

Hamilton K. Pyles

MULTIPLE USE
OF THE NATIONAL FORESTS

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 K. 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
Forest History Society
Santa Cruz, California

INTRODUCTION

In March 1972 the Forest History Society, in cooperation with the United States Forest Service, undertook an oral history project on the evolution of multiple use of the national forests. The society's oral history staff immersed itself in primary documents and secondary sources that would reveal information on the meaning and evolution of this basic concept. The most significant of these sources are listed in the bibliography in the back of this volume.

It was hoped that this research would lay the necessary groundwork for the interview process. Insight into the history of multiple-use practices was to be gained through tape-recorded interview sessions with leading figures in the U. S. Forest Service. Six men were selected whose varied experiences within that service would give a well-balanced view of the development of multiple use.

Hamilton Pyles, known to his friends as Ham, was one of the first to be interviewed. After several months of research and correspondence with Mr. Pyles, we met in his Washington, D. C., office at 1025 Connecticut Avenue, N. W., where he has worked half time for the Natural Resources Council of America since 1968--two years after his retirement from the forest service. The actual interview sessions--each between one and two hours in length--were held on the 10th, 12th, 13th, 24th, and 25th of August 1971. The staging of these sessions in Mr. Pyles's office during his working hours added flavor and periodic interruptions to the narration.

The son of an American mining engineer, Hamilton K. Pyles was born on the 23rd of December 1909 in Johannesburg, South Africa. At the age of seventeen he came to America and finished schooling in Berkeley, California. In 1931 he received his junior certificate in economics from the University of California, Berkeley.

In the course of his thirty-three years with the U. S. Forest Service, Mr. Pyles held positions that demanded technical expertise as well as posts entailing significant administrative responsibility. The first nineteen years of his varied career were spent in Region 5 or, to nonforesters, California. His first association with the forest service came in 1931 when, as a college student, he was employed on a summer bridge crew.

Two years later, at the age of twenty-four, Pyles dropped out of his senior year in anthropology at the University of California in favor of the more exciting task of building bridges in the primitive national forests of northern California. Correspondence courses in engineering resulted in promotion in 1937 to the position of forest engineer on the Sequoia National Forest and, in 1943, to forest engineer and fire control officer on the Lassen and Stanislaus national forests.

In 1944 Mr. Pyles moved into administrative work; for a year he was acting supervisor of the Modoc National Forest in northern California. In the next few years he advanced rapidly within the administrative structure of Region 5. In 1945 he became special assistant to Regional Forester S. B. Show in San Francisco, and in 1946 he was appointed forest supervisor of the Cleveland National Forest, a position he held until 1952.

By this time Hamilton Pyles's ability to deal successfully with divergent viewpoints and to minimize conflict had become apparent. He was appointed to one of the U. S. Forest Service's most difficult public relation jobs--chief of the Division of Information and Education for Region 9, the Lake States, with headquarters in Milwaukee, Wisconsin. He held this position, in concurrence with that of assistant regional forester for that region, until 1956. One of Mr. Pyles's more interesting projects in this new post was his attempt to convince the CIO of the stake its members had in recreation on the national forests. In a similarly unusual vein, Mr. Pyles developed a fire-protection, public-relations program that capitalized upon the unique cultural patterns of the local ethnic groups.

From the Milwaukee office Mr. Pyles went on to serve for a brief time as staff assistant in the office of the chief of the U. S. Forest Service. Continuing his progression up through the service's administrative hierarchy, in 1957 he assumed the position of regional forester for the Eastern Region, Region 7. He held this post until 1962. While serving as regional forester he chaired the National Mine Area Restoration Committee established by the Soil Conservation Society of America. The focus of this committee was the minimization of damage from strip-mine methods of coal extractions. As a result of his work on mining in the national forests, the interview that follows contains an informative section on the need for reform of the mining laws. During this period, too, Mr. Pyles drew up an educational presentation of management techniques. Because the demonstrator employed was an anthropoid ape, the forest service found the presentation somewhat embarrassing.

In 1962 Mr. Pyles again moved to Washington, D. C., to assume the position of deputy chief of the U. S. Forest Service in charge of Program Planning and Legislation. In this capacity he was involved with the passage of the 1964 Wilderness Act, the 1965 Appalachian Regional

Development Act, and the wild rivers and national trails acts of 1968. He was also responsible for setting up the forest service's Program Planning and Budgeting System. A trip to Turkey and an Inter-American Conference on Natural Resources allowed Mr. Pyles to view multiple use on an international scale. In 1966 he retired from the forest service.

In March 1968 Hamilton Pyles was designated by the Natural Resources Council of America as project coordinator to supervise reviews and analyses of study reports being made by the Public Land Law Review Commission set up by Congress four years previous. The result of this work was the issuing in late 1970 of the book, What's Ahead for Our Public Lands? Compiled and edited by Mr. Pyles, this volume is a series of critical analyses of the report of the Public Land Law Review Commission. At the time that this interview was made, Mr. Pyles was still working with the Natural Resources Council of America, functioning as that organization's executive secretary.

The selection of Mr. Pyles by the Natural Resources Council of America was not surprising. He has had extensive experience in the administration of public lands. Moreover, his philosophy of conservation is strikingly open. His interview reveals a man who is sympathetic to the desires of preservation groups but who is also very tolerant of the needs and desires of the lumber, mining, water power, and grazing interests. An organization such as the Natural Resources Council of America that is composed of such diverse groups as the American Forestry Association and the Sierra Club needs to be represented by a man as broadminded as Hamilton Pyles.

All aspects of Mr. Pyles's career were covered at least briefly in this interview. Naturally, emphasis was placed upon his activities that were most relevant to multiple use. Because of California's heavy recreational and watershed needs the forest service has emphasized these uses more heavily in that state than in other parts of the country. During the 1940s and 1950s Mr. Pyles participated in pioneering multiple-use planning in this state. Examples of this include the "Redwood National Forest Study Plan" of 1945, the 1948 "Primer for Water Management on Cleveland National Forest," and the 1953 "Plan for Management of the Southern California National Forests." In the 1950s Mr. Pyles also aided in the forest service's development of "A Ten-Year Multiple-Use Plan" and "A Five-Year Recreational Development Plan." An interesting addition to the multiple-use concept is this forester's interest in the archaeological and historical values inherent in the national forests. In this interview Mr. Pyles also contributes insights into the passage of the Multiple Use Act of 1960, into the relationship between public relations work and multiple use, and into the Public Land Law Review Commission's recommendations regarding multiple use versus dominant use.

After the interviewing process was completed the tapes were transcribed by Miss Claudia Mehl. The tapes were then edited by myself, with the style based on the twelfth edition of A Manual of Style by the University of Chicago Press. The interview was then sent off to Mr. Pyles along with a few additional questions. He made substantial though not drastic changes in the transcripts. Written additions to the manuscript were located appropriately within the text and are clearly marked. The final typing of the manuscript was done by Miss Janet Minx with proofing the responsibility of the entire staff. An index and introduction were added by the interviewer to complete the volume. Copies of the interview transcript, either in manuscript form or on microfiche, can be purchased from the Forest History Society.

Susan R. Schrepfer
Santa Cruz, California
March 3, 1972

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.



1948 - Forest Supervisor, Cleveland National Forest
San Diego, California

CHILDHOOD AND EDUCATION

Susan Schrepfer: Mr. Pyles, would you like to start talking about where and when you were born?

Hamilton Pyles: Yes. My early years were spent in South Africa. I was born in Johannesburg on December 23, 1909, to American parents. My father was a mining engineer. I suppose that I developed a love for the outdoors during that period up until the time I was seventeen. A friend and I used to spend a lot of time on both motorcycles and on bicycles in what was then, of course, wilderness; and I went on several hunting trips with my father. So I developed a love for an outdoor life very early.

I came to America when I was seventeen and finished my high school education in Berkeley. I went on to the University of California and got my junior certificate in economics in 1931. Then I transferred to the arts and sciences and took as my major anthropology. This change probably reflects my early interests when I spent some time with the native villagers and spoke to them and learned something about the primitive tribes in Africa. I thought that with this background I might do well in anthropology.

REGION 5 (CALIFORNIA), 1931 to 1952

Entering the Forest Service, 1931 to 1937

HP: In the summers of 1931 and 1932 I had the chance to work on the bridge crew for the United States Forest Service in northern California on the Lassen and Trinity national forests. We lived in tents. Actually, some of us just lived on cots. I became so intrigued with that job that I didn't finish school. I left in my senior year 1933, and from then on I spent my time working for the forest service.

I also got married. We lived in a tent or a cabin for the next three years, from 1933 to 1936. Both my children were born under less-than-desirable circumstances. Knick was born while I was unreachable--fighting a fire. And Kathy decided to arrive early Christmas morning when the doctor was not available; I delivered her! At that age, however, hardships can be very enjoyable experiences. The bridges I worked on were all located on major streams in northern California and were usually built as a part of the road building system. We were working on what might be called pristine streams and the fishing and hunting were just wonderful.

I did realize at that time that I had better get serious and so I took correspondence courses in engineering and was finally able to pass a civil service examination as a junior engineer. This gave me professional status in the forest service.

Engineering on the Sequoia National Forest, 1937 to 1943

HP: In 1937, four years later, I was promoted to the job of forest engineer on the Sequoia National Forest. This, of course, broadened my engineering opportunities to work on roads, houses, campgrounds, and trails. It was during this period we reconstructed the John Muir Trail. I suppose it was at this time that I became interested in multiple use of the resources of forest lands. This came about as we started to

develop what we called at that time "All Purpose Transportation Planning." This was the development of a road system based on an estimate of what the resource uses would be, who the resource users would be, and how they could be related to each other. We had to develop the estimated output from the various ranger districts or management units, as they called them, in terms of wildlife, wood products, recreation use, grazing, and wildlife. From that we developed the type of road that would be required, what the ton mileage would be, and what the road design would have to be. So actually this was, I suppose, my first understanding or consideration of multiple use. It was in effect a multiple-use plan from which one, as an engineer, had to develop the road system. This process also required extensive mapping and identification of, among other things, vegetative types, mineral areas, and recreation areas. Now, I don't know how good our prognostications were, but the exercise certainly left me with a feel for multiple use and the importance of combining uses on any given area of land for the maximum benefit to people.

Fire Control on the Sequoia National Forest

I also at that time became involved with fire control. Although foresters have always been associated with forest fire control, the actual job of controlling a fire is largely logistical, requiring equipment and construction techniques usually associated with engineering. Nowadays, with the use of air transport and air attack, it even becomes more of a logistical problem. So this sort of fascinated me, and one of my jobs on the Sequoia National Forest was to be in charge of fire control as well as engineering.

[The next seven paragraphs are written recollections.]

Although fixed-wing air scouting and mapping were used in the twenties (Hap Arnold, World War II general of the Air Force, was one of the early pilots), it was from the forties on that air attack and supply came into general use as a part of the forest fire-fighting machinery.

I recall one incident that may be of some historical value. The Sequoia National Forest was one of the first to use helicopters

extensively as a fire-fighting tool. We looked upon it at first as the mythical "sky-hook" and the original wind machine. Actually, the helicopters of the early forties were greatly limited by altitude (maximum good operability was under 5,000 feet) and load capacity. Nevertheless, they were a boon to us in mapping, scouting, line supervision, and the transport of men and urgently needed supplies to key areas of the fire.

My first experience with a helicopter was on a large fire on the south and east slope of the Kern River (1941 or 1942). The pilot was an innovative fellow and willing to try most anything to sell his firm's machine to the forest service. At the time of the incident, most of the fire was controlled with a section of open line from the rim of the canyon to the river on the southwest downstream side of the fire. We were attempting to backfire this section and were experiencing severe trouble from the down-canyon winds, which are normal for evening and nighttime. As we flew close to the line, it was obvious that the down draft created by the helicopter pushed the back fire into the main fire in great shape. So I asked the pilot if he could maintain this position as the ground crew hurried the back fire down the ridge. This he did for what must have been a half hour or more. I didn't realize it at the time, but this takes a great deal of pilot skill and physical effort. Everything went along in fine shape. The helicopter wind outswept the natural breeze and it looked as if we had it made. Unfortunately, at the last moment, near the floor of the canyon, we ran into unusual air turbulence which flipped the copter and spread fire all over the canyon bottom. I believe this might have been the first and last time a copter was used as a backfiring tool.

Another incident I recall in fire control, occurred on the same forest. This was a major fire on Piute Mountain (1940 to 1941) near Bakersfield. District Ranger Robert (Bob) Beard was in charge. Bob Beard was one of the calmest men I have ever known, and this occasion was the only time I ever saw him ruffled in the minutest degree. The fire had started at a bad time of day and made an initial run up the mountain as far as we could see. Bob decided we should take his radio-equipped pickup to scout the head of the fire and to warn an Indian family who might be in the path.

We arrived at the one-room adobe house of the Indian family just in time to see the head of the fire split into a fork below us. In a few minutes our retreat was cut off and little time was left to prepare any cover. The Indian family of a mother, five or six children, and as many dogs were in an understandable state of terror.

We finally got her to take all the children and dogs inside while we threw buckets of water on the roof and started fires all around the house to burn out as large an area as we could before the main fire reached us. Sparks were falling all around us as we worked.

We scrambled into the house at the last second and listened to the awesome sound as the fire swept around and over us. It probably didn't last over two minutes, and we were able to go out and use back-pack pumps to put out small fires on the roof. The dogs were chasing rabbits with their fur on fire, and the charred remains of two deer lay within a hundred feet of the house, mute testimony to the heat and force of a running fire. I might add that none of the children cried or even whimpered as they clung to their mother in the house. Bob's only comment was that we were pretty lucky; if we had been a few minutes earlier we might have tried to go back with the family and a few minutes later would have been too late.

[Oral presentation resumes.]

After several years of staff work I was, I guess, tagged for administration. The forest supervisor assigned me to a ranger district, the first ranger district, established in Bakersfield, California. This was one of the first large districts on the Sequoia, combining two previous districts. As a result, the ranger had an office with a secretary and sufficient staff to do the job, which was a new concept. The grade was one step above the existing level of ranger and referred to as P-3. That is the third step on the professional career ladder.

Lassen and Stanislaus National Forests, 1943 to 1944

SS: And where did you go from Bakersfield?

HP: From Bakersfield, in 1943, I went to the Lassen National Forest as a forest engineer and fire control officer. I don't recall any particular events on that forest. I was only there for about a year. And then I went to the Stanislaus National Forest as assistant supervisor to work closely with the supervisor who was about to retire.

Acting Supervisor of Modoc National Forest, 1944 to 1945

From the Stanislaus I was sent to be acting supervisor of the Modoc National Forest, which is in the northeast corner of California. It is primarily a grazing forest, and at that time, in 1944 to 1945, there was a great deal of difficulty with the stockmen over the reduction of the number of stock they could run on the range. The forest service's image or, rather, our relationships with the stockmen in this area of California were at probably the lowest ebb they had been or have been since. So I felt the job was to resolve the people problem.

I had one year there during which to some extent we improved our relationships with the stockmen at least at the supervisor's level. I spent a great deal of time riding in the field with the range advisory board, which was made up of the stockmen permittees. In one instance, I had the stockmen from the west side of the forest inspect the east side of the forest and vice versa. I was amazed at how critical they could be of the other fellows' operations, which helped a great deal in getting solutions to the problems we were considering in improving range conditions.

We also spent a lot of effort in improving the water distribution with the construction of watering tanks. These tanks were scooped out of the earth and made impervious with bentonite. Our improved relations with the stockmen and increased range availability enabled us to reduce the cattle on ranges which were being overgrazed.

Redwood National Forest Study Plan, 1945

In 1945 I was called into the regional office in San Francisco as special assistant to Regional Forester S. B. Show and was assigned to a study project of the coastal redwoods region. This study was a result of a proposal by Congresswoman Helen Gahagan Douglas to establish a Roosevelt National Forest, which would have included the great bulk of the redwoods in the three northern coastal counties of California. This job was a crash job. We had to get through in time for Mrs. Douglas to introduce her proposal as a bill if it was going to go.

The study was to determine the economic and social impact of the establishment of a national forest in the redwood region. Here again, we had to go through the analysis of the various resources which would in this case be predetermined pretty much by the redwood type. Of course, it was not planned to take anywhere near 100 percent ownership but maybe achieve 35 percent ownership, which would still amount to maybe a million acres. Even 35 percent ownership was a very ambitious proposal, but it seemed possible as a rational purchase opportunity.

We had to determine the type of timber growing, the value of it, and the estimation of its future value. We had to go into such things as the cost of administration, how many ranger districts there would be, and how many resources and combinations of resources by district. This would be translated into benefits for the local people and for the nation, as against the costs of purchase and administration. As I said, this was another exercise in analysis of the opportunities to use and improve resources, translated into terms of economic and social benefits weighed against the cost. It was a multiple-use determination.

SS: Did the study go into wildlife, grazing, and the other various multiple uses?

HP: Oh, yes. Grazing in this particular region is not an important activity, but there are associated ranches that would use small meadows and that sort of thing. Although grazing was an incidental use, wildlife was an important use, particularly fish. Parts of this area are important spawning grounds for salmon and steelhead.

SS: Is there any awareness or discussion in this study of the conflicts between the uses?

HP: Yes. In a sense it isn't so much a conflict as it is arriving at a balance or a mix of uses which will achieve the best results. Now we didn't go into that in any great detail in this particular study. You don't make that sort of analysis until you look very specifically at a given area of land, which could be called an ecosystem or a management unit, or some area which you actually can measure or conceive of the results of various uses in combination.

SS: Did you consider recreational uses?

HP: Yes. That was one of the major uses and benefits, as intermingled

in the study area were the existing state parks. Although these parks were not considered as a part of the national forest, the impact of the recreational use of the state parks was a consideration. We were thinking in those days that the national forests' recreational use would be more of the extensive kind, that the campgrounds would be of a simple nature, and that the intensive recreational use would probably be taken care of by the state and national parks.

SS: It is my understanding that Newton Drury of the National Park Service was responsible for some modification of Helen Gahagan Douglas's plan for the Roosevelt National Forest.

HP: I have no knowledge about that. The only thing I know is that by the time the study was completed, Helen Gahagan Douglas was defeated in her bid for reelection. So the study never really saw the light of day other than within the service. I think that the only external use made of the study was in more recent years by a survey team of the National Geographic Society considering a redwood national park.

SS: Did you personally approve of the Douglas proposal?

HP: Had there been great public support for such a forest, I think the region certainly would not have suffered because of it. I think it would have been a substantial improvement in some areas. I don't think it would have been the panacea of all the problems of northern California, but I don't see how it could have done any harm. Primarily because the planned purchases would not have interfered with some of the major land-owning companies that were at that time doing a fairly good job.

SS: What was the reaction of the rest of the men of the forest service to this bill?

HP: To the report? It never became a bill. Actually it was just an in-service document and it was never even published, never became public knowledge as such. Not that there was anything secret about it, because we discussed the plan with the county supervisors, the state fish and game people, and others while the study was going on.

SS: What was the reaction of the rest of the forest service to the idea of such a large national forest?

HP: At this time in forest service history we were struggling to get enough money to do a job on the existing forests. The idea of siphoning off

funds to go into a new forest, causing added hardship to forest rangers, might not have been very popular. In any case, in the national budget climate and political climate of the times the proposal wasn't feasible. It was reconsidered in 1949 under a proposal of Dewey Anderson. I think we should make it clear that there was no reaction as such by the forest service in general. The report went to the lands assistant chief, Howard Hopkins, who read it and liked it; but there would have had to been a translation of the report into a bill, which there never was, before there would have been a broad reaction to it. A lot would have depended on what was in the bill and how much money was allotted to it, since at that time the forest service was really strapped.

It was at this time that people were really beginning to travel. Recreation areas were becoming extremely overused, and they were in bad repair. These were largely campground facilities that had been built in the early thirties, during the CCC program. Because of lack of funds and lack of use during the war all these facilities had deteriorated. At the same time there was an increasing demand for lumber products, and, of course, it requires money to prepare sales. Those were tough budget years.

SS: When did you do this study?

HP: While I was in the regional office. I had been assigned as special assistant to Regional Forester S. B. Show.

"Plan for Management of the Southern California National Forests," 1953

SS: And where were you assigned after that?

HP: I was assigned as forest supervisor on the Cleveland National Forest, where I spent most of the next six years, from 1946 to 1952. I think that was the longest period I ever was in one place until today in Washington, D.C. It was probably one of my most interesting assignments. It was also a period when the four southern California supervisors--the supervisors of the Cleveland, the Angeles, the San Bernardino, and the Los Padres--organized regular meetings for coordination. We would get together periodically and discuss our plans and problems because southern California is different in many respects

from any other national forest in Region 5. We had fire problems, watershed problems, and recreational problems, and even some grazing problems. This was really the genesis of a multiple-use plan for all of southern California. We developed this plan from a task force study of the problem.*

Here again was an analysis in considerable detail of all aspects of the national forests of southern California and the prescriptions that should be for their use. We broke it down into such things as the canyon bottoms, timbered areas in high country, the brush slopes of certain steepness, the grassland areas, and the differences between the east side and west side, etc. In other words, it was an analysis of all physical aspects of the southern California national forests and what use could be made of these resources and how they could be kept in perpetuity. The prescriptions we had for the brush lands to reduce major fires involved the whole ramification of multiple-use management.

[A written question and answer follows.]

SS: Could you elaborate on how the prescriptions to reduce fires involve the whole ramification of multiple-use management?

HP: Fire control is divided into three major categories: prevention, pre-suppression, and suppression. There is public relations work in prevention. There is also in prevention the problem of locating and constructing roads, campfires, powerlines, etc. so as to minimize the fire occurrence from each use. In presuppression work on such things as fire breaks, for example, consideration was given to their use by wildlife and ski touring in addition to their value in suppression. Water tanks for fire were also used by wildlife and in some cases for recreation. The suppression crews were located to make their excess time available to other resource development and management.

[Oral presentation resumes.]

SS: Did you consider wildlife and recreation in this task force study?

*Clare Hendee and Stephen N. Wyckoff, "Plan for Management of the Southern California National Forests." Typed (United States Forest Service, 1953). The original study is held in the Office of Forest Supervisor, Cleveland National Forest, San Diego, California. For excerpts from this study see Appendix A, pp. 161-168.

HP: Yes. As a matter-of-fact we considered recreation, which included the enjoyment and use of wildlife, all wildlife not just game. This is probably the second most valuable resource in southern California. The first being, of course, water or the problems of watershed management. But the recreational demands even prior to 1950 were tremendous because these national forests are within a half an hour's drive of the major population centers. And, as a matter-of-fact, it is the only place I know where you can go skiing and surfing on the same day, which we used to do in San Diego. The task force was started in 1950. It was carried on through 1952.

SS: This was written jointly by all of you and directed by Clare Hendee?

HP: He set up the task force. It was the regional foresters' task force, of which I was a project leader, I guess you'd call it. Each of the southern California forests contributed some people to the project, and I think there may have been one or two people from the regional office. At least there was consultation with the regional people.

There were meetings between the supervisors to discuss standards and it was quite a lengthy process that we went through. But it was well received and, I think, still forms a basis of management programs of southern California.

SS: Did it set any sort of pattern for the rest of the nation?

HP: No, it set a pattern for southern California, which is quite different.

SS: I mean in making that type of study.

HP: I don't doubt but what it did. These sorts of studies have been made continuously. The most recent one, of course, that I know of is one-- when I left as deputy chief of the forest service in 1966--that was the start of a similar type study for the Pacific Northwest.

SS: Did you have any precedents to work from when you made this study?

HP: No, we really didn't. If we did we didn't recognize it, we were really pioneering in trying to put these things together in a logical form.

SS: How much was this study a response to the growing population in the Los Angeles Basin?

HP: I suppose that indirectly it was a response to growing population and

the need to prescribe uses by zones or by types or by situations. It was a sort of an analysis, a cataloging of areas and their risks and their opportunities for use and so forth. We prescribed, for example, what uses could be made within canyon bottoms; the kind of use for the areas above 5,000 feet which were timbered; and the kinds of uses for the area between the brush fields and the high timber of woodland types. Each one of these areas had different characteristics, opportunities for use, and risks. This is what we analyzed and prescribed by the various situations. In total what was offered was a multiple-use policy and plan for the southern California forests.

SS: So what would you say, recreation would be the leading use of this zone, for example?

HP: We could prescribe that recreation of a given type be permitted in this zone. It's in terms of prescriptions for the land rather than saying categorically that recreation is one, water is two, timber is three, and so forth, because one can't really do that. Time comes into the picture. Recreation of a given type would be prescribed for this area in certain months or under certain weather conditions and so forth. Skiing hadn't become very popular, but it was starting to become popular. Of course, wilderness area was another category of land use. Building trails and other primitive developments of the wilderness resources were considered.

Watershed Management

SS: This task force study was after the "Water Primer" of 1948?*

HP: Yes. Did you read the "Water Primer"?

SS: Yes. You mentioned earlier that the "Water Primer," a study done for

*H. K. Pyles, "A Primer for Water Management on Cleveland National Forest." Typed (U.S. Forest Service, May 1948). Copy in the Office of the Forest Supervisor, Cleveland National Forest, San Diego, California. For the forward from this study, see Appendix B, p. 169.

the Cleveland National Forest, was one of the first of its kind.

HP: That was, I think, the first time that a national forest had made that kind of study. The study drew heavily on the research work that was going on in San Dimas, which was a hydrological laboratory concerned with measurement of rainfall runoff. It had lysimeters which measured the transpiration by plants and so forth. The "Water Primer" tried to take the research findings and translate them into an administrative program on the national forest for water management.

SS: You studied the geology of the area and the relation between fire and water?

HP: Yes. We mapped each watershed for its geology and runoff characteristics. We were particularly interested in fault lines, fractures in the earth that might intercept underground flow. We found this was true that they did.

SS: Did the "Water Primer" study take up the relationship of logging to the watershed?

HP: No. It went into the relationship between the uses of watersheds. Logging on the Cleveland National Forest is practically nonexistent. I think we had a program of logging insect-killed trees. That is as far as it went, and that amounted to a pittance as far as any contribution to lumbering is concerned.

SS: What other relationships did it go into?

HP: Heavier recreational use, wildlife, and fire. Fire is probably the most significant factor influencing water infiltration and runoff in that area. We went into grazing. The ownership in the Cleveland National Forest is only about 35 percent or 40 percent federal, and the rest is private. Most of the private holdings within the national forest boundaries were either state parks, large cattle ranches, or summer home areas. The ranchers' interest was in improving the browse on the range, which often followed a fire at least temporarily.

[Written questions and responses follow.]

SS: Do you mean that the browse was better after a fire?

HP: Yes, at least temporarily. The fresh young sprouts and succulent weeds are an improvement over the mature browse for cattle. How-

ever, as soil erosion also follows fire there is a continual down-grading as a result of repeated burning. Eventually a stage will be reached similar to the arid, desert lands of the Mediterranean.

SS: Did this immediate improvement in the browse ever lead the ranchers to start fires?

HP: Yes.

[Oral presentation resumes.]

SS: Were there other relationships studied in the "Water Primer"?

HP: The relationship of grazing use to water management was very real. In the study we had fire first as the major influencing factor and then grazing. Wildlife and heavy recreation use were then considered. Road building and house building were problems. The real estate efforts to get people to build houses back in that very inflammable brush were a real problem of human safety. These houses also had an effect on the watershed with roads, clearings, housetops, and that sort of thing.

SS: Did you use that phrase multiple use in making this study?

HP: Yes, the phrase multiple use was a common phrase in forest service language as far back as I can remember. It wasn't coined in the 1960 Multiple Use Act. It had been in common usage in all planning phases that I can recall.

SS: When you first started in the forest service, which would have been in the thirties, do you recall the use of the term?

HP: As I said earlier, the phrase first became meaningful to me in 1937, when we started on the all-purpose transportation plans.

SS: And after that you actively used the phrase?

HP: Oh, yes. I am sure we did.

SS: I would like to ask some questions in relation to the application of the various multiple uses during the time that you were in Region 5, which would be from 1931 to 1952. In your work in Region 5 were you involved with any water power developments?

HP: No, not at that time. The Central Valley Project was just starting,

and some of the dams, such as the Pine Valley Dam on the Kings River, hadn't started yet. Our relationships with water development projects were primarily concerned with PG&E and Southern California Edison. They had a lot of hydroelectric power plants, on the Kern River and also their reservoir proposal site on the Kings River, and these I was particularly involved with as forest engineer on the Sequoia. We worked very closely with them. In fact, both utility companies assigned a liaison man to work specifically with the region and the local supervisors and forest officers in the development and maintenance of these plants. Most of the power plants had been set up prior to the creation of the Federal Power Commission. Some plants were set up under the old agriculture permit system and were under the supervision of the forest service. We had quite a hassle over the release of water in the Kern River and maintaining a stream flow in the Kern River that would support the fish life. This was finally resolved in favor of the fish. It was one of those litigations where an economic value is opposed by something that has less obvious economic value but considerable aesthetic value.

SS: Did it become a court case?

HP: I was gone by the time it became a court case. I think it was resolved by a court or a commission. But it did go through the formal litigation or presentation of material to a body that formed a judgement. I think it was held in Bakersfield. I had left by that time and I don't recall if it was a court case or, as I say, evidence being presented to a commission and a decision by a commission. The decision did go in favor of maintaining an adequate flow in the Kern River over and above the needs and wants of the utility company.

SS: This all took place on national forest land?

HP: Yes.

SS: The forest service had the right, ultimately, to make the decision?

HP: The question of who has the water rights on reserved federal lands in the western states, where water is claimed by the states and the states appropriate all the water and adjudicate to people based on use, has been under litigation for many years. Under a recent Supreme Court decision, called the "reservation doctrine," the federal government claim was upheld, that, in making the reservation, sufficient water necessary to the purposes of the reservation would go with it. The states are still objecting to this. It is not completely settled.

- SS: The states had turned rights over to the private power companies, and then the forest service and the private power companies locked horns?
- HP: Yes. There is a very interesting thing in talking about law and water rights. In both the Cleveland and the Angeles, there were so-called pueblo rights, which went back to the treaty between Mexico and the United States. The treaty upheld the right of the pueblos to all the water in the watershed, the pueblos being San Diego and Los Angeles. So even the state in those cases was denied the water. So for every water development within the national forest or within the watershed, whether it was a Soil Conservation Service, PL566, dam on a ranch or water development for Laguna Campgrounds, the city filed an objection to the use of that water. They didn't press their objection, but they made it a matter of record that the water did belong to them.
- SS: Were there any other controversies between wilderness or wildlife questions and the power interests while you were in Region 5?
- HP: For the most part, especially since the litigation over the Kern River, there has been better joint planning for the use of water between utility companies and the forest service. Especially since the Federal Power Commission came into being, this hasn't been so much of a problem as the utility companies are required to have a permit with a stipulation by the forest service on water release for other purposes, usually fish and wildlife purposes.
- SS: Did you participate in a state-wide conference called by Governor Earl Warren in 1945 to consider California's water problems?
- HP: No. There was probably participation by the region but I wasn't involved.
- SS: Were there any particular watershed problems, especially in the Cleveland National Forest, resulting from forest fires?
- HP: Yes. The city of San Diego depended to some degree on the dam system developed over the years. These dams, Morena Dam, for example, were filling rapidly with silt, which was a direct result, in some respects, of forest fires. Also following a fire all these ashes, silt, and debris, would move into these reservoirs, causing problems in the filtration plants and killing fish. A high degree of ash results in fish die-off.

During wartime, the city of San Diego secured a portion of their water from a pipeline from the Colorado River to Los Angeles; if they hadn't gotten it, they would have been in very bad trouble. They also depended for water on the local reservoirs. The reservoirs were all within or near the national forest and so particular attention was given to fire protection in the critical areas above these reservoirs.

SS: Did the city of San Diego put pressure on the USFS to control fires because of the watershed problems or to rectify the results of such fires?

HP: It was more of a joint effort in which the city provided funds and assistance as possible.

SS: You mentioned that watershed management was in itself multiple-use management.

HP: Now, of course, a watershed is an area. It describes that piece of topography in which water will flow into a given stream or reservoir. So watershed is an area, and in any national forest such as the Cleveland, the nature of the watershed is a critical problem, and obviously the uses within that area have got to be combined for the most satisfactory mix with the primary purpose of seeing that any planned use is commensurate with the water values.

SS: Can logging and reforestation ever improve the watershed values?

HP: You mean going through the complete cycle? There is a period, and this was established in the experiment station in the Rockies, where the initial removal of the vegetation--it doesn't matter what it is, trees or whatever--will obviously increase the runoff. Frazier Mountain Experiment Station has been studying forest influences and forest practices as they relate to water behavior for many many years. I believe these studies began in the twenties, so we were aware of at least certain stages of these studies when we were working in Region 5. And at the same time there was this same kind of work going on at San Dimas, which was in the southern California forests, and in the central United States, too.

What I think we have been aiming at is to determine what practices would give the best results as far as water flow is concerned and develop the type of cutting which leaves strips so that at all times there is a certain amount of the area that is not transpiring as

much water as it would if it was just a solid forest. There are a lot of other things that go into it: snow pack, various aspects of the topography in relation to the prevailing wind, and so forth. More than just logging and reforestation influence water behavior.

SS: Is it more than just a question of merely keeping damage to the watershed to a minimum when an area is logged or actually being able to improve the area's water values?

HP: I think you could say both. I think it really boils down to what your objective is within this watershed. If the objective is to increase flow, then the practices you would apply on the watershed would be different than if those objectives were, for example, to reduce all soil movement, all erosion of any kind. By and large the objectives on the national forests have been to stop erosion, to get the maximum water flow with the minimum damage. But also there are other uses of importance within a watershed, such as growing trees and recreation use, which you would also have to accommodate under the restriction that you wouldn't increase erosion or pollute the stream. I don't know whether I am being very clear about this. The watersheds of southern California are so different from, say, the watersheds of the Pacific Northwest or New England that it is hard to generalize on both of them.

SS: Then let's restrict ourselves to Region 5.

HP: The main objective on the Cleveland was for many years to maintain a condition that wouldn't result in heavy erosion under intense rainfall, because rainfall when it comes in southern California can come in excessive amounts. The town of Montrose was buried under a mud flow, a rock flow; that particular catastrophe resulted from just a three-thousand-acre fire in the watershed above Montrose. It happened in the very early thirties. It is a matter of record. And it is this situation that is always a critical concern following a fire in southern California. So the practice was, and I am sure it is still going on, to seed fires immediately following the burn. They usually use a mustard plant which has a quick growth of broad leaves and under normal conditions is a satisfactory stabilizer. But then, of course, there has to be some gentle rains before the plant develops.

SS: When there is a need for water management, particularly a dam, how is the decision made as to whether the U.S. Forest Service's engineers should carry out this dam project or the army Corps of Engineers or the Bureau of Reclamation?

HP: Or the Soil Conservation Service. Actually I believe the SCS builds dams under their PL 566 program and these go up to a limited size. The same thing is true of the forest service. A certain size limit in height of dam, size of area, and capacity of the dam determines what agency has the authority to construct it. There are also various kinds of dams. There are those known as flood control barriers, which are dams that are full of holes so that the dam holds back the initial flow and then the water seeps out through the holes in the dam. Browns Canyon Dam on the Angeles comes to mind. I think it is a structure over forty feet in height but it is one of those that retards the water for a period of time, and then after the flood is over, theoretically the water flows out at a slower pace. This dam, the last time I saw it, which was in the fifties, was completely filled with rocks, but it was still performing a function because it still holds back a lot of the water during a flood. On some of these questions on regulations and engineering it might be better to contact people currently involved with the situation.

SS: Of course, we want to discuss what the situation was in the 1930s and the 1940s as opposed to what it is now. Were there ever any jurisdictional conflicts between these agencies?

HP: Not really jurisdictional conflicts. For example, the national parks and the national forests often have adjoining lands. Often the Bureau of Land Management's lands adjoin national forest lands in California. Generally, we have had to get together to resolve joint problems; this is true especially in fire control and grazing. As a general rule, national forest lands topographically lie above Bureau of Land Management's lands. When the range conditions are not ready for cattle to move onto the range at the higher elevations, they must be held at the lower elevations, so that at times, I think that the Bureau of Land Management felt that the national forests were being over restrictive in holding back the time for cattle to move onto the range and thus put a heavier load on the Bureau of Land Management's lands. So there was this type of problem. Generally speaking, these questions were worked out satisfactorily.

Now other disagreements have occurred over what lands in the national forests should be given national park status. You are, of course, familiar with the development of the Kings Canyon National Park, which was objected to at least by the forest service at the time, but was settled by higher administrative authorities.

SS: Were you involved at all in the Kings Canyon controversy?

- HP: You mean as a local forest service officer objecting vocally to the fact that these lands and improvements that we had been working on would be turned over to another agency? I am sure it is just a natural reaction to losing something that you spent a lot of time and work on. And we felt that we could do just as good a job as any other agency. In other words, we had great pride in our work.
- SS: You mentioned, before we turned on the recorder, a certain campground.
- HP: Yes. This was in Cedar Grove, which remained, up until very recent years, on paper at least, national forest lands. This was because it was one of the reservoir sites withdrawn for water development in the San Joaquin Valley. Anyway, we built these campgrounds before the road was pushed through into the Cedar Grove Valley proper by the state. About the time the state road was completed into the campgrounds, the Kings Canyon park issue had been resolved, and so the secretary of agriculture turned over the campground and the administrative building that were there to the park service to administer. So for a long time they administered this little piece of national forest land, which was actually the logical thing to do. I mean, here was where the people were going to be who were visiting the park and here was where the administration buildings for the management of the park were located. But, of course, as the workers on the ground, we sort of resented it.
- SS: You mentioned that you left markers.
- HP: Every campground stove had the USFS brand on it and so did the picnic tables and the buildings [laughter]. There isn't one person in a thousand that would recognize those unless you were involved in it.
- SS: Didn't the Kings Canyon fight extend over quite a long period of time and involve big water power interests in Los Angeles?
- HP: No, I think it was the San Joaquin Land and Water Commission. They, of course, were fearful that if Kings Canyon went into the national park they would no longer be able to develop the Cedar Grove Reservoir, which was a key reservoir prior to the time of the Central Valley Project. So, I think that an agreement was reached between the local water commission and the Department of the Interior, Secretary [Harold] Ickes, that the reservoir site would be left out of the park. In 1965 or 1966, a bill, which the forest service supported, was introduced into the Congress to redefine the boundaries of the national park to include that reservoir site in the park. For all times it

would no longer be used as a reservoir. So, today, that is now national park status, and a representative of the San Joaquin Water Commission came in to see me and was very upset. I told him, "Well, you had your chance to stop this years ago and now you can just stew in it."

SS: In other words, the water power interests were won over to the national park idea in this manner?

HP: There was a compromise made to leave this site outside the park so it could still be developed for water power purposes, irrigation purposes primarily. So, in essence, Secretary of the Interior Ickes promised them that they could still have their water development if they wouldn't object to the park. So now they haven't got their water power development [laughter].

SS: Would you say that most of the local forest service personnel objected to the transfer of Kings Canyon?

HP: As a part of an entity that hangs together pretty well, they don't like to lose anything they have built up [laughter]. Yes, I think locally that there is no doubt about it. The personnel in the Sequoia National Forest strongly objected to the transfer. I suppose they felt they were doing a pretty good job of high country recreational management themselves. They built the John Muir Trail and had maintained the area very much as it is today! Timber resources were not commercially important.

SS: You mean there was no logging?

HP: No, it was above. There could have been some logging in Cedar Grove. As a matter of fact, we cut down dead trees to build cabins, but the amount of merchantable timber or logging within the total boundaries of the Kings Canyon National Forest, or within that Sierra Crest area, I should say, was negligible. In fact, a lot of the area had either been classified as a primitive area or a wilderness area by the forest service long before there was any thought of a wilderness act.

SS: So then you would say that there were some conflicts between the BLM, the National Park Service, and the forest service?

HP: Now wait a minute, I didn't say that. I said that there were conflicts between interior and agriculture over whether or not certain national

forest lands should be made national park lands, if that is what you call conflict. I think that is a disagreement on what agency should administer what land, rather than a conflict. Actually, I think there were many cooperative actions, for example, in the search for lost persons and fire control. We had joint plans on who should do what in a certain area in case of fire. The same way with BLM. There has always been, I think, rivalry, which I think is quite healthy, over who is doing the best job on the ground. But I don't call that conflict.

SS: Has there been any conflict between the army Corps of Engineers and the forest service?

HP: No. In California, John Lawrence, who was an ex-army engineer, was the liaison for the region. Generally speaking, the Corps of Engineer's projects have been on such a scale that the coordination, liaison, or whatever joint agreement was necessary, has been on a regional, not a forest, level. So the works of the Corps of Engineers were such that a liaison man was established to work with the corp continuously. I suppose that some of the most important work of the corp was in the Los Angeles Flood Control Works, where the forest service work was upstream and the corps's work was downstream.

Range Management

SS: Let us go onto range management. Were the range wars over by the time you started working in Region 5?

HP: Oh, yes. Actually the Cleveland forest came into being partially because of the need for range management. The stockmen at that time would set fires to the range in the fall to improve the browse conditions in the spring. The sheepmen did this continuously. As they moved out of the high country the herder set fires behind him. Of course, they were also fighting between themselves over the forage availability on the public lands, which are open to anybody. Thus, part of the purpose in establishing the early forest reserves was to bring order into the use of the range with a permit system, so that they didn't have these conflicts between the cattlemen and the sheepmen and between the sheepmen themselves.

That program, of course, started in the early days of the forest service, around the turn of the century. By the time I came into administrative work in California, the allotments had been established--the range units for range management--and the permits were all in effect. It was a matter of managing and adjudicating differences of opinion on the numbers under the various permits that the stockmen could run. We did have problems, of course.

By 1946 a very intensive range survey of California had been made. It was started in the thirties, and it was determined that the great majority of the ranges were being overgrazed and that many of the mountain meadows were deteriorating. Programs were set up to rehabilitate these mountain meadows and reduce the number of stock running them.

Every time there is a reduction in numbers it means money out of the pocket of the stockmen because you know these ranges are only used part of the year. For the great majority of livestock ranchers, the forest service lands are only a part of their total operation. So if a rancher has a herd of, say, two-hundred head and he is planning to have those two-hundred head in the national forest for three months, by the time he brings them back to his ranch that is the maximum he can support. If the forest service cuts his permit in half, well, he has no place to go for three months with a hundred head of cattle, which are very much an integral part of his total operation. So this program caused a great deal of unhappiness among the stockmen. This program of stock reduction began to nick into his pocketbook a considerable extent.

And, of course, these stockmen complained to their congressmen, and there were various congressional investigations to determine whether the forest service was acting arbitrarily and capriciously in reducing the numbers of livestock. And, of course, this unhappiness was reflected in the social relationships in these small towns near national forests, where maybe half the people were dependent on livestock operations. And that hasn't been resolved yet. Although some areas are being improved and the numbers of stock increased, there are still areas where there is a need to reduce the numbers.

SS: It must have been uncomfortable to be a forest service man in some of those small towns.

HP: Yes, it could be quite uncomfortable.

SS: Do you recall any personal incidents?

HP: No, I don't. We had, of course, advisory boards at the ranger level, and as far as the Cleveland National Forest is concerned anyway, the majority of heated discussions over what the range could support were mostly resolved at that level and rarely had to come up to the supervisor. The only thing I remember, I guess you might call it a personal incident, was when a large fire, I think it was one of the largest in the history of the Cleveland National Forest, burned about sixty thousand acres. At the chamber of commerce meeting, a couple of the stockmen got up and said that this fire was a blessing [laughter], and that's when I blew up.

SS: Did you make a fiery speech?

HP: I made a very fiery speech. I am not sure what I said, but I know that there were enough areas of damage that all the officials of the county and the city and everybody else were right behind us in our program to reduce fires.

SS: And the stockmen by that time were no longer setting fires themselves?

HP: I don't think so. I mean, I think there was too much to lose. One of these fires was terrifically expensive, and if you were held responsible for one, you had to cover the expenses. The financial responsibility would break anybody, with normal assets anyway. Those fires ran into millions of dollars to suppress.

SS: You mentioned that there were grazing problems on the Modoc where you were earlier. Were they greater than on the Cleveland?

HP: No. There was more dependence on livestock in the Alturas and Modoc area than in the Cleveland. The livestock industry was a very important part of the economy in northeastern California, and the Modoc National Forest lands were of considerable importance to the livestock operators there. It was a critical resource. So when we were carrying out a program of livestock reduction on the national forest range, it really caused a great deal of unhappiness in that area.

Actually, when I came on to the Modoc forest, most of the reductions had been made. We weren't very popular with many of the stockmen [laughter], but I think that through the advisory board system and range inspection system with the livestock operators,

they came to realize that there was something to be gained in the long run for them to get these ranges back into productive condition.

Also, at that time, we started a program of developing water holes or tanks which would collect rainfall and hold it for longer in the season, so that range that otherwise couldn't be used began to be used in that part of the country.

The stock reductions had already been largely made when I came there. I was in the period of developing the range, and live-stock people were really rather friendly to me. They were still smarting over some of the reductions caused by my predecessors, or my predecessor twice removed I should say.

SS: Do you recall any conflicts between grazing and wildlife in Region 5?

HP: Yes. The Modoc was a good case in point. The conflict up there was really between wild horses, livestock, and deer. In the north part of the Modoc, right against the Oregon border, there was a herd of mule tail deer. It was called the interstate herd. The herd numbered as I recall around fifteen thousand. During the winter they stayed in a bitterbrush area in Modoc and then went back during the summer into Oregon. They had followed that migration route through Oregon into California for at least more than a hundred years. When they were building the U.P. Railroad through there this herd supplied a lot of the meat for the construction workers, and at that time there was recorded a herd of about this size that moved in this particular area.

But on this same area wild horses became established, and a horse will graze much closer than a cow or deer. They eat grass right down to the roots. And during the winter when the feed was scarce, and they stayed out of sight most of the time, they just beat the ground into dust. There was just nothing around the water holes but dust as a result of these horses. So we had a program to remove them. This removal helped the range quite a bit.

We also had to so manage the rest of the livestock so they didn't put any great impact on the bitterbrush range because this was a very important winter range for the deer. So we had to protect the bitterbrush range from both livestock and wild horses. This is done through manipulation of the herd or management of the herd until certain grasses are in the condition that the cattle like, so then they don't bother the other species. The livestock and the deer are

often compatible as long as the livestock or the horses are not forced to eat the type of plant the deer depend upon for the winter.

SS: But the horses had to go.

HP: The horses had to go because, for one thing, they were unmanageable. And they did so much damage, and they were located in rather a confined area. Also, they were really rather pitiful animals during the winter. Because of the snow they couldn't get anything to eat. They would eat pine tree, bark, or practically anything. How they managed to survive I don't know. Some of them were escaped mares from private herds and for the most part they were misshapen and diseased.

SS: It was my understanding that during the 1940s the forest service made a concrete effort to increase the size of wildlife herds and decrease somewhat grazing.

HP: I think there was a recognition of the need to so manage the livestock so that forage would also be available for wildlife. Or, I'll put it another way, not to allow the range resources to be used only for wildlife and livestock but also for small animals and birds. I think its objective was to maintain the total range resources in good condition.

SS: Hasn't there been established a wildlife refuge in southern California for the condor?

HP: Yes. There is a wildlife sanctuary in the Los Padres, established many years ago, prior to when I was there. We used to see the condor flying over the lookouts in Sequoia National Forest. They would fly inland and around the lookout and then back toward the sea.

SS: Do you recall a controversy between the oil interests and the sanctuary?

HP: No. I wasn't involved in that at all because I wasn't on that forest. I recall controversy over oil drilling activities in the vicinity of the condor, and it is a bird that demands privacy.

SS: Were you ever involved in any controversies between the forest service and the Bureau of Public Roads where the issue was wildlife as opposed to access?

HP: No. I was never personally involved in such. The Bureau of Public Roads constructed forest highways, which is a classification of roads

set up originally in rural areas for access to and from markets across national forest lands. There wasn't the road money to do it otherwise. And the decisions on both the standards of these forest highways, their location, and stipulations in regard to other uses were made jointly between the forest service, the BPR, and the state.

On all the roads that I was involved in, we never had any trouble whatsoever in getting the stipulations into the road contracts. These were all written into the contract with the BPR supervising the work and the forest service being sure that the stipulations were being followed. There were stipulations, for example, for wildlife movement, for certain types of fills, or for aesthetics along the roads as far as power lines and telephone lines, etc., were concerned. All of these things were in the stipulations of the road contract, and I don't know of any time when the proposed stipulation was refused by or disapproved by the other two parties to these contracts.

Wildlife Management

SS: When would you say wildlife management became a full-fledged part of the forest service work?

HP: Well, there was a wildlife division in California when I first went there in 1933. I think it has only been in the last, oh, I would say twenty years that there has been a wildlife division on every national forest or on some ranger districts. But there has been a gradual inflow of wildlife biologists in the last twenty years.

SS: It is my understanding that wildlife management and range management have often been linked together or administered together.

HP: That's correct.

SS: Has this been much of a detriment to wildlife management?

HP: I think that originally wildlife management, say through the thirties and forties, was really big game management. To a large extent in many states this is still the situation. One of the reasons is that the game management--fish and game management--in the state organization is usually financed by licenses. So those who are paying

for the opportunity to hunt and fish actually have some influence on the effort going into wildlife management with emphasis on improving the fish and game rather than all wildlife. This is changing, however!

SS: Did you keep a diary?

HP: Yes. On one of the inspection trips my diary was referred to as the worst-kept diary the man had ever seen. I write very poorly, and I kept a very brief little diary, which was required in those days. As far as I know, I still have it. I don't know if I could read it, but I have it.

SS: It might be helpful. I know that Mr. [Elwood R.] Maunder has made an effort to get forest service diaries deposited in suitable libraries.

HP: This one wouldn't be fit for that!

SS: You never know. I think all of them are brief.

HP: Well, my main purpose in keeping it--and I kept it during my whole career--was to record expenses and to record any action which I had taken. I wanted to be able to say that on such and such a day at a certain time this action was taken. That sort of thing. It certainly didn't have any thoughts of the day in it.

SS: We were talking about the fact that historically wildlife [interrupted].

HP: Oh, historically the wildlife and the range management were combined in one division. I think this was largely for financial reasons. In most regions they are separate now, and, of course, they are separate in the Washington office and have been separate for years. I think you were asking why they were together. I mean, why wasn't wildlife with fire control; fire has important influence on game and wildlife, as you know. And I was trying to explain that the state considers that all resident wildlife belongs to the state. Animals move between the properties. And the state wildlife programs are financed largely from the license fees from hunters and fishermen. So their emphasis has always been on the management of the habitat for game and fish rather than for wildlife in total.

Up until, perhaps, twenty or twenty-five years ago this emphasis of the state on the wildlife-habitat management in the national forests overrode some other considerations. Also, the forest service has always recognized, under an agreement with every

state, that the state would regulate the taking of game, enforce the law, and that the forest service's responsibility was to manage the habitat. In many cases there was joint consideration of habitat management. Wherever there was range improvement for livestock forage which might be detrimental to wildlife, there was joint analysis. The interest in wildlife, rather than just fish and game, has been growing within the national forest during the last twenty years.

You mentioned the condor refuge. There is also a Kirtland warbler refuge; I think it's in Michigan. They are unspectacular, little brown birds, but they have to have certain jack pine habitat to survive, requiring certain fire recurrence. So there is an area set aside for this bird because it's on the endangered species list. This is an example of what I'm talking about. There are warm-water fish, golden trout, and other species that the forest service is paying specific attention to that are not necessarily in the area of fish and game. But there still is an imbalance. There is not the same budgeted effort going into wildlife and related things as there is going into timber management. This budgetary problem can't be laid just at the door of the forest service; it has to be shared with the appropriations committee in Congress and the Office of Management and Budget--the old Bureau of the Budget--and with the Department of Agriculture. At least these changes, slow as they may be, are occurring.

SS: Tom Gill made the statement that foresters have lost their opportunity to be wildlife managers.* Would you agree with that?

HP: No, I don't think I would. I think the opportunity has always been there, and depending on a forester's interest, he has the opportunity to consider wildlife in every action he takes. I don't think I would agree with that at all. It's true if you are talking strictly about the academic curriculum. The fact that there are bachelors', masters', and doctors' degrees for wildlife biologists, doesn't mean that a degree in forestry prohibits your opportunity to become involved in wildlife. A lot of foresters have a minor in wildlife biology. The fact that the boy is interested in forestry is probably associated to some degree with wildlife because he's interested in the outdoors and every-

*John H. Sieker, "Recreation Policy and Administration in the U. S. Forest Service," and Lloyd Swift, "Wildlife Policy and Administration in the U. S. Forest Service," typed transcripts of tape-recorded interviews by Amelia Fry, University of California Bancroft Library Regional Oral History Office (Berkeley, 1968), p. x.

thing that's out there. I don't know, Tom Gill's statement might be out of context, and he might be trying to make some kind of point that I don't know.

SS: I believe he is making a generalization for the forest service as a whole.

HP: You see, this is where I think the value of multiple use comes into the management picture. There must be about twenty-five disciplines involved in the management of wild land, forest land; there would be very few people that could be complete experts in every one of these. So you have to have some input from other disciplines into management positions.

SS: So it's largely at the discretion of the individual forester or forest supervisor, as to how much wildlife management is practiced?

HP: Not entirely. Maybe there is somebody who you will interview who can explain the inspection system of the forest service, because while a supervisor does have an awful lot of latitude, he nevertheless is subjected to what we call functional inspection, which are functional studies of timber, wildlife, and so forth. The functional staff man for the regional forester bears down on the supervisor as to what he is doing for the interest of wildlife and goes through plans, programs, and actions on the ground.

The same thing is true in the Washington office. They have functional inspections. At each level, there is also what is known as an integrating inspection, which is the one that draws all these things together.* A team is sent out, either from the region or Washington office or from whichever level the inspection is being made at, which looks at the policies and programs of the next lower level, whether it's a region or a forest, or a ranger district, as to how he is integrating his management program, and to what extent is he, in a sense, slighting, say, wildlife. So while he has considerable prerogatives, he is nevertheless going to be looked at. A chief of the Division of Wildlife at the regional office gets very unhappy at the forest supervisor if he is paying no attention to wildlife interests or has a poor wildlife program on the forest.

*For examples of the U.S. Forest Service's general integrating inspection reports, see National Archives, Record Group 95, Records of the Office of the Chief.

Now, talking about multiple use, you were asking about some of these things and to what extent they influence one another. Well, we had what we called a fuel reduction program on the Cleveland. This was to give the opportunity for better fire control operations under certain conditions. These were also called browseways. In other words, we opened up the country and reduced the fuel, but did not remove all the vegetation. This would make bare ground and cause an erosion problem. But by reducing the fuel in narrow sections throughout the counties and the national forests, we improved the wildlife forage for deer and other animals by creating an edge. An edge comes from sunlight as a result of opening the overstory. We also used wildlife forage plants where feasible.

[Written question and answer follows.]

SS: Was this improvement you spoke of in the deer forage one of the reasons for the fuel reduction program, or was it merely an inadvertent result?

HP: Inadvertent use is the antithesis of multiple use. While the primary purpose was fire control, the value to wildlife was purposefully considered and planned. In some cases we even had cooperative help from state game people and funds.

[Oral presentation resumes.]

We also had a program known as quail guzzlers program, and this was to put these self-filling water guzzlers, water holes, in areas where there hadn't been any water in the desert side of the Cleveland and improve the habitat for quail. The guzzlers also had guards on them so the quail could go in and get a drink and not get trapped by a fox or coyote. These are some examples. Also, another example is power line right-of-ways where it is important to keep that area cleared of trees, which might interfere with the power lines. One way of doing that is just to spray herbicide and kill everything off underneath the lines. We instituted a program of planting low shrubs and wildlife plants that wildlife feed off of and maintained that under the power line right-of-way. In other words, instead of having a single occupancy use, we had both a power line and a wildlife feed area and a firebreak. We can mix these things and get more benefits than if you just consider a single use. This came to mind when you were asking me questions about the division of wildlife and range being together. These considerations I'm just telling you about, as I recall them, are specifically directed at the improvement of wildlife habitat.

SS: Did you have any problems educating the public in California when it came time to cut down some of the wildlife herds?

HP: You mean, for example, the horses?

SS: Okay, for example, the horses.

HP: Let me say that before you can remove wild horses from any federally owned area, you have to get the secretary of agriculture's permission. This is because of the public sentiment towards horses and the fact that some of it is done for commercial purposes. We had not only to educate people in regard to the damage being done by horses, but we had to get a full agreement among the people interested in livestock and in wildlife in the general area. The permit to take these wild horses is posted locally for a period of time. There is definitely an educational--and an exchange of opinions--process prior to such action as reducing the number of wild horses in a given area.

The reduction of game usually refers to deer. Deer population often explodes if predation or hunting is limited. Reduction is usually by hunting. In other words, a state may increase the number of deer allowed per hunter for a season. This is a state program. The educational process is not quite so intense or broad in this respect. Actually, it being a state program, they take the brunt of educating people, for example, to take a female deer, which one time back you couldn't do. You wouldn't kill a mother, would you, you know, this sort of approach? So to get the public and the hunters to accept this--which in some cases they don't accept to this day--took quite an educational program, but I think it was carried on largely by states.

Recreational Developments

SS: We were finishing up wildlife and going into recreation for the period when you were working in Region 5, particularly on the Cleveland National Forest, during the 1940s up to 1950. I gather from what we talked about yesterday that really some of the earliest multiple-use work was that which was done in connection with watershed development and some of the recreational problems in California. Is that right?

HP: Well, whether or not the forest service referred to it as multiple use in every case, we were always talking about resource uses and coordination and so forth, which, in fact, is multiple use. This was going on with the limited resources available to the service from the time it started, although up until, say 1933, the majority of effort was going into protection and custodial programs, bringing order into the permitted livestock on the national forest, and, of course, the sale of timber. At that time there was also free materials available, like firewood and that sort of thing, to the settlers in and near the forest.

So formal planning for multiple use probably got its biggest impetus in the early thirties both in the planning for resource uses and also in planning and programming the individual's work. This was a time when we started making time and activity analyses of a ranger's work. This was to determine the amount of time being spent, even on such things as writing a daily diary. So multiple use in more formal planning started in the late twenties and had quite a bit of impetus under the CCC program, because suddenly we had a large work force available to the service that hadn't been available before. A lot of forests had two or three CCC camps with two hundred men each. This required planning for development of the forest and for the improvement of the resources. So, formal multiple-use plans really began then as the forest service's work trended from mostly custodial to the improvement and development type of management.

SS: You mean in all fields.

HP: All resources. But primarily the planning action level was the ranger district, and the overall plans were at the forest level, and policy was set at the regional level. But I would say the great impetus in planning multiple use was at the district level.

SS: So then no one use really pioneered in the development of the coordinated-uses concept?

HP: No, I don't think so. You could say watershed. The thing is that watershed is an area, just as a district is an area. Where a watershed was all in one national forest, the planned uses in that watershed and the protection of that watershed--in other words the fire-control problem and the insect and disease problem--were coordinated for that watershed and related to the water program.

SS: I gather that at least the California forests were unique in that watershed and recreation were important at a much earlier date than elsewhere.

HP: I don't know that that's true. You're talking about southern California?

SS: Yes.

HP: In southern California, there is a watershed-fire problem. In other words, fires spread rapidly in that brush-covered area, and the obvious serious results of fires from flooding and earth movement were and are critical. So that there was a planning effort in southern California that may have been more intense than say some of the watershed planning activities in the eastern forests. But it wasn't that they pioneered. It was more intensive management primarily for protection from fires. We had all sorts of analyses going on.

We had to set up the lookout system. We had seen-area maps; in other words, they would map the area that a lookout could see. We had what is called hour-control. Certain species of brush, of course, burn more rapidly than others. So in developing plans for what size force must hit what size fire in what time, we developed hour-control maps and plans. From these maps and plans we determined where fire suppression crews of a given size should be located. In other words, if the hour-control requirements were a half an hour, we would have to have within a given area a crew that could hit that one spot within a half an hour. This creates a network of suppression crews. It was the same way for lookouts. Lookouts were placed at points between which the seen area would be interlocking. It was based on a very detailed plan.

SS: I understand that at the Cleveland National Forest you conceived of the idea of having hobby ranches for actors.

HP: Yes. No, I didn't conceive such a plan. There were a number of-- I guess as a matter of fact at least two of them were--actors in the movie field, who bought ranches for pleasure purposes as well as some income. But they did have the finances to do improvement work on these ranches. We cooperated with them in trying to reduce the fire hazard as well as improve the range. As a result, they were sort of showcases for the kind of ranch that was a successful operation in that particular country. I suppose I just took advantage of the fact that these people were new in the cattle business. They were new in the development of range resources, and they were pleased to get advice and worked cooperatively with the service.

SS: So, then it would help with fire and range. How about with watershed?

HP: All three. I mean the practices that we were promoting were aimed at all three--improving the range resources; improving the watershed conditions; and, of course, reducing the opportunity of major fires.

SS: Do you recall any of the names of these ranches?

HP: No. No, I can't.

SS: I would like to ask you, going on with wildlife, whether you thought, when you were in California, any of the wildlife groups, such as the Audubon Society, advanced the cause of wildlife management in the national forests.

HP: I was a member of the local Audubon chapter and knew them well, and there was quite a group of conservationists. There was what would be now a wilderness society, although I don't know if the society was in effect in those days, at least it wasn't a large society. Some of these conservationists referred to these mature brush fields as the elphin forest, and actually you could, under certain circumstances, walk around underneath what we referred to as brush fields or chaparral. There were all sorts of different species of wildlife, particularly birds, that these people were particularly interested in. Yes, we used to have annual tours in the Agua Tibia Wilderness Area with these groups. They had an appreciation of all wildlife, and they weren't particularly interested in game management as such. Of course, we also worked very closely with the fish and game commission and the field people in state fish and game.

Did I tell you about our quail guzzlers? We had a cooperative program with the state for building quail guzzlers. These were concrete tanks with an apron that caught the water and consolidated it in the tank, and with the low rainfall--maybe six inches of rainfall--it could fill a tank up that would nearly last a year. Of course, this was a critical factor in this particular area for improvement of the quail habitat. In other words, without the water they were confined to a much smaller area than they were after we installed these guzzlers. Of course, this would also help other animals--small animals and birds.

SS: Approximately what years did you work on these guzzlers?

HP: From 1948 to 1951.

SS: Were they installed in the Cleveland National Forest?

HP: Yes.

SS: How about some of the hunters' organizations?

HP: We had several sportsmen's organizations that we worked with jointly with the state fish and game people. We attended the sportsmen's meetings and discussed improvement programs for wildlife and so on.

While you take these things separately, like wildlife and so forth, they come together on the ground. In any unit of management, through fire protection practices you can improve game habitat. Also, where you get a big hunter concentration or people come to hunt or fish or to just observe the wildlife, why then you have a camping problem, so you have to provide for places to recreate or places to camp.

SS: Was the development of camping facilities in the national forests connected at all with the fire protection problem?

HP: Yes, to some extent. The national forests, of course, have always been open to camping anywhere, unless the area is posted against it. One can just pull off the road and pull out a bed, set up a table, and camp, unless it specifically prohibited. So it was desirable to concentrate the people, who are considered a fire risk, particularly in the early days where they weren't as careful with campfires as I believe they are today. Why, it was definitely a fire-prevention move to concentrate people in campgrounds that were made safe and had firebreaks around them.

SS: I gather from reading the letters that you showed me that you have been a student of mushrooms and other types of plant life.

HP: Yes, but that was just a hobby. I have always been interested in eating wild mushrooms. Of course, quite a few wild animals eat wild mushrooms, too. But I don't think I could consider that a part of my official activities, although I always have believed that any district ranger or forest supervisor should really know, not only all the animal species within his forest, but the plants and other organisms which are interrelated.

SS: Was any effort made, for example, when you were in California, to protect rare types of plant life or other organisms?

HP: I have to think about that. Yes, in certain areas we protected some giant Sequoias. This is an example of plant protection. We set aside what are known as scientific areas in which all the use was controlled or barred from it. These particular areas had some plant association of the rare type or considerable age or some other scientific interest. Now these areas were set aside and protected and of course were important to research. All of them were under the supervision of a research group in the forest service.

[Written question and answer follows.]

SS: Do you recall who first promoted this system of scientific areas?

HP: Ed Kotok, who was in research, retired from the forest service as assistant chief, and is now deceased, may have been instrumental. V.L. Harper should know.

[Oral presentation resumes.]

SS: Were there any of these scientific areas in the Cleveland National Forest?

HP: Yes, I think we had two or three primarily to preserve old-age brush species or chaparral. In fact, a large part of the Agua Tibia was in this category. Then we also had a site that was of religious importance to a group of Mission Indians. This was in the Agua Tibia Wilderness Area, too. The Indians visited the site and went through certain religious rituals about once or twice a year, and this area was set aside and protected for this purpose.

SS: These scientific areas are still being protected by the forest service?

HP: As far as I know, yes, I would presume so. I hope so. In practically every national forest there are one or two and in some, a great deal more. Right up here in the Allegheny National Forest there is one which is 4,000 acres of old-age hardwoods. In Indiana there's Cox Woods, which is just how the country looked when the pioneers came into it.

SS: Is that the Allegheny National Forest?

HP: The one in Wayne Hoosier is the Cox Woods. The name of the one in the Allegheny is Tionesta.

SS: That would be fun to visit. I've never seen an old hardwood forest.

HP: They are rare because to the early settlers in this country the woods were a nuisance, a detriment to their farming. There's one in Michigan, 150 acres of old-age white pine. That doesn't look so pretty; it's sort of falling apart. Nevertheless, it's never been cut.

SS: I was wondering if you ever had any contact with any of the men who were early leaders in recreation or wildlife protection. How about Aldo Leopold?

HP: Well, I met the younger one.

SS: Aldo Leopold the second?

HP: Yes. But I never met the elder Leopold.

SS: Robert Marshall?

HP: Oh, yes, of course, I knew Robert Marshall; I went on hikes with him. You're talking about Bob Marshall?

SS: Yes.

HP: Yes, well, of course he was at that time the chief of the division of recreation in Washington, and he was inspecting Region 5 when I was on the Sequoia as a forest engineer. There was one funny incident that may be of interest. In the construction of the Kern River road, which was one of the larger roads in the forest, I had left a balanced rock, which as far as I know is still there today. I was rather severely criticized because this rock slightly overhung the road, and the road had to be moved slightly to accommodate this balanced rock. I had received any number of criticisms from the chief engineer in the region. It was called "Pyles' Folly." Bob Marshall, when he saw it, said it was the finest thing he had ever seen. So he supported my leaving the balanced rock.

SS: Did you say you went on a tour of the Sequoia forest with him?

HP: Well, I was on the Sequoia. One of his trips was on the Sequoia up

this Kern River road, and we took a hike from the end of the road up to the Sherman lookout and around the back country. It was undeveloped, except for trails. I think there's a road up there today. We probably walked for about six hours just inspecting the trails, looking at the country, and so forth. When we got back to camp, we had a big steak dinner out in the woods. Then he said, "Well, I think I'll take another hike." So, he went off and hiked another ten miles after dinner, but I didn't go with him.

SS: He must have been a pretty hardy man?

HP: He was. I mean, he loved to hike. Twenty miles a day wouldn't bother him at all.

SS: Did he make any comments about the administration of the Sequoia National Forest?

HP: No. At that time he was, as he always had been, promoting wilderness areas. We had set aside, classified under the secretary's regulation, a number of wilderness areas, primarily on the Sierra Crest within the Sequoia forest. Some of these areas, I think, went into the King's Canyon National Park. He was looking at these things, whether we'd set aside enough and whether the boundaries were logical and so forth. As far as I know, he didn't have any adverse remarks. If he did, I don't remember any.

SS: How about Arthur Carhart? Did you ever meet him?

HP: Carhart, yes. But he's still active. I corresponded with him, I think, mostly when I was in Region 9. We never worked together. I think we may have been to some meetings together, but I never knew him very well personally. It seems to me that he set up a conservation library in Denver and was interested in gathering a lot of early history. I sent him a lot of material along these lines.

SS: Let's go on with recreation. I want to ask you if you by any chance had anything to do with the San Jacinto tramway?

HP: San Jacinto? Well, I think I attended any number of meetings on it. As I recall, that was on the San Bernardino, and I didn't have any direct input into that. Did it get built? As I recall, aside from whether it should be built or not, most of the effort went into determining location of the posts and how they might be installed with a minimum of damage to the scenery and other environmental values.

SS: Do you remember what you thought at the time?

HP: No. No, I don't recall anything other than a discussion with the supervisor about the location of the posts.

SS: Did any of your research in engineering relate to problems of making logging and recreation more compatible?

HP: As far as the Cleveland went, our only logging was within recreational areas, mainly to reduce the loss of trees from insects. We had a bad disease and insect problem in the Lagunas, which was one of the most attractive recreational areas in San Diego County. I was able to make a sale of these insect-killed or dying trees, and I sold it at such a cheap price that the necessary rehabilitation and clean-up and so forth went with the sale. We managed to get the trees cut and out of the area before the insects emerged from the bark. As a matter of fact, in some cases logging improved the recreation use of the area.

Now, here was a case of multiple uses that comes to mind. At the time that I was there, the Lagunas, which means lake, were wide, large meadows and an attractive place for people to play baseball or other outdoor sports near a camping area. So we arranged the use of the range resource, which was of considerable importance in this allotment, so that the cows went on in time to cut the grass [laughter], and then they were taken off by the time the recreation people came in. So that a sort of a mowed meadow was part of the recreation attraction of that area, and the cows weren't in there at the time the people were. We adjusted the use so that we got both recreation and range, and one complemented the other. And actually the recreational use of those large meadows was incidental in the terms of trampling or messing it up. Deer and other wildlife also used these meadows extensively. I mean this is the sort of thing the ranger or supervisor has to think about in making the use of two resources or more complementary.

SS: And the cows and the people don't get in each other's way?

HP: No. The heavy recreational use of the area begins around June 15th but by that time the cows had been off since May 15th. I don't think we put the cows back on afterwards.

There was another interesting occurrence to do with this particular recreational area. The county road crew, in improving the

road up to this heavily used recreation area, had inadvertently let a fire get away from them, resulting in a large burned area of the forest land. Under the rules of the game, we had to charge them \$30,000, which was the suppression cost of that fire. You should also understand that the county contributed sums of money to the forest service to improve fire suppression, so this didn't sit very well with the county supervisors when I presented them with a bill for \$30,000.

Well, believe it or not, we finally made a deal with the county, which was approved by the attorney general of the United States, who is responsible for such things. By the terms of this deal, the county built for us nine what were known as burn-out toilets in those days, which we valued at \$3,500 apiece, as full payment of the fire costs. So the prisoners--they were using prisoner labor--cut down the insect-infected trees and made the lumber for the rest rooms. As a result, the county was out no money except the prison labor plus a little money for cement to build these rest rooms. So this satisfied the county supervisors as it didn't cost them anything money-wise and satisfied the forest service and the federal government. This bolstered my faith in the federal government after getting through a deal like that [laughter]. Well, it would have been extremely embarrassing for the supervisors to have the cost of a fire-suppression item on their budget.

SS: I can see that. Do recreation and watershed needs conflict ever?

HP: I think where they did, the compromise was made on the recreational side. In other words, just for example, summer homes are part of the overall recreational use. Well, in the early days or back in the twenties or even before then, summer homes were permitted within these canyons right in extremely dangerous areas and around reservoirs. This was detrimental both in terms of pollution and the dangers of starting fires. It was also a hazardous place to be at times of high fire danger. We had quite a problem in removing these summer homes. It caused a lot of bitterness where people had put their money into developing these places and then got kicked out. Actually, in most cases we permitted amortization of their investment for the most part.

Of course, you get conflicts in a sense that wherever you have recreation, particularly in the southern California brush field, it increases the risk of fire. Hunters or any other hikers may drop a cigarette or leave a camp fire, and you've got a fire on your hands. So certain high-risk areas, as they were called, would be closed to all

entry until the fire season was over or until the fire danger had dropped. So where there was a conflict, normally recreation took second place, or priority was given to protection of the watershed.

SS: Does the idea of multiple use or balancing many uses complicate problems of fire protection?

HP: No, because this is one of the considerations. Even though we don't exactly refer to a fire as a use, nevertheless fire can destroy the opportunity for many uses, so it was always a consideration, particularly in southern California.

SS: So, it's just simply more basic than all of the uses.

HP: It was basic to all the uses and so it did get priority consideration.

Of course, one thing, on the other side of the coin, under this hour-control plan these suppression crews that I mentioned were dotted all through the forests, and during parts of the day, when the fire hazard is low, between say eight and eleven in the morning or later on in the evening, these men were available to do improvement work--to help keep the campgrounds clean, work on trails, work on roads, and that sort of thing. We worked on wildlife habitat improvement, too. So while these men sitting there seems to be the negative cost, many times advantage was taken of their time, and they were part of the total forest improvement crew. That's multiple use of men's time [laughter].

Pressure Groups

SS: Okay. Did power companies ever play much of a role in determining forest service policy?

HP: Well, yes, they cooperated with us. But many of the power developments preceded the forest management of that time. The majority of the hydroelectric plants were in by 1930, and many of the distribution lines were already in place. Where any new development or any new distribution line was proposed, then the forest service took an active part in its location and design.

SS: Was there ever any pressure exerted by these power companies or water supply companies?

HP: I think there may have been. I doubt if you'd call it pressure. For one thing, at least during my experience, what we were dealing with was established, growing hydroelectric plants, so there never was the argument of whether you will establish a plant or not. So that in the maintenance and the distribution lines we would cooperate, and I don't ever recall any pressure. I think I told you previously about the power company hassle on the Kern River where we went into litigation over the amount of water to be released by the power company. That's all changed because the Isabella Dam is in there now. I don't know what the problems were after that went in.

SS: They wanted more water.

HP: In the dry part of the year, with limited storage in back of the power plant, they could use all the water in generating electricity. Our requirement was that they would release 103 cubic feet per second into the natural channel and never go below that which was necessary for fish life and, of course, recreation use along the Kern.

SS: Was there any pressure exerted by other groups such as the timber companies?

HP: Well, I don't really know what you mean by pressures. If a company or individual makes a proposal, and one doesn't agree with it, then there's usually pressure for that proposal. This is a common occurrence. It's going on all the time. Now, if you mean by excessive pressure that the company or person that feels aggrieved goes to his congressman and has the congressman write the forest service and say, for example, "What are you doing to my constituent and give us a report?" That, too, is common occurrence, and it goes through all the activities on a national forest.

SS: So there was never any undue conflict?

HP: Nothing beyond the usual disagreement.

Grazing Interests

SS: How about with the grazing interests?

HP: Again, it's the same thing. If, for instance, you advise a permittee that, "This year we believe that the range conditions are such that you will only be able to put on fifty head for a certain period rather than a hundred," it is apt to make the operator quite unhappy unless he agrees with the decision. There have been many cases where they have written their congressman to try and press the forest service to rescind such decisions. There have even been some times when they tried to prove arbitrary and capricious action and bring a forest officer into court over it.

These controversies resulted in the development of the appeals procedure in the Department of Agriculture in later years, about 1956. These procedures are very formal, requiring a step-by-step process when a person has disagreed with the decision of an administrator. But where maybe three or four appeals may get to the chief or the secretary of agriculture, a thousand are resolved at the forest level. Pressure is just a part of the game. It is understandable, and if I were in their place and needed to run so many head of stock or I wanted to build a summer home or if I wanted to do something or other on the national forest, and the supervisor says, "No you can't," well, I would try to press my proposal until I'm convinced [laughter] he's right or he's not.

THE NEW DEAL

Politics and the Forest Service

SS: I'd like to ask a few questions about politics in the 1930s.

HP: In 1933, the senators and congressmen had lists of people they would approve for federal jobs. You know, when a lot of hiring was done for these emergency programs--WPA, ERA, and CCC-- there was some political overview of who was hired. In other words, you had to be on a list of some congressman or senator to get a job. All I mean is this, you couldn't call them political appointees, but they were not contrary to the congressman's interest or a senator's area of influence. They were approved not appointed, let's put it that way.

As far as I know, anybody that the forest service wanted to hire they managed to get them on the list and then hired them. There were a few incidents where someone would say he was going to tell his congressman of ill treatment or unfairness, when he got fired for being drunk on the job or being insubordinate in refusing to do his job. But it didn't seem to affect our program, let me put it that way. I recall one instance when a foreman (CCC) threatened to report me to Mrs. FDR because I gave him a very low efficiency rating which he didn't agree with. I never changed the rating; he was dropped at the first reduction in force, and I never heard from Mrs. FDR. The forest service has always prided itself on the fact that it was not politically influenced, and I think my experience has borne that out. There have been many times when pressures have been rather extreme, both on the chief and all the way down the line, but by and large the forest service has been free of it, particularly at the field level.

As it is right now, the chief of the forest service has got to be a part of the administration's team. In other words, he can't disagree with the secretary or the president, and so to that extent he's not free to object. Well, he can object, of course, but he's not free to take independent action that is contrary to the administration's policy or oppose legislation that's contrary to the policy of the president. But down at the field level we didn't feel much of this sort of pressure or, say, the influence of the administration in office as such except in the case of the Kings Canyon National Park. Once the president had okayed Ickes's proposal and legislation was going

through with the administration's support, we were supposed to stay in line. We on the Sequoia certainly didn't like the proposal, and I believe the forest supervisor, J.E. Elliott, was told to desist from publicly opposing the National Park Service.

SS: Do you mean that forest service personnel were not allowed to oppose the Kings Canyon park proposal?

HP: Not after the president had okayed it.

Multiple Use and the New Deal

SS: Did you think that the New Deal legislation in general advanced multiple-use practices?

HP: I don't think there's any question but that it made large resources available for forest improvement and forest development for the first time. In that respect there was a great surge forward. It made possible improvement in management practices, improvement in resources, improvement in developmental things--needed roads for fire control, campgrounds, lookouts, telephone lines, everything. I think more was accomplished in five years from 1933 to 1938 than had been accomplished--I'm talking about developmental-wise--than in all previous years.

THE WAR YEARS, 1941 to 1945

Recreation and World War II

SS: Did you think that particularly in recreation and some of the other multiple-use areas, the forest service fell backwards in the 1940s, especially during the war?

HP: Well, yes. First of all, with the gasoline restriction, there just wasn't the recreational travel into the forest, and the use of campgrounds went down. Plus the CCC program ended, too, at the beginning of the war period. There wasn't the demand during the war for recreational facilities, and there wasn't the manpower to keep up the facilities pending the end of the war. So there isn't any doubt that particularly the developments for intensive recreation use suffered severely during this period.

SS: How about in the later forties? Was there a revival?

HP: Well, no, because then came the increased use of the recreational facilities that had deteriorated during the wartime. Really it was a period of hardship for the forest service to come even close to meeting the demands for recreational facilities. We just didn't do it.

Pressures on the Forest Service during the War Years

SS: Do you recall any incidents during the war years when there was a lot of pressure put on the forest service by stockmen or lumbermen?

HP: To increase range use, for example?

SS: Yes.

HP: Well, apparently not anywhere near as much as there was during the World War I period. The food-for-the-war program didn't influence the range use, because to begin with it was a drop in the bucket in the total meat production in the country.

SS: What was the food-for-the-war program?

HP: This was the period when "victory gardens" were encouraged, and farmers were urged to produce maximum crops including red meat.

But I don't recall any excessive pressure on account of the war. There were more individuals wanting more use of the land than the range conditions would warrant.

SS: There weren't any clamors in the name of patriotism?

HP: No.

Personnel Changes Resulting from the War

I think some note should be made of the early work habits of the field personnel, particularly the forest service, and the great change that occurred after the war when the returning G.I.'s, who had been used to rather livable quarters wherever they were and good mess, were rather demanding of better living conditions than experienced during and after the CCCs. Great changes occurred, including the beginning of payment for overtime, which we'd never thought of in the earlier days. There was also more interest by the younger men coming into the service in the personnel procedures and promotional opportunities and so forth.

Prior to that sort of change in philosophy, we were just very happy to have a job. We worked long hours with no thought of overtime. I remember a rather a well-known character within the region by the name of Joe Elliott, who was the supervisor of the Sequoia. He worked long hours himself and demanded it particularly of his staff and the rangers.

It was common practice, for example, when we went on trail inspection trips--I was responsible for the upkeep of trails--we never got up any later than 3:00 o'clock in the morning because the horses had to be caught, breakfast over, and in the saddle by daylight. This was just a normal routine, and if you didn't follow that, well, you had no respect for the horses' needs, and you were a

slacker, you see. Of course, the days ended a little earlier so the horse would have time to feed before nightfall. Anyway, by the time we cooked our supper, it was dark. So often you went to bed in the dark and got up in the dark .

In the actual control of forest fires, the feeling of responsibility by the man in charge, whether it was a fire boss, ranger, or whoever, was such that he would never go to bed until the fire was out. Many times this was maybe sixty to seventy-two hours, and something of an individual feeling of responsibility just wouldn't let you sleep. This wasn't very good, as a matter of fact, for health, and it wasn't very good for the fire-control activities.

This was, of course, changed, and men were required only to work twelve hours and get twelve hours sleep or something like that. But earlier there had been this strong feeling of responsibility and the need to put in a good day's work [laughter]. It seems that later on the new men coming out of school and out of the army seemed to be more interested in regular work habits, better personnel procedures, pay for overtime, and that sort of thing. I suppose in reality it's just a changing of the times. It was occurring throughout the country, in industry and other places.

SS: The Great Depression being over made quite a difference perhaps.

HP: Oh, yes, of course, it did. I think perhaps it was largely due to the fact that even if you didn't work, you didn't go hungry, but this wasn't so, of course, in the late twenties.

SS: Do you think this made the work in the forest service more professional?

HP: Well, this is true. This man I referred to was really self-educated but a strict disciplinarian and a very hard worker. His letters that I recall were really very well written. He was really a highly educated man, although his formal education had probably stopped at the eighth grade. He was considered in the thirties one of the top supervisors in Region 5. But I think the changes came more as a result of a whole social change that followed the war. As I say, personnel procedures were developed; training, safety, all these things were going forward at an accelerated rate. Safety wasn't quite so important when we first started to work. I think that you'll probably get this from some of the others, Pierce perhaps, not so much from Crafts or Harper. You might get it from Grover.

SS: Pierce is in his eighties now.

HP: He was in the service, of course, long before I was. I think the hours were just longer [chuckle] and harder, and there was more horseback and less motor vehicles in his day.

REGION 9 (NORTH CENTRAL), DIVISION OF INFORMATION AND
EDUCATION, ASSISTANT REGIONAL FORESTER, 1952 to 1956

SS: Let's go on to Region 9. You were there from 1952 to 1956. It's a central region, the Lake States area, is that correct?

HP: Yes, this was the Lake States region, and it included the national forest in Minnesota, Wisconsin, and Michigan. Although it's called the Lake States region, it also included the national forests in Indiana, Ohio, Missouri, and Illinois. There's one small forest in Illinois, the Shawnee, which is in easy driving distance of Chicago, so it gets quite a heavy recreational pressure on it.

Of course, the Division of Information and Education is a public relations job. But also as assistant regional forester I had the responsibility for making general integrating inspections, which afforded me a great deal of satisfaction because I could go out on the forest and look at all the multiple-use activities going on and kind of try and relate that to what we had to work with in southern California. So it was an extremely interesting period, and I would say it was more educational for me than I did good for the region.

Reforestation

SS: Were the problems there quite different, the multiple-use problems?

HP: Yes, entirely different. During the CCC program, the effort in southern California had been on developments in fire protection facilities and all that sort of thing; the effort in the Lake States region had been on reforestation and timber cultural improvement work. This was pretty well devastated around the turn of the century, and much of it became brush fields. A great deal of effort went into reforestation; large areas were planted to trees in the early thirties during the CCC program.

Well, by 1956 when I got there, these trees were, of course, twenty and thirty feet tall, and they were planted at that time so close together that they were badly in need of thinning or cultural treatments. One of the problems was that small timber wasn't

saleable. The trees weren't quite big enough for pulp, and, of course, they were too small for sawlogs. It was quite a problem to get these plantations thinned. I remember one supervisor sold the tops of co-dominant trees or alternate trees as Christmas trees, leaving the lower branches in place to help prune the dominant trees, the ones that were planned to become sawlogs. He sold, oh, I think it was over a forty-acre patch, as I recall. He sold the Christmas trees for more than the forest service had paid for the land and the cost of the plantation combined. At the same time it was a cultural improvement for the stand, if you follow me.

SS: Yes.

HP: I thought this was, you wouldn't say multiple use, but at least he was using any means available to him to get cultural work done on the stand.

Watershed Problems

SS: Were there less watershed and recreational problems in Region 9 than in Region 5?

HP: The watershed problems, of course, were entirely different. It's not so different in Missouri, where portions of the forest were rather steep lands. The majority of the lands in the Lake States are flat or rolling. There were a few mountains, but they don't rise very high. The forested area was over a geologically glaciated structure, so that when precipitation fell it immediately went into the underground basins or aquifers. But those areas were extremely important to the small towns that were scattered throughout this same area, and the majority of even large towns depended on this for their underground water supply. More recently, when the detergents came into the picture and large deposits of washings and so forth from the towns—people percolated into the same basins, it caused quite a problem, but that wasn't exactly a forest problem.

SS: Were you aware at that time of such problems with detergents?

HP: No, I wasn't aware of them, no. But I was just trying to explain

that the forest influence on the water that fell within this area and percolated down into these underground basins and aquifers was important. Now I don't know if it was ever quantitatively related, but obviously there will be less infiltration from a denuded area and more evaporation than under a good forest cover with better percolation and more transpiration. In other words, this equation in benefits and losses was never quantitatively determined. It was considered at that time that good forest management was good watershed management. In some cases that's not entirely true, but nevertheless that was the philosophy.

In Region 9, also, the rise and fall of the lakes themselves were important considerations as they affected canals and so forth.

SS: You mean the Great Lakes themselves?

HP: Yes. I think the Corps of Engineers or maybe USGS had kept records on the level of the lakes for over a hundred years, and at times we'd try to relate the old-age forests as it was before 1890 and then the reduction of that forest by 1920 to the fluctuating levels of the lake, but we were never able to establish any relationship. But there were areas, small areas, in which erosion was a very serious problem, and there were various industrial and recreational activities that caused watershed problems with the Lake States region.

SS: How did these industrial and recreational uses cause watershed problems in the Lake States region?

HP: The pollution from recreational activities was comparatively minor compared with industrial pollution of streams by paper mills, power plants, and other heavy industry.

Recreational Facilities

SS: How did recreational activities cause watershed problems?

HP: The recreational pollution stemmed largely from substandard facilities. This was the period, from 1952 to 1956, in which the pressure for recreational facilities probably reached its height. After 1956 we

started getting more in the budgets to improve the recreational facilities, I mean sizeable budgets that would accommodate some of the needs, but recreational facilities in this particular period were at a low ebb. We were well aware of these conditions, and I believe those conditions which affected public health and safety as a result of inadequate facilities under forest service control have largely been corrected.

Multiple-Use Planning

SS: During this period in the fifties, I assume you used the concept and the phrase multiple use?

HP: Oh yes, this was in common usage. As a matter of fact, prior to my going there and prior to Jay Price, who was the regional forester at that time (incidentally, when I was in California, he headed up the state and private forestry program), the regional forester was a man by the name of Major Kelley. Anyway, he instituted a planning program during the CCCs in which every acre of land in the region had to be considered and put on paper, I mean, mapped and planned. Of course, any plan is only as good as it can be activated, and it's often out of date by the time it's on the books. Anyway, the field people in the region had gone through the agony of this planning process to such an extent that, when I went there, the mention of the word plan [laughter] was like waving a red flag.

But nevertheless planning--multiple-use planning, too--was going forward in a more rational, overall basis than the very detailed planning attempted during the thirties. But Major Kelley's effort--and it subsequently was improved upon--was nevertheless an effort to get all the possible compatible uses of an area set forth as a part of the process in long-range planning. Later on, in fact when I was in the chief's office in 1956, we set up a ten-year program for the national forests.

Ethnic Group Study

SS: When you were in Region 9, from 1952 to 1956, you did a study.

HP: You mean an ethnic group study?

SS: Let's talk about that.

HP: Being in charge of I & E [the Division of Information and Education], which includes the fire-prevention program, I felt that it was significant that there was such a difference between the ethnic groups, Scandinavians largely, in the Lake States and the ethnic groups in Missouri and in the Ozarks. The latter's background was probably Scotch-Irish of many, many generations in the Appalachian-Ozark of the United States. Whereas, in the Lake States the Scandinavian ethnic groups had a strong sense of community, a strong sense of local government, and it was very easy, for instance, to get a committee on prevention of fires in practically any of the small towns in that part of the country. But rather the opposite was true in Missouri and Indiana. Of course, there were other ethnic groups in there, too. But it was much easier to promote a fire-prevention program among people with a strong sense of adherence to communal wishes than among some of the people in the Ozarks in Missouri. With the latter people the father was the boss, and whatever he said or thought was law within the family, and they did not have the same respect for officialdom [laughter] and not the same respect for government, although, of course, the minister held a position of high respect.

So the program was entirely different, and we felt we had to have a different sort of approach. It had to be an individual approach, to talk to the father and get him to agree that perhaps it wasn't so good to burn the filth out of the woods every year, which was going on then. We attempted to develop a public relations program based on these various groups and the best approaches to them.

I'll never forget one instance. We had a motion picture developed called Twenty Years Later. It was, I think, a motion picture

based on the condition of the woods after twenty years of fire prevention from 1936. I'll never forget when we were talking to a rather elderly old lady on her porch, and we asked her what she thought about fire prevention. She said, "Oh, I think we just have to have fire prevention, but," she said, "you know, one of my most welcome experiences is to sit on my porch in the fall and smell the woods burning." This is the sort of inconsistency we were dealing with [laughter].

SS: While we're on the ethnic-group study, do you recall the year?

HP: Well, I think it was probably 1953 or 1954. I'm not sure of the precise year.

SS: Has the study survived?

HP: I don't know. I'm not so sure.

SS: Did it have any title if anybody wanted to locate it?

HP: It should be in the region's I & E files for that period because we developed a program of public relations from it.

SS: Did this program involve more than fire protection, for example, any watershed considerations or wildlife?

HP: It was primarily, of course, for fire protection because this was the key problem. But one of the other problems was grazing in these hardwood forests, where they were attempting to improve the stands, and also in plantations, where the young trees weren't protected and the people would run their cattle in there. Much of that was what we call trespass cattle that weren't supposed to be there to begin with. Also, they ran hogs, which would root up the trees in search of acorns and that sort of thing. So that it was an I & E program to try and impress the local communities with the value of these woods, the values of good forestry, and the damage done by hogs and cattle in certain areas at certain times of the year. I remember a poster which depicted a cow eating a little seedling and it said, "Cows don't make good foresters." Well, this had some repercussions [chuckle].

Another thing. Of course, throughout the Ozark area, particularly, and in southern Indiana, squirrel hunting is one of the major sports of the local hunters. So when we started a program in some

areas of converting the hardwoods to pine, because pine was a faster growing crop and softwoods were in demand, there was great resistance to this program by squirrel hunters, at least in the early stages. The forest service later came to a better multiple-use approach to meet this local demand, but the first attempts anyway, in the early thirties, were to just skim off the old hardwoods and then plant pine. But there was a poster put up by local hunters that said, "You've got the money, but we've got the time. You cut the hardwoods, and we'll burn the pine," [slight chuckle]. During the time that I was there, the timber-management planning always involved leaving so many den trees per acre for the squirrels. Den trees are trees that usually provide mast (food) for the squirrels as well as their dens. So this multiple-use approach, not only converted large areas to a more productive wood species, but also provided sufficient, living hardwood types to keep up the squirrel population.

SS: And when did this multiple-use program come in?

HP: I think this multiple-use concept with regard to squirrels began in the East in the early forties.

SS: So, it was practiced when you were in Region 9?

HP: Yes, it had been practiced for some time.

Selling Fire Protection

SS: You mentioned a movie Twenty Years Later?

HP: Well, yes, that was a part of our I & E program to sell this fire prevention.

SS: And it was made in 1956?

HP: I think the movie either had just been made or was made when I was first there. We made several movies. I can't remember all the titles.

The Boundary Waters Canoe Area

We also made a movie of the Lake States, which was primarily a wildlife/recreation-type promotional film to educate people to the beauties of the lake country and the opportunities for recreation there. This was filmed primarily in the Boundary Waters Canoe Area, which is a part of the Quetico Superior Wilderness Area that includes a portion of the Quetico Provincial Park in Canada. The Boundary Waters Canoe Area in Quetico Superior National Forest has wilderness status today, but then it was only under secretary's regulation, although it had a special status by Congress, as a matter-of-fact.

SS: How did that come about?

HP: Well, it primarily came about for several reasons. We had several boundaries governing the forest practices or protection within these boundaries. These boundaries were set up by law. The first of these boundaries surrounded what we called a no-cut area. Then there was a roadless area, which wasn't entirely roadless. The forest service could permit cutting in it with temporary roads, and later these roads were put to bed--the area was restored to a no-road condition. This was the roadless area, and it was a much bigger area than the no-cut area, which surrounded the lakes proper. The process resulted in a sort of a stepping stone into the wilderness proper. Even in the logging areas where no permanent roads were allowed, the cutting around the lakes was restricted to prescribed practices to protect the aesthetics of canoe routes and that sort of thing.

We had a lot of difficulty. Sometimes a road behind a locked gate would be usable for several years during the logging operations. In the winter when it was not feasible to operate trucks, the sportsmen, of course, would still like to use the road to hunt from. This created a great deal of controversy in keeping the gates locked to one use and not to another. As a result, we had gates broken and all sorts of difficult confrontations.

There was another problem created by an air ban. It was common practice at that time to fly into these small lakes, that were a part of this whole wild area, fish, and fly back to Chicago or some far removed place. This was not consistent with the wilderness concept, and the forest service requested an executive order in Truman's administration, to restrict airplanes from going below

4,000 feet within this large wilderness area.

SS: This is the Boundary Waters Canoe Area?

HP: Right. We had several court cases through which it was finally determined that the executive order was upheld by the court. This ended attempts to beat the regulation or rather to beat the executive order, I should say. And, of course, it has resulted in much more primitive-type use of the area. You know, it's not very primitive if you're out there paddling a canoe and a plane comes down, lands, and people start fishing [chuckle]. Sort of disconcerting. It's not compatible with the wilderness concept.

[Written question and answer follows.]

SS: What did these court cases involve? Who was attempting to beat the executive order, sportsmen's groups?

HP: No! A number of individual sportsmen, but mainly it was the pilots and companies who were in the business of flying customers into the wild areas.

[Resume oral presentation.]

SS: How did the Boundary Waters Canoe Area evolve?

HP: Well, the idea went back many years. Gosh sakes. Sig Olson is the name of a fellow who worked for awhile with the forest service, then as an outfitter or as a guide. He was completely engrossed with this area. He was one of the promoters and well-known writers that recognized the beauty and thought that this area should have special classification. He was joined by other private organizations. The Isaac Walton League was instrumental in helping to buy the private land in the area and many others. However, it was Arthur Carhart who made the first extensive study of the area and developed a plan for its use as a wilderness resource. This plan is now in the Conservation Library at Denver, Colorado, I believe. Through these efforts in working with and for the forest service, the area and its classification was finally decided upon.

SS: That was about when?

HP: I don't really recall, but it seems to me that at least part of the formal classification, and perhaps you should check this, was in

the forties. But the present classification is under the Wilderness Act of 1964. It evolved from regulation prescribed for areas within legal boundaries to final classification under the Wilderness Act, which prescribes the use in specific terms.

Working with the Labor Unions

SS: In relation to your work in Region 9 you evidently had some dealings with unions in your area.

HP: Well, Chicago was the headquarters of the CIO and some other unions. By 1954, the CIO had expanded from a union that just dealt strictly with the problems of management and on-the-ground work to broadened fields including recreation and other amenities of life for their constituents, their people. So I made quite an effort to contact all the union heads and advise them--as a part of the public relations job--of the camping opportunities and recreation opportunities throughout the area within a couple of hundred miles of Chicago. I assume that the Lake States national forests were well within the ability of these people to reach. And apparently, it got into some of their letters to their people and perhaps it was taken advantage of. I don't think it was any big splash though [laughter].

SS: Well, the unions have supported recreation and multiple use fairly consistently in recent years?

HP: Yes, I think, generally, that's right. The thing was, I don't think we had previously, and I don't know if we've had since, really close contact with the unions. I managed to get an introduction from a friend of mine who is now the executive director of the National Parks Association, Anthony Smith. He gave me a letter of introduction to the heads of all these unions and told me who to see and where to go and made it rather easy to follow up on this. And many of the unions, of course, just like a lot of other people, a lot of other organizations, were not aware of, you know, the recreational opportunities that were in these national forests not very far from Chicago. Of course, at the time we were promoting recreation [sarcastic chuckle], the opportunities were probably at the

lowest ebb they'd ever been on the national forests.

SS: You mean the facilities?

HP: Yes, I mean the facilities.

SS: Anthony Wayne Smith worked with the unions?

HP: At that time he had a job in Washington with the CIO.

SS: Do you recall any of the people in the unions that you contacted?

HP: No, no I don't [chuckle].

[Written question and answer follows.]

SS: Do you think that support from the unions did or could have helped get appropriations from Congress for recreation?

HP: I don't believe they consider it an important issue in relation to others.

[Resume oral presentation.]

SS: Was there ever any problem for the unions when their management, particularly if it was in logging, did not support recreation?

HP: Oh, no, particularly in logging. Much of the logging that was done in the Lake States was done by private individuals' enterprise. He sold his logs to the paper mills, which were the major buyers. The rangers and supervisors dealt largely with local, what we call, timber operators. A few, of course, were large companies which had their own operators, but for the large part it was the small operator we were dealing with. This was particularly true in the Ozarks.

I don't think the unions as such concerned themselves with logging versus recreation. That was our business. And we never had any pressures or even any suggestions from them that I know of. It was merely a matter of informing them of what was there that their people could take advantage of. At least at that time camping was free, and yet the facilities were passably suitable so that the family could go out and spend the weekend and the only cost would be gasoline.

SS: Wasn't there some talk at certain periods of time that the national forests, as opposed to the national parks, were playgrounds for the poor or people who had less money?

HP: Well, to begin with, they're situated in such a way that they're available to more people than the national parks because they're in many of the forty-two states, and so the facilities in many cases are available to more people. I'm not expressing that very well, but they're closer to more places, not major centers of population, necessarily, but large areas of population, easier to get to. And, of course, there is more, particularly at that time, freedom to do as you wish. And, of course, there was hunting and fishing, which is not permitted on a national park.

SS: Fishing is allowed on the national parks.

HP: Fishing is, yes. I meant hunting. Fishing I think has been restricted to numbers of fish. In other words, you didn't have quite the freedom of action that you would have in the national forest. If you take, for example, the people who go to Yellowstone, Sequoia, Yosemite, or the Great Smokies, come from all over the country to see these natural outdoor museums preserved for their scenery and wildlife. I think it's just natural that people go longer distances to see national parks, and if you go longer distances, you probably have to have more money. The cost of visiting parks, I suppose, for a New Yorker or a Chicagoan is going to be more expensive than if he'd gone to a national forest closer in.

SS: Do you think the interest of unions in recreation and wildlife helped advance the cause of multiple use?

HP: I don't think you could pinpoint it as significant. In fact, I don't think it's even a good question [laughter]. Their interests are not in this field. It's true that in the thirties the CIO had a division of resource management. They made some regional analyses, for instance, of the range resources. But the rank-and-file unions didn't use that, to my knowledge, to press for any national program. What the original purpose of making these studies were, I don't know. I believe that they determined that the future of beef production lay in the South, not in the western regions, and I think this has sort of proven out. This was way back in the early thirties.

But I don't know that they made any effort other than to estimate where things are going to be done. They had some studies

on such things as logging opportunities and wood production, which, of course, relates to the wood-using industry and relates again to the labor force. At times there have been instances of support or opposition to various programs that directly affect unions, but at the moment they don't come to mind.

Multiple-Use Practices

SS: While you were in Region 9 working in the Division of Information and Education, did you find multiple use a useful concept in terms of dealing with the public?

HP: Yes. We attempted to demonstrate it, but it is sort of a nebulous concept unless you're talking about one acre or one management situation. At that time we conducted show-me trips through areas where we could show by demonstration various uses of the land. I recall an instance of this; we were working with sportsmen at the time. The deer in Wisconsin, Michigan, and Minnesota concentrate during the winter in deer yards. For protection they gather together in these hemlock patches or thick woods when the snow is heavy and the food short. And in some winters, they've even died from starvation. There just isn't enough food. So a program was started not only to reduce the population so there wouldn't be such a heavy dieoff in the winter, but also timber management practices were adjusted to make sales of deer-browse trees in wintertime. For example, poplar is a broad-leaf tree, and the tops and branches left from cutting provided deer food. So by adjusting the timber practices or timber sales to periods that would accommodate some of the deer wintering needs, at least the use of two resources, wildlife and timber, were complementary and this would be considered a multiple-use approach to that particular problem.

SS: And you used such examples in your public relations work?

HP: Well, of course, that again was a specific situation, a specific area, and a specific problem. And mostly, I'd say the demonstration was not so much broadly public as it was an agreement between the state fish and game people and the forest service. I think this was not only expressed in our own I & E program but also through the state program. I mean, we merely prepared an article on what was

being done in this particular situation, which is I & E informing the public.

SS: Are there any other things that we might cover in relation to Region 9?

HP: No. Nothing comes to mind right now.

STAFF ASSISTANT, OFFICE OF THE CHIEF OF THE FOREST SERVICE, 1956

A Ten-Year Multiple-Use Plan

SS: Okay. In 1956 you went to Washington, D.C., to become staff assistant in the office of the chief. Is that correct?

HP: I became deputy to an assistant chief, or assistant to the assistant chief. The assistant chief at that time was Ed Cliff. McArdle was the chief. Ed Cliff was in charge of national forest programs and as such was responsible for the road program, the fire program, and all the resource programs on the national forests. I was only there during the year 1956, but during that year my main effort went into the development of the ten-year program and into development of a five-year recreational program. Probably the five-year recreational program was more urgent than the ten-year program, although both have been used, of course, since that time.

I don't want to leave the impression that I did the work [laughter] because what I had was the job of coordinating the work of many, many people. Actually the ten-year program started right down at the district level. The district ranger developed multiple-use plans upon which he based various developmental needs in every resource: cultural work needed in timber, range rehabilitation, improved forage, watering holes, fences, you name it, everything. Each little project was put on one sheet of paper and listed the estimated man-years of work required to do it, the estimated cost of materials, and all the factors that go into building a toilet or a fence or a range watering facility or something. In the cultural work it was calculated by man-years per acre and so on. The projects included reforestation and erosion control. Road building, of course, was one of them.

Now these were reviewed and compiled by the supervisor to make a national forest program, and the forest programs were sent to the region and compiled to form a regional ten-year program. The regional programs were sent to the Washington office and here again compiled to form a ten-year plan for the national forests of America. At each level there was an attempt to balance the needs of the resources and of their development, including the Washington office where budgetary considerations by the department and the Bureau of the Budget had to be taken into account. Reconciliations were made at each level and priorities set and ultimately it became

a ten-year program for the national forests.

SS: This was in essence a multiple-use study.

HP: Yes. But, you see, the multiple-use phase of it has to be right down there on the ground. You can't have multiple use back here in Washington. I mean you [chuckle] can follow the concept and the philosophy, but when it comes down to coordinating uses, the only place you can coordinate them is right on the ground. You're talking about an area of land and what that land is capable of producing and how the various uses can be combined on that land to achieve the maximum benefits. But when you get the whole thing together it is really a summary of many thousands of multiple-use considerations and plans.

SS: Did this ten-year plan have any general conclusions or summary?

HP: The conclusion, if you want to call it a conclusion, was that, given adequate budgets, this is the progress the national forests can make, forest by forest, region by region, over a ten-year period. The idea of a ten-year period was logical because the work couldn't be done in one year. So you had to be set for year one and year two and so forth. A plan doesn't have any money behind it, doesn't have any organization behind it. It's just a plan for the development of the national forest.

SS: Did the ten-year plan place emphasis on the need for the development of any one of the natural resources?

HP: Well, at least we've certainly attempted not to. This really went into the development of the national forests, of course, and it included cultural work in the field of wildlife habitat, range, timber, and water. But the needs were so critical in the field of developments for recreation that probably recreation had a high priority in the proposed annual plan. But you've got to go back again [laughter] to that ranger district. Recreation might have a high priority in one place, maybe in the Los Angeles national forests, and a low priority in some back-country region in the Rocky Mountains.

Five-Year Recreational Development Plan

Coincident with this program, we also developed this five-year recreational plan, which indicated the urgency of getting ahead of the great demand that was going on at that time for recreational facilities. People just camping all over in nothing. And, of course, there was a public health problem, a sanitation problem. The facilities were inadequate. They were out of date. So there was an urgency here, but at the same time there was also an urgency for improving the range resource, for rehabilitating deteriorating ranges which were adversely affecting watershed. So you couldn't take all your dollars and put them in recreation.

But I would say that in the early stages of activating the ten-year plan, we certainly put emphasis on recreational development, particularly, with this five-year recreational analysis plan. This was an attempt to set up a program that would catch up, in five years, the development needs to meet a recreational demand. I'm not sure they ever did catch up. I'm not even sure we're caught up yet, but at least this was a big help to get on top of the job at that time. And this was done in response to a letter from Congressman McIntire who had visited California on one of these committee assignments and came back with a personal knowledge that the forest service was badly in need of having a plan that would indicate what it would take to get on top of it.

SS: And what role did you play in the five-year plan?

HP: I was assistant to Ed Cliff at that time, and the major job, as with the ten-year plan, was done in the field and by the Division of Recreation. John Sieker was the division chief at that time. Now, he played the key role. Mine was a consultant and a coordinating role. And Ed Cliff was responsible for approval of these plans.

SS: Was the five-year plan carried out?

HP: To a large extent, it was. Let me say it was most helpful in improving the budget situation for recreation. It was helpful in impressing upon the department, the Bureau of the Budget, and the Congress, that there was a real need, that we weren't just talking off the top of our hats.

SS: It was a study of existing conditions or a projection of the needs in the future?

HP: Both. It was a study of the present use, present conditions, projected use, and what was needed to catch up.

REGION 7 (EASTERN), REGIONAL FORESTER, 1957 to 1962

Determining the Greatest Good

SS: Did you ever find, when you were in Region 7, any problem with trying to determine the greatest welfare, or the greatest social gains, the economic gains from the forest, in terms of a conflict between local needs and national or regional needs?

HP: I don't think so. One thing about Region 7, which, from the multiple-use standpoint, is so clearly advantageous over some of the western forests, is the mixed forests. To begin with the forests were re-growing. They had been cutover years and years ago. Many of the eastern forests were brush fields when the forest service took them over in the twenties and early thirties, and by the fifties they were growing up to be good-looking stands of timber. One had more opportunities for a wide variety of balanced uses to begin with. The allowable cut in Region 7 was very small, so we weren't pressured in this respect as were some other areas of high timber yield.

SS: Like the Northwest?

HP: Like the Northwest. We were pressured in another respect by recreation demands on the lands. The program, by the very nature of the forest and the location of people, was a more balanced program than most other regions. And I think that the forests were not significant to the economy of the states, at least during the early sixties. So there wasn't an economic pressure on them. They all enjoyed public support, I believe, and I don't think there was any conscious difference in considering local demands as against national demands.

Strip Mining and Water Pollution

SS: Did you have any problems in Region 7 with stream pollution or watershed damage from strip mining?

HP: Yes, we did. The land area, both private and public, is intermingled

throughout Region 7 and within the national forest boundaries. There are not extensive, large, consolidated federal holdings. So often we had strip mining on adjacent lands that would certainly cause erosion, stream siltation, and stream pollution from acid-mine drainage.

National Mine Area Restoration Committee

SS: So in 1957 you went to Region 7, and you were there until 1962. While you were in Region 7 you chaired the National Mine Area Restoration Committee?

HP: That was a national committee established by the Soil Conservation Society of America. That was very interesting work because the committee selected by the president of the society included, not only representatives of the coal industry--of course, this was primarily aimed at coal mining in the East--but also members of state agencies responsible for the coal mining and some national forest people. This was a broad study to determine what were the ways and means of extracting coal by the strip-mine methods without doing irreparable damage to the landscape and to the water courses.

The good thing that resulted from it was that there was at least an agreement within the committee, which included representatives from these coal mining associations, that there was a need for pre-operational plans in which the final placement of the earth was planned before earth moving began. It also led to the establishment of some regulations and standards for strip mining on national forest land. There were restrictions on strip mining where the slopes were over a certain percentage and where the toxic materials might pollute the rivers (or stream). It also brought out that in many cases the roads serving these strip-mine operations and tipples were causing just about as much damage to the aesthetics and to the erosion potential of the area as the strip mine itself. (Tipples are coal-loading devices usually surrounded by spilt coal and beat-up roads.)

The committee had no authority or no power, but just the recognition of these problems was important. In fact, I know that the association representatives went back to their mining congresses

and advised their leadership that there was this need to get more methodical and to have the objectives of the ultimate completed area in mind when they started so they didn't have to replace the overburden two or three times as sometimes occurred. (The overburden is the rock and soil overlying the coal seam.) It also bolstered our dealings with the operators.

You see, in many parts of the East, coal operators owned the coal under the national forest lands. In many cases where the lands were acquired in the East were purchased--all the national forests of the East of the United States had been purchased from private lands--the land was sold, but the minerals were retained by the owner. In some cases the ownership of the minerals is in two or three parties. There were different levels of coal. So the deed turning over these lands to the United States government included the right of the owner to extract the mineral under certain reasonable conditions. Of course, when you get the word reasonable in there, it's what we argued about [laughter]. But this, as I say, bolstered the national forest administration's hand in dealing with an operator on the point of reasonableness. As a matter-of-fact, following the work of this committee, we were able to stipulate such conditions that would not allow an operator to move any coal from national forest land unless we had an operating plan showing what the land was going to look like afterwards, how he was going to treat the overburden and the tops of the soils.

SS: So you had the cooperation of the mining interests?

HP: Well, they certainly, in this committee we did, but then there [telephone interruption].

SS: We were talking about mining, and I asked you if you had support of the mining interests.

HP: And I said that in this committee we certainly had cooperation. I wouldn't go as far as to say support, but we certainly had cooperation in joint considerations of this, I suppose, you could call it, policy statement that we all sort of agreed to. I think that the problems that usually arise come from individual operators in relation to demands for restrictions on their program, restrictions on their operations.

Mining and the Multiple Use Act of 1960

SS: While you were regional forester for Region 7 the Multiple Use-Sustained Yield Act of 1960 was passed. Do you think it would have been better to have had mining included in the 1960 Multiple Use Act?

HP: It really couldn't be because legally mining, even on national forest lands, is the responsibility of the Department of the Interior's Bureau of Land Management. Now, they are the ones, for example, that issue a permit to mine on national forest lands in the East. In other words, they're responsible for the mineral production in the United States. There's some joint responsibility with the USGS, especially under the mining law and under the acts that provide for acquisition of the lands in the East.

SS: So it was a question of jurisdiction then, that caused mining to be excluded?

HP: To a large extent, yes. But where you have a mine or a permit to mine, this naturally affects the use of other resources and what might be improved or damaged by this mining operation. So it is a consideration of multiple use no matter who's responsible for the removal of the minerals, and definitely we attempted in our multiple-use plans for mining areas to combine the use of mining with the uses of other resources.

SS: Do you think the American Mining Congress would have preferred to have had mining included in the Multiple Use Act?

HP: I don't think that that was ever brought up for consideration. If it was, I wouldn't know about it. As long as the mining laws are on the books, they don't have to be concerned.

Revision of the Old Mining Laws

SS: Has there ever been much conflict between the Department of the Interior and the forest service over mining?

HP: No, not at all in this respect, because it was a matter of policy to always have the forest service's stipulations included in permits to mine on national forest, Weeks Law land. I think at times interior may have been, by various analysts, accused of relinquishing their prerogatives because they accepted all forest service restrictions on the miner. At times interior has raised questions and required that the forest service justify the need for some, according to the miner, unreasonable restriction on their operations. Interior has been a middleman in this many times. But their cooperation has been excellent, I think, I mean that I'm aware of.

SS: So it's the forest service, or interior, who actually polices the mining laws on the national forests?

HP: We're talking now about the Weeks Law forest, not national forests reserved from the public domain. On the national forests reserved from the public domain the policing is minimal because of the old mining laws of the latter part of the nineteenth century. The law gave the miner the right to go on any public domain land that had not been withdrawn for some special purpose and prospect for minerals. Prospecting usually includes digging holes, or, as in the search for uranium, a bulldozer makes miles of cut with a Geiger counter monitoring as it goes. The policing, if it could be called that, comes in when there's a contest as to whether or not the miner has indeed found a valuable mineral that a prudent man would develop. This is where the litigation comes in. So it's not so much a policing job but a refusal by the U.S. Department of the Interior to validate a mining claim. However, there's nothing to stop the miner after his claim has been invalidated, to turn right around and put another claim on it, and the process starts all over again.

This is one of the critical parts of public land law that many people believe should be repealed as soon as possible. Many conservationists believe that all federally owned minerals should be put under some system of governmental control like a leasing system and not given away! In the federal forests of the East a leasing system is the law, with the basic responsibility for the supervision of the lease in the Department of the Interior, but the forest service field men have the job of seeing to it that the stipulations included in the lease by the forest service are indeed being followed. So there is a joint overview [laughter].

SS: How about in the national forests in the West?

HP: They're under the same mining law, unless the land has been with-

drawn from the mining laws for some specific purpose.

SS: Such purposes would be?

HP: Well, it could be for an administrative site, a recreational area, a scenic strip along a road, or for wildlife refuges--of course, that would be withdrawn by the Department of the Interior. Incidentally, interior has to approve any withdrawal, even on public domain land, withdrawn from mining entry on national forests as well as on Bureau of Land Management lands. This is because when lands were withdrawn, they were withdrawn from all entry, although primarily it was just aimed at withdrawing them from mineral entry. If the land was not withdrawn, anyone could establish a claim in the middle of a campground and then start going to work digging for minerals.

SS: There is no conflict between interior and the forest service in dealing with all these complicated mining problems?

HP: No. In actual field operations there are mineral examiners in both the forest service and the Department of the Interior, and they work closely on examining claims for their validity, in carrying out the action to have the claim nullified, and so forth, if such is the need. As far as I can ever remember, the dealings between the two agencies on these mineral matters have been very good, the closest cooperation that you could imagine.

SS: You had started to say that in the national forests in the West, except in areas that were otherwise reserved, mining on national forests was handled in the same manner as on any public domain lands.

HP: As far as the mineral laws are concerned, the reservation for national forests is not excluded from the mineral laws. In other words, a miner has just as much right to go on unwithdrawn national forest land as he has on the public domain lands of the interior.

SS: How does this differ from the forests in the East covered by the Weeks Act?

HP: Because the Weeks Act provides that the mineral, if purchased by the government--as I told you some of it isn't purchased--will be sold under a leasing procedure. You see, in effect we're saying that in the West the government is anxious to give away its minerals. The minerals need to be developed, and so by giving them to the miners, they're encouraging development. In the East, where the government

spent dollars to buy the minerals, the government leases them for a price.

SS: Do you think it would be better if the minerals were owned by the government?

HP: Of course, we do own all the minerals. Whether under the national forest or public domain land, it is a federal mineral, and the mining laws permitted what amounts to a giveaway of the federal minerals. My own personal belief is that the mining laws should be repealed and be replaced with a mineral-leasing system. But you'd have to remember that this still doesn't exactly clear up the board, because all rights under claims under the old mining laws, prior to the time that you repeal them, are still going to be valid. So we are still stuck with two systems at least until the claims have been worked out or nullified.

SS: How much damage is there or has there been from mining on the national forests?

HP: If you compared the mined areas on national forests to total area, it would be a very small amount. There's another complication [laughter]here. Nonferrous minerals, common minerals, are not under the mining law. They were withdrawn from it. The sale of clay and sandstone and other common varieties are done under a permit system, and they are sold. The problems come about when the mineral involved requires maybe an open pit or requires working on the face of a large area. Then it is the immediate degradation of the associated environment that's important. While it may only affect a few acres, its related effects--people driving around and looking at the mess--is more serious. You can't count all that as the area mined.

Manganese mining in Virginia has been one of the very difficult--and this is under the leasing system, in which the government has full control of what's being done--situations to supervise and maintain respectable conditions. Here was a case where war needs imposed pressures to permit this use even though it has some other bad side effects.

SS: Was this during World War II?

HP: The demand for manganese and tungsten was considerable and later uranium. Prospecting for uranium probably caused, in the West, more degradation of the environment than any other one mineral.

SS: You never hear much about destruction from uranium mining.

HP: Well, yes. I'm talking about prospecting for uranium, which they're permitted to do under the old mining law.

SS: You mean anywhere, except for these restricted areas, anybody can walk in and prospect?

HP: Yes.

SS: I know that. It just sounds hard to believe.

HP: It is hard to believe in this day and age; it really is. But, for example, the Environmental Quality Act does provide a means of stopping some if it, although it has nothing to do with mining. I mean it's not necessarily directed at it. That's only a very recent act, and during the time I'm talking about the prospectors would use a bulldozer and make a cut along the side of a slope and have a Geiger counter mounted on the [laughter]blade or at the point where it's closest to the soil, and then just go right through the country digging a trench. Then, of course, when the Geiger counter sounded off, there was an uranium field.

SS: Is this extensive right to prospect due to the power of the mining lobby?

HP: Well, the power of the mining lobby is somewhat instrumental in preventing complete repeal of the old mining laws to date. I think they feel that it's to their advantage to keep parts of the old mining laws. Although the mining congress has proposed some revision, I would say that over the years the mining interests have been instrumental in stopping any outright repeal of these laws. Until very recently, and following the work of the Public Land Law Review Commission, I don't think there's been the intense public interest or knowledge of the situation. One of the bad things about the old mining laws, is that you can stake a claim and put a house on it. In other words, one could use the excuse--although it is illegal even under the mining laws--of mining as a means of getting a summer home out somewhere in the woods.

SS: Do you think that we have the technology to practice mining so that it doesn't damage the national forests?

HP: Yes, I think so. A lot of it is just using good sound judgment because

in many cases it has to be a judgment matter. The techniques in both prospecting and in mining have improved so much over the years that the old miner and his burro are just about a thing of the past. They can prospect from the air in many cases. The layout of the old claim system is not consistent with modern technology in neither prospecting nor mining for many minerals. The mining congress or the mining interests have always decried the abuse of mining laws, that is, the gaining of a summer home under the guise of mining. They've always, of course, objected to that. I've been looking forward to some real revision of the mining laws in the near future.

SS: With the cooperation of the American Mining Congress?

HP: Well, I don't know how much cooperation [chuckle]. I think they'll be deeply involved; I'm sure of that. To the extent that their interests aren't damaged, they'd probably go along. It's a whole new ball game, and I think they recognize that the old mining laws are no longer suitable in the present system and public interest.

SS: Do you think that damage to the national forests would be lessened, or the administration of mining simply improved, if the control of mining in the national forests were transferred from the interior to agriculture?

HP: It would be simplified, I think, yes.

SS: Improved?

HP: I don't really think that has been the reason why there has not been better supervision of some of the leases. I don't think that has been the reason at all. Certainly, when you simplify something [chuckle], it ought to be improved. At least the administration being simplified into one agency or having one man personally responsible for it on the ground, it would seem to me obviously to lend itself to improvement.

SS: You mentioned that the Environmental Quality Act had some mining provisions in it?

HP: No, it provides a means of restricting damaging actions. In other words, if some mining activity violates some of the provisions of the Environmental Quality Act, an injunction can be sought against the violator on the basis of the new act, even though he might have rights under the old mining law. I'm just saying it provides another

avenue for administering the mining activities, although I don't think that was its original intent. It's using one law to overturn an earlier law, in a sense, or at least to overturn the rights that were inherent in the old law.

SS: Did the American Mining Congress have any involvement in the Environmental Quality Act?

HP: I wouldn't know [laughter]. I wouldn't know. I would presume they might have because there is a lot of mining on private land. It's just as much involved as it would be on national forest land.

The Biddle Tract, Allegheny National Forest

SS: We might talk for a minute about the Biddle Tract, the old mansion.

HP: That was donated to the forest service by the Biddle family. It is in western Pennsylvania near the headquarters of the Allegheny National Forest. It's only about five miles, I think, from the headquarters, and we proposed that it be made into an information center and a research center. The research primarily dealt with outdoor recreation: user desires, user needs, the effects of heavy recreation use on the resource and so forth. I don't know if this was carried out, but we established a small area in which, through dummies and other display methods, we tried to portray multiple use in action. I'm not sure how it went forward after I left, but this was the original proposal.

SS: And the house itself was restored?

HP: Yes. The house was restored for use as a research center, a museum and information center.

SS: Was the reception of your suggestion by the Washington office warm or hesitant or what?

HP: [Laughter]. Well, one always has to prove the value of a new proposal. We had to provide facts and costs and what the benefits would be.

But I think that we at least got a large share of what we were proposing.

Archaeology and Anthropology

SS: You mentioned that you were interested in archaeology and anthropology. Can you give me a specific example? This would be multiple use of the national forest lands.

HP: Yes. I have often referred to it as the antiquities resource. One of the examples is prehistoric rock art. The Indians throughout the United States, in their ceremonies and partly perhaps in just dealing with mystical means of improving their hunting or other aspects of their life, drew paintings on rocks. Some of the multicolored art work by the Shumash in the Santa Barbara area is now in the San Raphael Wilderness Area. There's quite a few areas in Kern Canyon.

SS: When did you work on this rock art?

HP: It was just part of a hobby throughout my career. I enjoyed it not only for art's sake but in keeping track of them, and I've quite a collection of my drawings of the rock art from various places. But it nevertheless is a matter of public interest. I mean, a lot of people are interested in artifacts, rock art, and the movement and migration of people in prehistoric times. New finds are nearly always in headline news or featured in articles. The antiquities resource is scattered throughout the United States. There are fewer places that I know of in the East, such as the remnant works of the Mound Builders, that are interesting. The forest service hasn't ever had sufficient funds or manpower to properly enforce the Antiquities Act of 1906, which requires that none of these things can be defaced or artifacts removed except under the scientific control recommended by the Smithsonian Museum. So the authority to protect these things goes back nearly over half a century, but the funding has never been such that these areas could be adequately protected. There are people, who some call pot hunters, who dig up the prehistoric graves and then sell the pots and other artifacts to curio shops throughout the West, particularly. So I did have an interest in really trying to develop further interest in this matter of antiquities resource among my coworkers.

SS: You found the forest service receptive to this?

HP: They've always been receptive, but there's always been something more important, more pressing for money and people's time. Right now there is one archaeologist full time on the staff of the regional forester in Albuquerque, and he's doing very good work. And I think there may be two other regions that have them, but this is a rather recent development, since after 1966.

SS: Are there any other things we can discuss on this archaeological or anthropological question?

HP: It was really a hobby. I tried to stimulate a lot more interest in these things and get much more money assigned to the protection of them on the national forests or even identification of them. You see, there are lots and lots of sites of archaeological interest that are on national forests, and the only people that know about them are in the universities, the Peabody Museum, the Smithsonian, and similar institutions. The academic fraternities have tended to keep silent about these areas primarily because of their fear that the areas couldn't be adequately protected if they became known to the public. This is probably true at this time. I think there's a beginning now of an attempt to try and protect at least the rock art sites.

Koko: The Anthropoid Ape

SS: Could we now discuss Koko?

HP: Oh, Koko [laughter]. This was a name given to a fictitious anthropoid ape. We made drawings of Koko in action to try and put over the point that management involved simple principles. I mean, if any one principle or one element is left out, the job wouldn't get done. Koko was used to demonstrate this.

SS: It was a study or a demonstration?

HP: It was a presentation of management techniques. It was an attempt to improve management at the supervisor's level and ranger level. He was just a little symbol we were using, which, incidentally, didn't impress the Washington office administration [chuckle] at that

time. They said, "If this ever got out, it looks as if you're making apes out of forest officers or something like that." And actually all he was, was a symbol. He was an ape, dressed up. We called him Koko, and I had a series of slides showing Koko in various management situations and his solutions.

The whole point of it was that simple elements of management were needed in total to get a given result. So we had Koko setting objectives. We had Koko outlining a policy to meet that objective, and Koko making his plans to get a banana off the top of the cage or something like that, then creating an organization to activate the plan and a control to see that the organization followed the plan, via the policy, to reach the objective. Apparently Ross Stump, now working with the state and private people, has used this same presentation, only he changed the character and is having some good results with it.

SS: Would any of the management plans that Koko was to demonstrate pertain to multiple use?

HP: No, he was demonstrating only principles, no specific plan.

SS: Would any of the principles apply to multiple use?

HP: Yes, they all would apply. They would also apply to digging a ditch. The point we're trying to make is that so many times we go heavy on plans without having them directly aimed at an objective. We use policies as something restrictive, when really they can be used in providing latitude. It was this sort of discussion we were generating. One can have all the fine plans and objectives set forth, but if there is no control on the action, one is not likely to reach the objective.

So it was a discussion of elements in management emphasizing that if you leave one out, you're not going to get the desired result. Books and books have been written on administrative management and staffing, span of control, and all these things. But all the sophistication in the world won't help if one doesn't properly maintain the basic elements. This was the point.

SS: Now, Ross Stump still has kept a copy of this?

HP: Apparently. You see, because of the Washington office's objection to the use of this caricature, we were asked to destroy them. I think

everybody did but Ross.

SS: Do you recall the year that you did this or years?

HP: All this about Koko occurred in Region 7. It was just one supervisor's meeting in about 1957 or 1958. It was taken from there, I think, and put in sort of booklet form and used as a training medium. But it was only the subject matter and presentation for just one supervisor's meeting.

Wilderness Areas and the De Facto Wilderness Concept

SS: Were you involved in Region 7 with any of the decisions on the de facto wilderness areas?

HP: I believe I established, under the regional forester's authority, the first wilderness area on the East Coast. It was the Great Gulf Wilderness in the White Mountains National Forest. It was known as the Great Gulf Wild Area at that time. Now it's part of the wilderness system.

SS: When was that?

HP: It must have been 1959 maybe.

SS: And was that a de facto wilderness that was then made into a permanent wilderness area?

HP: Yes, it was a roadless area, primarily, on the slopes of Mount Washington. It wasn't a de facto wilderness in the same sense as those areas in the Pacific Northwest which are heavily timbered. This is not a very heavily timbered area, but it was de facto in the sense that it didn't have roads or major developments.

SS: So there weren't any groups who were to be hurt by the creation of this wilderness area?

HP: No, I don't think so, except people that might have wanted a summer home or something in that part of the area or wanted to be able to drive through it. There was some timber in it, but as I say, the

demand on national forest timber by the timber industry in the Northeast was not very great in the national sense but very important to small mills throughout the Northeast.

SS: You had no local communities that were solely dependent upon a mill that ran on national forest timber?

HP: Yes. But they were small and usually had a lot of private timber available to them, also.

SS: Were there any decisions on de facto wilderness areas?

HP: Do you have to use de facto wilderness area [chuckle] ? You could have called Mount Rogers a de facto wilderness, and you could have called parts of Spruce Knob in West Virginia, de facto wilderness. At least these were areas of three thousand acres and more without a road. I initiated the formation of the national recreation areas in Virginia and West Virginia when I was in Region 7, and now both are national recreation areas by statute. Since I left, a great deal of controversy developed over how roads should be placed in those recreation areas.

SS: Why do you object to this term de facto wilderness?

HP: Because it's not a term in the forest management lexicon, I suppose! All it means is that it is an area of three thousand acres or more without any roads in it. Now that three thousand acres could be highly desirable for wildlife or for a combination of wildlife, grazing, and skiing; or it could be an area of standing timber that's to be cut to maintain the sustained yield. So all areas are different. The only thing that's common is that they don't have roads in them. And I think that's a poor term. In planning, for instance, in the Pacific Northwest, if an area is taken out of the management considerations for timber, then it will be necessary to reduce the allowable cut somewhere else because the timber is no longer in the picture.

SS: Were you under any pressure from conservation groups in Region 7 to make certain decisions?

HP: I don't recall any as such, but I think there was a constant communication with the conservation community in Region 7 on many problems, such as the Appalachian Trail, which goes through Region 7, and the maintenance of an adequate strip to protect the scenic value of the trail. There were any number of problems, and I think we were in constant communication regarding them.

Review Procedures for Multiple-Use Decisions

SS: When you were in Region 7 what type of review procedures did you exercise after a multiple-use decision was made?

HP: I think we depended largely on our general inspection procedures-- the general integrating inspection of the forest every three years and the functional inspections every year; all of these reports came to the regional forester. This was the control mechanism. The reports would come to me, and, of course, I would make individual inspections on various forests. As a matter of fact, I think I spent about 75 percent of my time in the field in Region 7.

SS: On any of the questions where there was a wilderness area involved, were there any hearings that occurred when you were in Region 7?

HP: No.

SS: No public hearings?

HP: No.

SS: Who decides whether a public hearing should be held or not, the supervisor?

HP: Well, it depends on what it is about, of course, and the significance of it. I think if there is a large enough demand for a public hearing, the chief would probably set it up or the secretary. A regional forester could also call a public hearing on an issue if he thought there was sufficient controversy involved.

Information and Education

- SS: I noticed that in an inspectional report made when you were in Region 7 in 1958, there was a heavy emphasis placed upon the need for the work of the Division of Information and Education.* Did you find that to be true?
- HP: Yes, I certainly concurred with that. Region 7 is close to large numbers of people. In other words, it differs from large forests near, what at that time were, fewer people; Region 7 had smaller forests nearer larger numbers of people. There was great need to have people understand the purposes and uses of the forest.
- SS: Can you be more specific? Of what help is it to the forest service to have the public understand?
- HP: Well, wouldn't you want to understand the recreational opportunities on a forest that's within an hour's drive from you? If you were a hunter, you'd want to know something about the hunting opportunities. If you were a city like Bradford, Pennsylvania, or Marion, Virginia, which depend entirely upon the forest for their water supply, you'd want to know how the watersheds were being managed.
- SS: I can see that it would be good from the viewpoint of a potential user, but what I'm trying to get is how does it help the forest service?
- HP: You've got it turned around. The forest service was created to benefit the public. The forest service is there, or the national forests, to produce goods and services for the people. If people know about and use the goods and services and opportunities available to them, the forest service is meeting its primary objective. In other words, it's the people that are important not the forest service [laughter].
- SS: I noticed that there was some mention made in the inspection report to the effect that some of the eastern congressmen were not supporting the forest service as much as might be desired.
- HP: I thought we had fairly good support. It's true that the congressmen

*U. S. Department of Agriculture, Forest Service, "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.

from New York, for example, were, as far as their constituents were concerned, not affected one way or another by what we did on the 13,000 acres of national forest lands that were in the state of New York. I mean, the constituency problems were not really connected to any great degree with what the forest service did. They just didn't have a great interest in it.

Now, the New York Times, which is influential with some of the congressmen in that area, did have an interest in what went on in the West. "These national forest lands belong to all of us," was their approach. Many times the eastern congressmen would be an influence in Congress, representing a large segment of the American people, in what was done with federal lands in the West. In that respect, I think, they were interested in it as a national issue, but not as a constituency, local issue.

SS: Could congressmen in any way help the forest service withstand, for example, pressure from conservation groups to emphasize recreation too heavily or pressure from lumbermen to overcut?

HP: You mean the eastern congressmen?

SS: Yes. Or the western, too, but primarily the eastern.

HP: Well, I think they did. I mean I think this was so. In many cases they supported broadly based, multiple-use programs. In the national forest, you're talking about?

SS: Yes.

HP: Certain congressmen, [John P.] Saylor, for example, who lives in Pennsylvania, knew about the Allegheny National Forest and has been a strong supporter of conservation interests over the years.

SS: So congressional support can be important to the forest service, but [interrupted].

HP: It's important to the people. I mean it's important to the program. I don't know how to express it, but the whole purpose of the forest service is to serve the people, and if it's not serving the people, it's not doing its job. When you talk about congressmen supporting the forest service, it's not quite the context that I would put it in. It's the congressmen doing the right thing for the people.

SS: Okay.

HP: You can say, "But maybe the forest service thinks they're doing the right thing for the people, but they're not." Well, then, of course, this is a debatable point on various issues, but that's the forest service's intent and that's the objective. So it isn't the forest service that counts; it's their program to provide maximum benefit to the public and not to any one interest.

SS: What I'm thinking of more is, if the forest service feels that a certain disposition of a national forest area is in the public interest, then they might need congressional support to implement this.

HP: They do, yes, they do. That is an important thing in public information, to educate the congressmen in certain cases, or the people that are constituents of the congressmen, on the desirability of this program or this side of an issue as being for the maximum benefit of all of the people.

SS: I don't know whether this is a question that can be answered, but being in I & E for a number of years, how much do you think it is the forest service's role to actually educate the public as opposed to following what the public wants done with its natural resources?

HP: [Chuckle] I think that's a very good question. I don't think it is the forest service's role to educate the people in that sense, but a part of information education is to bring before the public the pros and cons of a certain program, describing what the benefits are and what it is going to cost in dollars or in other values. It isn't always the forest service that decides on a program; often it is a proposal. Major decisions are often made either in the appropriation committee, in the Bureau of the Budget, or by the department.

So in a sense you say, "Why don't they just follow what the people want." Well what the people want is very difficult to define. Certainly, a forest service field officer with an area of land for which he is responsible would know or should know what the various benefits are that can be derived from that land. I think it's important that people understand what they are and how much it's going to cost, and if certain interest groups want something else, they would make their wishes known, and, I'm sure, they do. They make their wishes known to Congress. They make their wishes known to the chief. I think this is the way of American life. Debate is going on back and forth all the time and change is the only constant.

SS: What types of media did you use in I & E to contact the public?

HP: Well, of course, there's the normal media through the newspapers on various items of interest that go on in the national forest.

SS: That's just a press release.

HP: That's the recurring thing and then we developed various pamphlets. Meetings where we're invited to speak are important means of public communication. And this is not the job of just one person, but it's everyone's job right on down to the district level in the forest service. I think a large part of I & E was, up until the sixties and through the sixties, fire control, Smokey Bear programs. Now, I think some people think we have oversold fire control. There are some uses of fire that are beneficial to the forest and so forth. Well, on balance I don't think we have oversold it. The forest service uses fire for various management purposes. One of them is the Kirtland warbler areas, as it has to have fire in the jack pine areas to survive. The warbler is a little nondescript bird that sings. It's nesting place is in the old-age jack pine area of Michigan where 20,000 acres were set aside for the purpose of maintaining this species.

SS: How about TV or radio? Were those medias used?

HP: Yes. For years while I was in Region 7, we tried to get on "What's My Line?" with Smokey Bear, and I understand that about last year they finally made it [chuckle]

SS: They had Smokey Bear on "What's My Line?" I missed that one.

HP: He was the mystery guest.

SS: There was one campaign during the thirties where they used "Uncle Sam's Rangers." I noticed radio scripts in the National Archives on those programs. You weren't involved?

HP: Oh, no, I wasn't. I sort of just vaguely remember them as a matter-of-fact.

THE MULTIPLE USE ACT OF 1960

Defining Multiple Use

SS: We were going to talk about the Multiple Use Act of 1960, and I think perhaps one of the things we can start with is your interpretation of what multiple use really means. In a speech you gave at a meeting of the Allegheny Section of the Society of American Foresters in 1960, you stated that there was a great need for a more precise definition of multiple use because it had been interpreted in so many ways.* Do you want to elaborate on that?

HP: I think the concept of multiple use was being followed in national forest administration as a matter of policy as long as I can remember. The need for the act was to recognize by law all the resources, or at least the renewable resources, of the national forest. You see, the organic act of 1897 mentioned water, range, timber but didn't mention outdoor recreation, wildlife, wilderness, or other resources in the national forests.** So this was the need.

The concept of multiple use in its simplest terms is to provide a positive approach to planning all the uses of a given area of land for a given period of time. Now several uses of the forest, or of any piece of land, have been going on since the beginning of time--waterfalls and wildlife run around on a given area of land. But one difference between several uses of land by happenstance and planning under the multiple-use concept is that the latter involves conscious, positive planning of all the uses for a given period of time. I think this is the basic concept and what it means. One is a planned, positive approach; the other is occurrences by happenstance.

SS: Would you say that multiple use is more of a planning concept or an actual land-management principle?

* Hamilton K. Pyles, "Professional Growth--A Positive Approach." Speech delivered at meeting of the Allegheny Section, Society of American Foresters, February 11-13, 1960.

** Sundry Civil Appropriations Act of 4 June 1897 (30 Stat. 11, 34).

HP: It's both; it's both because it requires a coordination of a number of uses in combination. First of all, you've got to plan for that harmonious combination of uses, and then you've got to coordinate the use and make adjustments as uses occur. So it's both. First of all, it's a planning concept, and then it's an action concept, too. In dealing with renewable resources or the biological community, the one constant thing is change, change over time and change in a given time. So a manager's job is really continuous coordination of these uses in a most harmonious manner, and uses may change from time to time.

One example I like to use of what I would call a positive planning approach to make the maximum use of all the resources is in the case of occupancy by large transmission lines. The primary or key use of the land is the transmission line, but the transmission line also has to be kept clear of vegetation, or at least one can't have trees growing up and interfering with the lines. So it was a common practice to use herbicides or burning to destroy the vegetation under the line and thus keep the strip maintained. We conceived the idea that this land could also be used for growing wildlife cover, forage, so that one could achieve benefits to wildlife and still keep the vegetation low. One could also grow Christmas trees. So in our planning for the other uses of this occupancy we encouraged maintaining an edge for wildlife, introducing wildlife-preferred vegetation and so on.

SS: Would it be correct to say that, although when a given area is in the planning stage, all uses are considered and maybe three become the uses that are going to be practiced on this national forest, in the actual management most often one of these uses is a dominant use?

HP: It is for a given area for a given period of time. It's possible that one is dominant, but it's also possible that it could be codominant. The use of the phrase dominant use has a connotation of permanency. You know, this would be like saying, "We're going to set this area aside to grow timber, and anything that interferes with timber is out." Well, this is not multiple use. This is a concept of single use with splinter benefits. Now in the case of the power line right-of-way I just mentioned, there's no question that the primary purpose of the strip is for the transmission line, but there are other benefits by planning and by action that can be achieved.

SS: How many uses does a given forest have to have to be multiple use?

HP: It is usually considered three, but I think it really doesn't matter whether it's three or six or two. In the development of the legislation this question was raised, and I think it was generally considered that before you're really practicing multiple use you should have at least three resources being planned for in a given area. But what you want to remember, and it's so often overlooked, is the importance of time, and this can vary by seasons or by years.

In other words, the cutover area of today or young plantation today might be a choice recreation area fifty or sixty years from now. Similarly, skiing might be a primary use for three months of the year, and grazing might be the primary use for the next three months; or it might be hunting or wildlife interests' use, and then, in the winter months it'd be skiing again. There might be other uses coming along, but often there are seasonal uses of the same piece of land which have to be planned for with the least interference of one with another. Here's a harmonious combination of uses.

SS: What is the minimum area that would have to be considered as a multiple-use unit?

HP: I don't think there is a minimum. I think you should really talk in terms of either a logical management unit--which could be five acres one time or a hundred thousand acres in another instance--or an ecosystem. A watershed might be a planning unit. So there isn't any fixed acreage.

SS: Are wilderness areas, multiple-use areas?

HP: The Congress found that wilderness is a resource, and this resource needs a large area. We're talking about the Wilderness Act?

SS: Yes.

HP: Wilderness areas are set aside by law for a single purpose, but nevertheless there is a need for management and planning to maintain that purpose. In other words, one may have to build trails to disperse the use so it retains its wilderness characteristics. One could improve the fishing and hunting in wilderness, which is permitted, by the dispersement or concentration of people. There is, of course, a water use of wilderness areas; there's a wildlife use; there's various types of outdoor-recreational use. The thing is that, in consonance with the purpose of the Wilderness Act, you can't manipulate the vegetation to improve any of these uses.

SS: How about a national park?

HP: That's also set up by law for a given purpose, and usually the value of each national park, which is to be preserved for the education and the enjoyment of people, is spelled out in the act creating it. They are sort of big outdoor museums. One of the problems that [Aldo] Leopold studied is, How can you deal with living things with change going on by nature? How do you preserve these things in the state which they were at when the time the park was created? It's extremely difficult.

SS: In other words, multiple use means that there is not a prior decision made as to how each unit will be used?

HP: That's right, not by law.

SS: And it also means that the actual uses have to involve an improvement or a manipulation of the natural resource?

HP: Better say that one again [laughter]. I am not sure it has to involve manipulation. You consider it, and if it's possible to manipulate the vegetation to improve one resource--not at the cost of another necessarily, but in harmonious combination--then you do. We talked about these quail guzzlers, for example. This was improving wildlife on a given desert area, and by adding this one factor of water--the cover was there; the feed was there; the sand dusting areas were there; the four or five needs of quail were there, but the water was not--at no cost to any other resource, it enabled the quail to propagate. I'm not sure that you could do this in a park because you're interrupting or changing the relationship between desert and quail [chuckle] at that area.

SS: What I had been getting at was, in order to classify as a use under a multiple-use plan, does there have to be positive management involved?

HP: Definitely.

SS: Do you think that most of the men in the forest service have understood what multiple use involves?

HP: I am sure that most of the line officers--the ranger, supervisor, and so forth--certainly do. They're the ones that have to make the combination decision. Now, when one has staff responsibility for timber

or staff responsibility for recreation, one may be apt to press for the particular function, and although they may understand the concept, they're not faced with the hard decisions of, What do you do with this given area to accommodate both timber and recreation and wild-life and water and so on? So I'd say, yes, the line officers do. Now you might get some variation in expression between people, but I think the concept is clear.

It's actually a simple concept, and I don't think it's ever been bettered, even just as it's written in the act. You've got to remember that one reason I said we should have a clear definition of multiple use is because a person that's interested in timber, let's say, or interested in range, would like to see the area managed so that their interests are adequately served, or so that they're not in any way put down by some other uses. I suppose in attempting to further a given interest or function there has been various interpretations of the concept.

SS: And these were the various or different interpretations that you were speaking of in that 1960 speech?*

HP: Yes, I think so. I don't remember the speech very well [chuckle].

SS: Aren't there times when the social values to be derived from the national forest area might not be greater under a single-use situation?

HP: There are, of course, any number of single uses of the land. If you put an administration building on a piece of land or a dwelling, it's certainly, for a long period of time, set aside for that single use. Give me an example if you can of what you mean by social benefits, because in my interpretation the whole harmonious combination of uses is for social benefit, to benefit the American people. I think this is a social benefit. But what do you mean by a social benefit by a single use?

SS: Okay. Society as a whole would profit by intensive logging in an area even if it would, in some cases, be to the detriment of wildlife and recreation. Another example might be an area where watershed has to prevail almost to the exclusion of the consideration of other

* Pyles, "Professional Growth--A Positive Approach."

uses.

HP: Yes, but there's no watershed that I know of that can't accommodate other uses than water per se. Now there has been some expressions of interest in some of the arid countries that they would be very glad to take all the mud and rocks down from the mountain as long as they got the maximum water. In this sort of a single-purpose plan you would sacrifice other values on the watershed just to get the last drop, whether it was in mud or whatever [chuckle]. I don't think that type of plan is in the public interest. So I don't really know of any time when single use, excluding other possible uses, provides the greatest public benefit, unless for such things as national parks or wilderness areas, which are set aside by Congress for some special purpose. Even in those cases, sometimes I think it would be better with a little multiple-use planning and action.

SS: Did you have any opinion on whether multiple use should be defined even as much as it was in the act or perhaps defined more clearly than it was in the act?

HP: I thought it was defined very well in the act, and the more you attempt to go into details, you are apt to detract from the basic concept. I think it's well defined in the act. I don't think some of the more recent definitions have been any better. For example, the Classification and Multiple Use Act of 1964, which was a temporary act for BLM, carried the same wording except they included minerals, so I think it's very hard [chuckle] to improve on it.* Some of the recent proposals are using words like environment in it. They're getting some environmental consideration, but then this is inherent in the 1960 act itself.

SS: Would you say the definition was somewhat vague?

HP: No, I think it's a very good definition. The concept is flexible. It is a concept. It's not something that you can tell to somebody and then say, "Go out and do it." It's not a direction. I mean it's not a directive spelling out just what you do in each individual situation because this is what professional, scientific judgment finally determines--what combination would be the best under certain circumstances

*Classification of Land for Purpose of Disposal or Interim Management. Act of 19 September 1964, 78 Stat. 986.

because change occurs all the time. The combination of uses in one area is not the same as the combination of uses in the next area.

Because of this great variety of possibilities and opportunities, it would be impossible to be more specific in terms of how-to-do-its or directives. To some extent this has been attempted under the regulations and under the manual directives, but sometimes I don't think it has helped to clarify the concept [laughter] anymore than the act itself. The act itself requires judgment. And I think it clearly spells out in the act that the dollar value or the greatest single output is not the overriding consideration. That's an extremely important point in the act. In other words, in managing all the variety of resource uses possible in time and place, it hasn't yet been possible to develop an economic equation and weigh one combination of uses against another based on dollars alone. The value of intangible resources has got to be resolved through judgment and not dollars. I mean it would be very nice if one could develop such an equation because then it wouldn't require one to think. You could do everything by the numbers.

SS: Isn't it possible to assign economic values to something like recreation?

HP: It has been tried and is still being tried. I think there is a research project going in the forest service to try and do this sort of thing, but I don't think a satisfactory formula has been developed yet. Now, for instance, on the recreation use of a lake, the planners try to assign a value on the basis of how much someone would pay to go out and recreate on the lake. I believe the Corps of Engineers once came up with a \$1.60 figure per day. However, each lake has differing values in beauty, water clarity, fish population, and other values. If a lake were muddy or surrounded by unsightly things, it would not pay the premium price. In other words, there are so many factors that really have to go into what is a rewarding lake experience that it is most difficult to assign a dollar value.

Relations between the Forest Service and Other Government Bureaus:
Impact on Multiple Use

- SS: I'd like to talk for a minute about relations between bureaus administering natural resources. Do you think that, say, during the 1930s and 1940s there was much tension between the park service and the forest service?
- HP: I don't know as tension is the right word. I don't think there was any tension between them. I think that when proposals were made to turn large areas of national forest land over to the park service to be created into national parks, there was some resistance or, let's say, some thinking that they were being very well managed where they were and there was no point in changing the type of administration. Another thing was whether or not the quality of the land was such that it should be a national park rather than a national forest. I would say there were some differences of opinion, but I don't think you'd call it tension. I worked side-by-side with the park rangers of the Sequoia, the Grant, and other parks and never had any problem.
- SS: Why is it that if an area is created as a wilderness area it is better to have it administered by the forest service than to have it transferred to the National Park Service?
- HP: First of all, I've tried to express what I considered the important thing in land management is, that one is dealing with areas and with different functions or resource uses, which have to be coordinated. The more functional, single functional, a bureau becomes, the fewer multiple benefits will be derived from the area. Say you had a bureau of recreation, every recreation area in the country on federal lands would be managed by this bureau of recreation, and they'd do a very keen job of recreation, but they would lose this harmonious combination of uses, the ability to coordinate one use with another. In having the responsibility of all functions in a given area under one agency or person, the chances are that better management will be achieved and that more benefits for more people will be derived from it.

It is the same thing we were talking about in staff-line relations in the forest service. It's difficult enough for a unit manager, ranger for example, to achieve his multiple-use objectives under strong pressures and direction from a staff man at the higher levels interested in one resource. But suppose pressures were made with bureau emphasis and direction rather than staff. It would just make the job of practicing multiple uses very nearly impossible. It sounds simple

to neatly classify lands, to divide it up into neat little parcels-- this is a grazing area, this is a timber area, this is for recreation, this is wilderness--and each have some separate type of management. Sounds beautiful, but resources don't come in neat little packages. They get mixed up, and it takes area management to achieve the maximum benefits.

A wilderness and large national parks are big enough to be managed as areas, but even with wilderness you've got a combination of uses there. The same people are grazing outside the wilderness areas as those inside. Fires and insects don't respect boundaries. The difference between wilderness resource and, say, timber resource is you've got to have a large area really to make it effective. There are people that think that three thousand acres is enough, but, of course, there are some who think their one-quarter of an acre in the backyard is enough to be wilderness.

SS: What do you think the impact of the expansion of the National Park Service has been on the U.S. Forest Service's recreation program?

HP: I don't think it's made much difference, really. The demand has been in excess of the availability on both, and you can add the Corps of Engineer's reservoirs and reclamation reservoirs and other Bureau of Land Management extensive recreation activities. The resources are in short supply in relation to the demand. One hasn't taken from the other, if that's what you mean.

SS: I was wondering if perhaps the expansion of the park service had caused the forest service to pay more attention to recreational development on some lands.

HP: No, I don't think so because it was growing. It's just been a steady growth, with a sharp upsurge in the late fifties and the sixties.

SS: Do you think that the park service and its expansion has remained true to the purpose of the founding of the park service?

HP: That's not for me to comment on. I suppose it has. A good case in point, which doesn't involve the forest service at all, is the Prairie National Park in the Midwest. Kansas is the area I think that was and is being considered. This is a resource which has never been set aside, which was seen by our forefathers as they crossed the prairies, but as its use for cattle and farming has gone on, the blue-stem prairie grass has gone down the drain to a large degree, except

for a few areas that still remain. It's really a question of whether you want to continue to produce farm crops or meat off these lands or want to set aside an area to preserve the type of prairie and the related animals as they were when our forefathers crossed the plains, and I think this is a good idea. I don't think it's comparable to the majestic beauty of Yosemite, for example. I still think it's the national park purpose to preserve and protect ecosystems that are different from all others and part of a large, large area that was first seen by our [chuckle] pioneers going across the country. I don't know if that answers your question or not.

SS: Did you have any dealings with any of the men in the park service, any of the leaders?

HP: Well, yes. At what period of time?

SS: Any period.

HP: We worked together on a number of different projects, and one was the Allegheny National Recreation Area. There was some question whether that should be run by the park service, the Corps of Engineers, or the forest service. We made a joint study and finally ended up with the forest service administration. There were national park interests in the proposed Tocks Island National Recreation Area, which involved a large reservoir. It hasn't been developed yet. It was being considered at the time I was in Region 7. We had any number of meetings, although it doesn't involve much of the national forest land. We worked together on a number of proposed reservoirs and recreation areas in Pennsylvania.

SS: Do you think that the North Cascades area should be transferred to the park service?

HP: It has been to a large extent. I think that was an area considered to be of national park quality, and a number of people, even within and without the service, had thought that for some time. Then a study was made under the direction of Ed Crafts, who was the director of the Bureau of Outdoor Recreation at the time. The study teams never quite agreed on who should do what, but the final outcome, of course, was decided by Congress.

SS: Why wasn't it settled administratively between the two bureaus?

HP: One reason [chuckle] was that the two teams never did get down to seeing eye-to-eye on all the ramifications. In other words, there

was a number of things involved--recreation areas, wilderness, the Cascades National Park, and so on. While there were some areas of agreement, they couldn't really agree on a final, overall plan that would make everybody happy. I think it was well studied. I think everybody had the maximum input into it, and then it was resolved by Congress. Actually, I think this is the way things should be done where there is a major policy decision that affects a large area of land to be put into largely single purpose--not entirely single purpose--but largely single-purpose wilderness areas or national parks. It was proper for Congress to make the decision. They are making the decision on the boundaries of each new wilderness that becomes a part of the system.

SS: Do you think that the boundary settlement on the Cascades was acceptable?

HP: Yes, I think it was.

SS: Were there efforts made by either the park service or the forest service to generate public support, perhaps influence Congress?

HP: I don't think either of the bureaus did, but I think the interests involved did. Some of the conservation organizations in the Pacific Northwest, or preservation organizations primarily, really did go out of their way to shape public opinion in favor of national parks.

SS: Were there any other interests groups?

HP: Well, yes, but the [chuckle], I was going to say the commodity groups usually. There were differences of opinion among the conservation groups, but I'd say the preservation groups were really for a park or for complete preservation of the North Cascades and did everything they could to shape public opinion for this end. There were some opposing viewpoints from the hunting and fishing conservation groups. The timber interests were not much involved because they didn't have great areas at stake. In fact, I think organized timber interests sort of went along with this idea.

SS: Do you think if the forest service would have developed a recreation program more rapidly, perhaps through more appropriations, that there would have been less territorial losses to the park service?

HP: I really don't know. I don't really believe that. I really just can't answer that question. It would be a question of where you put the

money perhaps. What you're asking is, If you'd done things that would have served the interests of the preservation groups, would this have reduced the pressures on Congress and the public opinion to get more area set aside as parks and wilderness area? I just couldn't answer. I doubt if that would have changed the situation.

SS: How about the Cascades? Could the forest service have averted in any way the preservationists uniting behind the drive to get a national park in the Cascades?

HP: First of all, I'm not saying, and I don't really believe, that the final decisions were all bad by any means, so I don't know whether that should have been done. Being loyal to the forest service, I don't like to see areas go out of its management for any purpose. But looking at it from the standpoint of the public interest, I think it was adequately studied, adequately reviewed, and the decisions were made by Congress, and as far as I'm concerned [laughter] that's it. I certainly wouldn't want to go back and second-guess at what would have happened if we, say, made all of that wilderness. I don't think this would have served the park interest either. I mean if multiple use can't stand up that's something else again.

SS: Do you think that the threat to transfer the forest service into some type of department of conservation suggested, first by Hoover, then Secretary Harold Ickes in the thirties, and more recently, has been a real threat to the forest service?

HP: The reasons that the forest service resisted the transfer to interior under Ickes, or in that period of time, are really not valid today. In other words, interior has had historically, and up until maybe, say, the early sixties or 1960, a lot of political influence. The heads of the department and the heads of the bureaus were political appointees to a large degree, and this is one of the reasons, I think, the forest service objected to it. They felt that if they were moved to interior, if they kept the same laws, they wouldn't have changed anything except that maybe the top people of the forest service: Instead of being career people the top people might have been political appointees, and I think this is one of the very strong fears they had. Well, that's not so true today.

My personal opinion is that the real danger of a department of natural resources is not largeness or the fact that you are putting all public land agencies under one department; it's the fear I have of functional management replacing multiple use. In other words, I'm

afraid that there'd be a grazing service, you see, and a recreation service and so forth. I think this would be a great step backward in organizing to get the maximum benefits from federal land.

SS: What was Mission 66?

HP: Well, that was a plan developed by the park service in 1956, as I recall, to accomplish a ten-year program of development of the parks by 1966. It was not an awful lot different from the ten-year plan of the forest service except it was the park service plan. It was a developmental plan largely. Their buildings and roads and recreational facilities were degraded just as badly as the forest service's were during the war period.

SS: You mentioned a ten-year plan of the forest service.

HP: That was developed about the same time as Mission 66, but Mission 66 had more promotional appeal in the name itself. It was a very good plan, as a matter-of-fact, well thought out. I don't know to what degree it was accomplished in the ten years, but I presume it was the guiding program for that ten years in National Park Service.

SS: Was the forest service's ten-year plan called Operation Outdoors?

HP: I think that was, if I'm not mistaken, a five-year program that we developed in 1956 to upgrade recreational facilities in the national forests. That is a plan that should be in the records.

SS: But that had no connection with Mission 66?

HP: No. Let me just say one thing though, that there's where the coordination comes in in the field. There were coordination requirements between the national forest recreational development and the national park development. At times one can definitely enhance the other. I think these were taken into consideration between the supervisor and the park superintendent. Of course, I think I told you the other day, this ten-year forest service program was developed from the ground up and combined at each level. To that extent, when there is the national forest development, there's some impact on the national parks or vice versa. These things would come up through, in the program, although they wouldn't be surfaced at the national level.

SS: So did the forest service's sponsorship of the 1960 Multiple Use Act have any connection with Mission 66 at all?

HP: At that time, when the Multiple Use Act was being debated, I guess that's the only time we experienced some tension. Some of the top people in the park service were making public announcements which would downgrade the multiple-use concept and downgrade the need for an act. Now why this went on I don't know, other than perhaps they felt the passage of this sort of an act might infringe upon the single-purpose nature of the national parks, but it didn't have any impact.

SS: Was Conrad Wirth one of the people from the park service who was active in opposing the Multiple Use Act?

HP: I don't recall the names, but there were some top-level people in the director's office that were, I would say, speaking out of turn because the Multiple Use Act really didn't have anything to do with the National Park Service.

SS: How about tension between the forest service and any of the other bureaus, for example, the reclamation service?

HP: I don't know of any. Not that there couldn't have been some differences of opinion over certain proposed developments where the building of a dam might result in the backwaters encroaching on wilderness areas or something in that nature. I don't recall anything that you could refer to as tension. I'd put it this way, It has been my experience over the years that there has been a lot more cooperation than there have been active acts of lack of cooperation or derogatory remarks.

SS: Was there ever any question or controversy as to who might build a particular dam?

HP: Not with reclamation because that's out of forest service authority. [Telephone interruption.] I can't stop my business.

SS: Why was the Bureau of Reclamation placed in interior originally? Wouldn't it have been more efficient if it had been place in agriculture? [Telephone interruption.]

HP: You mean because of its irrigation aspects?

SS: Yes.

HP: Both the departments are rather loose federations, you know. I

would agree that this might have been a good idea if it weren't for the fact that current bills before Congress to pass an organic act for the BLM involve the same logic. You might ask, Why wasn't the Taylor Grazing Service in agriculture because they're dealing primarily with ranchers and agricultural relationships? In the Taylor Grazing Act, of course, there are the words, "pending disposal," which meant that at that time, in the thirties, it was still the national policy to dispose of those lands. Since then attitudes have changed. Now Congress is working to get an act that will provide the organic authority for the BLM to manage these lands for multiple use. Now the next question is, Why don't they put them and the forest service together [laughter]? And I don't know if there would be any logical reason why not, except there is a value to competition, in different approaches and different requirements, and they are different lands. [Telephone interruption.]

SS: You mentioned that the forest service was a loose federation?

HP: No, the departments. The Departments of Interior and Agriculture are really loose federations of the various bureaus within them. And the Hoover commission and the various studies that have been made over the years have tried to get a little more homogeneity within these department. I think that one of the recommendations for a natural resource department is an outcome of this, trying to get more like-things together [chuckle].

SS: Is there much intradepartmental conflict within the forest service between people in watershed management, people in wildlife, in recreation, and so forth?

HP: Not other than what I've mentioned before, which is that when you're given a staff responsibility for fire control or engineering or wildlife, you're going to press for your function, and, I suppose, where decisions go against what you think ought to be done for one function or another, you're not as happy as you would be if the decisions went your way. But this is a staff function, and a good staff man doesn't stay that way very long, and I don't think there's any real friction [pause], not generally anyway.

SS: Now, was there much conflict between the forest service and the Soil Conservation Service?

HP: No. For a long time the forest service used to make the water sur-

veys in the back country, you know, snow surveys, water content of snow. This was for SCS. Finally, they took it over to do it themselves. They were staffed up enough to do it. The soil surveys on national forests have always been made under the direction of the Soil Conservation Service. There really isn't any conflict. In fact, in many cases certain ranger districts even joined the soil conservation districts. Of course, we couldn't be relieved of federal responsibilities and prerogatives. The district couldn't say what should be done on the national forest, but as a matter of coordinating with the ranchers, portions of the national forest became a part of the conservation district in practice.

SS: How about between the forest service and the BLM?

HP: The only time that there's been any problems are where the lands adjoin. At times a forest officer has refused to allow cattle from the BLM lands to come into the national forest because he didn't feel that the forage was ready for use. This puts an additional pressure on the lowlands which are primarily BLM lands. This amounts to a very local type of concern between two managers of adjoining pieces of land, but you couldn't call them agency conflicts in any way. More recently, in the early sixties, a great attempt was made to readjust boundaries, and some large areas were transferred between the two agencies administratively.

SS: This was about 1960?

HP: In the sixties. Studies were going on, but the amazing thing is that the resistance to making any of these would-be logical changes to improve the administrative boundaries of the two agencies didn't come between the agencies but between people who had been used to working with this district manager of BLM and didn't want to have to work with somebody new in the forest service and vice versa. So really the opposition to some of these changes in administrative boundaries was largely local opposition from users who were happy the way things were [chuckle] and didn't want any changes.

SS: Is there much difference between the grazing administration of the BLM and the forest service?

HP: I think it's generally recognized that more research went into the national forest and that we started earlier on reducing the number of cows to be commensurate with the forage. You'd have to say that the forest service's level of range administration was much

higher than BLM for a long period of time. But in the more recent years when the BLM has been getting more adequate funding for range improvement, I think, they're coming up rapidly. It's just that matter of starting early with a sound policy and being funded to do it.

SS: Are the fees lower on the BLM lands?

HP: Yes.

SS: So then some of the grazing interests might have wished to continue BLM administration in preference to forest service.

HP: I don't know when it began, but about two years ago an analysis of fee structures of both these lands was completed. It took into consideration the kind of land that was being offered for grazing and the fees involved and other contributions by the ranchers. The study came up with what was felt to be an overall equitable fee structure. And that structure was put into effect, I think, about 1969.

SS: Doesn't the forest service still hold some grazing lands?

HP: Yes, the grasslands were originally managed by the Soil Conservation Service and grazing associations of permittees. In fact, the SCS did the developmental work on these lands to bring them back from the dustbowl situation to good grazing lands for the most part. When the departmental decision was made to put all its federally owned land under one agency, they were transferred to the administration of the forest service, but these are still managed under the system that primarily was developed by SCS and the permittee associations that were involved.

SS: Is there any plan to have the national grasslands turned over to the BLM?

HP: No, I don't think so.

SS: Wouldn't it be more logical to have this done?

HP: You mean because in some cases it's surrounded by BLM lands?

SS: Yes, and because they're grazing.

HP: Well, not because they're grazing lands, but because they're multiple-

use lands. This is one of the areas in which there is a lot of archeological interest, a lot of wildlife interest, a great deal of nongame wildlife interests, and a lot of recreation interests. Their lands are just as subject to multiple-use considerations as any other national forest land. It's just that they don't have any trees on them. You could argue of course that the dominant use for a certain period of the year is grazing, but then there's just as dominant use for that part of the year when antelope, birds, rabbits, and other game species are open to hunting.

SS: Doesn't the BLM practice multiple use also?

HP: Yes, I think so, but up until 1964 I don't think they had the manpower or the funds to do so adequately. Under the Taylor Grazing Act, plans and actions are under considerable influence from the grazing advisory boards, which are made up from the local ranchers and one wildlife man. Let me put it this way. There would be no logical reason not to manage these lands for their multiple uses if the funds were available to do it. All you have to do is look at the respective budgets of the forest service and BLM and the land areas to see what a difficult position BLM is in. I certainly wouldn't want to see them go downhill.

SS: You don't think that any pressure from other departments of the government upon the forest service was responsible for the forest service sponsorship of the 1960 Multiple Use Act?

HP: No, I don't think so.

Pressure on the Forest Service from Interest Groups

SS: How about pressure from interest groups on the forest service. Did that play any role in motivating the forest service to support the Multiple Use Act?

HP: Well, I suppose this would have some influence. In other words, it was certainly desirable to get it spelled out in law that all these resources should get equal consideration, and I suppose it did strengthen the hand of the forest service in decision making where

one interest was pitted against another on the ground. I will say that when a single interest gets strength enough and can sway public opinion enough, practicing multiple use becomes difficult.

The case of the Cascades was a good example where a pressure group was not satisfied that their preservation interests were properly being served under the multiple-use approach to management. This group pressured to get the large section turned over to the National Park Service where they felt their interest would be served. So public opinion still plays an important part. Regardless of that fact, I believe that so long as it remained in national forest land, it would have been devoted to multiple use.

SS: Now these interest groups would be largely the preservationists, the lumbermen, and so forth?

HP: Yes, usually all of the resource users have a special interest, although I'm sure some feel that they are representing the general public's interests.

SS: There was some controversy as to whether a clause on wilderness should have been included in the act, as it was.*

HP: I don't think it was controversy. It was the Wilderness Society and supporters of the wilderness system that were anxious to be sure this resource was protected. I mean they wouldn't have supported the passage of the act unless their resource, and this is a resource, was included, and this is what the Wilderness Act states. Some people think of it as an area, but the Wilderness Act states that Congress finds it to be a resource. Well, as a resource it fits very well into the act.

SS: So there was no need for the clause?

HP: Yes, because they're spelling out all the other resources. It wasn't spelled out as a resource there, but it was said this is not inconsistent with the act. Later in 1964 when Congress passed the Wilderness Act, then it determined that wilderness is a resource.

*74 Stat. 215. Multiple Use-Sustained Yield Act. 12 June 1960. Section 2, lines 6-8. For the text of this act, see Appendix C, p. 170.

SS: In Region 7, where you were located when the bill was being passed, was there any reaction of the interest groups in that area to the act?

HP: No, because actually multiple use was being rather successfully practiced. The multiple use of land in a plan-wise fashion was going ahead in Region 7 and was rather well accepted by nearly all the interests, I'd say.

SS: Do you believe that the timbermen in your area had felt that they would benefit if the organic act of 1897 remained on the books?

HP: The national representatives of the timber industry felt that way, but now the timber operators in Region 7 had been going merrily along and were satisfied with the manner in which the timber was being offered. But I don't think that they had any feeling one way or another. They were operating timber under multiple-use planning, and they had no reason nor did they object that I know of.

SS: How about any of the conservation groups?

HP: Nope, I think most of them were for it.

Need for the 1960 Act

SS: Did you think that the 1960 Multiple Use Act should have been passed or was really needed?

HP: Yes, to have as law the policy that had been followed for many years in the national forests and to give legislative recognition to such activities as outdoor recreation, which was just at that time beginning to be more adequately funded than it was previously.

SS: Did you think that most of the men in the forest service before the passage of the 1960 act felt that any uses predominated over any of the other uses?

HP: Again, I have to go back to the line job versus the staff. I'm sure that there were many staff people who thought their particular function was more important than any other because this is what they were paid to further. So they'd scrap for the money and the prestige of their particular function, but the line officer who had to combine these uses as a matter of multiple-use policy, I think, didn't favor one over the

other. Now individuals might--which many times people are being charged with--have rode a particular hobby or interest in the management of national forests. My interests were in anthropology, for example, so I rode that hobby pretty much and nongame wildlife. These were things I thought deserved more recognition than they usually got. So I think everybody to some degree might ride a hobby or so [chuckle],but he's not doing his job if he lets one interest outweigh others in considering them all in a given area of land.

SS: Within the forest service as a whole do you think any of the uses predominated before the 1960 act was passed?

HP: Nationwide?

SS: Yes.

HP: I don't think so, but, now, in certain areas one would probably predominate. For a simple example, in the Pacific Northwest where there was such a demand for lumber, timber management was certainly a dominant activity, and not only because of the dependence of communities upon it and the fact that it had this wealth of timber, but they were also funded to do it, which in a sense is due to some of Congress's overview, the budget bureau's overview, and the department's overview. When you fund the forest 60 percent for timber-management activities and 10 percent for wildlife, well, you're obviously going to get some emphasis on timber.

But the act requires consideration, and, as I said before, these different uses are considered. In many cases wildlife functions are furthered by some of the fire-control activities and this sort of thing, so that sometimes the imbalance budgetwise by line items is not quite as severe as it appears by the dollar figures of the appropriation items. Whereas timber was dominant in the Pacific Northwest, water was dominant in fire control in southern California, and so it went. Some ranger districts were largely range lands where obviously the range function was the dominant function. But across the board nationwide I don't think you could say that there was any one function or resource that was dominant in consideration and planning.

[Written statement follows.]

Timber management has always received the lion's share of the funds and has also returned the major portion of the national forest receipts to the U.S. Treasury. In fact, timber management was

financed on the basis of proposed timber sales for the year. This in itself is a built-in pressure on forest officers to meet the sales objective, particularly on major timber producing areas.

[Oral presentation resumes.]

SS: I understood that a few of the men in the forest service were somewhat leery when the Multiple Use Act was originally introduced. Were you aware of any of this?

HP: You mean were they concerned that this might infringe on progress that they had made in the management of the region or a forest? Well, I don't. I wasn't aware of it. In fact, I have never heard of that. Usually, there is always somebody that raises a question of anything new being introduced, but out of the 17,000 people in the forest service I don't know of very many.

SS: Did the passage of the 1960 act in your eyes or the eyes of the men that you know in the forest service make any actual changes in forest administration?

HP: I don't think so. I think that perhaps it formalized some of the management activities. From the act came regulations. From the regulations came manual guides or instruction guides, and this put a pressure, not from groups, on the various line levels--regional forester, supervisor, and ranger--to develop comprehensive multiple-use plans. I think to that extent it was an improvement over some of the past planning. But we were always considering the resource uses of an area and various conflicts and combinations that were harmonious and so forth, so that when you got right down to the ranger district level or the management unit level, I don't think it actually changed too much, other than to formalize it.

Personal Involvement in Passage of the Act

SS: When the act was first conceived and then passed you were in Region 7?

HP: Yes.

SS: Were you involved in any way with the act as a regional forester?

HP: Well, all the regional foresters were contacted and kept informed of the development of the legislation and were asked their opinions on, you know, such funny things as the order in which the resources were named, the interests in the region that were particularly favorable or unfavorable to the passage of the act, and why. But that, I think, would be the extent of our involvement. I was involved later in the development of regulations to implement the act. We had a task force team. I think Herb Stone, who you are going to interview, was the chairman of that team.

SS: Do you recall any of the recommendations on something like the order of the resources?

HP: Well, I think we all agreed that it should be in alphabetical order, and this was the way it finally came out.

SS: Wasn't there some question as to the names that would be used for each of the resources, which, of course, regulated their order?

HP: Yes, but I think this was [pause], I guess that's so. I don't recall having much of an input on that subject.

Multiple-Use Planning after the Act

SS: Now, you mentioned a task force team of which you were a member. Can you describe how this team was developed, and what its functions were?

HP: This was a task force set up following passage of the act to develop regulations based on the act. The chief [Richard McArdle] assigned Charles Connaughton with a committee of Herb Stone, myself, John Berry of Region 1, and maybe somebody from Region 2, and I can't recall the name. We spent about two weeks in a secluded area near Fresno. One couldn't do anything else but work [laughter] on the regulations till we pounded them out. Then this was a recommendation to the chief. Now, how much they've been changed since that time, I don't really know. They probably have.

SS: This was in 1960?

HP: As I recall, in either late 1960 or 1961, following the passage of the act.

SS: Were these automatically implemented?

HP: I'm not sure whether these were secretary regulations or manual regulations within the agency. I don't really recall.

SS: Do you recall the other members of this task force?

HP: The ones I remember are Berry of Region 1, Charlie Connaughton, who is now in Region 6, and Herb Stone.

SS: Was there any difference of opinion as to how the Multiple Use Act should be interpreted within this group?

HP: Well, I suppose we argued over sentences and structure, but I don't think any of us were apart on concept. How one proceeds with planning and how one activates it, are what we discussed. Definitely we weren't apart on the concept.

SS: After the act was passed, the forest service made up formal multiple-use plans for each of its districts. Is that correct?

HP: It went this way. Each region set up policy requirements for multiple use in accordance with the types and character of the region or within the region. Then each forest developed comprehensive plans within regional policy. The district then made up a plan, which was primarily an execution plan for his district to comply with the forest plan, which was within the policy set by the region. In Region 7, because of the character of the region, which is widely scattered with very little homogeneity between the White Mountain and Jefferson National Forests, for example, and other sectors of the region. We took as a regional policy the combination policies for each forest.

SS: How much aid did you get from Washington, and how constructive was the help that you got from Washington in developing these plans?

HP: I don't know that we wanted any [chuckle]. I think each regional forester felt quite competent to go ahead and develop a multiple-use plan for his region and probably would be inclined to defend his planning vigorously.

Information and Education Work after the Passage of the Act

SS: Do you think that the I & E program of the forest service accelerated after the passage of the 1960 act?

HP: Yes, but I'm not sure that they were related necessarily. Well, there were a lot of pamphlets put out on trying to, I suppose, embellish on the act in describing what multiple use was all about. But, as I said, I don't think they were related. I think it was a general increase in effort across the board. For example, fire control and I & E probably increased during that period, too.

SS: Appropriations?

HP: Yes, appropriations were increased, also.

SS: Did the forest service make an effort to educate the public as to what multiple use actually meant?

HP: I think so. At least, I certainly did. The speech you referred to was an attempt.* I think that I made similar talks all around the Eastern Region. I'd like to reread it and see if I still agree with it.

Court Cases and Multiple Use

SS: Were you involved with any court cases or legal battles over multiple use after the passage of the Multiple Use Act or even before?

HP: No, I don't recall any. I don't think anything of that nature happened until rather recently, since I've left the forest service. I don't think you could call the litigation over the Mineral King area a court case over a multiple-use decision, necessarily. That's not what the opponents of the Mineral King development were using to halt development.

* Hamilton Pyles, Regional Forester, Region 7, "Training Needs to Make Multiple Use Work," panel presentation for discussion, 29 February-4 March 1960. For a copy of this speech, see Appendix D, pp. 171-175.

They were opposing the Mineral King plan on the basis that the forest service was misusing its authority, which limits the area size of long-time permits. However, the forest service can issue annual permits for larger areas. It was necessary to join the two types of permits together to get sufficient size for a long-time operation. I don't know if it's been settled yet. But I know the Mineral King very well. I spent many days and weeks in this area at all times of the year. As you may judge from its name, it is a highly mineralized area. Back from the little road that used to go through the meadow, mines were all over the place. It's hardly wilderness in character.

And the type of operation or development that was proposed and approved by the forest service was a long, long cry from another Disneyland. I mean this would be the sort of development one might find in the Swiss Alps, which is enjoyed by many, many people. The Swiss have a great love of nature, and they maintain the beauty of the mountains. So these things can be accomplished. I don't think we'd have this kind of development all over the place. However, when large areas are set aside, in a wilderness system, with no development in them, then it seems logical to me and in the public interest to have some areas where people may enjoy this type of mountain recreational experience.

FOREST SERVICE APPROPRIATIONS AND ECONOMIC RETURNS

Congress and the Budget

SS: I have heard it stated that the forest service perhaps was partly responsible itself for the emphasis placed upon economic returns from the national forests by its emphasis on monetary returns as a means of getting appropriations.

HP: I'm afraid this is true. This was done at least once or started, I should say, when Lyle Watts was chief. The appropriation outlook was dim, and they hit upon the idea of showing to Congress that for every dollar spent in timber management and timber sales, X dollars would be returned to the treasury. This was accepted with a great deal of interest. The Bureau of the Budget and the appropriation committee thought it was a fine thing. This led into the imbalance of appropriations between timber and other resources. I don't think there's any question about it. Chief Watts later said he was sorry he ever started that one. It has been used up until very recently in going before the appropriation committee because it has a lot of sales appeal, but it undersells the other values. This is what, of course, Watts regretted. Once you start one of those things it's very difficult to stop it.

SS: Do you recall the year that this first occurred?

HP: No, but it would be around 1952 or 1953. I don't know if it had ever been tried before, but maybe it had. They did put a great deal of emphasis on it in their report to the appropriation committee.

Allowable Cut

SS: Do you think that the forest service has gotten away from the idea of sustained yield by using more frequently the term allowable cut, which has come to be interpreted perhaps as minimum cut?

HP: The allowable cut is based on sustained yield. A sustained yield is a calculable thing, and that's what determines the allowable cut,

meaning the amount you can cut every year and still have a sustainable product or resource.*

SS: Is allowable cut a maximum or a minimum?

HP: [Chuckle]. It's the maximum one can cut to accommodate the calculated sustained yield of a given area or working area. The allowable cut becomes a goal, rather than a minimum or a maximum. A forest is given an expected amount to be cut and their appropriations are dependent upon it. A forest is given so many dollars to manage the timber resource, to produce and sell so many board feet. So it becomes in that sense a goal to be met with the money provided.

SS: Do you think that this has been a bad development?

HP: It's only bad to the extent that it pressures a ranger. Say he was having a hard time selling his allowable cut to those operators that are interested in buying it. This perhaps puts pressure on him in this particular function to maybe overlook some other things and pay less attention than if he were not so pushed. Nobody's saying you've got to shoot so many rabbits on the district. I mean, he is under pressure as there are figures to meet in one area of management, and in other areas he is not so pressured. As a result, it's just human tendency, I suppose, to put more time in this activity than perhaps he should on a balanced basis. But as a part of the timber management function per se there's nothing wrong with it.

* Allowable cut: "The volume of wood which can be cut, under management, for a given period." Sustained yield: "As applied to a policy, method, or plan of forest management, implies continuous production with the aim of achieving, at the earliest practicable time, an approximate balance between net growth and harvest, either by annual or somewhat longer periods." Definition taken from Forest Terminology: A Glossary of Technical Terms Used in Forestry (Washington, D.C.: Society of American Foresters, 1958) pp. 20, 96.

DEPUTY CHIEF OF THE FOREST SERVICE, 1962 to 1966

Duties: Program Planning and Legislation

SS: In 1962 you became assistant chief of the forest service in Washington, D.C., where you remained until 1966. Can you describe your duties?

HP: The title, of course, was changed in a couple of years to deputy chief, but the responsibility was mainly for long-term programs, for the legislative reporting, and the development of the testimony. I think one of the key things about that particular job is that I had no functional or operational responsibilities, so that my considerations could go clear across the board from state and private activities to national forest activities and research activities. I was sort of a free man on the chief's staff to delve into all activities of the forest service as might be considered in long-range programs or legislative requirements.

Program Planning and Budgeting System

One of the things I did in that period was to set up the Program Planning and Budgeting System. This was a requirement by the administration, which had accepted McNamara's PPBS approach in the defense department. The administration then attempted to apply the same principles and analytical approach to planning and budgeting activities in other agencies. So we set up a unit, with a division chief and several people, to apply an economical approach to planning and budgeting, a method by which the costs and benefits of various programs are readily determinable for the final judgment by the chief. The problem in making the PPBS system work is the same old crunch. One still has to put a value on the aesthetics and amenities and relate them or weigh them against data such as board feet, dollars, returns on animal units in range management, and so forth.

SS: Is that really a multiple-use system?

HP: It's a system by which you can analyze the multiple uses of the forest and the benefits against the costs. Definitely, it can be part of the

multiple-use system. Of course, it can be applied more readily in an industry or some place where the dollars and commodities are measurable quantitatively.

SS: Is it still being employed by the forest service?

HP: Yes, I'm sure it is. There's a continuous need to refine it. One of the problems (and that was another thing we were working on during this period, but I don't think has developed yet) is the need for a sophisticated, continuous inventory of resources. Again the same problem of identifying nonmarketable resource values in your inventory comes up because to make the PPBS system work adequately and correctly you've got to have a complete, readily retrievable data system. And to date, although we've worked hard on it for a while, I don't believe that it has yet been established in the form that it could be readily usable in a PPBS system. To make it a perfect system or a good system you need this inventory. But at the present time, even with this logical and analytical procedure in developing program needs, there's still large areas left to judgment. Of course, the PPBS aims to reduce the area of judgment in decisions on mixed programs, that's multiple use, and in determining budgetary needs of one over another in a balanced program.

SS: Would you say that because aesthetic considerations can't be measured monetarily that they are slighted?

HP: I don't think they are, but here again it is a matter of judgment. One person might think they are, and the other person think that they're not. I don't think the forest service can be accused of not recognizing these values. Whether this value is more than some other value, is a judgment decision. If you are one of those that don't want any development, and any cutting of a tree is aesthetically displeasing to you, then the judgment value in that respect, is to do nothing. Otherwise, you're destroying the system of aesthetics. So, I think that the forest manager is continuously attempting to compromise and to accommodate the commodity resources with the least infringement on the aesthetics and other values. But when, say, the practice of logging is going to pour sediment into the streams and pollute the streams, I don't think there should be any question about it. That type of logging practice should not be permitted. I think to a large extent that this has been accomplished. Some zoning in multiple-use plans prohibits practices around waters and streams that would do any damage to them.

Trip to Turkey, 1964

HP: You didn't mention that I had a trip to Turkey.

[Written section follows.]

My assignment to Turkey in 1964 was made under the AID program at the request of the Turkish forest service. My job was to study forest service (Turk) policies and organization with recommendations for such changes as appeared desirable. I spent six weeks in Turkey visiting all the forest regions and many ranger districts. It was primarily a field trip, on-the-ground inspection of practices and procedures.

The Turkish national parks are administered by the forest service, and all are under the department of agriculture. So my field trips included parks, wildlife areas, as well as plantations, research sites, and current logging.

My major recommendations were directed at encouraging the forest service to adopt multiple use and decentralize authority to give district rangers (who were all professionals) an opportunity to practice it. The Turk forest service appeared to accept these suggestions during my informal report to the chief. Whether they have now adopted them or not, I don't know. It would have been quite a switch as the forest service was highly centralized, and all decisions of note made at the top!

[Oral presentation resumes.]

That was a fun trip. I [chuckle] just wanted to be sure I remembered it.

SS: Okay.

HP: Incidentally, in my off time I was able to see some of the archaeological remains of the Roman Empire in Asia Minor. The Turkish coast of the Mediterranean is probably richer in the remains of Roman buildings than any other part of the Roman Empire, including Rome itself. There are amphitheaters about every fifteen miles. The remains of old marketplaces are about the same distance apart and many of them in good repair. The anthropology department of the University of Istanbul had a study and repair program in operation while I was there.

The Wilderness Act of 1964

SS: During the period you were in Washington, the Wilderness Act was passed. Did you have any connection with the first wilderness bill?

HP: Yes, as a matter-of-fact I happened to be in Washington at the time that Howard Zahniser [director of the Wilderness Society] first made his proposal to the chief, McArdle, and staff. As it was originally proposed, he wanted to set up a council which would, in effect, run the wilderness system. I think that was the first stumbling block as far as the forest service was concerned, as this would abrogate federal responsibility. Of course, the council idea was never in the final bill. I think this was the inception as far as a public proposal for a wilderness act, for a wilderness system. That was about 1956.

SS: Who would have composed the council?

HP: I don't remember the details of it, but it would have been, in effect, a pseudogovernment commission. Commission is probably the right word. That proposal should also be on file somewhere.

SS: What was the reaction of the forest service to Zahnhauser's proposal, other than to the section regarding the advisory council?

HP: My initial reaction was that we, the forest service, were the initiators of this whole concept. We had established a wilderness system within the national forests by secretarial regulation and at that time didn't see the necessity of setting up a separate system apart from the national forests. And, of course, Zahnhauser's proposal went further than just the national forests. He was interested in wilderness areas being set up within the national parks and wildlife refuges and so forth.

SS: So it would have covered the Department of the Interior, also?

HP: Yes. Because there already was a wilderness system under secretary's regulation within the national forests, he came to the forest service first with his proposal.

SS: So would you say the forest service discouraged him?

HP: They didn't either encourage or discourage. They just pointed out that it was difficult to see a real need for a separate classification

by law within the national forests. Many of us felt that the wilderness areas under regulation were satisfying the public need for wilderness. But I think that the proponents of that proposal felt that there was a need to get statutory protection for wilderness so that there would be wilderness for all time.

Also, under the secretary's regulation, mining was permitted in the national forests, although they had to comply with certain regulatory policies, which were not very strict. These policies didn't negate the mining opportunities under the secretary's regulation. As a matter-of-fact, this was probably the biggest area of controversy during the legislative process of the bill and the final act, and you know as it ended, it was finally compromised. Mining could continue until 1984, and then all prospecting and mining would cease.

SS: How about grazing?

HP: No, it was never considered a nonconforming use of any major consequence like mining was.

SS: So the wilderness people didn't mind.

HP: I think that most of the supporters of the wilderness system did not consider grazing as long as the animals were moved into the wilderness by horse or without using any motor vehicles. And hunting and fishing is still, of course, permitted in the wilderness because the proponents didn't consider that a nonconforming use and needed the support of hunters and associated groups.

SS: So then this effort to get a wilderness bill was dropped and resumed at a later time?

HP: No, I think it was rather a continuous process of trying to get a lot of different interests together behind one bill that everybody could support. In fact, there was opposition to the bill right up to nearly the final passage. There were [chuckle]compromises going on between various interests right up until the passage.

SS: Did the forest service favor the passage of a wilderness bill?

HP: Yes, in its final form. There were a lot of articles and speeches during the legislative process saying, in effect, the forest service was opposing wilderness. Well, this couldn't be less true in face

of the fact that it was the forest service that established the concept. But the arguments were over more, What do you do with the mineral resource, and who should be responsible for wilderness, and how was this going to fit as a resource with other resource uses?

SS: Do you recall any connection between the first wilderness bill of 1956 and the multiple use bill or concept?

HP: No, I don't think so. The Wilderness Act passed in 1964 and the Multiple Use Act in 1960, so before the 1964 act, wilderness was still considered in the multiple-use bill as a resource, even though it wasn't until 1964 that Congress established wilderness as a resource.

SS: I had thought that the first wilderness bill had a multiple-use clause in it.

HP: Well, that I don't recall. I don't really see why it would or would not have one. It could have. I don't see why there would have been an objection to it.

SS: Do you think that it was necessary to have a wilderness act? Do you think it's compatible with multiple use?

HP: Yes, it's another resource. I think it's highly desirable and I felt so in 1960. This act includes the forest service, the park service, and the Bureau of Sport Fisheries and Wildlife. So it was an overall act that crossed agency lines, but as far as the national forests were concerned, they already had a wilderness system and were pretty proud of it. So it really was affecting other agencies as far as the concept goes. Now some of the details of management have changed, but not the concept itself.

SS: The fact that the Wilderness Act was passed, cut down the administrative discretion of the forest service to some extent, did it not?

HP: Yes. And it gave it more discretion, too, within a narrow field of policy or law. Should you use a power saw on a trail? This is a mechanical, noisy device. Should you use airplanes and helicopters in fire fighting and insect control and so on?

SS: Those issues were still left to the forest service's discretion?

HP: Yes, in emergency situations. Of course, it also required a different

form of management in trail building and in the distribution, dispersement of people. And even now I think the forest service is considering control of people because of what has happened in many areas. There's been a rise in wilderness use, and people are inclined to use the same places. Somebody cuts down a sapling for a tent, and then the next one cuts down another sapling. Pretty soon you don't have the beautiful area that was part of the wilderness when it was created. There's all sorts of problems.

There's a trash problem. People carry in cans and then they leave them at the campsite. The handling of this trash has to be done without any mechanical devices. In other words, one can't take it out in big loads by helicopter. If it's not an emergency, it is possible to take out trash on a mule or bury it. Sometimes it's pretty hard to bury cans in the rocks. It has created a lot of problems, although I can't say they didn't exist before either. But just by the mere fact of an act, the legal requirements on these decisions, you don't have the latitude to go in during off-season and use mechanical devices and get some of this stuff taken care of.

SS: Do you recall any incidents involving the passage of the Wilderness Act that you alone could recall. Something that somebody couldn't find in the printed material?

HP: No. There were, you see, discussions going on very frequently between ourselves and the Bureau of the Budget and between ourselves and the proponents of the act in one form or another and also the opponents of the act. Some of the mining people were very strongly opposed to it. Some representatives of the mining industry were fearful that this would lock up a lot of mineral resources that might, in the future, be of great importance to the economy of the country.

SS: How about the lumbermen?

HP: No, I don't recall any strong opposition from the lumber interests. By and large most of the commercial timber that they were interested in seeing remain as a part of the capital stock was not in the present wilderness areas. The allowable cut, based on sustained yield, would probably not be affected by the Wilderness Act to an large extent. The timber in the wilderness system already established in national forests under regulation was already excluded from allowable-cut calculation.

SS: It's surprising that with mining opposition they could get that act through. Isn't the mining lobby quite powerful?

HP: Yes, but then they had the twenty-year opportunity to discover minerals within the wilderness system if they were there. This was a major compromise.

SS: And without the compromise?

HP: Mining interests would have, I'm sure, opposed it very strongly.

SS: And it probably would have been impossible to get it through?

HP: That I don't know [chuckle].

SS: I thought I might [laughter] see what you'd say. One of those hypothetical questions again.

The Treaty of the Potomac, 1964

SS: And will you discuss the Treaty of the Potomac? Were you involved at all in its formulation?

HP: Yes, I helped to write it.

SS: Now, this was 1964.

HP: Well, first of all, Orville Freeman and Stewart Udall were two aggressive, young secretaries who felt that through cooperation we would move further in the administration's policies than if we went our separate ways. And the Treaty of the Potomac was an agreement between these secretaries. I think, actually, the idea was proposed within the forest service, and then we sat down with the park service and wrote up this treaty, which, in effect, said we'll make joint studies, we'll discuss these things--where we're going and what we're going to do--openly and come to some joint decisions or come to a decision to disagree and let it go up to the secretary. I don't know where the Potomac comes into it; it was just an agreement between two departments to pool our efforts and studies.

SS: What was the reaction of the forest service and park service personnel?

HP: As I say, it was developed within the forest service before it went to the secretary. We knew that the two secretaries would approve such an agreement. As I recall, at about three small meetings with the park service, we wrote the thing up and sent it over to the park service and had a meeting--of the chief and staff of the forest service and the chief and staff of the park service--on it in a very friendly fashion. This, of course, was when George Hartzog was first made director of the park service, and he is a very affable, cooperative individual, anyway. He saw the merits of it and felt it was a good idea, and that was it.

SS: So it was primarily generated by the forest service?

HP: It was.

SS: Has it done anything to lessen or to facilitate cooperation?

HP: I think it has helped a bit. I mean, there have been joint studies on the Sawtooth area, the Cascades, and other areas. As I said, we didn't immediately come to agree necessarily, but at least we kept the pact. The thinking was done parallel with one another as we studied some of these problem areas.

The Appalachian Regional Development Act of 1965

A bill we should discuss is the Appalachian Regional Development Act of 1965. We had quite a debate in the legislative process over this act that set up the Appalachian Regional Development Commission, primarily over the forest service's effort to establish timber cooperatives by statute. The pattern of ownership of timberland in Appalachia is typically small ownerships, and without having some cooperative means of marketing, they are at the mercy of large companies. Now, of course, this proposal was objected to strongly by the timber industry of the East, and for awhile it seemed that they might jeopardize the passage of the whole act, of which this was only a small part. At the hearings before the Senate Committee on Public Works, of which Jennings Randolph was chairman, there occurred what amounted to a debate between myself and the representatives of the forest industry. We ended up with this Section 204, which was a

compromise between assistance to cooperatives and a timber development organization.

SS: What would the forest service have preferred the act to read like if it had not had to compromise with industry?

HP: The service would have preferred it to have provided for the establishment of cooperatives, which would have permitted, with certain stipulations, more advantages to the small timberland owner in marketing. This Section 204 comes close to this, but all the incentives we had wanted were not there. I think you were looking for some issues between industry and the forest service, and I will say that the forest industry fought the creation of cooperatives uncategorically.

The Inter-American Conference on Natural Resources, 1965

SS: In 1965 you participated in the Inter-America Conference on Natural Resources at Mar del Plata, Argentina.

HP: Yes, this was a conference established under the auspices of the Department of State, and the leader of the U.S. delegation was Stewart Udall. It was one of those international conferences where you sit around the table and attempt to get ideas into conference findings, aspects of conservation and preservation that you feel have international significance and are important to future societies. It was a very interesting conference, and one of the things that I was pressing for was a recognition of multiple use in land management. Although people talked about multiple-use activities in some of the forest lands in South America, they didn't have a clear charter to manage these lands for the many uses. There was also in this group--both in the U.S. delegation and in other international organizations--recognition of the need for preserving endangered species, you know, recognition of the need for some international agreement on shipping the furs, skins, and so forth of animals that are becoming endangered. This was the sort of discussions that went on.

SS: So multiple-use practices are not terribly advanced in Latin or Central America?

HP: I really don't know whether the separate countries have passed such a law.

SS: How about Canada?

HP: I just don't know. I don't know. Some countries were, in effect, practicing it at the time of the conference, but it never came out as an international concept for the Americas.

SS: And was such a paper included?

HP: It did get into the conference proceedings, yes.

SS: Did you participate in writing it?

HP: Oh, yes. In fact, I think I wrote it, but the State Department, of course, scrutinizes these things and approves them. Every word has to be correct, I mean, not include a word or term that might stir up trouble.

SS: And did all of the countries sign it?

HP: No, they go as part of the conference proceedings with nobody objecting.

SS: Were there any particular areas of conflict?

HP: No, I don't think so. I think it was usually just a disagreement on words. We were discussing these matters in three languages. We had interpreters, and it is often difficult to get common understanding. What seems simple to us in English, may not be so simple in Spanish or French. So it's a language barrier more than anything else, I'd say. I don't think there was any disagreement on the various concepts that were being discussed at the conference. Of course, the State Department tries to be sure that the U.S. delegation does not embarrass the administration in any way. We didn't, for example, discuss the fishing rights off the coast of South America at that conference because there was international controversy going on about it.

SS: Were there any other examples of [interrupted].

HP: Of what we didn't do?

SS: Yes.

HP: No, that's the one that comes to mind most readily.

Wild Rivers and National Trails Acts

SS: In 1968 you participated in setting up the national trails and scenic and wild rivers system.

HP: Yes.

SS: These are administered by whom?

HP: This was a committee composed of interior and agricultural people, primarily representatives of the Bureau of Outdoor Recreation, the park service, BLM, and the forest service. As a committee we hammered out these proposals. The chairman of the committee was Ed Crafts, and the Bureau of Outdoor Recreation was, in a sense, chairing this interagency committee. The final act, with regard to the trail system, was fairly close to what we proposed, but I think there was some major changes made in the scenic rivers act.*

SS: What caused these changes to be made?

HP: I retired soon after we made the proposal, and I don't really know what happened to our original proposal for wild rivers. It was a proposal for a sort of wilderness-like river system. There were many people who wanted to see rivers such as the Susquehanna or Delaware included. These rivers flow through farmlands and under bridges and can hardly be considered wilderness. The Rappahannock is a good example. It flows right through heavy industry in towns and farmlands and yet when you're on the river--it's not one of those that was included, by the way, but I'm just giving it as an example--you can get a real wild experience. You wouldn't know that these farms were there or the people were there because of the tree cover on either side. So, I think they chose the name scenic rivers of

*Public Law 90-542, "An Act to provide for a National Wild and Scenic Rivers System, and for other purposes," 2 October 1968, and Public Law 90-543, "An Act to establish a National Trails System, and for other purposes," 2 October 1968.

national importance as being a more appropriate title to what the system would include. I think that was one of the major changes and I think a good one. I just mentioned the Rappahannock because it has so much use on either side, and yet you get a wild experience right in the middle of heavy use.

SS: And who administers these areas?

HP: If it's on federal lands, it is administered by the agency that is administering the land it flows through.

SS: So it's highly compatible with the multiple use?

HP: Right, right, as a matter-of-fact, one of the major things that this obviates is dams. In other words, there would be no dam on a section of river established as a national scenic river.

DISCRETIONARY POWERS OF THE FOREST SERVICE

Legislative Curtailment

SS: Each one of these acts--the Wilderness Act, the Wild Rivers Act, and the National Trails Act--does somewhat limit the forest service's discretion, doesn't it?

HP: Oh, yes. Any statutory classification removes administrative opportunity to change it, but under the Multiple Use Act, most areas in the national forests had already been, in a sense, classified for various types of use that were consistent with the act. Or set aside would be a better word for it, determined to be most valuable in this state. So it was not in conflict with the multiple-use plan.

SS: What is causing this trend away from allowing the professional foresters to determine how the national forests should be administered?

HP: Of course, you'd have to put that into perspective. I mean, there are some sixteen million acres of wilderness. I don't know what the area of the trail and river systems would be, but it would be a fraction of that. And national recreation areas wouldn't add up to probably a million acres. Even if one said that all the land in classifications by statute might amount to twenty-five million or, say, thirty million, there is still one hundred-fifty million that's not classified, that's not under statute for any special purpose. So, I don't think that it's infringing too much [chuckle] .

SS: I'm just wondering if this trend continues, and it is a rather recent development, what the result will be.

HP: There is a trend. This trend we saw coming in at least the early sixties--the idea of establishing systems, you know, wilderness system, river system, trail system--and I'm sure some administrative people were rather fearful that this would infringe on the prerogatives of the supervisor. And to some extent it does. But it also--I hate to say it--makes it a little easier for him in opposing some use that's contrary to what he would have planned, anyway. I remember in 1956, Red Nelson, who's a retired deputy chief, too, proposed a national river system. This was ten years before we got around to doing something about it. He urged that we do this as a means of getting national recognition of the value of these river ways. He was thinking at that

time of the Current River in Missouri and some of the midwestern streams. And the wilderness system was set up by the forest service in the thirties, under regulation, which, as far as the supervisor is concerned, does have the force of law so that his prerogatives were shot then if [chuckle] he had any thought of changing things. So I think it's partly growth and the interest of Congress in meeting some of the demands for this sort of thing by a growing segment of the public.

Attitude of Forest Service Personnel

SS: Do you think this tendency is going to continue?

HP: I would be surprised if it didn't.

SS: And you don't feel any alarm over the fact?

HP: No, I don't think so because I don't think it's ever going to eliminate the need for the multiple-use considerations in management. I told you, I think, of the detail by which the forest service delves into analyzing the work activities of a ranger or a supervisor. I remember as a supervisor of the Cleveland I made a terrific plea to analyze the time spent in processing the special-use permits. They give you so many hours to process a permit or reading inspection reports of a permit, and I tried to make the point that it took twenty times longer to say, no, than it did to say, yes, and that there was no way of measuring at that time the work load of saying, no. This goes all the way through in the decision-making process of the forest service.

SS: Do you think the personnel of the forest service has supported or condoned this trend away from their own administrative discretion?

HP: I'm trying to tell you that the trend has not gone very far, and their prerogatives are not infringed upon to any great extent. But they do have a chunk of land that's set aside either by regulation or law to be managed in a certain way. Every thinking person responsible would not have wanted to manage this land in any other way, anyway.

SS: I'm just talking about the means in which this is determined. In other

words, the 1960 act and the 1964 act are pieces of legislation rather than having the forest service determine these areas.

HP: Forest service personnel has been a party to all this legislation, of course.

SS: I'm wondering if part of their motivation for this isn't the fact, which you briefly mentioned, that it gives them defense against some of the interest groups.

HP: Well, I'd hate to think that that was the reason, but it's a natural consequence of an act. If by law you are required to do certain things, then you don't have to think anymore, you just do them. But I don't think it's that simple in such things as the scenic river system or the national trails system or the wilderness system or the national recreation system. In the national recreation area you do have multiple-use plans. You can permit mining, in fact, as long as it's done without any detriment to the recreational purposes of the area, and this can be accommodated many times.

SS: Do you think the forest service has traditionally had more discretionary powers than most government bureaus?

HP: Well, in the actual manipulation and management of a given area of land, I think that's right, as, say, opposed to a custom service, whose discretion is pretty limited. Even the park service, because each one of the national parks is set aside for a special purpose, which is spelled out in most acts, doesn't have any leeway for management discretion other than the manipulation of people, and that isn't quite fair either. They don't have the same extent of discretion because they're circumvented by law and strict policy.

SS: Do you think this wider discretion has had any positive benefits or any detrimental effect?

HP: Unless a large area is set aside for some special purpose, which should be done by Congress, administrative discretion is essential in the management of biological resources or renewable resources plus their relationship with the soil and the climate, geology, and geography of the area. You have to rely on professional judgment and scientific judgment to do a good job. I can't conceive of guidelines by Congress or anybody that would be sufficiently detailed to where you wouldn't need management judgment.

SS: So this discretion was a positive benefit to multiple use.

HP: I think there's no question about it.

SS: Do you think that it has forced the forest service to emphasize, more heavily than it otherwise might have, public education?

HP: I don't really see a direct relationship there. I think that the discretion is needed to get the maximum benefits from the various resources of the land. I think it must be based on scientific and professional judgment.

SS: I'm thinking of something like the North Cascades where the public was deeply involved with the forest service.

HP: Well, it was really one segment of the public proposing or desiring that the lands be managed in a certain fashion that would best serve what they felt was the public benefit and their benefit, and they were able to persuade the Congress that this was the way the land should be managed. Why, I really don't see that that bears really on discretion. There's still a lot of land in the northern Cascades that requires the best scientific and professional judgment to retain it for the purposes that Congress has enunciated.

THE PUBLIC LAND LAW REVIEW COMMISSION

The Natural Resources Council of America, 1968

SS: I think we might go on to the Natural Resources Council. Could you perhaps just very briefly describe , as I heard you do on the telephone, the purpose and function of the council?

HP: The Natural Resources Council was formed in 1946 to promote cooperation and coordination between the conservation organizations of that time. There were originally less than thirty involved. Since I first started to work as a consultant with NRCA, it went from thirty to forty-seven organizations. There were only thirty-four in 1968. It provides information. It's an internally oriented organization to provide information on legislative actions and executive branch actions to its member organizations. It also provides in its council meetings and executive committee meetings a forum for debate on issues of concern to conservation interests. It's not a policy-making organization.

It doesn't take a position on any issue, and it makes no effort--in fact, it's prohibited by by-laws--to influence legislation or support or oppose any person running for office. It's a means of bringing a large segment of the conservation community together to discuss their individual views on various issues that are coming up all the time. As a result of some of these debates, there is quite often a coalition formed by various members who support or oppose certain issues, and these become quite effective.

SS: Your first actual work with the council was in connection with the Public Land Law Review Commission?*

HP: I just worked as a consultant to coordinate and also analyze the various study reports that were being made for the Public Land Law Commission on some thirty-four or thirty-five different subjects. The commission hired consultant firms and also contracted with universities to make these separate studies. I was a little critical of the way in which the

*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), 342 pp. See also George Banzhaf and Company, Study of Public Land Timber Policy, 4 vols. (Washington, D.C.: U.S. Department of Commerce, 1969).

whole study program was structured because they studied each resource individually as if it had no relationship to the other resources. In other words, just the opposite way one should go about studying the opportunities for multiple use. So we hired specialists in the various fields to review these study reports to the commission and then make a report to NRCA membership.* This kept it in the realm of objectivity and analysis rather than just constantly yapping at the commission. Of course, on the advisory board of the commission there were several people that the commission felt represented the conservation community.

SS: Who selected the men who reviewed the PLLRC for the NRCA?

HP: I did, with approval of the executive committee.

Multiple-Use Decision Making

SS: I'd like to ask a few questions about how multiple-use decisions are actually implemented. Who makes the decision? In the Public Land Law Review Commission they said, theoretically the supervisor made the decision, but in actuality the district manager made it.

HP: Well, I think I explained that just previously. The policy guidelines are set by the region for the general character of certain portions of the region. And the supervisor makes an overall multiple-use plan for the forest, prescribing under what conditions certain uses would be permitted and coordinated and so forth. The ranger carries it out. Coordination can only come about as one thing moves or acts in relation to another, so one can't coordinate two living things anywhere else but on the ground. One can't coordinate a timber sale with a wildlife area and a watershed problem from Washington, D.C., or

*Hamilton K. Pyles, project coordinator, 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).

from the region or really from the forest. It has to be done on the ground and related to the characteristics, conditions, and circumstances of the various resources involved.

So you could say the decision is made at four levels really. There are two policy decisions, a planning decision, and an execution decision. And the last one is the one, of course, that counts most, but it's not free of any guidelines or free of any overall plans. It's within plans; it's within guidelines; it's within policy, and there is a given objective.

SS: Did the Public Land Law Review Commission recommend any changes in this procedure?

HP: Yes. They did and they didn't. There were two or three hundred recommendations in their report, and some of them are not consistent with one another. In general, the report supports the multiple-use concept. They didn't appear to up until the very last, I might add. The staff of the commission consistently referred to it as the so-called multiple-use [chuckle]concept. And the staff primarily were insistent in their protestations that, in any given area of land, one use certainly was the most important and that other uses should be subservient to it. This went through all of their discussions.

The report did pose a concept of dominant use, and this dominant use is still retained in Aspinall's bill, HR 7211, I think it is. One member of the commission's staff was a forest economist whose belief was that the marketplace should be about the only governing factor in decision making. And, of course, this contradicts the Multiple Use Act and would require an amendment if Congress passed such a thing. Frankly, I don't think that anybody in the top staff of the commission had experience in public-land administration, although some people in the second-level staff did have administrative experience. As a result, I think they just, at least some of them, didn't understand the decision-making process and how multiple use worked.

SS: But they did recommend some changes in the forest service's procedure of making a multiple-use decision?

HP: Yes. The commission's report was oriented to the user. In other words, the user was the important thing and the need to treat the user equitably [laughter]. You can interpret that in various ways, of course. They did not anywhere in the report, that I can find, put ecological judgment or professional, scientific judgment in the use

of resources as being more important than the peoples' wishes and needs in regard to those resources. The commission's report is fair in the sense that it treated recreation users, or preservationists, in the same way in which it was treating commodity users of timber and range. But the orientation of the report is directed at satisfying users, not at satisfying resource needs under scientific, professional management. Of course, in the chapter on environment they--which is why I say there's some inconsistencies--recognized the environmental needs and placed them in a paramount position. But in the timber management section they recommend this dominant use and that no other use be permitted that would adversely affect the timber.

SS: I don't grasp the difference between an orientation toward the users as opposed to an orientation toward the resource needs.

HP: In other words, the user is given preferential treatment in the use of some resources, when in actual fact the ecological requirements, the resource requirements, would negate that use. In other words, there's nothing in the report, no finding by the commission, that there is a need for scientific and professional management of these resources. They do find that the user isn't being treated equitably and that he should be given a fairer shake in permitting him to use these resources.

SS: But you said that all users are considered?

HP: All users are treated the same in this respect. They don't say that the rancher should have preferential treatment, but the wilderness hiker should not. With a broad brush they include all users in their finding that there should be fair and equitable treatment and stated that there should be oversight by Congress. In other words, in a sense, they would legislate the management direction and then protect the user against any judgments by the federal managers. Now, that's oversimplifying it, but nevertheless, this is the thrust of the report.

SS: I think I follow you. A resource need is not necessarily always represented by a user or an interest. There may be a need that has no pressure group pushing it.

HP: No. For instance, you may want to run one hundred head of cattle on a certain range allotment for three months, but the condition of the range in one year indicates that you should only have fifty head on there for three months. So it's the range condition that should

determine what that use should be, but the commission would rather write it into a contract, that the user is protected with his one-hundred head every year.

SS: In other words, it's economic consideration over biologic.

HP: It isn't just economic; it's user consideration. If he isn't able to run the hundred head, he might have to go out of business for that year. That's an extreme example, but, nevertheless, that's what I mean by preferential treatment of the user over what the scientific, professional judgment indicates the resource use should be.

SS: So, if most of the recommendations were converted into legislation, the administrative discretion of the forest service would be diminished.

HP: Very much so. If every recommendation were put into effect, this is true, the administrative discretion--which, theoretically anyway, is based on scientific and professional judgment--is not only greatly diminished, it's practically nullified. You hit the nail on the head. That's exactly what it would do. In other words, it's administration by law and not by resource judgment.

SS: Do the grazing and the logging industries or the recreationists feel that they will actually benefit if the forest service's discretionary powers were cut down?

HP: Well, the only ones that I know of that actively supported the idea of dominant use and what I call user protection--or that is, giving them legal rights--were the grazing interests. The forest industries saw some dangers in this dominant-use idea.

SS: I should think the grazers would, also.

HP: The chapter on range resource was so oriented to the benefit of the rancher that I think they felt they couldn't lose [chuckle].

SS: Overgrazing would harm [interrupted].

HP: The report also recommends that overgrazed areas be withdrawn from grazing and that deteriorated range be put back in good shape. Now, these are good recommendations, just as in the chapter on environment. There were all sorts of good recommendations, but then when it comes to relations between the managers of the land and the users of the land, the whole thing kind of gets turned around again, and administrators'

hands are tied by regulation or guidelines set by Congress and by contracts that allow no flexibility in management of the resource. It establishes, in effect, a right of a rancher to use the range with a minimum of interference by the man responsible for the land and the resources.

SS: Haven't the grazers advanced some legislation?

HP: I haven't seen it if they have. They were talking about developing some, but I haven't seen it.

SS: At one time they tried to obtain a situation whereby their grazing rights became part of their property.

HP: That's right. This was 1946. It was referred to as "a stockmen's proposal for an act." This was an attempt to get many of the things that are now recommended by this report, especially tenure. They wanted to be secure that they had for all time, or for a long term, their rights to graze on the national forest lands, or on public land, I should say. They also wanted to establish a value of the permit.

SS: You mentioned that there were a lot of inconsistencies in the Public Land Law Review Commission. What accounts for this?

HP: There was rather a rush at the end of the period available to the commission, and it's possible that various staff members wrote different sections and the coordination was poor. I'd say some of possibly the worst inconsistencies are not precise, and the reader is left to assume a meaning that may or may not have been intended. In other words, if you took the governing chapter as being the chapter on environment, then everything else would have to be subject to it. Then it wouldn't be so inconsistent, but a number of other recommendations would be nullified.

SS: Why did they have to rush at the end?

HP: They had a large study program, and these studies were contracted out to universities, contractors, and some of them didn't meet their deadline. Some weren't satisfactory when they got in. It was just a matter of a study of great magnitude and too little time to do it thoroughly.

Composition of the Commission

SS: How were the eighteen members of the commission selected?

HP: Six were selected by the president of the Senate and six by the speaker of the house and six by the president; then the eighteen selected the chairman. There were actually nineteen members of the commission.

SS: How about the commission's advisory council? Weren't there twenty-six members in it?

HP: I think on the recommendation from various quarters these men were picked by the commission. Now, with the governors' representatives, each governor was asked to nominate or provide a representative of the state so there were fifty-odd governors' representatives who also formed a part of the official family of the commission. There was the commission itself, the advisory council--representatives of all the interests in public land--and the governors' representatives, who represented the states and local communities. The commission did have a wide spectrum of advice.

SS: Was it well balanced would you say?

HP: I don't think it was well balanced on the advisory council. In the advisory group, for example, the mining interests were not represented by just one person but several, including oil and gas interests, non-metallic interests, and coal interests; all these were represented. So mining, for example, had several people that could be said to be with the mining interests. Now there was supposed to be three or four representatives of various aspects of conservation and recreation, but actually there was really only one man that went to every meeting and actually spoke out on subjects in a manner which I think would have been representative of most conservation organizations. That was C. R. Gutermuth. His nickname is Pink. We dedicated our NRCA book to him. Then, of course, a lot of people felt that the commission was imbalanced because most of the senators and congressmen were from the West. I think all of the senators and maybe four of the house side were from the West. But there's a certain logic in that because the majority of the public lands of both BLM and the national forests are in the eleven western states and Alaska.

The Commission's Public Hearings

SS: What difference would it make if it were imbalanced on the side of having more western congressmen ?

HP: Well, the commission held public hearings across the country to begin with. This was the public's opportunity to make an input into the commission's knowledge of the work of administration of public lands. But to me, the witnesses that testified were mostly those who had a gripe [chuckle] against some action of a public land official, and so in a large sense, it was a gripe session in the West. In the East it was not quite that way.

SS: You mean an economic gripe [interrupted].

HP: That they'd been ill-treated. In one case I remember this man in Palm Springs, California, testified that he'd been abused and arbitrarily treated by the forest service because he had a mining claim which they contested was not valid and that he was using it for a summer home. He stood up and swore that it was a valid mining claim and that he was going to operate it as any prudent man would. Later I investigated this situation and found that this was a pure untruth.

Some of this went on in all these meetings. It was an opportunity; they weren't under oath. I think they might have tried to keep actual records of what was said in the meetings but it got too voluminous. I've never seen a copy of all of these. So it was just an opportunity to express their feelings about the way the public lands were being managed and usually relating to some incident in which they felt they were badly treated. Some of the ranchers that had their livestock permits reduced just took this opportunity to object. I don't think they really got a broad spectrum. Organizations spoke; the Sierra Club and various wildlife organizations testified at one or two meetings. But the volume of testimony would give the impression to somebody who didn't know what went on on the ground and had long experience in administration of public lands that public land officials generally were a vicious, arbitrary, capricious bunch that picked on the people [chuckle]. But, the commission, by holding these twelve or more meetings all around the country, did provide an opportunity for everybody to speak his piece.

SS: Were all the various interest groups represented?

HP: I'd say in one or more of the meetings all of them would have been.

And then after that, the commission held monthly meetings, in which the advisory members--the governors' representatives and advisory council--had a chance to express their opinions on the various study reports that were becoming available. The public was welcome to listen but not participate. The final deliberations of the commission were in private. In fact, the commission held executive sessions usually after every one of these open-commission meetings.

One really didn't know right up until the last minute what the commission report was going to contain because they had, in a sense, tested the public opinion; they listened to the public; they listened to the advisory council; they studied the reports; and then they went into a huddle and made up their minds what to put in the report. So they really did cover a great deal of ground. No one could say he didn't have an opportunity to make an input. They may not have made an impression, but everyone had a chance to speak his piece [chuckle].

Westerners and Land Disposal

SS: You mentioned that the westerners tended to dominate the commission?

HP: Nobody knows who dominated what on the commission itself. Numerically they outnumbered the others.

SS: What type of differences would this make?

HP: Well, in the issue of disposal of land, for example, the westerners believed in--and this has historically been so since Jefferson's time--the idea of this land belonging to all the people and being disposed of to encourage settlement and development of the West. This has never stopped. The westerners would still like to have this land disposed of. Nevada, for example, wanted six million more acres of land than they received at the time of statehood.

Some representatives on that council, the representative from New Mexico, for example, wanted to turn all the BLM lands and all grazing lands of the forest service over to the private sector. How this would be done wasn't exactly spelled out, but, nevertheless, they felt that the cattlemen knew what to do with the land, how to best

manage it, and didn't need any interference from the federal government. They believed that this land was valuable only for grazing. There were no other values of any interest or any significance, and if there were, such as hunting or fishing, they could be a part of the deed to the private sector to permit hunting or fishing with certain restrictions. But this idea of disposal of federal land and more revenues to the states, of course, has been something that's been going for years. So this was an opportunity to further it. Actually, the report doesn't suggest that by any means. It doesn't agree with that advice. But, nevertheless, this interest was certainly expressed during the commission meetings.

Another case in point was some land along the Snake River, which is in federal ownership and which raised the question of whether lands that are valuable for agriculture purposes should be disposed of to the private sector. The senators from the state of Idaho and neighboring states felt that this land should be turned over to the private sector to benefit the regional economy, even though, on the other hand, the Department of Agriculture is paying people not to farm land for certain commodities. There is some validity in the argument, and to some extent the commission's report provides for this, at least in one of the recommendations.

SS: Does the report specify the land to be turned over?

HP: No, it doesn't specify the land, but it provides that under certain circumstances disposing of federal land to the private sector would be in the public interest.

SS: Under what other circumstances did they recommend disposal of land?

HP: They really don't go into the whole question. The opening statement of the report is that the great bulk of land should remain in federal ownership. In other words, this is a major policy decision and hopefully Congress will accept it. So this is a good recommendation. Now, the exceptions from the major bulk of the land--and I don't recall all the various exceptions--but townsites are one, agricultural land, isolated parcels, and so on.

SS: And you found these recommendations on disposal satisfactory?

HP: I questioned the agricultural lands, and I questioned any grazing lands, but I wouldn't question the disposal for city expansion or state needs where it is still a public need. I think there could be exchanges

worked out to make the administration of the public lands more simple and also provide a better land-ownership pattern for private lands.

Grazing Interests and Wayne Aspinall

SS: Now did the grazing interests influence the commission to release some of this land?

HP: Yes, I think they had a very good input, and I think to some extent they were successful, more so than perhaps anybody else.

SS: Now, I think we mentioned earlier briefly that the grazing permittees have been trying for many years or decades to [interrupted] .

HP: Establish a right to the use of the range for grazing purposes; to establish by law their tenure; to establish a value of the permit; and to be compensated for any improvements they're responsible for on the range if their permit is cancelled for any purpose.

SS: Was the question of getting control of these rights on permits introduced into the commission's deliberation and report?

HP: Oh, yes. Some of the recommendations on range resource in the report would give them practically all that they want if it were made into law.

SS: I understand that Wayne Aspinall played a very important role in [interrupted].

HP: Well, he was the chairman.

SS: Well, how about in bringing about the creation of the commission?

HP: Yes, Aspinall was the author of the idea and the act setting up the commission. In late 1962 or 1963, he invited the undersecretary of the interior, John Carver, and the assistant secretary of agriculture responsible for the forest service, John Baker, to a meeting with him and Milton Pearl, who was his administrative assistant, and I went along. I read the original proposal for a commission, and at that time

the only lands that were going to be studied were the public domain lands--the BLM lands--and parts of the national forests that were created from the public domain.

The final bill, as it eventually came out, of course, was much broader and went to all federal lands. They were spelled out in Section 10 of the act, so we refer to it as the Section 10 lands.

SS: How would you describe Congressman Aspinall's purpose in doing this?

HP: He originally wrote to President Kennedy outlining his feelings that the public land policy was no longer a valid policy and suggesting to the president that he assign somebody from the executive branch to work with him in a review of the public land laws. He pointed out that the public land laws that had developed over the years were just a hodgepodge and that there was a need to establish new policy and direction for the public lands by law. I don't know if he mentioned this in the letter he mailed, but he made it very clear that he thought that, over the years, Congress, in the passage of piecemeal legislation, had abrogated its responsibilities under the Constitution and left a vacuum that the executive branch had moved into and usurped, in a sense, the rights of Congress. So he wanted to get things back to fit his judgment of what the Constitution provides in the responsibilities of the executive branch, Congress, legislative branch, as they affect public lands.

SS: Do you think that Aspinall had any particular outstanding sympathies in the question of public land disposal?

HP: You mean if he had any ideas of his own as to how they ought to be run. Well, I think he felt that there was a need for congressional guidelines and a clear policy based on statute and not on executive order or any other prerogative of the executive branch. I think that Aspinall is a real statesman. While it's true that he has a constituency which is in a rural area or mountainous area where mining people form a major part of his constituency, he, nevertheless, is a very broad-gauged individual, and I think that when he analyzes something he does it astutely, and he is very thorough in what he says.

SS: Why do you suppose the grazing interests fared so much better than something like mining or lumber?

HP: I'm not so sure that I understand that at all. I really don't. At least

two recommendations are just absolutely, well, they're absurd. They're impractical, and I don't know how they got in the report, but they did. One was that the range manager would specify the condition of the range by species, by height of grass, when cows should be put on and taken off, etc. This would have to be an extremely complicated prescription. Then the permittee could keep his cows, as many as he wanted to, on the grass until it reached this particular stage, and then he had to take them off. Can you imagine that controversy going on out in the field? This would be established by a contract, which would have an effect of law.

The other one was that, if there was any surplus forage in a given year, the surplus would be put up for bid. Actually, when you think of the relationship of a rancher to this grazing area of his, it really would, in effect, say that if he were allowed to put on a few more cows in a good year he would have to bid for it, and maybe somebody from Mexico could bring in a few head and outbid him for that excess forage for that particular year. It just is not practical, anybody with practical administrative experience would never recommend such a thing.

SS: Was there a lack of people who actually had experience in dealing with natural resources on the commission?

HP: Now, on the commission itself, Morris Goddard, who was a secretary of parks, forests, and waters in Pennsylvania, certainly has had public land administrative experience. But I think it would be safe to say that nobody on the top staff of the commission who did the leg work or who did a lot of the writing of the report itself had any responsible, long experience in administration of public lands. If they had, it's unknown to me.

Economic Considerations in the Report

SS: Would you agree with the statement that the commission's final report placed economic considerations above wildlife, as a generalization?

HP: No, I don't think you could say that. The report is not divided into

or considered by areas, which is multiple use, but by resources themselves, so when they talk about environment, one would be lead to believe that anything that was detrimental to the environment would not be permitted. Well, that's fine, you see. That's not an over-riding economic consideration. As a matter-of-fact, it's just the opposite. In the chapter on timber resources, it does appear that the economic considerations override other uses, including [chuckle] environment, as I interpret it, and the same thing in the chapter on range resources.

But as I tried to explain previously, the major difference is that the report favors the user as against the ecological or scientific needs of the resources and the land. In other words, even though this segment on the environment does seem to protect all the resources because they're all part of the environment, one of the findings of the commission--and I think this is a result of some of these hearings I was talking about--is that the users of the public lands were not being treated equitably, and one of their basic recommendations is that the users will be treated fairly and equitably. Now, I don't agree with their findings. Where one person might not have been treated equitably under certain circumstances, there are hundreds and thousands that have been. So I don't think it's in good perspective. I think the commission got a distorted view from hearing some of the witnesses.

Anyway, the thrust of this report is favorable to users, although recommending that everybody should pay fair market price for the use of the federal resources and land. This would apply to watching birds on the national forests, for example. Everyone would have to pay a minimum fee for the use of that land--except the mineral prospection--where recreation is free now. I mean, just to go on the land of the public domain and the national forest. One has to pay an entrance fee to the national parks and an entrance fee to a public campground of a certain standard on the national forest, but there's still free egress and access on the rest of the national forest lands. One is still free to go and watch birds or take photographs or look at artifacts or most anything else you want to do without any payment. However, the report recommends that now people should pay. This is considered equitable because they're recommending that the rancher pay fair market value for his use of the resource and not be given a subsidy for the range use and so with timber and any other uses. To this extent all are treated equally.

Dominant Use versus Multiple Use

SS: How about the question of reforestation of lands? Were the commission's recommendations satisfactory in your eyes?

HP: Oh, yes, I think so. Let me elaborate, before I get this whole thing out of perspective myself. There are probably 80 or 90 percent of the recommendations in the report that I would certainly support. There are good recommendations, but some of the recommendations, I think, are very bad, and these, in my opinion, are overriding. One of them is the recommendation on dominant use, the separation of resources, an idea of what I would call, an anti-multiple-use approach.

SS: Could you define what is meant by dominant use?

HP: Yes, it's where, in the case of timber particularly, it's found that the best and most valuable use of the land is for the growing and producing of timber; then these lands will be set aside with the dominant use being timber. The report even recommends that these lands will be managed under corporate principles, or the principles of a corporation, and that any other resource use that interfered with the management of these lands for timber production will not be permitted.

SS: Why did the commission recommend dominant use as opposed to multiple use?

HP: Well, this is because, I think, some members of the staff felt that this was the way they should be managed. This is the economist's approach to timber management. Of course, they were talking about the eighty-some-odd million acres of national forest lands classified as commercial timberlands; they were recommending that something like forty million of those acres be classified as timber-dominant-use areas.

SS: This would have very seriously cut down discretion of the forest service.

HP: Very much so. It would take it away. In fact, it was proposed all the way through that Congress set up guidelines. This is a pretty vague recommendation because a guideline can be very broad or you can attempt to make it very narrow. They also recommend a rule-making procedure which would require that practically every decision

would be covered by some rule. And, so, all the ranger would have to do is get out his rule book, and the decisions are all there, you see. This is going to absurdity, and I'm sure they weren't thinking of that detail, but the more rules, the less discretion. The more you have to go by a written rule in a given situation, the less judgment is required.

Of course, this is again a protection to the user because he knows what the rules are, and he knows what he can do. Therefore everybody understands that he's treated equitably under the rule. But it can also work to his disadvantage, too. By taking the resources separately and setting up dominant-use areas for these various resources, it simplifies the rule-making procedure. That's one reason for it. Once you set up an area as a timber-dominant-use area, it is so classified, and there's only one way to manage it, and there is no need to consider alternatives or other options. I feel if one is going to manage public lands just as industry would manage them, they might as well be given to industry.

SS: Which, if any, of the interest groups favored such a dominant-use system?

HP: The only one I know of that publicly expressed a favorable opinion about this particular subject was a representative of the stockmen's association. Now, whether or not all the stockmen would favor it or not, I don't know. If the timber industry favored it, I haven't heard of it publicly. And how could you make a dominant-use mineral area? This was another one that was pretty difficult. One would have to have a crystal ball to know what areas would be mostly valuable for minerals over and above all the surface resources.

SS: It's incredible to me that, without the support of at least the majority of the interest groups, the commission would have made such a radical recommendation.

HP: Well, I don't know how radical it was. It was never really thoroughly discussed at any of the commission meetings I attended. It was referred to a number of times by the commission staff, but I never heard any member of the commission refer to it. If you are opposed in your thinking to the multiple-use approach and you want to put things in neat little packages so they are easier to manage, I think one might naturally go to this idea of the dominant use.

SS: You evidently knew before the commission's report was issued that

they would probably go against multiple use.

HP: Yes, this, I think, was evident from the statements made by the commission's staff, but not by the commission itself, during the meetings. As I said, they always referred to multiple use as "so-called multiple use" [chuckle] .

SS: Do you think the multiple-use concept is in real danger of being dropped?

HP: No. No, I don't. I don't think so. I don't think there is a chance of losing it. I'll put it another way, it would be a tragedy if we did.

One of the arguments used for promoting dominant use was the classification by Congress of wilderness areas, national park areas, and national recreation areas. The proponents of dominant use could point to this and say, "Isn't this dominant use for recreation." Well, of course, wilderness is a resource and not a dominant-use area so-to-speak. You can't have this resource without having the large area. National parks and scenic rivers and so forth are, to some extent, dominant-use classifications, but they're classified by Congress, and this is different. The commission's report recommends that the classification of timber-dominant-use areas be made by the agencies. Now, if Congress wants to set aside forty million acres of land to be managed just for timber and could put that through the Congress, I couldn't argue, but something tells me they won't.

SS: Was there a problem of dissatisfaction with the administration of the forest service that the commission made this recommendation?

HP: I would say in the testimony they received and some of the analyses made by the contractors--and, I think, in some cases perhaps not discouraged by the staff--that there was enough dissatisfaction expressed to make them think there ought to be some changes. I just think the weight of testimony was significant, but then you should remember, too, who was testifying. There was no analysis of the testimony itself that I know about.

SS: Just an impressionistic type of thing?

HP: In other words, you would expect the testimonies to have been analyzed very carefully. I'm not sure this was done.

SS: Would you agree with the statement that the report was, on the whole,

rather anti-forest service in ways other than account for multiple use?

HP: No, I don't think so. In fact, there are certain statements in the report that hold the forest service up as a long-time experienced organization in this field of public land administration and even goes so far as to say they want to raise other agencies up to the high standard set by the forest service. No, I don't think so. A lot of the emphasis on dominant use stems from the way the study program was structured. It was obvious from the very beginning that in treating the resource studies separately, as unrelated matters, multiple use would not be properly considered. It seemed so to me, anyway. At least these were my early thoughts on it, and the report turned out as I expected on this subject.

SS: By structure, you mean the division as to the various uses?

HP: Yes, studying range resource, studying timber resources, studying recreation, studying water, and at no time put them together.

SS: How might they have done it another way?

HP: By areas. They could have studied the Pacific Northwest, the Lake States, and other regions.

SS: In other words, a decision was already almost made before they began?

HP: No, I don't think so.

SS: I mean, even if it was unconscious.

HP: At least it lead them down the path to this end result, I think.

SS: As a matter-of-fact, I have a friend who worked with the commission. His field is constitutional law.

HP: Well, this is really an issue, basically, as to what degree the Constitution empowered Congress and intended it to decide how federal lands should be managed. And it's on this basis that Congressman Aspinall suggested to President Kennedy that this study be made. So, the first bill that Aspinall put in following the report, which was HR7211, is a policy foundation which he felt would, if passed, bring back to Congress the reins to manage public land. Now, this bill--it's not in the report --among many things, provides for reporting to Congress on all levels of action, particularly by advisory boards,

coordinating commissions, and so forth. These advisory groups' reports go, in each case, to the president, the president of the Senate, and the speaker of the house, which would be so [chuckle] cumbersome and so complicated that it would take a large staff just to keep track of it, let alone analyze the decisions made by the advisory group down on some supervisor's level.

SS: How can they possibly put this into legislation with all these inconsistencies?

HP: I think these will be taken out, I hope. The legislative process in these matters is not just going to go very easily. And Aspinall himself said he didn't think that the major part of the recommendations of the report would be implemented within eight or nine years, and I certainly agree with that. And some of them, I hope, never. But there are good ones. This is the sad part about it; 80 percent of the recommendations are so badly needed. It would be too bad if a few that are, I think, detrimental to good public land management hold up all the good ones. And a lot of the good ones are budgetary. I mean, all they really need is funds to get them going, many of them; the restoration of deteriorated lands, reforestation, and that sort of thing are all recommended in the report.

The Bureau of Land Management's Multiple-Use Practices

SS: To get back to the problem of multiple use, didn't the commission imply that the BLM's multiple-use policies have been more successful than the forest service's?

HP: I don't recall that. Their classification multiple-use act coincided with the establishment of the commission.* What I think they said was that their procedure in classifying land for disposal or retention had good guidelines and should be followed by the other agencies. They, in effect, said this was an excellent procedure developed by

*Classification of Land for Purpose of Disposal or Interim Management. Act of 19 September 1964, 78 Stat. 986.

the BLM, and I think it was, but I don't think they were making comparisons.

There was some comparison made between the management of the O & C lands* and the forest service's national forest management of the same area, largely because, I think, they were cutting a higher percentage of the volume of timber on BLM's land than the forest service was cutting, and this was considered to be more intensive management. Also, the county was getting more revenue, of course, because they get 70 percent of the timber receipts but plow back a good percentage for the road building. Local people and Oregon's government representation felt that the whole arrangement was better than the national forest management of timber. This was an Oregonian speaking at one of the commission meetings, and I don't think it was reflected in the report.

SS: Now, with the execution of the Public Land Law Review Commission, wasn't the BLM's multiple-use act made defunct?

HP: It expired with the life of the commission, yes.

SS: Okay, now what measures will be taken to fill this void?

HP: What this means is that there is now no management authority in Alaska, and the authority in the lower forty-eight states now must revert to the authority of the Taylor Grazing Act, which has got a lot of discrepancies in it, I think. It doesn't provide the authority that, say, the forest service has for the management of their national forest land. So BLM in Alaska has no real statutory authority to manage its lands because the Taylor Grazing Act only applied to the lower forty-eight states. There are several bills in Congress now that would provide an organic act for the Bureau of Land Management. There's one by the administration; there's one by Senator Jackson.

SS: Do you feel that it will be a multiple-use act?

HP: Oh, definitely. Both the administration's proposal and Senator Jackson and Congressman Saylor have a bill in the house. All definitely propose

*The O & C lands were timbered lands from the Oregon and California railroad land grants. They are administered by the Bureau of Land Management and are located in western Oregon primarily.

multiple-use and sustained-yield management, and none of them mention dominant use. Now, Aspinall's bill, which I mentioned, to be introduced as a basic policy to further implementation of the commission's report, does have dominant use in it, and he has said, in effect, that until this bill is considered none of the others will be, so we are really in a kind of an impasse, and BLM's need for an organic act is urgent.

Departmental Reorganization

SS: Am I correct in believing that the commission recommended the transfer of the forest service into the Department of the Interior? What was your reaction to this recommendation?

HP: Just transferring the forest service into the Department of the Interior **doesn't** really buy anything. I don't mean to say that I don't believe there should be a natural resources' department and a complete reorganization in this field, but just to move one agency, I don't think helps very much. First of all, two-thirds of the nation's land--and by far the most productive--is in private ownership. The federal interest and assistance given to rural communities in agriculture are certainly major factors in our development and use of natural resources. The natural resources don't end with the public lands. The public lands don't have even a third of the productive natural resources in the country. So just placing the forest service over there, I don't think would do any good. Now, the administration's proposal--should that go through--in which Congress would do away with the Department of Agriculture as such and create a big natural resource department, might have some value. [Telephone interruption.] The forest service, along with a lot of other agencies, would be moved into it, and those agencies in it that are not oriented to the natural resources' field should be moved out.

SS: The forest service personnel, as a rule, does not favor such a move, does it? Or am I wrong in that assumption?

HP: I think it's just natural, as any move is disrupting; but I think they'd agree that if the Department of Agriculture was eliminated that they'd naturally would go on in the department of natural resources. They

wouldn't want to go anywhere else.

SS: Is there any fear that such a new department of natural resources would be simply a reconstituted Department of the Interior?

HP: This would be a mistake if it were. I think that's a mistake because we would not be getting even a majority of the agencies interested in natural resources related to the rural areas or mountainous areas in one department. We would still have fragmentation, if that's bad!

The Bureau of Outdoor Recreation

SS: I understand that the commission's report recommended that the Bureau of Outdoor Recreation be empowered to disapprove recreation proposals and multiple-use recreation plans.

HP: This is again that approach to neat little packages and functional management by a bureau. It's a complete misunderstanding, I believe, in how administration of lands should be carried on. If you put all the recreation areas in neat little packages and say, "This is the dominant use and there won't be anything else in there," then one bureau might be able to run it. But if you manage the land with all the other resources of the same general area, then a decision in the recreation field has a bearing on the decision on waters, wildlife, or range, etc. So resources are interlocked in multiple use, and actually, that is the way it is on the ground. I mean, one can make some arbitrary distinctions and boundaries, but that wouldn't get the maximum benefit out of all the resources. So I would strongly object to an agency that is responsible for one function having a veto power over any other agency or any other function.

Watershed Needs

SS: Did the commission's review pay sufficient attention, in your estimation, to the watershed needs, especially in the West?

HP: The study that was made of the water resource seemed to be primarily concerned with state rights versus federal reservation doctrine, but they did make an analysis and provided some data on sediment movement or erosion. However, the inventory was not complete at all. I mean, it was not satisfactory data upon which to write a very good report. They did try to make some comparisons by saying that previous studies had shown that the erosion from private lands in certain parts of the western states was less per acre than erosion from public lands, but no analysis was made of why. Private lands are generally in the low valleys and plains, while public lands are generally on steep lands. So it's really understandable that in some cases this would be true.

It's that sort of analysis that I don't think was very decisive. They didn't arrive at a conclusion. They just made their statements without support or analysis so that I don't think it was very valuable to the deliberations of the commission. I think that the staff again felt that the efforts in the field of watershed management were hard to measure in terms of dollar input and values received.

Mining

SS: To go on to mining for a moment, there are certain options that can be taken on mining--mining fees, leasing. What sort of settlement on the mining question do you think would be most satisfactory?

HP: I think that a mineral-leasing system across the board would be the most clean-cut solution to mining problems on public lands, at least from the standpoint of the administrator. The fact is, though, that one would still be saddled with two systems for a long time because the claims that have been made under the old mining laws of the 1870s would still be valid. Any valid claim would stay. So on certain mining claims the rights of the claimant would have to be

recognized. But I think that there's still going to be enough in mining on the public lands and a single mineral-leasing system would be by far the most desirable.

Certainly I don't see why mineral users should have any different treatment than any other user. This is one area in which I think the commission didn't abide by their original policy of equitable treatment to everybody. I think they've given the miner quite a break, even though they've put controls and restrictions on him. However, the administrator still can't say no, I mean, under the commission's recommendation. This is one subject, you know, on which four commissioners filed a minority report. The four said in their minority report that the leasing system was operating very well on state lands, Indian lands, and on the Weeks Law lands of the East. They could see no reason why it wouldn't operate on all public lands. I think this is a very valid argument for mineral leasing.

SS: So the mining interests do not want a leasing system?

HP: No. It restricts their prerogatives and incentives. As it is now, they are free to go on that land and look for minerals to their heart's content. You pay a fee for the recreation golden eagle passport, you know. And in the commission's report on recreation use, the photographer or bird watcher or rock hound would have to pay. Only the miner would be free to go on public lands without paying. So everybody might suddenly become a miner and say, "I'm looking for uranium," or something while walking or riding across the public lands.

SS: How about mining fees, a system similar to grazing fees?

HP: Under the leasing system there would be royalties. The main argument of the mineral interests was that these minerals are essential to the national economy and strength and that we don't want to become dependent on other countries for minerals and, that to keep a flow of minerals or prospecting underway, they need some incentive, and that is the basic reason to continue some form of the location and patent system. The report, of course, recommends a considerable control over mining activities in relation to the way that it is being administered today. The mining representatives that I heard discuss this report at one of the public readings in Nevada, where, of course, mining interests are strong, had some reservations about the majority proposal in the report.

SS: What specifically were these reservations?

HP: The mining representative didn't specify. He merely said they weren't sure precisely what the report intended.

SS: I have your report, published in the Transactions of the Thirty-Fifth North American Wildlife and Natural Resources Conference, which states that a vocal, militant minority of people involved with the commission's report favored the system of leasing for minerals.* Do you still agree with that?

HP: [Chuckle.] Minority is correct, as far as the commission itself was concerned, because it was four out of nineteen. And I suppose it would be a vocal minority in the advisory council to the commission, but I'm not so sure that those who didn't say anything might add up to a majority.

SS: Do you think public education was necessary in order to do something about this problem of extensive [interrupted].

HP: Well, I think so. I think it's sad that the public hasn't realized just what rights the miners have and the degree to which, in some cases, these rights have been abused. The use of mining claims for summer homes, you know, has been a problem for a long time. Some people have used a mining claim to squat and finally establish a right, or at least a squatter's right, to the land.

SS: Has there been much problem with subleasing of forest service lands?

HP: Not that I know of.

SS: I came across a statement that the subleasees were one of the most powerful lobbies in trying to affect the commission's report.

HP: This has to do with the oil leasing?

SS: It didn't specify which kind.

*During the course of this conference Hamilton Pyles participated in a panel discussion that focused on "The Public Land Law Review Commission." See Transactions of the Thirty-Fifth North American Wildlife and Natural Resources Conference, March 1970, Chicago, Illinois (Washington, D.C.: Wildlife Management Institute, 1970) pp. 128-139.

HP: Well, I don't know anything about it anyway.

Reforestation

SS: Now I got the impression, to go back just briefly to the question of reforestation, that the commission's report said that the question of reforestation was to be determined by interest groups, to be economically determined as an investment. In other words, you reforest if it will be economically profitable.

HP: I don't know if it's in the report or not, but this has been definitely a feeling among forest economists. It's a feeling certainly in allocation of funds within the forest service. I remember very well in 1932 and 1931 there was no money available for reforestation. Then in 1933 there were a number of economic studies on reforestation, and the decision was usually that it was uneconomical. It could never pay out. Under the CCC program thousands and millions of acres were planted as a part of a work program for the CCC. This was considered a social cost. But today these plantations are really paying off economically. I think I mentioned the supervisor who sold off the tops of codominant trees as Christmas trees and paid for the land and the planting of the trees and everything else.

So one really needs a crystal ball to know whether that particular area will have a marketable stand eighty years from now and would have paid off. Generally speaking, under present interest rates, unless you've got some very fast-growing species on good lands, like in the South, it's a questionable investment for a private individual to plant trees. With the cost of planting and considering his investment and the interest rates, it is questionable whether he will come out in the long run. But those that did, have [chuckle]. I'm not an economist.

SS: Are there any things that come to mind with regard to the Public Land Law Review Commission?

HP: Read the book. All my thoughts were in there.

SS: I read the book.

HP: I think that reading through those hearings--you see, there's a report on all the commission's meetings that were open to the public--gives you some idea of the input of the staff and the reactions which might then relate to the commission's report.

Reaction to the Commission's Report

SS: What do you think the reaction of the majority of the people who are involved with the various government bureaus dealing with natural resources was to the commission's findings?

HP: The NRCA tried to pick reviewers of the report that were knowledgeable people and represented a wide variety of disciplines. There were some complimentary things said about it and some adverse things. It's not a document that I think you can say yes or no to, although that's what the chairman said we should. In other words, he said this is a one-package deal. Every recommendation is related to another, and you can't accept one and not the other. I'm not sure that's right.

SS: I have the feeling that the report has not been that favorably received.

HP: It's had an awful lot of criticism, but usually it's somebody criticizing one part of it.

SS: I was wondering if you have had any involvement with or reaction to the study by the Montana School of Forestry?

HP: No.

SS: Is there anything that you can think of to cover?

HP: No, I'm dead beat.

SS: I imagine you would be. This is the end of the interview with Mr. Pyles. Thank you very much, Mr. Pyles, for your cooperation.



July 1970 - Retired, Falls Church, Virginia

APPENDICES

FOREWORD

This "Plan for Management of the Southern California National Forests" represents contributions from many people, among the people we serve and within the Forest Service. Their enthusiastic work on this Plan signifies a conviction that these forests can contribute more goods and services than they now do.

We share that conviction and we approve this fresh start for full development of multiple use opportunities in the four Southern California Forests. Researchers and administrators have worked together on the Plan; consequently, it draws upon past experiences of both groups and makes new demands on both. This relationship must continue if the forests are to contribute their full measure.

Dec. 9, 1953
(Date)

Clare Hendee
CLARE HENDEE

Dec. 10, 1953
(Date)

Stephen N. Wyckoff
STEPHEN N. WYCKOFF

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SUMMARY

The phenomenal population growth of Southern California during recent decades has changed many conditions that affect the administration of national forest lands in that area. This has made necessary a review of management policies for these lands in relation to present conditions. The need for such a review was recognized in the General Integrating Inspection of the Angeles National Forest in 1951, and a special Task Force was appointed to assemble information for a review of the administration of national forest lands in Southern California. A preliminary report was prepared by the Task Force in 1952. Further study was made in 1953 by a committee appointed "to formulate for review, policies for the management of national forest lands in Southern California." The efforts of both groups are reflected in this report, which was prepared by the committee.

Today, pressures for resource use and watershed protection are far greater than were anticipated when the national forests were created. These pressures are expected to increase as population growth continues. Consequently, increasingly intensive management is necessary for the four southern forests. The committee concluded that this improvement in management could be obtained through more uniform application of policies under which the Southern California National Forests are operating. Therefore, the committee has prepared a generalized plan for integrated management within the framework of existing policy to service as a guide for supervisors and rangers. The committee has also recommended that certain fact-finding programs be started to provide the information upon which more intensive management must be based.

The plan proposes the following management direction for Southern California National Forests:

1. Soil, vegetation, and water are to receive intensified protection against damage. Fire control is the key activity. Marketing of vegetation as a commodity will be subordinated to use in place for other purposes. Planting or manipulation of vegetation and conversion of types for recreation and wildlife will be permitted after adequate study. On-site use of water for recreation and wildlife purposes will be emphasized.

2. Recreationists, generally, are to be directed to the less inflammable areas such as the high country or desert slopes. Steep mountain fronts that face populated areas will have no recreation installations other than trails for hikers or horseback riders. Except in selected areas the interior brushlands will have low priority for recreation development. In canyon bottoms recreation developments, except for campgrounds and picnic areas, will be gradually withdrawn.
3. Wildlife habitat management will be intensified. Desert slopes and carefully selected areas in the interior brushlands will be given priority for habitat improvement. Streams and reservoirs will be improved for fishing and fishlife wherever practicable.
4. Grazing will be excluded from the steep and hazardous fronts but will be permitted elsewhere when not in conflict with higher use of the land. Areas where long-term range use can be expected under good management will be given priority for improvement.
5. Forest boundaries will be reconsidered and possibly modified in those locations where blocks of private land or impacts of development create administrative problems. Interior blocks of private lands which have become urbanized will be consolidated by land exchanges but with due regard for public access to streams, lakes, and other recreation areas.

The program of fact finding recommended in this plan suggests inventories and surveys in all management fields. The program is considered to be the minimum required to provide basic information for:

- (1) An estimate of the size of the job ahead.
- (2) Action plans.
- (3) A measure of the services which the national forests can provide. New knowledge will be needed, too, from research in soil-plant-water relations and in fire control. The aim of the plan is to provide for as much use of national forest lands as is consistent with the risks. The measures proposed also aim at greater flexibility in the use pattern so that management direction may be changed with a minimum of disruption if public needs change.

II INTRODUCTION

In this report Southern California is considered as a sub-region of nine counties, namely, San Luis Obispo, Santa Barbara, Ventura, Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Imperial. The total area of these counties is approximately 31,370,000 acres or about 31 percent of the State of California. Within this area 3,031,088 acres, roughly 10 percent of Southern California, are public lands comprising the Los Padres (except the Monterey Division), Angeles, San Bernardino, and Cleveland National Forests.

Historical Background

Millions of people have been attracted to Southern California by its natural advantages, particularly its pleasant climate. During the last 50 years this has led to tremendous developments in irrigated agriculture and major industries. The population has risen from 217,000 in 1890 to more than 5,700,000 in 1950. This growth has been reflected in changes in the national forests. Deficiencies in local water supplies and the disastrous effects of debris-laden floods from mountains denuded by fire were recognized by foresighted leaders in Southern California before the turn of the century. Through the efforts of these leaders the San Gabriel Forest Reserve was established by Executive Order in 1892, and eight other reservations were made in the next 15 years, for the purpose of "insuring favorable conditions of water flows" as well as the "preservation of timber for the use and necessities of citizens of the United States." Although their boundaries have been modified, these reserves have become the four national forests of Southern California.

Establishment of the forest reserves was soon recognized as only a beginning. Personnel and facilities were entirely too limited to cope with the increasing number of man-caused fires and other management problems. Again, interested citizens organized groups which gained support from local agencies to aid in fire protection on both public and private wild lands. This assistance was of great value to the Forest Service after taking over management of the national forests in 1905, but it still was not adequate to prevent a number of large and disastrous fires.

When the Civilian Conservation Corps was organized in 1933, more than 50 camps were placed in Southern California, primarily to develop improvements for fire control and to provide organized fire fighting crews. Progress was rapid until this program was suspended because of World War II. Suspension of the CCC made the administration of national forests more complex. Besides being a period of national emergency, this was a time of unprecedented upsurge in population and industrial development. To meet the situation, troops were made available for fire suppression and forest closures were invoked for fire prevention. These measures are still being used but to a lesser extent than during the war.

The Flood Control Act of 1936 was another step to more intensive upstream watershed protection and management. The first action program initiated under this legislation was on Los Angeles River watershed. Fire protection has been intensified on Los Angeles and Santa Ynez River watersheds as a part of the upstream flood control programs in those areas.

The National Forests of Southern California have become increasingly important to the economy of the sub-region, and in turn of the Nation, over the years. The headwaters of the principal rivers and streams of the sub-region are within the forests. Water from these areas is a vital necessity to many communities. Even though some localities now rely upon water imported from the east slope of the Sierra Nevada and from the Colorado River, local watersheds still supply two-thirds of the water used in the coastal area. When adequately protected, the watersheds also contribute very important benefits through the retardation of flood run-off and erosion. Recreational benefits provided by the National Forests have become of major importance in Southern California; more than 2,800,000 visits were made to National Forest recreation areas in 1950. Other benefits obtained from the forests include the harvesting of fish and wildlife, grazing of domestic stock, and harvesting of forest products.

Ideas and Methods Used in the Review

In analyzing its assignment the committee agreed that management direction should be formulated only: (1) where statement of general policy was helpful to provide a foundation for subsequent recommendations; and (2) where there seemed to be a clear-cut need based on Southern California conditions. It was also agreed that the period for which to plan should be 10 to 15 years. By the end

of that time there may be new water importations, the Mojave Desert may be more densely populated, new management practices may be developed by research, or other factors may require reorientation of management direction in the National Forests.

In formulating the plan reported here, the committee drew upon data collected by the original Task Force and upon administrative and research experience in the sub-region, particularly on the Angeles National Forest and the San Dimas Experimental Forest. This experience reflected use pressures generated in nearby huge population centers as well as years of research in soil, water, and vegetation relationships. It was recognized that the Angeles and the San Dimas were not completely typical of the sub-region in either pressures for use or physical characteristics. On the other hand, increasing pressures could be anticipated in the more "remote" portions of the sub-region but time is still available to utilize Angeles administrative experience. Furthermore, differences in type of pressure, as well as differences in physical characteristics could be allowed for in the more detailed area plans to be prepared by the rangers.

The roots of this plan are in the national conservation policy established by Congress in the 1890's, especially the Organic Administration Act of June 4, 1897, which states that the forest reserves were created to secure favorable condition of water flows, and furnish a continuous supply of timber. The Organic Act also provides that the Secretary:

"May make such rules and regulations as are necessary to regulate their (the forests) occupancy and use, and to preserve the forests thereon from destruction."

This Act and others charge the Forest Service with the responsibility for management of the National Forests in the public interest. In application of the statutes three concepts were formulated at an early stage in administration of the National Forests:

1. Greatest good to the greatest number in the long run.
2. Local questions to be decided upon local grounds.
3. Multiple use of the forests.

Management of the Southern California National Forests under these concepts requires not only technical skill but also a high degree of foresight.

The people expect much of the forests. The motorist who on Sunday drives with his family to the mountains for recreation may irrigate his orchard on Monday with water from the same mountains. His daughter may be a member of a Girl Scout troop with summer headquarters on forest land, while his son may hunt for deer in the forest. Thus, a single family can make multiple use of National Forests. Tens of thousands of families, each with its particular need for what mountain lands have to offer, create a job whose proportions alone challenge the Forest Service to find the best means to meet the need. However, the size of the job is not the only challenge. Where heavy use prevails there is every likelihood that some types of use will adversely affect others. Resolving the inevitable conflicts demands high administrative ability. Also, it is becoming increasingly important that people be consulted and more fully informed concerning programs that affect their National Forests. The problems involved in multiple use management must be described so that inter-relationships may be clearly understood and priorities which determine policies may be seen.

To help meet these complex demands on the forests and administrators, this report first describes the resources, uses, or functions for which management direction and specific recommendations were prepared for the sub-region as a whole. Next are described management zones, in which distinct physical and use characteristics suggest distinctive management treatment. For each zone priorities are established and the various uses recommended for or against on the basis of whether a particular use could be expected to conflict with established priorities. The principle of multiple use was applied to the sub-region, whereas the principle of highest use was applied to the zones in the formulation of management direction.

A PRIMER
for
WATER MANAGEMENT
on
CLEVELAND NATIONAL FOREST

FOREWORD

This paper is written for the District Rangers and other interested personnel of the Cleveland National Forest.

Portions of Cleveland Forest were created as a watershed Forest Reserves in 1891. The proponents of these Forest Reserves visualized the need of protecting and managing the cover of the mountainous areas to retain the quantity and quality of the water in an area where the supply was critical. These men visualized the importance of vegetative cover in holding the loose soils of the steep slopes in place and preventing serious siltation, of their water works and reservoirs.

Since that time the Cleveland Forest administration has managed these lands under the general guiding principles of this philosophy.

The efforts have been directed at maintaining as good a vegetative cover that was economically possible. Efforts have been further directed at checking active accelerated erosion. Similarly, factors of erosion and watershed cover protection have been prime considerations in permitting the various uses of National Forest land as prescribed by regulation and law.

In sum, Cleveland Forest management has been directed at the protective function of watershed management rather than the application of water resource management practices or analysis that should realize the maximum water benefits from each drainage basin. Good judgment dictates that it is high time that preparation and ground work be started to permit early and sound practices in management of this valuable resource.

By
H. K. PYLES
Forest Supervisor
May - 1948

§ 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.)

Panel presentation

for discussion: "Training Needs to Make Multiple Use Work"

If we are going to make multiple use work and work in such a way that interested people know it's working, it's going to take a lot of training and understanding.

First, we've got to get an understanding of what we're talking about; just precisely what is multiple use.

It has been described as: (1) a principle of management (our Manual); (2) a concept; (3) a thought process in management; (4) a technique in forest land use management; and even (5) a jumbled up use of forest commodities and resources.

Second, we've got to get an understanding of why forest land management under a multiple use principle is urgent and essential to national welfare.

If we can stay put on a common understanding of multiple use, and a good understanding of its essential benefit to the economy and people of the country, we will have a much better chance of training people in how to go about making multiple use work.

These training needs fall into three categories:

First, there is a need to train planners in how to go about setting objectives, guidelines, and planning for multiple use management.

Second, there is a need to train doers in how to get plans into action and within guidelines to meet set objectives of the planning unit.

Third, there is a need to train managers in how to document plans for coordinating uses and activities (multiple use in action) - the resulting action and its benefits to the people and economy dependent or affected by it.

These three phases of training, directed at field officers responsible for management planning, and responsible for the acts that coordinate one resource use with another or with an activity, can be designed to fit actual management situations on the ground. The success of such training programs depends on a foundation of complete understanding of the principle, its objectives, and its importance in the future of forest land management.

Regional Forester Pyles, R-7 - for RF&D meeting, 2/29-3/4, 1960

So the first need is to educate everyone in a common understanding of meaning and importance of multiple use.

Our Manual defines multiple use as a principle rather than a system or method of land use. However, the term "multiple use" is coming into a common usage that rivals the term "conservation". At the Senate Select Hearings on water policy in Augusta, Maine I think hardly one witness neglected to use "multiple use" in his statement. It was used over and over again with about as many meanings. The term "multiple use", like "conservation", is going to be used to suit individual interpretation and meaning. It's going to be used to cover a multitude of situations and no doubt a few sins.

The opponents of multiple use of public lands are going to attack the use of the term in its most vulnerable spot: That vulnerable spot is its meaning - its current application to practically any sort of land use situation where no one use is absolutely restricted in an ownership or controlled unit of land. The term is sold far and wide, but we have by no means sold its meaning and purpose as set forth in our Manual.

A representative of another public land agency recently inferred that multiple use was just a jumbled up use of forest commodities without any clear purpose. This statement should be the clue, through the emphasis and effort of our in-Service program, to achieve understanding and support for multiple use management. Clearly what this man was describing was just several uses of resources in a forest area by happenstance and without plan. This is the very antithesis of multiple use as we conceive it. We would do well to coin a word for "just jumbled up commodity use" and exploit it as an anti-synonym for multiple use management.

at least
Personally, I have found that the distinction between jumbled up use by happenstance and a predetermined plan to achieve coordinated and harmonious multiple use is readily understood and accepted. After making this point during a talk at the University of Maine, Dean of Agriculture Libby told me that for the first time he grasped the significance of multiple use. This sort of "now I get you" expression has happened several times; so I firmly believe that this distinction, though simple to each one of you, is basic to a good foundation in understanding of multiple use.

While I'm sure each one of us who has been attempting to plan for and practice multiple use over the years, knows precisely what we're aiming at - we've been expressing it publicly and within-Service differently.

For example, some of us have described Land Use Plans which dedicate, zone, or compartmentalize the use of major resources as 'multiple use in action'. While Land Use Plans, like other resource plans, form a basis for planning multiple use, the Land Use Plan in itself lacks the dynamics and action of coordination or support of one use to another that should characterize multiple-use.

In another instance, multiple use has been expressed as a concept of management wherein if one use is excluded from the management objectives of a planning unit, then it is not "multiple use". While the reasons for expressing "multiple use" this way are obvious, it must seem more or less an academic play on words to most citizens, and waters down the meaning of it as a principle of management for in-Service use.

Multiple use is the only means by which we can get the maximum use out of the land and so make it contribute its best to our national welfare. Unfortunately, there is some functional or special interest doubt about this. But until our responsible managers are convinced in their own minds and look ahead for opportunities of more uses and kinds of uses, multiple use will not get the attention it should - we will just keep on giving it lip service - an easy thing to talk about - a difficult thing to do! (Our present pattern of financing and budgeting further complicates it.)

I suppose to some degree multiple use is all these things: a concept; a principle; a technique; a plan of land use - but the dynamics of multiple use lie in the acts of coordination.

So I would rather see us bring the term down to the ground where plans, action, and demonstration can give it understandable meaning and purpose.

At least four purposes should be served by multiple use management:

1. It should serve to coordinate uses and activities with the resultant benefit to people which is in total greater than the sum of these uses if they were not coordinated.

In this respect, timing is just as important as space delineation.

2. It should serve to increase public benefits through harmonious combination of an increased or greater number of uses.
3. It should resolve conflicting needs for uses of available resources through determination and application of the best uses.

4. It should combine resource uses with physical improvements developed for protection, administrative, or other needs in the area.

In serving these purposes, four precepts should be kept in mind:

1. Change is a constant, offering continual opportunity to improve coordination.
2. Frequency of change varies by levels of management.

On a ranger district changes of one type or another may occur daily; whereas at a national level, changes affecting coordination of use usually occur with infrequency and with some time lapse between the change and its effect on the ground.

3. If in any combination of uses, one use is dominant or is of greatest value, then that use forms the hub around which coordination is applied.
4. Responsibility for acts of coordination must carry commensurate authority.

These purposes to be served, and factors to consider in doing so, all point to judgment decisions - the need of logical thought processes - to arrive at sound conclusions on a wide variety of management situations. So, while major policies and nationwide objectives may be set for the national forest enterprise and modified for regional and subregional situations, it is only the man on the ground who can execute the coordination of uses. He transforms national, regional, and subregional plans into action.

The three phases of on-the-ground training needs, on: (1) how to set objective guides and plans; (2) how to get plans into action; and (3) how to document opportunity progress, and results - can best if not only be accomplished through field workshops. These field workshops should be directed at a specific management situation.

The workshop course should feature the trainer and trainees working together - exchanging ideas and facts in logical thought process.

The course should include:

1. A complete analysis of the resources of the unit, present and potential, from functional resource inventories and plans.

2. A complete analysis of needs and uses from a logical zone of interest.
3. A review of the forest or subregional objectives, policy statements, and guidelines as they apply to the subject unit.
4. A review of resource management plans and coordination requirements.
5. The restrictions these guidelines and coordination requirements place on the multiple use opportunities of the unit.
6. From these analyses set unit objectives, guidelines, and plans.
7. Test against MU purposes and precepts.
8. Test against annual plans of work.
9. Set up a work map and file scheme for documenting ideas, opportunities, and accomplishment of the unit.

The success of this workshop should be measured by the amount of original thinking that is inspired and the quality of logic used in conclusions. The success of the training will depend on amount of followup by the supervisor - not only on plans but results of action.

Coordinating the use of resources and this use with facilities and occupancy to get the best out of the land will not be achieved by uniform procedure and method. It will only come by interest, vision, and thinking. These are three difficult items to train into people.

THE WHITE HOUSE

WASHINGTON

December 15, 1964

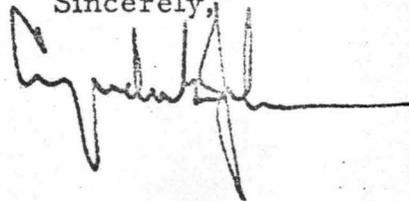
Dear Mr. Pyles:

I want to thank you for your service as a member of the Task Force on Natural Resources. I can appreciate the sacrifice such services entailed. I regret that my schedule made it impossible for me to meet personally with your Task Force.

The report of the Task Force on Natural Resources discusses a number of important policy issues affecting the wise development and use of the Nation's resources. This is, as you are well aware, a complex and controversial area of public policy. Your report clearly recognizes both the need for imaginative programs of resource development and the corresponding necessity for the application of sound economic principles in evaluating alternative investment opportunities.

In the years immediately ahead we have, I believe, an unparalleled opportunity to take some major steps forward toward creating the Great Society. You and your colleagues on the Natural Resources Task Force have made a major contribution toward that goal. Your ideas and suggestions will be of great value to me in formulating the program of this Administration now and during the years ahead.

Sincerely,

A handwritten signature in black ink, appearing to be "Lyndon B. Johnson", written in a cursive style with a long horizontal line extending to the right.

Mr. Hamilton K. Pyles
Deputy Chief
Forest Service
Department of Agriculture
Washington, D.C.

January 19, 1967

HAMILTON K. PYLES—DISTINGUISHED FORESTER

S 622

Mr. BYRD of West Virginia. Mr. President, during the past 34 years, Hamilton K. Pyles, Deputy Chief of the Department of Agriculture's Forest Service, has had a distinguished and colorful career. Ham, as he is affectionately known to his associates and friends, retired on December 30, 1966. For the past 10 years it has been my privilege to work with Ham on forestry and natural resource matters involving my home State of West Virginia and our Nation. His counsel, advice, and resolve in forest, soil, water, wildlife, and recreation programs were always sound and sincere. His leadership will be missed in forestry and conservation circles throughout the Nation.

Mr. Pyles was born in the Transvall gold mine country of South Africa. He completed his high school in Johannesburg and came to the United States in 1927. He completed his academic work at the University of California. He then went to work for the Forest Service.

Highlights of his Forest Service career involved assignments in the West, Lake States, the Northeast, and the Washington Office. From 1933 to 1952, he was in the California region and served in the San Francisco regional office and as forest supervisor of the Cleveland National Forest and worked in various assignments on the Sequoia, Lassen, Stanislaus, and Modoc National Forests.

In true Forest Service tradition Pyles recalls his days as supervisor of the Cleveland National Forest in California as some of the most exciting in his career. A 64,000-acre fire which burned for 5 days, required round-the-clock work and all the fire control know-how that could be mustered. While there was no loss of life, many homes were destroyed as this fire raced through the canyons.

Mr. Pyles helped inaugurate many of the improved fire-control methods now employed on the national forests: Air

attack, bombing with fire retardants, fuel reduction to reduce the severity of the fires and lessen the chances of a "crown fire," and improved detection methods.

Ham was adept at civil engineering and many roads and bridges on the national forests attest his skill in this field.

From 1952 to 1955 he was Chief of the Division of Information and Education for the north central region in Milwaukee, Wis. In 1955 and 1956 he was Assistant Chief of the Branch of National Forest Resource Management in the Chief's Office in Washington, D.C.

From 1956 to 1962 Mr. Pyles was regional forester of the eastern region with headquarters in Upper Darby, Pa. As regional forester he directed all Forest Service activities in the 14 States from Maine to Kentucky, including my home State of West Virginia. While regional forester he took an active and personal interest in the surface restoration of mined areas and the reduction of mining impact on national forest resources. He was assigned to chairmanship of the National Mined Area Restoration Committee for the Soil Conservation Society of America in 1960 and received the SCSA President's Award for this work in 1963. He contributed much to the multiple-use management of the eastern public and private forests.

Other worthwhile forestry and conservation activities were initiated and carried through during his assignment as regional forester.

From 1962 until retirement Mr. Pyles served as Deputy Chief in Charge of Programs and Legislation in the Chief's

Office in Washington, D.C. In this capacity he worked with many Members of Congress on legislation and other resource activities.

Several international assignments of significance were successfully completed. In May and June of 1964, Ham was a consultant to the Government of Turkey on matters of Turkish forestry policy and organization. This was an AID mission. In 1965 he participated in the Inter-American Conference on Natural Resources at Mar del Plata, Argentina. In addition to these foreign assignments his advice and counsel was sought by foreign foresters and conservationists visiting this country.

Mr. Pyles is an active member of the Society of American Foresters and is involved in its program activity. He is a member of the American Forestry Association. Retirement will not be dull, since anthropology and mycology, especially the study of edible mushrooms, have been two lifelong interests which he plans to pursue with added gusto. He plans to search for Indian lore in remote places, and do some of the hunting and fishing a forester often misses under the press of duty. He may even be available occasionally for consultation on forestry and land management problems. Also he has always shown interest and pride in searching out bright young talent and helping them develop and advance in their chosen work; this he will continue.

The forestry profession, forestry in the woods and all associated resources have felt the impact of Ham Pyles' dedicated and professional service over the years.

The U.S. Forest Service can be proud of an individual who has done so much to maintain the high professional standards and esprit de corps of this fine organization. We in the Congress appreciate the service Ham Pyles has given to his country this past 34 years. We wish him well.

BIBLIOGRAPHY FOR HAMILTON K. PYLES

U. S. Department of Agriculture. Forest Service. "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. For the forward from this study, see Appendix B, p. 169.

U. S. Department of Agriculture. Forest Service. "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 Forest Supervisor, Cleveland National Forest, San Diego, California. For excerpts from this study see Appendix A, pp. 161-168.

Mr. Pyles participated in the formulating of this plan.

_____. "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. McKinnen. Typed General Integrating Inspection Report. National Archives, Record Group 95, Records of the Office of the Chief.

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

Pyles, Hamilton K. "Professional Growth--A Positive Approach." Speech delivered at meeting of the Allegheny Section, Society of American Foresters, 11-13 February 1960. Typed.

_____. "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. For a copy of this presentation see Appendix D, pp. 171-175.

_____. 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).

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. Department of Interior. Bureau of Land Management. Man and the Forest: A Conference on Multiple Use Management of Forest Lands. Denver, Colorado, 17-19 April 1967. Denver, Colorado: U. S. Department of Interior, Bureau of Land Management, 1967.
- 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.

Smith, Frank E. ed. Conservation in the United States, A Documentary History: Land and Water 1900-1970. New York: Chelsea House Publishers, 1971.

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.

Dana, Samuel Trask. "The Early Years, Forest Service." Forest History 10, no. 2 (July 1966): 2-14.

This article contains excerpts from oral history interviews with Mr. Dana by Elwood R. Maunder and Amelia R. Fry.

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

"Five Leading Presidential Candidates Express Support for Multiple Use of Forests." Gulf Coast Lumberman 60, no. 12 (March 1972): 20.

The five candidates included Senator Edmund S. Muskie, represented by Representative Peter Kyros; Senator Hubert H. Humphrey; Senator George McGovern; Representative Paul N. McCloskey; and Governor George Wallace.

"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.

Glascok, H. R. "The View From Here: A Concept in Search of a Method." Journal of Forestry 70, no. 4 (April 1972): 194.

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.

McConnell, Grant. "The Conservation Movement--Past and Present," in Ian Burton and Robert Kates, Readings in Resource Management. (Chicago: University of Chicago Press, 1960).

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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