Act of 1960

SS: Let's spend a few minutes talking about your reaction to the 1960 Multiple Use Act.\* I'm wondering if you felt the act was necessary?

EP: Let's see. Since it was enacted nearly nine years after I retired I am not too familiar with just what it authorized.

SS: The Multiple Use Act was the one that said that the forest service would have to practice multiple use.

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\* 74 Stat. 215. Multiple Use-Sustained Yield Act. 12 June 1960. For the text of this act, see Appendix, p. 86.

EP: Well, I'm all for it. I think actually the USFS was practicing multiple use long before 1960. It is mentioned in booklets on the Bighorn, Black Hills, and Medicine Bow forests published in 1940. It provided for sustained-yield units, didn't it?

SS: Yes, it was the Multiple Use-Sustained Yield Act.

EP: Yes, as I understand that act, it authorized the management of a certain area for the permanent use of the community and local industries that are dependent on that area. It would reserve sufficient timber to supply local industries without having to advertise or sell the timber to the highest bidder. In other words, it would stabilize industries and communities and prevent ghost towns, etc.

SS: Now how about the Wilderness Act of 1964?

EP: Again, I'm all for it! I think Bob Marshall had the right idea about the need for keeping certain primitive areas as nature left them, for big game habitat, streamflow studies, and for the enjoyment of venture-some and more rugged type of both summer and winter sports visitors.

SS: Did you ever feel that logging or timber was the primary function of the forest service in the years that you were involved with the service?

EP: Well, that depended pretty much on the area.

SS: As a generalization.

EP: During the early years, 1910 to 1920, I think I felt that the primary function was to protect and manage the forests so that they would best serve the local economy--local ranchers dependent on them for summer range, local demand for wood products, etc. Wildlife, watershed, etc., were taken for granted, and visitors were few and far between. I spent considerable time on one large logging operation, so at that time I would have considered timber production as the major function.

During my last fifteen years, 1933 to 1951, seeing more of the country and recognizing the changing conditions, especially the rapidly expanding use of the national forests, I think I would revise primary function rating. As a general notion, countrywide I would list the primary functions of the USFS in order of importance: protection of watersheds in all mountainous areas; timber production in the Northwest and Southeast; recreation in the eastern national forests and parts of the western states; wildlife in the Northwest; grazing

would rate second on a few Rocky Mountain forests.

Because of many variables, generalizations are difficult, but you asked for it; so here is the way I would now evaluate the primary functions. But remember, I have been out of the picture for over twenty years and a lot of water has gone over the dam since 1951.

The above personal opinions vary somewhat from the original purposes as expressed by the early advocates of forestry and the national forests. It is quite plain that all congressional discussions up to 1924 had streamflow and timber production in mind as the two major functions of a national forestry program. There is little reference to recreation or wildlife, and apparently they were not considered problems at the time. Also, grazing was not discussed and apparently was considered a byproduct.

Your generalized question as to whether timber production is the primary function of the forest service is difficult to answer categorically due to wide variations among the different national forests. Considering the forest service as a whole, and during my connection with it, I would give protecting watersheds top-billing since most national forests comprise the headwaters of most of our rivers and streams. Exceptions would be large sections of the northwestern states, most of the Lake States, and portions of the southern states where timber production probably would be the primary function. Wildlife and recreation were relatively minor functions in my time, but now I expect the latter would have climbed up the totem pole and could even top it, as the primary USFS function on some national forests, certainly on parts of them. But I am in no position to pass judgment.

SS: Was it your understanding in the thirties and the forties that multiple use meant that each forest should have more than one use?

EP: Oh, yes.

SS: But that one use would be dominant?

EP: Yes. I think it would mean one use would be dominant, depending on the area. I don't see how all could be rated equal in importance.

SS: I have no more questions. Is there anything that you have to add?

EP: I don't think so. We have covered a lot of territory. I know you are interested primarily in multiple use. I haven't thought too much about multiple use for the last twenty years, and I'm not sure I understand all its facets now. It certainly makes sense to me, and I think it's what we all had in mind, the concept that we all carried out as far as it was needed at that time.

But I want to reiterate that the first twenty years that I was in the forest service were pretty largely a period of development, getting really, kind of a foundation job, getting needed improvement. You take the Bighorn, for example. Although it was among the earliest forest preserves--proclaimed as such by President Cleveland in 1897--it had received very little attention. One of our ranger stations was an old shack left by the Fortunatus Mining Company, which had gone broke about ten years before. It was designed as an assay office. The roof leaked so bad that the ranger and his wife had to use a tent that they had put up in the backyard when it rained.

SS: That was in the 1910s?

EP: In 1910. The guard stations were just small log cabins with dirt floors, generally without windows. Some were probably put up by the cattlemen's association for their range riders. So that was about the situation on some forests. And you couldn't get any money or very little. So the regular force had to do most of the improving. The limit at that time for a ranger station was \$650.00. I believe that was supposed to include the ranger's time.

The limit was slightly increased a number of times, but even so, it was pitifully small. Conditions began to improve, but only gradually because improvement money was very hard to get. But even up to 1933 when the CCC program began, there was little money available for improvements of any kind. The CCC labor force and program, beginning in 1933, were fully taken advantage of. Today most of the ranger stations are adequate and attractive, and in places like Deadwood, South Dakota, where it's difficult to rent a house, the government even supplies a residence for the supervisor and, I believe, the assistant supervisor, also. There was nothing like that in my time [chuckle]. We had to rent a rather undesirable house. But I'd say overall, I mean without bias, that I think the forest service has done a good job, and it had to start almost from scratch and sometimes the sledding has been a little rough.

SS: Well, thank you very much.

## APPENDIX

from United States Code, 1970 edition

§ 526

TITLE 16.—CONSERVATION

Page 3828

§ 528. Development and administration of renewable surface resources for multiple use and sustained yield of products and services; Congressional declaration of policy and purpose.

It is the policy of the Congress that the national forests are established and shall be administered for outdoor recreation, range, timber, watershed, and wildlife and fish purposes. The purposes of sections 528 to 531 of this title are declared to be supplemental to, but not in derogation of, the purposes for which the national forests were established as set forth in section 475 of this title. Nothing herein shall be construed as affecting the jurisdiction or responsibilities of the several States with respect to wildlife and fish on the national forests. Nothing herein shall be construed so as to affect the use or administration of the mineral resources of national forest lands or to affect the use or administration of Federal lands not within national forests. (Pub. L. 86-517, § 1, June 12, 1960, 74 Stat. 215.)

**SHORT TITLE**

Sections 528 to 531 of this title are popularly known as the Multiple-Use Sustained-Yield Act of 1960.

**SECTION REFERRED TO IN OTHER SECTIONS**

This section is referred to in sections 529, 530, 531, of this title.

§ 529. Same; authorization; consideration to relative values of resources; areas of wilderness.

The Secretary of Agriculture is authorized and directed to develop and administer the renewable surface resources of the national forests for multiple use and sustained yield of the several products and services obtained therefrom. In the administration of the national forests due consideration shall be given to the relative values of the various resources in particular areas. The establishment and maintenance of areas of wilderness are consistent with the purposes and provisions of sections 528 to 531 of this title. (Pub. L. 86-517, § 2, June 12, 1960, 74 Stat. 215.)

**SECTION REFERRED TO IN OTHER SECTIONS**

This section is referred to in sections 528, 530, 531 of this title.

§ 530. Same; cooperation with State and local governmental agencies and others.

In the effectuation of sections 528 to 531 of this title the Secretary of Agriculture is authorized to cooperate with interested State and local governmental agencies and others in the development and management of the national forests. (Pub. L. 86-517, § 3, June 12, 1960, 74 Stat. 215.)

**SECTION REFERRED TO IN OTHER SECTIONS**

This section is referred to in sections 528, 529, 531 of this title.

§ 531. Same; definitions.

As used in sections 528 to 531 of this title the following terms shall have the following meanings:

(a) "Multiple use" means: The management of all the various renewable surface resources of the national forests so that they are utilized in the combination that will best meet the needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; that some land will be used for less than all of the resources; and harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land, with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output.

(b) "Sustained yield of the several products and services" means the achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the national forests without impairment of the productivity of the land. (Pub. L. 86-517, § 4, June 12, 1960, 74 Stat. 215.)



## BIBLIOGRAPHY FOR EARL S. PEIRCE

Peirce, Earl S. "Salvage Programs Following the 1938 Hurricane," typed manuscript edited by Amelia Fry, University of California Bancroft Library Regional Oral History Office (Berkeley, 1968).

U. S. Department of Agriculture. Forest Service. "A Report on Forest, Watershed, Range, and Related Resource Conditions and Management, Pacific Northwest Region, 1937," by Earl S. Peirce and Earl W. Loveridge. Typed General Integrating Inspection Report. National Archives, Record Group 95, Records of the Office of the Chief.

\_\_\_\_\_. "A Report on Forest, Watershed, and Related Resource Conditions and Management, Northeastern Region, 1938," by Christopher M. Granger and Earl S. Peirce. Typed General Integrating Inspection Report. National Archives, Record Group 95, Records of the Office of the Chief.

\_\_\_\_\_. Cooperative Forest Fire Control: The History of Its Origin and Development Under the Weeks and Clarke-McNary Acts. Compiled by Earl S. Peirce and revised by William J. Stahl. Washington, D. C.: Government Printing Office, 1964.

## SELECTED READINGS ON MULTIPLE USE

The following is a list of selected readings on the history of multiple use of the national forests. It was compiled by Barbara Holman, a graduate of Sacramento State College with a major in history, and Susan Schrepfer, who received her doctorate in history from the University of California, Riverside.

The listing was compiled in the course of the research preparatory to interviews made by the Forest History Society in cooperative agreement with the United States Forest Service on the subject of multiple use of the national forests. The interviewees selected for the project were Edward C. Crafts, Frederick W. Grover, Verne L. Harper, Earl S. Peirce, Hamilton K. Pyles, and J. Herbert Stone. This bibliography is not exhaustive. It is limited by time and the need to shape research according to the interviewee's backgrounds. It is hoped, however, that it might offer a brief introduction to any scholar brave enough to embark upon a study of multiple use.

## UNPUBLISHED MATERIAL

## GOVERNMENTAL AND NONGOVERNMENTAL

Unpublished material relevant to the history of multiple use was found in archival collections of the Forest History Society, Santa Cruz, California. These collections include the papers of the American Forestry Association, the National Lumber Manufacturers' Association, and the Society of American Foresters.

Also consulted was Record Group 95 (U. S. Forest Service), in the Federal Records Center in San Francisco, California, and in the National Archives in Washington, D. C. Outstanding material found in these collections are listed below.

**Pyles, Hamilton K.** "Training Needs to Make Multiple Use Work." Speech delivered at meeting of regional foresters and station directors, U. S. Forest Service, 29 February to 4 March 1960.

**Stone, J. Herbert.** "Multiple Use--What is It? How is it Applied in Region 6?" Speech delivered at Symposium, Green River Community College, Auburn, Washington, 17 October 1960. A copy of this speech is to be placed in the Appendix of the typed transcript of the interview with J. Herbert Stone conducted by Elwood R. Maunder in October 1971, Forest History Society, Santa Cruz, California.

**Twight, Ben W.** "The Tenacity of Value Commitment: The Forest Service and the Olympic National Park." Ph. D. dissertation, University of Washington, 15 November 1971.

In this dissertation the author asserts that the U. S. Forest Service's primary commitment has been to the concept of timber as a crop to be harvested. As a result of this commitment, the service failed to respond adequately to the values and expectations of recreation-oriented groups with regard to the Olympic National Forest.

**U. S. Department of Agriculture. Forest Service.** "Recreation Uses on the National Forests: A Study of their Extent and Character With a Discussion of Public Policies and Recommendations as to Methods of Development and Administration, 1917," by Frank A. Waugh. Typed. Forest History Society Library, Santa Cruz, California.

Here is a very interesting early report with numerous photographs with identification.

\_\_\_\_\_. "A Report on Forest, Watershed, Range, and Related Resource Conditions and Management, Pacific Northwest Region, 1937," by Earl S. Peirce and Earl W. Loveridge. General Integrating Inspection Report. Typed. National Archives, Record Group 95, Records of the Office of the Chief.

\_\_\_\_\_. "A Report on Forest, Watershed, and Related Resource Conditions and Management, Northeastern Region, 1938," by Christopher M. Granger and Earl S. Peirce. General Integrating Inspection Report. Typed. National Archives, Record Group 95, Records of the Office of the Chief.

\_\_\_\_\_. "A Primer for Water Management on Cleveland National Forest," by Hamilton K. Pyles. May 1948. Typed. Copy in the Office of the Forest Supervisor, Cleveland National Forest, San Diego, California.

\_\_\_\_\_. "Plan for Management of the Southern California Forests," by Clare Hendee and Stephen N. Wyckoff. 1953. Typed. The original study is held in the Office of the Forest Supervisor, Cleveland National Forest, San Diego, California.

Hamilton Pyles participated in the formulating of this plan.

\_\_\_\_\_. "A Report on Forest, Watershed, and Related Resource Conditions and Management, Forest Products Laboratory, 1954," by Edward C. Crafts and Verne L. Harper. General Integrating Inspection Report. Typed. National Archives, Record Group 95, Records of the Office of the Chief.

\_\_\_\_\_. "Pacific Northwest Region, 1958," by J. Herbert Stone. General Integrating Inspection Report. Typed. Record Group 95, Records of the Office of the Chief.

\_\_\_\_\_. "A Report on Forest, Watershed, and Related Resource Conditions and Management, Eastern Region and Northwest Forest Experiment Station, 1958, by Verne L. Harper and Russell B. McKennan. Typed General Integrating Inspection Report. National Archives, Record Group 95, Records of the Office of the Chief.

Hamilton Pyles was regional forester of the Eastern Region at the time this report was made.

\_\_\_\_\_. "A Report on Forest, Watershed, and Related Resource Conditions and Management, Northwest Region and Pacific Northwest Forest and Range Experiment Station, 1958, by Edward P. Cliff and Russell B. McKennen. Typed General Integrating Inspection Report. National Archives, Record Group 95, Records of the Office of the Chief.

Attached to this report is a memorandum written by J. Herbert Stone.

\_\_\_\_\_. "A Servicewide Plan to Gear Multiple Use Management of the National Forests to the Nation's Mounting Needs." 1960. Typed. Archives Branch of the Federal Records Center, San Francisco, California, Record Group 95.

\_\_\_\_\_. "Forest Service-National Park Service Relationships." Office Memorandum by Richard E. McArdle, 12 February 1960, Washington, D. C. Archives Branch of the Federal Records Center, San Francisco, California, Record Group 95.

\_\_\_\_\_. "Guide for the preparation of a Ranger District Multiple-Use Management Plan. [1960]. Typed. Archives Branch of the Federal Records Center, San Francisco, California, Record Group 95.

\_\_\_\_\_. "Multiple Use Practices, Problems, and Opportunities in Southern Forests." By A. W. Greeley. At the Georgia Forests Research Council-Georgia Forestry Association Conference on Multiple Use of the Southern Forests, at Calloway Gardens, Pine Mountain, Georgia, 5 November 1969. Mimeographed.

U. S. Department of Interior. National Park Service. "Primary Use vs. Multiple Use," by Howard Stagner. At Visitor Services Conference, Williamsburg, Virginia, 30 November 1959. Typed. Archives Branch of the Federal Records Center, San Francisco, California, Record Group 95.

\_\_\_\_\_. Bureau of Outdoor Recreation. "News Release." Remarks by Edward C. Crafts before a Pennsylvania State University Forestry Convocation. University Park, Pennsylvania, 13 March 1963. A copy is to be placed in the Appendix of the typed transcript of the interview with Edward C. Crafts conducted by Susan R. Schrepfer in August 1971, Forest History Society, Santa Cruz, California.

## GOVERNMENT PUBLICATIONS

One Third of the Nation's Land: A Report to the President and to the Congress by the Public Land Law Review Commission. Washington, D. C.: Government Printing Office, 1970.

U. S. Congress. Senate. A National Plan for American Forestry. S. Doc. 12, 73rd Cong., 1st sess., 1933. Also known as "The Copeland Report."

U. S. Department of Agriculture. Forest Service. The Use Book. Washington, D. C.: Government Printing Office, 1907.

\_\_\_\_\_. Future Land Use in the U. S. Circular No. 159. Washington, D. C.: Government Printing Office, 1909.

\_\_\_\_\_. "Forest Grazing Control Aids Tree Growth." Yearbook of Agriculture, 1926. Washington, D. C.: Government Printing Office, 1926.

\_\_\_\_\_. Forest Outings by Thirty Foresters. Edited by Russell Lord. Washington, D. C.: Government Printing Office, 1940.

V. L. Harper was one of the foresters who worked on this project.

\_\_\_\_\_. "Projects of Many Uses: Other Federal Forests," by F. W. Grover. In Trees: The Yearbook of Agriculture, 1949. Washington, D. C.: Government Printing Office, 1949.

\_\_\_\_\_. U. S. Forest Service Manual. Washington, D. C.: Government Printing Office, 1958.

\_\_\_\_\_. National Forest Program for the Shawnee Hills of Southern Illinois. Washington, D. C.: Government Printing Office, 1963.

F. W. Grover participated in this study.

\_\_\_\_\_. Cooperative Forest Fire Control: The History of its Origins and Development Under the Weeks and Clarke-McNary Acts. Compiled by Earl S. Peirce and revised by William J. Stahl. Washington, D. C.: Government Printing Office, 1964.

\_\_\_\_\_. A National Forestry Research Program. Miscellaneous Publication No. 965. Washington, D. C.: Government Printing Office, May 1964.

U. S. Department of Commerce. Study of Public Land Timber Policy, 4 vols. By George Banzhaf and Company. Washington, D. C.: Government Printing Office, 1969.

U. S., Statutes at Large, Vol. 74. "Multiple Use-Sustained Yield Act of 1960," 12 June 1960, p. 215. U. S. Code, Title 16, Sec. 528 (1970).

## BOOKS - NONGOVERNMENTAL PUBLICATIONS

Forest Policy Statement: Florida Section. Society of American Foresters, 1968.

V. L. Harper wrote this statement.

"Multiple-Use Forestry in the Changing West." Proceedings: Society of American Foresters Meeting. Salt Lake City, Utah, 1958.

Multiple Use of Forest Lands: Proceedings of the Fifth World Forestry Congress. Seattle, Washington, 1960. University of Washington, September 1962. Three volumes.

V. L. Harper was chairman of the Executive Committee.

Pyles, Hamilton K. "What's Ahead for Our Public Lands?" A Summary Review of the Activities and Final Report of the Public Land Law Review Commission. Washington, D. C.: Natural Resources Council of America, 1970.

Reed, Waller. "Forest: Pressure for Multiple Use of Forest Land." In the Western Forestry and Conservation Association, Proceedings of the 46th Annual Western Forestry Conference. Portland, Oregon, 7-9 December 1955. 65-66.

Roberts, Paul H. Hoof Prints on the Forest Range: The Early Years of the National Forest Range Administration. San Antonio, Texas: The Naylor Company, 1963.

Stone, J. Herbert. "A First Look at the Resources of the Northwest." In the Western Forestry and Conservation Association, Proceedings of the 42nd Annual Conference. Portland, Oregon, 1951.



## PERIODICALS AND NEWSPAPERS

All issues of American Forests from 1920 to 1960 were carefully surveyed for articles, editorials, and news items bearing on the development of multiple use in the national forests. The Journal of Forestry and Living Wilderness were explored for these same years on an intermittent basis. The Sierra Club Bulletin from the early sixties provided provocative information. The most outstanding articles from these and other magazines are listed below.

Albright, Horace M. "Highest Use vs. Multiple Use." Sierra Club Bulletin 45, no. 4 (April-May 1960): 3-7.

Albright discusses the history of relations between the National Park Service and the U. S. Forest Service, focusing on the controversy over the extension of the park service into forest service lands.

Antrei, Albert. "A Western Phenomenon, The Origin and Development of Watershed Research: Manti, Utah, 1889." American West 8, no. 2 (March 1971): 42-59.

"A Program for American Forestry." American Forests 65, no. 7 (July 1959): 17-25.

Forest protection, improvement of the national timber crop, forest research, and multiple-use management of forest resources are explored in this article.

"Bulletin Board." Sierra Club Bulletin 45, no. 4 (April-May 1960): 15.

This is a short paragraph on passage of the multiple-use bill.

Butler, Ovid. "Forest Situation Exposed: Exhaustive Report by Forest Service to Congress Lays Forest Troubles to Private Ownership of Land. Huge Program of Public Ownership is Proposed." American Forests 39, no. 5 (May 1933): 204-236.

This article discusses "A National Plan for American Forestry" otherwise known as the Copeland Report. According to the article the report reveals "a critical breakdown of forest land management." There is only brief mention of recreation, range, wildlife, and watershed.

Callison, Charles H. "The 86th Congress and Conservation." Sierra Club Bulletin, no. 5 (June 1960): 8.

Chapman, H. H. "Recreation as a Federal Land Use." American Forests 31, no. 378 (June 1925): 349-380.

Author recognizes the importance of recreation to the national forests and discusses the question of how much forest land should be preserved from cutting.

Clawson, Marion. "A Public Land Review." American Forests. Part I 71, no. 3 (March 1965): 11-57. Part II 71, no. 4 (April 1965): 34-63. Part III 71, no. 5 (May 1965): 51-95. Part IV 71, no. 6 (June 1965): 20-59. Part V 71, no. 7 (July 1965): 26-63. Part VI 71, no. 8 (August 1965): 12-61.

This series of articles by economist Marion Clawson of Resources for the Future highlights some problems likely to be encountered by the Public Land Law Review Commission in its Review of the public lands and administration and management in the United States. Clawson explores taxation of public lands, user payment, management problems, land exchanges, reorganization of federal resource agencies, and the future of public lands.

Cliff, Edward P. "Changes in the Status of Wildlife and Its Habit in the Northwest." The University of Washington Forest Club Quarterly 9, no. 3 (1935-36): 25-30.

\_\_\_\_\_. "The National Forests Serve." Journal of Forestry 53, no. 2 (February 1955): 112-115.

Cliff discusses briefly the development of The Use Book and of the various multiple uses.

\_\_\_\_\_. "The Role of Forest Recreation in Forest Land Management." Journal of Forestry 59, no. 7 (July 1961): 491-492.

Competition for forest lands intensifies, especially for wild lands. According to Cliff, the growing need for recreation offers a challenge to the profession of forestry. Foresters must be sensitive to social as well as economic values.

"Communities and Commodities." American Forests 69, no. 1 (January 1963): 11.

This article concerns the four-point program of the lumbering industry and multiple use.

"Conference Advances New Ideals in Forestry." American Forests 36, no. 6 (June 1930): 336-360.

This article reports the proceedings of a meeting of the American Forestry Association. The menace of stream and lake pollution was discussed as was the importance of forest recreation and wildlife. The association also put on record its opposition "to every bill in Congress for admission to the National Park system of areas which fail to meet completely the accepted National Park standards."

"Congratulations, Mr. Benson." American Forests 65, no. 4 (April 1959): 11.

Ezra Taft Benson proposes a program to provide more timber, water, recreation, wildlife, and other renewable natural resources. The writer of this editorial exclaims this is a "working model for balanced use on forest land."

Connaughton, Charles A. "Watershed Management--More than Mere Protection." Journal of Forestry 37, no. 4 (April 1939): 341-342.

This article discusses the importance of watershed management as restorative, protective and improvement.

\_\_\_\_\_. "Yield of Water as an Element in Multiple Use of Wild Land." Journal of Forestry 41, no. 9 (September 1943): 641-644.

\_\_\_\_\_. "The Triumphant Years." American Forests 61, no. 10 (October 1955): 20-95.

This is the story of Region 8, the southern region.

\_\_\_\_\_. "What is Multiple Use?" American Forests 65, no. 7 (July 1959): 30-61.

Connaughton clarifies the term multiple use.

\_\_\_\_\_. "The Forestry Profession and Land Use Pressures." Journal of Forestry 5, no. 3 (March 1960): 233.

This article discusses land management problems and the pressures brought on by the users of the various uses.

"Conservation in Congress." American Forests 47, no. 4 (April 1941): 182-200.

The recommendations of the Joint Congressional Committee on

forestry included: "More intensified management of timber, forage, wildlife, recreation and watershed resources on national forests." However, timber management and protection were the prime considerations of the committee with little consideration of the multiple uses.

"Crafts Discusses Multiple Use Bill." Sierra Club Bulletin 45, no. 5 (June 1960): 3.

Edward Crafts discusses various questions on the multiple-use bill put to him by the Board of Directors of the Sierra Club.

"Crafts, Edward C. "Brinkmanship in Our Forests." American Forests 75, no. 8 (August 1969): 19-52.

This article is based on testimony by Crafts before Subcommittee on Forests of the House Committee on Agriculture on a bill to establish a High Yield Timber Fund.

\_\_\_\_\_. "Saga of a Law." American Forests. Part I 76, no. 6 (June 1970): 13-54. Part II 76, no. 7 (July 1970): 29-35.

Craig, James B. "Bills, Bills, Bills." American Forests 66, no. 7 (July 1960): 22-96.

Edward C. Crafts helps Congress ride herd on all the bills affecting forest service programs.

\_\_\_\_\_. "Editorial." American Forests 72, no. 12 (December 1966): 12-13.

The American Forestry Association advocates that the North Cascades, in their entirety, remain national forest and therefore under multiple-use management.

\_\_\_\_\_. "Las Vegas--Where the Action Is." American Forests 74, no. 1 (January 1968): 16-63.

This article covers the 92nd annual meeting of the American Forestry Association and the association's discussions of the Bureau of Land Management's multiple-use practices.

\_\_\_\_\_. "North Cascades: A Different Kind of Country." American Forests 74, no. 7 (July 1968): 18-35.

This article centers on a move by some conservationists to turn the

Pacific Northwest's North Cascades into a national park, thereby removing it from forest service control. Craig discusses charges that the forest service permitted mining and logging in this wilderness area.

Dresser, William T. "Design for Multiple Use." American Forests 70, no. 7 (July 1964): 13-15.

Dresser discusses the Los Angeles forests and the population that depends upon them.

Fischer, Virlis L. "Conservation: What Definition Do You Use?" American Forests 66, no. 6 (June 1960): 6-42.

"Forest Protection--Past and Future." American Forests 42, no. 10 (October 1936): 458.

This editorial relates how forest protection results in improved streamflow protection, opportunities for recreation, and other economic and social returns.

Goddard, Maurice K., and Widner, Ralph R. "The Job Ahead for AFA." American Forests 69, no. 12 (December 1963): 6-48.

This is a discussion of the Fifth American Forestry Congress in Washington, D. C. , 28 October 1963.

Goldman, Don P. "But WHICH People?" American Forests. Part I 74, no. 3 (March 1968): 14-48. Part II 74, no. 4 (April 1968): 30-58.

In this two-part article multiple use is discussed in relation to the national parks.

Greeley, Arthur W. "Proving Grounds for Multiple Use." American Forests 63, no. 10 (October 1957): 24-83.

The use of the national forests in the Lakes States is the topic of this article.

\_\_\_\_\_, and Neff, L. P. "Forestry Decisions in the Light of Multiple Products (A Case Study)." Journal of Forestry 66, no. 10 (October 1968): 788-791.

The Boundary Waters Canoe Area in northern Minnesota is taken as an example of multiple-use forest management.

Hall, Albert G. "Conservation Organizations Are Carefully Studying a Multiple-Use Bill." American Forests 60, no. 12 (December 1954): 6.

This is a short report on progress of multiple-use legislation.

\_\_\_\_\_. "The First Major Land-Use Act of the 85th Congress." American Forests 64, no. 4 (April 1958): 12.

Public Law 85-337 enacted by the 85th Congress and signed by the president in February 1958 has provisions for multiple-use management of such lands that might be set aside for military purposes, to the extent that multiple use is consistent with the military purpose for which the land is withdrawn.

\_\_\_\_\_. "Multiple Use: A Concept of National Forest Management." American Forests 66, no. 2 (February 1960): 10.

This article notes that: "It is expected that the recreational 'threat' to the national forests will result in consideration this year of a bill to give Congressional blessing to the multiple-use concept."

\_\_\_\_\_. "Multiple Use Bills Receive Hearings." American Forests 66, no. 4 (April 1960): 9-10.

\_\_\_\_\_. "The Multiple-Use Bill." American Forests 66, no. 5 (May 1960): 7-8.

Hall relates how the "equal status concept" of multiple use received strong opposition, and that the wood industries opposed providing for all uses, including recreational, which they argue the forest service has been doing for a long time.

\_\_\_\_\_. "Passage of the Multiple Use Bill." American Forests 66, no. 7 (July 1960): 9-10.

This article discusses the June 1960 passage of the multiple use bill.

Harper, V. L. "What's Ahead for Watershed Management Research on Forest and Range Lands?" In Proceedings Society of American Foresters, meeting 15-17 October 1956, Memphis, Tennessee. Washington, D. C.: Society of American Foresters, 1957.

\_\_\_\_\_. "The Fifth World Forestry Congress." American Forests 62, no. 11 (November 1956): 6-55.

This article discusses the purposes and history of the congresses.

\_\_\_\_\_. "The New Forestry." Journal of Forestry 63, no. 10 (October 1965): 752-754.

Harper discusses the existing confusion over the proper role of forestry.

"Johnston Re-Elected AFA President." American Forests 66, no. 3 (March 1960): 26-61.

At a board meeting in February 1960 the American Forestry Association voted full support for the proposed multiple use-sustained yield bill.

Kelso, M. M. "Current Issues in Federal Land Management in the Western United States." Journal of Farm Economics (November 1947): 1295-1313.

Kneipp, L. F. "Forestry and Recreation." American Forests 30, no. 270 (October 1924): 585.

Here is an early example of the U. S. Forest Service's awareness of the great value of combined uses as a management principle for the national forests. Recreation and watershed are emphasized.

\_\_\_\_\_. "Public Forests in the National Land Plan." American Forests 40, no. 4 (April 1934): 147-188.

The above article discusses planned land use to provide social and economic stability.

Mann, Walter. "America's Other Face." American Forests 65, no. 2 (February 1959): 12-46.

Mann, chief of forestry division in Bonn, Germany, visited America and was impressed by the multiple-use practices. He expressed the desire of having such practices applied in Germany.

McCloskey, J. M. "Note and Comment: The Multiple Use-Sustained Yield Act of 1960." Oregon Law Review 41 (1961): 49-78.

This article was one of the most outstanding encountered on multiple use. McCloskey traces the legal and administrative aspects of the U. S. Forest Service's development of multiple use.

McFee, Roy E. "American Primeval Forest." Living Wilderness 24, no. 68 (Spring 1959): 35-37.

David Brower criticizes the Cascades Glacier Peak Wilderness Area proposal announced by J. Herbert Stone because it did not include vast acreages of actual wilderness beyond the Glacier Peak area.

"Meeting of Minds Sought on H. R. 10465." American Forests 66, no. 5 (May 1960): 6-62.

This article reveals the differences of opinion between the U. S. Forest Service and representatives of the lumber industry over the proposed multiple use-sustained yield bill.

"More Muscle for Multiple Use." American Forests 76, no. 8 (August 1970): 7.

Interior Secretary Hickel's proposal to reduce the allowable cut on Oregon's O & C forest lands is discussed here.

"Multiple Use Act is Passed." Living Wilderness 25, no. 73 (Summer 1960): 27-28.

This short article discusses wilderness as one of the uses named in the act.

"Multiple Use Analyzed." Living Wilderness 25, no. 72 (Spring 1960): 40-44.

Grant McConnell analyzes the bill and the ability of the U. S. Forest Service administration to deal with problems of conflict of land use.

"Multiple Use Bill Advanced." Living Wilderness 25, no. 72 (Spring 1960): 40-44.

This article discusses the multiple use bill proposal of April 20, 1960.

"Multiple Use Gets Confidence Vote." American Forests 66, no. 4 (April 1960): 31-67.

Hearings before the Subcommittee on Forests of the House Committee on Agriculture brought nearly unanimous support from congressmen and representatives of conservation and trade associations. McArdle argues on behalf of multiple use.



"Multiple Use is Here to Stay." American Forests 66, no. 6 (June 1960): 9.

This is a short essay together with a full-page cartoon concerning the American Forestry Association's support of multiple-use management.

"Multiple Use of Forest Lands." American Forests 59, no. 12 (December 1953): 14-40.

At the Fourth American Forestry Congress a session was dedicated to the discussion of multiple use.

"Multiple-Use Plans Replace 'Limited Areas'." Living Wilderness 25, no. 74 (Autumn-Winter 1960-61): 40-41.

J. Herbert Stone announces that limited area status of certain California and Oregon national forests has been replaced by multiple-use planning.

"National Forests Use: Privilege or Right?" American Forests 65, no. 5 (May 1959): 11.

This editorial discusses the challenges to the multiple-use proposal of the wilderness bill. American Forestry Association spokesmen declare that wilderness areas are not multiple-use areas.

"National Land, Water Policy Urged." American Forests 56, no. 12 (December 1950): 25.

The Natural Resources Council of America adopts a platform on resource management.

Navon, Daniel I. "Activity Analysis in Wildland Management." Annals of Regional Science 3, Part 2 (December 1969): 75-84.

"Olallie Ridge Multiple Use Plan Approved." Living Wilderness no. 77 (Summer-Fall 1961): 34-35.

This plan was approved by J. Herbert Stone in August 1960. It states in part that timber occupies a major portion of this land area and that the plan can be carried on with due consideration of the other uses.

Pomeroy, Kenneth B. "Forester's Notebook." American Forests 62, no. 3 (March 1957): 30.

H. R. 3831, "Public Use of National Forests," declares it to be the

policy of Congress that all resources of the national forests shall be so managed as to assure maximum public multiple use thereof and that recreation, hunting, fishing, and wildlife habitat enjoyment are proper uses of such lands.

\_\_\_\_\_. "Accent on Research." American Forests 69, no. 1 (January 1963): 31-51.

This article discusses the November, 1962 meeting of the Advisory Committee of the Department of Agriculture wherein multiple use was strongly supported.

\_\_\_\_\_, and Howard Zahniser. "Exclusive Use or Multiple Use?" American Forests 63, no. 4 (April 1957): 6-7.

This article presents comments by Pomery and Zahniser on wilderness at a Society of American Foresters meeting.

Pratt, George D. "A New Program for New Forests." American Forests 30, no. 372 (December 1924): 707-709.

Here is an example of early awareness of the importance of recreation and watershed on the national forests. It discusses reasons for the establishment of national forests near centers of population in the East, South, and Midwest.

Redington, P. G. "Fifty Years of Forestry." American Forests 32, no. 396 (December 1926): 719-750.

Redington outlines the history of the national forests. He explains that the two main principals that governed the U. S. Forest Service's administration are the use of forest resources in a way to insure their perpetuity and the administration of the forests for the greatest good for the greatest number. There was to be no monopoly of resources and no destructive exploitation.

Rosecrans, W. S. "Logging in Recreational Forests." American Forests 63, no. 5 (May 1957): 20-59.

Rosecrans focuses on the forests of southern California, an area where watershed control, recreation, and logging are combined.

San Francisco Chronicle. "Critics Wonder if Smokey's Still Guarding the Forest." May 9, 1971.

The topic here is the clear cutting by commercial loggers on national

forest lands in the Bitterroot Valley of Montana. The article claims that the Bitterroot "is not an isolated case of abuse" but rather an example of the fact that "the Forest Service in recent years has fallen into the clutches of the timber lobby."

Shaw, Charles L. "Foresters Soften Multiple-Use Position." Forest Industries 98, no. 13 (December 1971): 25.

Speeches at the annual meeting of the Canadian Institute of Forestry stressed the problems that equal value of the multiple uses has on the lumber industry.

Shoenfeld, Clay. "Let's Cut Out the Numbers Game Nonsense." American Forests 74, no. 5 (May 1968): 10-56.

If foresters are truly to practice multiple-use forestry they must recognize all the parts and uses of woodlands and manage them in a rational program that brings out the fullest economic, ecological, and esthetic values without destroying the resource.

"Society Meets at Salt Lake." American Forests 64, no. 11 (November 1958): 8-34.

At the Society of American Foresters's annual meeting there are comments on the importance of multiple use.

Stagner, Howard. "A Second Look at Multiple Use." American Forests 66, no. 2 (February 1960): 24-25.

This is an address originally given by Stagner before the National Park Service's biennial visitor services meeting in Williamsburg, Virginia.

Stone, J. Herbert. "Multiple Use and the Forester." Journal of Forestry no. 56 (September 1958): 699-701.

Application of the multiple-use concept as discussed by Stone is to provide the greatest good to the greatest number.

\_\_\_\_\_. "Herb Stone's Baedeker." American Forests 74, no. 6 (June 1968): 18-40.

Here Stone surveys the multiple uses of the Oregon Cascades.

\_\_\_\_\_. "Forest or Park: A Former Regional Forester's View." Journal of Forestry 66 (July 1968): 527-532.

Stone makes recommendations for the future of the North Cascades.

"The Big 'Multiple Use' Threats to the North Cascades." Sierra Club Bulletin 45, no. 3 (March 1960): back cover.

Timber, mining and water are mentioned in this short article.

"The Higgins Lake Proposals." American Forests 52, no. 11 (November 1946): 520-543.

This article contains a proposal by national leaders in conservation, government, and industry. In the proposal is a section on management for multiple use.

"The Land that Nobody Wanted." Living Wilderness 31, no. 98 (Autumn 1967): 27-30.

"The U. S. National Forests, the Greatest Good for the Greatest Number in the Long Run." Time 74, no. 3 (July 20, 1959): 17.

"The Wilderness Bill: Nobody Wants It but the People." Sierra Club Bulletin 45, no. 3 (March 1960): 2.

Grant McConnell states that the proposed multiple-use bill does not define the multiple-use concept but leaves it to be played by ear.

Totman, Colonel Clayton O. "The Navy and Conservation." American Forests 64, no. 9 (September 1958): 16-55.

Colonel Totman declares that "In the future, where practicable, the soil, water, forests, grasslands, fish and wildlife existing on our installations shall be subject to multiple-use management."

Ullman, Al. "Multiple Use and the Proposed Wilderness Preservation System." Living Wilderness 24, no. 71 (Winter 1959-60): 30-33.

Some people believe that wilderness is becoming unduly subordinated to other uses of federal lands. An analysis of the wilderness system is presented here by Mr. Ullman.

"Urban Growth and Natural Resources." American Forests 64, no. 6 (June 1958): 24-45.

This article covers the growth of our population, effects on natural resources, and what must be done.

van Dresser, Cleveland. "Multiple Use Wildlife Refuge." American Forests 65, no. 3 (March 1959): 20-48.

van Dresser explores the merits of St. Marks National Wildlife Refuge in Florida as an area that provides recreational pastime for visitors.

Von Ciriacy-Wantrup. "Multiple and Optimum Use of Wildlife Under Different Economic Conditions." Journal of Forestry 36, no. 7 (July 1938): 665.

"What's Ahead?" American Forests 77, no. 3 (March 1971): 42-43.

"Wilderness and Multiple Use." Living Wilderness 24, no. 70 (Autumn 1959): 26-27.

Here Ernest Swift's editorial in Conservation News for September 1, 1959 is discussed. He argues on behalf of the wilderness bill.

"Wilderness Bill Probed." American Forests 62, no. 8 (August 1956): 8-56.

The American Forestry Association discusses its opposition to a National Wilderness Preservation System as it would be inconsistent with multiple use. The association concludes by making their own proposal for a wilderness bill that would provide for multiple-use practices.

"Wilderness Needs a Multiple-Use Hearing." Sierra Club Bulletin 45, no. 5 (June 1960): 2.

This article discusses the lack of wilderness muscle in the multiple-use bill.

"Wirth Strikes Back." Ye Dailye Ranger. (1 December 1959).

This news bulletin from Colonial National Historical Park in Williamsburg, Virginia expounds on the National Park Service - U. S. Forest Service feud.

"Your National Forests." American Forests 28, no. 341 (May 1922): 276-277.

Here is an editorial describing the fact that the national forests are dedicated to the continuous supply of timber, the protection of the nation's water supply, and recreation.

Zahniser, Howard. "A Basic Concept." Living Wilderness 25, no. 72 (Spring 1960): inside front cover.

The concept of wilderness is discussed here.

Zivnuska, John A. "People, Progress, and Preservation." American Forests 74, no. 9 (September 1968): 36-52.

Zivnuska discusses California and the changes in the land brought on by emigration, the gold rush, timber cutting, and sheep grazing.

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