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RESOURCES PLANNING ACT: MANAGEMENT OF
THE NATION'S FORESTS

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HEARINGS

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENT, SOIL
CONSERVATION, AND FORESTRY

OF THE

COMMITTEE ON AGRICULTURE,
NUTRITION, AND FORESTRY

UNITED STATES SENATE

NINETY-SIXTH CONGRESS

SECOND SESSION

SEPTEMBER 16, 1980

PART II

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RESOURCES PLANNING ACT: MANAGEMENT OF THE NATION'S FORESTS

TUESDAY, SEPTEMBER 16, 1980

U.S. SENATE,
SUBCOMMITTEE ON ENVIRONMENT,
SOIL CONSERVATION, AND FORESTRY OF THE
COMMITTEE ON AGRICULTURE, NUTRITION, AND FORESTRY,
Washington, D.C.

The subcommittee met, pursuant to notice, at 9:35 a.m., in room 1202, Dirksen Senate Office Building, Hon. John Melcher (chairman of the subcommittee) presiding.

Present: Senator Melcher.

STATEMENT OF HON. JOHN MELCHER, A U.S. SENATOR FROM MONTANA

Senator MELCHER. The subcommittee will come to order.

This is the fourth day of oversight hearings on the Resources Planning Act which this subcommittee has held during this session of Congress. Our purpose today is to hear the reaction of public witnesses to the assessment program and statement of policy issued in June by the administration in connection with RPA. We are also anxious to hear comments on the white paper which the subcommittee introduced into the Congressional Record on August 5. From today's hearing, I hope we can get the information we need to draft a resolution to amend the statement of policy in such a way as to ensure that the Government will have the commitment to protect and enhance our forest resources in the way the professional land managers indicate is the proper road for us to take.

We hear a lot of talk these days from the economists that the productivity of this country is declining. I think that is what we are going to be talking about here today. The productivity of our land and water resources is the bottom line. All the goods and services produced by the United States are reliant on and stem from the productivity of our basic resources.

Notwithstanding that, the Government has for decades scrimped and saved on long-term investments in these resources, and now the RPA and RCA assessments are telling us that the chickens are about to come home to roost. You cannot keep taking and taking from the land, foregoing obviously needed investments, without expecting to pay the price of shortages and products produced and of deterioration of the resource base. We saved millions by not constructing roads in the national forests. Now, those roads will cost double and triple what they would have cost if we had built them when we should, and we are losing billions in dead, dying, and diseased timber which cannot be harvested because we cannot

get to it. We saved millions by deferring investments and reforestation and timber stand improvement, and now we can see on the horizon severe shortages of timber of certain kinds, and that will mean we will have to substitute high-energy-consuming products for wood not too far down the line that will cost us untold sums of money.

But this is not just the story about timber. We have let our public rangeland go to hell in a handbasket. We have not done what we should have to protect watersheds. Until the last few years, our wildlife programs on the public lands were nearly non-existent.

It has always amazed me how people react to external forces upon their lives. When Mount St. Helens popped its cork this year, there was an immediate reaction. The dramatic explosion made network television. J. C. Penney's began selling color pictures of the volcano in its stores, and the Congress is in the process of approving \$800 million to repair the damage caused by the eruptions.

I have no problem with all of that. The volcano made a terrible mess of resources and people's lives. But my point is this: The RPA assessment and the RCA appraisal are telling us that we have a much more serious problem on our hands with respect to resource protection. It is an insidious, slow-moving cancer. The erosion of our resources combined with growing U.S. and world populations is going to prove to us that Malthus was right. The trouble with that is that when we finally learn that lesson, the illness could be terminal.

Our resources base will not be able to produce at the capacity necessary to deal with the social and economic pressures occurring throughout the world. But we are not even close to being in a terminal situation just yet. RPA and RCA are showing us the early warning signs of the danger. Now, it is up to all of us to respond to the danger signs and make the investments we need so that we can meet the future without fear.

We will hear from a long list of witnesses this morning. The first is Dr. Dennis LeMaster, School of Forest Resources, Washington State University, from Pullman, Wash.

Dr. LeMaster?

STATEMENT OF DENNIS C. LeMASTER, CHAIRMAN, DEPARTMENT OF FOREST AND RANGE MANAGEMENT, WASHINGTON STATE UNIVERSITY

Dr. LeMASTER. Mr. Chairman, I am Dennis LeMaster. By training, I am an economist; by interest, a student of forest and range policy. I am currently coauthoring a book on the remaking of Forest Service statutory authority in the 1970's. I am also chairman of the Department of Forest and Range Management at Washington State University. I was formerly the staff consultant on forestry for the House Subcommittee on Forests. Before that, I was director of resource policy for the Society of American Foresters, the national organization representing the forestry profession.

It is a pleasure for me to appear before the Subcommittee on Environment, Soil Conservation and Forestry, for I have great admiration for its work. Over the past 8 years, this subcommittee

and its House counterpart, the Subcommittee on Forests, have rewritten Forest Service statutory authority as well as a great share of Federal law concerning forestry generally. Notable examples of such legislation are the Forest and Rangeland Renewable Resources Planning Act of 1974, the National Forest Management Act of 1976, the Cooperative Forestry Assistance Act of 1978, and the Forest and Rangeland Renewable Resources Research Act of 1978. This, in itself, is a remarkable achievement.

But this subcommittee has gone even further by repeatedly exercising its oversight responsibility with regard to forestry legislation. In other words, this subcommittee has "followed through" and on several occasions examined how the executive branch has implemented laws for which the subcommittee is responsible.

This is no easy task. It consumes a lot of time which is obviously very precious here on Capitol Hill. The task is an important one, however, because there is frequently a gap between the way a law is implemented by the executive branch and the way it was intended by Congress. One such law is the Forest and Rangeland Renewable Resources Planning Act, or RPA as it is more often called.

RPA is really quite simple, that is, straight forward, much more so than it is often made out to be. It requires the Secretary of Agriculture to prepare a renewable resource assessment in 1975, 1979, and every 10 years thereafter. The purpose of the assessment is to analyze the long-run supply and demand of the Nation's forest and range resources, including opportunities to increase and extend the supplies of these resources.

The act further requires the Secretary to prepare a renewable resource program, based on the assessment, in 1975, 1980 and every 5 years thereafter, to guide management of the national forests, Forest Service cooperative assistance to States and private landowners, and Forest Service research activities.

The assessment and program are to be sent to Congress together with a Presidential statement of policy when Congress convenes in the designated years. The statement of policy is to serve as a basis for Presidential budget requests for the succeeding 5 years. If the President departs from the statement of policy in any of his subsequent budget requests, he is required by RPA to make his reasons for doing so public. This feature of the act supposedly gives "teeth" to RPA because, it is argued, Presidents normally are not inclined and do not want to give full explanations for particular budget items.

The statement of policy is subject to congressional review for 90 calendar days after its receipt. During that time, either House may adopt a resolution of disapproval. What happens then is not spelled out in the law, but I expect that many would feel that the President should work out his differences with the disapproving body and submit a revised statement of policy.

RPA also allows that Congress may revise the statement of policy at any time, perhaps through a joint resolution or, more likely, through a concurrent resolution, and the revised or modified statement of policy is to be used by the President for all subsequent budget requests.

The origins of RPA are congressional. Its essential contents were conceived by the late Senator Hubert H. Humphrey in the winter

of 1972. They were drafted by Bob Wolf of the Congressional Research Service under instructions by Senator Humphrey and first introduced as an amendment to the 1973 farm bill. This bill ultimately became the Agriculture and Consumer Protection Act of 1973. As a farm bill amendment, RPA was summarily rejected by the members of the Committee on Agriculture and Forestry as being too complicated and too comprehensive. Senator Humphrey later introduced RPA as a bill on July 31, 1973, and it was designated S. 2296, and at that time, it was titled the National Forest Environmental Management Act.

RPA moved rapidly through the Senate, more slowly through the House. Two things gave the bill momentum, the first being congressional opposition to efforts by the Nixon administration to reorganize Forest Service regional boundaries—and, you will recall, Mr. Chairman, the Forest Service offices in Missoula, Mont., were a particular concern—and the second, and more sustaining of the two, a desire to increase congressional control over national forest management and budgetary decisions. This latter motivating force cannot be overemphasized.

RPA is but one fruit of a broad effort by Congress to assert itself in the early and middle 1970's with regard to the executive branch. The view was that the executive branch had grown too strong, that Congress must get back power it had inadvertently given to the President. There was special concern about the budgetary process, including the power of the President to impound appropriated funds. Senator Humphrey made this point in his remarks when introducing RPA. He said, and I quote:

Mr. President, I introduce for appropriate reference a bill to improve the management of the Nation's forests. The entire National Forest System stands in jeopardy due to shortsighted Nixon administration policies. This year's forestry budget is \$116 million less than the rockbottom figure needed. Every aspect of management of the 187 million acres of forest lands is being short-changed. These past 5 years have been one of platitudes, while both present and future needs have been ignored. To correct their deplorable condition, we must reform the budget process. One-eyed bookkeepers must be gotten out of the Nation's forests * * *.

RPA was generally opposed by officials of the Nixon administration. Even within the Forest Service, there was only an element of support, but, fortunately, this lied with top officials of the agency—namely, John R. McGuire, who was then Chief of the Forest Service; Rex Resler, then Associate Chief of the agency; and Max Peterson, who was then Deputy Chief for Programs and Legislation and who is now Chief of the Forest Service. They knew and understood what most of their subordinates did not—that long-term planning, which is absolutely necessary for proper management of the Nation's forests and rangelands, has no substance outside of the planning agency if it has no firm legislative foundation or is without budgetary commitment.

In contrast, officials of the Office of Management and Budget opposed RPA right up to and including the day that President Ford signed the bill into law. In fact, OMB sent a letter to the President urging him to veto the bill. OMB officials felt then, as they apparently do now, that RPA provides for an unacceptable degree of infringement upon the power of the President in preparing annual budget requests.

At this point, I should point out that RPA had bipartisan support in Congress. One very notable Republican supporter of the bill was Representative Wendell Wyatt, who was then ranking minority member of the Committee on Appropriations. It was he who was instrumental in persuading President Ford to sign RPA over the objections of OMB.

The heart of the controversy over the 1980 program and Presidential statement of policy, in my judgment, is the degree of Presidential commitment on the program in preparing budget requests. It is a struggle between Congress and the executive branch, or more precisely, OMB. OMB wants a very loose commitment, if any at all, and is willing to subvert requirements in RPA associated with that commitment. Congress, on the other hand, wants a firm commitment.

The term "subvert" is admittedly a rather strong one. However, it seems appropriate in the context of certain events and facts concerning the 1980 program. Allow me to cite three examples.

One, RPA requires the RPA documents to be submitted to Congress when it convenes in designated years. This year, 1980, is such a year. But two of these documents—the assessment and the statement of policy—arrived on June 27, about 5 months late, and the program is still not yet officially before Congress although, it is my understanding, there are a few copies in the hands of some Members. I wish I could be as casual in meeting the deadline for filing my Federal income tax return.

Two, the 1980 program contains a low and a high bound for a range of so-called action levels for each program activity. Effectively, this provides a "rubber yardstick," as one author put it, to measure Presidential budget requests. The executive branch will have the opportunity to select whatever part of the range is convenient for its purposes. Accordingly, section 8(b) of the amended RPA, that provision of the act which is supposed to give it teeth, will be viscerated.

Three, the President's statement of policy is supposed to be detailed regarding policies for planning, budgeting, and implementing Forest Service programs between now and 1985. Toward such an end, three important principles are enunciated in the 1980 Presidential statement, and they are, quote:

Public investment in resource management should be directed toward maximizing net national benefits; environmental values will be maintained and, where possible, enhanced; and the relationship of individual communities to the National Forest System with respect to employment, income and social amenities is important and will be considered, as will be the concerns of those using the forests for recreation and aesthetic purposes * * *.

These principles will actually cause more confusion than they will eliminate, because there is no accompanying policy statement making clear the course of action in the very likely event these principles are in conflict with one another. Thus, the President's statement of policy is even without sufficient detail to resolve the confusion of its own contents.

Mr. Chairman, the 1980 program and statement of policy do not provide specific enough direction to guide properly management of the national forests, cooperative assistance by the Forest Service to States and private landowners, and Forest Service research activities. I urge this subcommittee to consider carefully means by which

a revised statement of policy can be put into effect, means by which the 1980 program can be made more specific with well-defined goals and targets.

Ultimately, if no accord can be reached on this matter by the executive branch and this Congress, I would then urge this subcommittee to consider remedial legislation, which would amend RPA and provide that Congress prepare the statements of policy on all subsequent programs. The President would then be required to prepare his budget requests for Forest Service activities on the basis of congressional statements of policy. Indeed, this was the approach of the Senate version of RPA until the House approach was substituted during the deliberations of the committee on conference.

Mr. Chairman, I can appreciate and understand the importance of this struggle between Congress and the executive branch over RPA. Nevertheless, in this case, there is a larger struggle, a struggle over proper management of 1.6 billion acres of forest and rangeland, more than two-thirds of the Nation's land area. I suggest that Congress and the executive branch, particularly OMB, concern themselves more with the struggle over proper management of the Nation's forests and rangelands and less with the struggle over infringements, real or imagined, upon executive power.

Thank you.

Senator MELCHER. Doctor, do you expect an increase in timber supply from the forests in the Northwest, the national forests in the Northwest?

Dr. LEMASTER. Not in the short run, not in the next 30 years.

Senator MELCHER. Well, what about the President's direction to study the forests for possible departure from nondeclining evenflow policy? It will not make any difference studying it, will it?

Dr. LEMASTER. That departure should be considered, and it would make a substantial difference in the timber supply of the region.

Senator MELCHER. Well, would that increase it, then?

Dr. LEMASTER. Yes, it would. But that policy decision is going to have to be made by Congress or perhaps the President, and, as yet, the decision has not been made.

Senator MELCHER. Do you think it is wise to make such a decision to depart from nondeclining evenflow?

Dr. LEMASTER. I think it is wise to consider departure. I do not know if it is indeed wise to make the decision to depart from nondeclining evenflow. It is ultimately a policy decision, one for Congress to make. I certainly am not prepared to make it at this time.

Senator MELCHER. OK. Thank you very much, Doctor.

John Barber, Society of American Foresters.

**STATEMENT OF JOHN C. BARBER, EXECUTIVE VICE
PRESIDENT, SOCIETY OF AMERICAN FORESTERS**

Mr. BARBER. Thank you, Mr. Chairman. I am John Barber, the executive vice president of the Society of American Foresters. This statement is presented on behalf of the 22,000 members of the

society, representing all segments of the forestry profession in the United States.

We appreciate the opportunity to address the subcommittee and commend you, Mr. Chairman, for your interest and oversight efforts on behalf of the Resources Planning Act and the wise management of our renewable natural resources.

We believe that RPA represents the best available process for assessing and providing for the Nation's long-term natural resource needs. We commend the Forest Service for their substantial efforts to make it successful. To be effective, however, RPA must enjoy support from Congress, the President, the Federal agencies, and the various forest users. We can avoid unnecessarily diminished levels of goods, services, and values from our forests and rangelands only if RPA is implemented with the spirit which led to its passage in 1974.

The society recognizes the various urgencies, including the statutory requirements, which have made these hearings necessary. We respectfully submit, however, that because the RPA documents have not been publicly released in a timely fashion, it has been impossible for interested organizations to make detailed analyses and to develop position statements on the recommended program.

Therefore, Mr. Chairman, the society's comments today are of a preliminary nature, but address a couple of issues relevant to the purposes of this hearing.

The 1980 Resources Planning Act program introduces a new approach for defining the future direction of management, protection, cooperative, and research programs for the U.S. Forest Service. Instead of using single-valued objectives for program elements, the 1980 program offers a range of outputs for each element in the form of high and low bounds.

Two issues related to the concept of defining the program through the use of high and low bounds deserve attention. The first issue concerns the procedure through which this change was introduced. The second and more important issue concerns the effect this change will have on implementing RPA, considering both national policy and budget development.

The expression of program outputs as ranges, defined by high and low bounds, was not used in the 1976 program or the review drafts of the 1979 assessment and program direction documents which provided the basis for public participation in the development of the 1980 program. In our view, the concept of high and low bounds has not been adequately explained. Even more critical, neither Congress nor the public has received any rational explanation of output ranges which encompass everything from sharply increasing to sharply decreasing levels for particular program elements.

In sum, the procedures followed in the formulation of the 1980 program in terms of output ranges have been unfortunate. The failure to provide for public participation, the failure to submit the program in a timely manner, and the failure to explain or rationalize the widely divergent directions included within the ranges for individual elements are adverse to effective implementation of RPA and have undermined public confidence in the process.

A more significant issue relates to the effect that using high and low bounds will have on the program as a guide to the development of policy and budgets. How useful can the 1980 program be with goals so broad as to encompass contradictory trends, reflecting uncertainty and disagreement as to the recommended direction of program development?

As examples, the volume of programmed timber sales on the national forests may remain relatively stable or decline by as much as 10 percent. Livestock grazing may also be stable or decline by as much as 5 percent. For a number of important program elements, the ranges between high and low bounds encompass contradictory directions of development. Provisions for recreational use may expand by more than 20 percent or decline by 12 or 13 percent. Wildlife habitat improvement may either increase by 40 percent or decline by nearly 50 percent. The number of enrollees in human resources programs may expand by 22 percent or decline by 12 percent. The mileage of road construction and reconstruction may be either increased by 22 percent or decreased by 51 percent, while the direction proposed for trail construction and reconstruction ranges amazingly from plus 255 percent to minus 58 percent. Total operating costs for the National Forest System may either increase by up to 17 percent or decline by as much as 10 percent.

In assessing the effects of this new form of program expression, it is also essential to keep in mind the limited period of time over which the 1980 program will be in effect. While the program covers the 50-year period from 1980 to 2030 as required by RPA, it will be in effect for a period of only 5 years. During the first 6 months of the fiscal year ending September 30, 1985, an updated 1985 program must be completed to replace the 1980 program. Thus, the 1980 program is actually the recommended program for the 5-year period ending in 1985, and yet, it is during this period that the high and low bounds are so widely discrepant as to largely nullify its usefulness.

Parenthetically, I might comment that what it leads to is that a forest supervisor preparing his land management plan would have to mount up and ride off in all directions at once.

The program is intended as a guide to the budget, not as a control over it. As President Carter indicates in his statement of policy, each annual budget for the Forest Service will be subjected to the zero-based budget process, with full consideration of each year's economic and fiscal context. The 1980 program, as recommended with high and low bounds, ensures a high probability that any budget likely to be proposed within the next 5 years will fall within the program bounds, at least in overall terms. Thus, by designing the 1980 program to justify future budget proposals, the administration has failed to develop a clear recommendation for program development. There is no target upon which a forest resource manager can set his sights.

The society commends the subcommittee for its white paper on RPA, published in the Congressional Record of August 5. The general tenor and direction of the findings and recommendations represent an encouraging attempt to articulate goals for improving the productivity of our forests and rangelands. We do have reservations about the specific goals, however. The white paper maintains

that the sponsors of the original bill believed management should be designed, "to achieve maximum biological outputs from the lands."

Given the necessarily arbitrary nature of definitions and measurements of biological productivity, it is likely that consideration of costs and benefits as required under RPA will demonstrate that some lands should be managed at output levels above their defined potentials while other lands should be managed well below such potentials. And while we agree with the subcommittee's findings that timber productivity needs to be increased, the growing of timber is not now, nor is it likely to become, the primary objective of public or private owners for all of the 482 million acres of commercial forest land. The society encourages the subcommittee to continue its very constructive efforts to define more specific goals, but we believe that further study will be necessary to ascertain specific, realistic targets.

The Society of American Foresters recommends that the subcommittee take appropriate actions to focus public and congressional attention on the deficiencies of the RPA process relating to program goals. The scheduling of additional hearings following the November election would seem to be an appropriate time, since interested organizations will, by then, have had an opportunity to thoroughly review the 1980 program and related documents. The society will provide the subcommittee and the U.S. Forest Service with additional comments, including a detailed critique of the RPA documents in the near future.

Again, Mr. Chairman, we appreciate this opportunity to present our views on this most important planning process.

Senator MELCHER. Thank you very much, Mr. Barber. I think about the first four pages of your testimony are the kind of testimony where you are scratching your head all the time you are writing it and you are delivering it.

What is going on with this program? I have got a couple of conclusions that I am going to bounce off of you for your reaction. I think the program is a political document, and a pretty poor political document. As one who is deeply involved in politics, I sometimes have firm opinions on what I think is good politics and bad politics. I think this is a bad political document, but it must be a political document.

When you look at the program range for grazing, it is 5 percent. Now, you do not want to upset in an election year anybody more unduly than you have to that depends on grazing on national forests. So you only say the range for grazing is 5 percent, and then the other big group, of course, the forest products industry, so you only say their range is 10 percent; it does not vary. And how can anybody get, you know, really all torn up over 10 percent or 5 percent.

But when you get down into those other ranges that you have noticed—a 12- to 13-percent difference in recreation—what is that all about? That is very mysterious to me; that is a 33-percent range. It does not make any sense. In wildlife, it is a 40-percent increase, down to a 50-percent decrease; that is a 90-percent range. This is the most mysterious type of tinkering and just does not make any sense.

For instance, if grazing is going to remain the same or have a 5-percent decrease and wildlife is going to go down 50 percent, why is that? Do they not kind of go together? They always do where I come from; if you do not have any grazing, you do not have much wildlife; if you have opportunity for wildlife, it is generally pretty good grazing for the other four-legged critters that are domesticated.

I just think it is lousy, and why it has to be involved in this kind of a document is beyond me; because if it is political, as I surmise, it is poor politics. Do you have any reaction to that?

Mr. BARBER. Well, I would have to say that I cannot disagree with you that the use of ranges has a political connotation. I would suggest that commodity outputs such as timber and range have been subjected to rather rigorous economic criteria in terms of what the program levels could be.

Some of the other outputs, such as recreation and wildlife, do not have specific economic values or economic returns that come to the Government, so they are judged by a somewhat looser set of criteria. I am not confident that the interactions among these activities, such as you pointed out between wildlife and range, are taken fully into consideration.

Senator MELCHER. They are not taken into consideration at all, I am afraid, and that is the silliest thing I can think of. If I wanted to be astute politically, I think I would emphasize the recreational opportunities in our national forests, or the wildlife opportunities; I kind of think they go together. Not everybody hunts, but a lot of people like to look and take pictures of wildlife, or what have you. I think they go together.

I think I would emphasize that and say:

Mea culpa, mea culpa; I have spent the first 3½ years of my term not paying any attention to national forests, but I am going to spend the remainder of this term and the next 4 years when I am reelected really doing something.

All of this goes together, and you are going to have better recreational opportunities, better wildlife opportunities, and it is a good investment for the country. Now, that is what I would call politically astute. This document, I think, is the poorest of politics.

Now, we have given plenty of guidance to the executive since I have been here in the last 11 years. I have had direct experience in it, and we have given plenty of guidance to the executive branch to get on with the job of managing public lands better.

I think we have continually emphasized that range improvements are a great stroke of business for everybody; on the economic side of it, for those that graze livestock, and on the public side, for those who like wildlife, hunt wildlife, or just like to look at them. They go hand-in-hand, and we have said, "Here is some money to do it, and here is the congressional direction; go do it." Precious little has been done about it.

Now, we come out with this document which says that if they had their way, precious little would be done about it in the next 5 or 10 years.

If this Congress—and I am talking about all of us—have anything we ought to take to heart about what is wrong with this document, we should recognize that one of our functions should be to rescue the professionals that work for the Forest Service from

the politics of whatever this ill-conceived type of political thinking is, and let them have the opportunity to go ahead and do what they know how to do and know what should be done in terms of improving our national forests.

I say that in the broadest aspect, whether it is timber supply, whether it is better management of diseased timber, whether it is more compatible harvesting of timber, whether it is better designed roads or fewer roads, or whether it is more wildlife or more grazing, or both, or more opportunities for recreation; just let them go and tell them, "Do not lose heart; you are not going to be pawns of the politics."

For the last 10 years, politics has just kept this valuable asset of our national forests in limbo; it has sort of driven it downhill rather than letting it go uphill. It would not take much to let our national forests improve; it would take very little to let them improve.

It would take a little bit more money and a little bit more freedom for the professionals in the Forest Service to do the job they have been trained to do, and quit threatening to cut their slots and go this Mickey Mouse route of only having so many on the rolls but hiring so many thousand temporaries, which is kind of a handicap too, as I see it, and it does not save the Government a nickel.

Those are my comments. I think we can deliver; I really have confidence in Congress. I think Congress is the one that has to deliver on this score. I think we have to do something about this program and amend it somehow and get a better go at it.

I very much appreciate the fact that you are going to give us some information, but do not wait too long to give us this information. You say you want a little more "look see" at this, and you suggest additional hearings following the November elections, which I personally think is necessary. I do not know how much we can get out of one, two, three, or four hearings, but I do not think we have arrived at the point of a good decisionmaking process yet.

Mr. BARBER. Mr. Chairman, we have a task force within the society that is working diligently on this. We simply have not had the program in hand long enough for them to complete their work. But it will be complete within a few weeks and we will have a formal report and position statement of the society which we will make available to you.

I would like to make one comment on your comments. I think one of the fundamental difficulties we face, recognizing that there is a need for budgetary constraint and fiscal responsibility, is that when you deal with renewable natural resources, your planning horizons have to be in terms of 20 and 40 years. The tree you plant today is going to be harvested 20 or 30 or 40 years in the future, and that is in contrast with the 2- and 4-year political cycles that are associated with the development of budgets and programs.

Senator MELCHER. Well, the very purpose of the RPA Act was to get out of that rut so we could have something as guidance for the long term rather than the short term 2- to 4-year cycle that you mentioned.

Thank you very much, Mr. Barber.

Mr. BARBER. Thank you, Mr. Chairman.

Senator MELCHER. Jeanne Edwards, Saval Ranch, Elko County, Nev.

STATEMENT OF JEANNE W. EDWARDS, MANAGING PARTNER,
SAVAL RANCH, ELKO COUNTY, NEV.

Ms. EDWARDS. Mr. Chairman, my name is Jeanne Edwards and I am the managing partner of the Saval Ranch, located in Elko County, Nev.¹ Our operation uses both Forest Service and BLM grazing permits.

In 1979, the Saval produced and sold 640,000 pounds of beef. The ranching operation supports eight families, and we are responsible for the sound stewardship of 160,000 acres of rangeland.

I am an active member of the Society for Range Management, and have enthusiastically participated in both the public affairs and the information and education committees. I speak from experience as a steward of the land, as a cooperator with the Federal Government, as a user, and as a beneficiary of the research and extension programs, and as a responsible businesswoman.

I want to commend you, Senator Melcher, for your strong interest and leadership in working toward effective implementation of the objectives of the Resource Planning Act. Here, I would just like to say I am so delighted this morning to have heard your opening remarks that totally reflected my experience and my knowledge, and I am so very grateful for that.

The concept embodied in the RPA makes plain, good sense. We could not run our operation without inventorying, now and then, the resources with which we have to work, considering alternative ways for managing those resources, and then deciding specifically what course of action we intend to follow.

So I was very encouraged when RPA was enacted, because it signaled the prospect of the Federal Government assuming a more rational and systematic approach to investment decisions on Federal lands and on the related programs of research, technical assistance, and communications with user groups and the public.

But, Mr. Chairman, I am deeply disappointed with the product that has been developed and with the actions taken thus far to implement the program. The quality of the data in the 1980 assessment is greatly improved over the 1975 assessment. The projections of supply and demand are more realistic and they should be a source of great concern to every American citizen.

The outlook for the future is pretty grim if we continue on our present course of neglect for investments in the management of our natural resources. I would like it understood that I disagree strenuously with the analysis, the costs and the benefits with which the range program decisions are based.

Now, I would like to be more specific. When we make a decision on the Saval as to what we intend to do next year, 5 years or 10 years ahead, we set specific goals—specific levels of investments in capital improvements and for operating expenses. We know what we intend to produce and what it will cost, and we make that specific commitment. As time goes on, we may have to change those plans because of changes of economic conditions, but we have an explicit target to shoot for.

¹See p. 63 for additional material furnished by Ms. Edwards.

Mr. Chairman, I was amazed at the President's statement of policy and recommended programs. After investing millions of dollars in the collection of data and its analysis and countless hours of time of both citizens and staff of the agency, the recommended program suggests that we will either do this or that and that we will make modest investments during the next 5 years to gradually improve the benign neglect. At this point, I think it is no longer benign; I think it is malignant.

For the administration to recommend a program for the crucial 5-year period ahead bounded on the low end by no increases in investments and on the upper end by a very modest level of investments is tantamount to no decision at all. I agree with your assessment, Mr. Chairman, that the recommended program violates the spirit and the intent of the law, and I do not believe that the Federal Government, which owns one-third of the land base in the United States, and 87 percent of the State of Nevada—and for us in Nevada, you have to realize what that is to us—can redeem its responsibilities to us and to the future by refusing to set explicit targets.

I cannot operate the Saval with that kind of timid approach. We must make decisions to guide our actions. And yet, since we are partners in the stewardship of both our fee lands and the public ranges, we must make decisions for the future when our partner, the Federal Government, conceals its intent for the future. We in Nevada understand roulette, but may I say that when we play roulette, we do it at the gaming tables and it is not part of our business operation.

Mr. Chairman, I urge Congress to amend the President's recommended program by eliminating the lower bounds, and thereby signaling the intent of Congress to get on with the vital business of managing our natural resources while we still have enough lead time to work toward achieving a reasonable order of balance between supply and demand by the year 2000 and beyond.

I am totally dissatisfied with the cost-benefit analysis of the range resource. The assumption seems to be that the value of the western ranges is determined by the value of grazing receipts, and that, for me, is like saying that the value of the forests can be measured by stumpage receipts. That assumption is totally unacceptable.

Because analysts cannot impute the value of improved conditions of rangelands to wildlife habitat, to stable soils, to clear water and to improved recreation opportunities, it seems that the Federal Government has decided not to invest in range improvements beyond the value of the Federal receipts. It is my opinion that this rationale is used as a device by budget analysts to avoid the responsibilities for improving range conditions for its multiple values.

I understand my obligations as a land manager to bring about improvements in range conditions for all of its benefits to society and not just to red meat production. But, Mr. Chairman, I need some cooperation from my partner, Uncle Sam.

It should not be surprising to anyone why the so-called Sagebrush Rebellion is so popular in the West. The Federal Government has a responsibility to effectively manage our public lands,

and certainly where rangelands are concerned, the Federal Government has made a dismal contribution to date.

Frankly, we who are dependent on the western rangelands are being discriminated against. If we compare public attitudes toward public lands in the East, such as acquiring land in national seashores and national parks, would anyone suggest that their value is determined by the receipts to the Federal Treasury?

The public lands of the East are not financed exclusively from the fees received for the use of those lands; quite to the contrary. They are purchased and thereafter managed at tremendous expense, because we as a society have decided that we want them for our use today, and certainly for the enjoyment of future generations. I think that is a sound public decision, but the western rangelands are equally worthy of public support and understanding.

By the turn of the century, 90 percent or better of our population will be living in urban communities. There will be 300 million of us to feed, clothe, and house, and that urban population seems to forget that we still live off the land. The calves grazing in the western ranges today will be served in townhouses and penthouses tomorrow.

If we lose sight of the fact that in the near future we are going to need more food, fiber, minerals, and energy at affordable cost, and if we fail to make the investments today to produce what we will need in the future, we certainly as a team will have failed.

Within the next decade, we will see multiplied thousands of acres disturbed to produce coal, energy, geothermal power, minerals, and other nonrenewable natural resources. From the Saval Ranch right now, I can feel these pressures building. The Nation's largest gold mine is situated next to my ranch on adjacent property within the national forest on which I graze.

We must be prepared to supply the energy and the minerals required by this Nation, but we must also be prepared to see that the lands are rehabilitated so that they can continue to be used for all of their values. To make this happen, there must be cooperation between the Federal Government, the mineral and energy industry and, of course, we the landowners. It can be done properly, and it absolutely must be done properly.

I do not have the level of technical expertise to help me decide what needs to be done down the road in order to increase the productivity of my ranch and to offset the impacts with which I am faced. We need a strengthened research program to help us understand how to cope with these impacts. We need an extension effort to translate scientific findings for the person on the ground who is the one that actually puts research findings to work. I am a user of both the research and extension programs and I need, want, and am quite willing to pay for these services. My problem is that they simply are not adequately available.

We are engaged in the Saval Ranch research project. This is a 10-year research effort in cooperation with the Forest Service and the Bureau of Land Management and SEA. The objective is to find answers to some complex problems relating to multiple use of range ecosystems. I am not just asking for more Federal research money, because I am putting my own money where my mouth is.

In 1978, Congress passed the Renewable Resources Extension Act. This act was intended to help implement the programs authorized by both the Resource Planning Act and the Resource Conservation Act. The Renewable Resources Extension Act is intended for people like me who manage land and resources. The law authorizes \$15 million per year for a 10-year period beginning in October 1978.

To date, not 1 red cent has been recommended for funding by the President or appropriated by Congress. It is supposedly a "new program," and is therefore subject to the spurious rationale that it should not be funded. The President did not recommend funding for Public Law 95-306 in his fiscal year 1981 budget. The House appropriations bill does not contain any funding for this act.

It is my hope that the Senate will include the full \$15 million authorization when it passes the Agriculture Appropriations Act so that after 3 years, this new program can be implemented.

Mr. Chairman, I appreciate this opportunity to testify before this subcommittee, and I certainly wish to thank you for your personal interest. I believe that it is imperative that Congress respond to the President's statement of policy and recommended program. We certainly need your help, and we need it right now.

Thank you very much.

Senator MELCHER. I note that you are an active member of the Society for Range Management and have participated in a couple of their committee activities. I cannot tell you how much we need your help. I just find it amazing that I am always going uphill to describe to Members of Congress how important it is for range improvements. Those of us from the West, I think, sometimes seem to just give lip service to it without fighting hard enough for it. I do have to admit that it is a very difficult job convincing people who have no experience at all with rangelands of what we are talking about.

So, to the extent that the Society of Range Management gets the message across, it will really help us here in Congress.

Ms. EDWARDS. Thank you very much.

Senator MELCHER. Thank you very much for your testimony.

Dr. Richard Skok, dean, College of Forestry, University of Minnesota.

STATEMENT OF RICHARD A. SKOK, VICE PRESIDENT AND PRESIDENT-ELECT, ASSOCIATION OF STATE COLLEGE AND UNIVERSITY FORESTRY RESEARCH ORGANIZATIONS, AND DEAN, COLLEGE OF FORESTRY, UNIVERSITY OF MINNESOTA

Dr. Skok. Mr. Chairman, I am Richard A. Skok, vice president and president-elect of the Association of State College and University Forestry Research Organizations, the acronym of which is ASCUFRO, and dean, College of Forestry, University of Minnesota. I am also serving a 3-year term as a member of the Joint Council for Food and Agricultural Sciences, established under title XIV of the farm bill of 1977. I am here today testifying on behalf of the ASCUFRO membership.

ASCUFRO represents forestry research programs in the 60 State colleges and universities participating in the McIntire-Stennis cooperative forestry research program. We appreciate the opportunity to testify at these hearings.

The research component of RPA is little understood, offers no dramatic conflicts, and so often is silent. We therefore believe it is appropriate for us to bring to the attention of the subcommittee our views on the 1980 RPA program and public forestry research needs of the United States.

The 1979 "Assessment of the Forest and Rangeland Situation in the United States" identifies many of the major issues to be addressed over the next several decades in the management and use of the resources in this Nation's forests and rangelands. It convincingly documents the basis for these issues as well.

Research in forestry and range, when given necessary support, has proven the ability to contribute knowledge useful to solving problems and resolving conflicts that arise in the management and use of these forest and range resources. More importantly, expanded research in existing or new program areas in forestry offers us unique opportunities for investment through our human resources to increase the scientific knowledge in this field. Such new knowledge can effectively increase our options in meeting the growing needs for a fixed or declining forest and rangeland base.

Research is generally considered to be a long-term investment opportunity. However, in forestry research often pays off more quickly than other investments needed in the management of forest lands that require long periods to show results because of the nature of the biological processes involved. It is often a wiser choice to find means to adapt to available resources through technological innovation than to rely primarily on investing to produce a specific resource.

The returns on investment, ROI, in forestry research are not easily identified or quantified and are not readily available in a credible form at this time. Established work in agriculture, however, indicates a highly favorable ROI for selected research programs which have some close parallels in forestry.

The overall role of research in contributing to agricultural productivity seems to be reasonably well established. It seems highly probable that the same case, as yet undocumented, could be shown for forestry research.

Despite these considerations, funding support by the Federal Government for forestry research has a poor record in recent years. In fiscal year 1978, the last year for which the current research information system data are available, \$113 million was spent by USDA agencies on forestry research. Of this, 90 percent was research funds directly through the Forest Service; the 10-percent balance was funded through Cooperative Research, Science and Education Administration, to State research units eligible under the McIntire-Stennis Cooperative Forestry Research and Hatch Acts.

An added \$19.4 million of research classified as forestry was funded through Federal agencies other than USDA.

Over the period 1968 through 1978, non-Federal public funding for forestry research increased at an annual compound rate of 12.8 percent in current dollars. At the same time, Forest Service funding for research grew 9.5 percent on a comparable basis, and McIntire-Stennis appropriations by 9.9 percent. Hatch funds utilized for forestry research over this period showed a growth of only 3.2

percent annually. Forestry research clearly suffered as a component of the Federal budget in the 1970's.

Our research capability has not kept pace with the escalation over the past several years in the asset values represented by these resources.

Comparisons with other program elements within the budget of the Forest Service also show a devaluation in the research component over this period. Comparing the research low- and high-bound proposals in the recommended 1980 RPA program for balance with other program components indicates that a significant restoration of Forest Service research effort would occur under the high-bound-budget requests. The low-bound requests would have only a limited and unsustainable influence on relative expansion of the research component.

Clearly, we see the necessity of budgeting at or near the upper bound level as essential if Forest Service research is to contribute its share to meeting the present and future challenges for achieving national objectives with respect to our forest and rangeland resources.

For the past 100 years, the direction of forestry and forest policy in the United States has been strongly influenced by Federal leadership. This is not an appropriate time for this leadership commitment to wane, as it has recently through postponement of the needed investments in forestry research.

While Federal expenditures for forestry research currently are divided approximately 90 percent to the Forest Service and 10 percent through SEA/Cooperative Research to State organizations, the McIntire-Stennis Act authorizes funding to State organizations of up to 50 percent of the Forest Service research appropriation. In fiscal year 1979, the \$10 million appropriated for McIntire-Stennis represented only 17.5 percent of this authorized level, or a difference of more than \$47 million. The need and the opportunity for the Federal Government to reinforce and support the Federal-State partnership in forestry research is obvious.

The forestry research community is better coordinated and planned than ever in recent history. Our member universities have demonstrated significant capability to contribute to the 1980 recommended program through science. The productivity goals identified in the subcommittee's white paper will be more effectively achieved if the forestry research community is a full participant and all its capability is enlisted in meeting this challenge. The potential exists, given a new emphasis on the research program in forestry through the USDA Forest Service and the McIntire-Stennis Act.

The goals described for research in the 1980 recommended program are ones we support and have helped to identify. Members of the university forestry research units, the research branch of the Forest Service, SEA/Cooperative Research, and the State agricultural experiment stations work together to develop a coordinated research program to improve the productivity of that two-thirds of the United States which is occupied by forests and associated rangeland.

This effort in research planning and coordination was intensified beginning in 1976 to address the requirements set forth in the

Forest and Rangeland Resources Planning Act of 1974, and title XIV of the National Agricultural Research, Extension, and Teaching Policy Act of 1977.

In this intensification process, regional and national conferences on forest and associated rangeland research were held. These activities contributed significantly to the proposed national research program cited in the white paper prepared by the Subcommittee on Environment, Soil Conservation and Forestry.

Other evidence of increased planning and coordination exists. The Airlie House Conference was held to examine the manner in which federally funded forestry research is conducted and the policies related to this. A research committee comprised of Federal, State and private sector forest scientists is developing a position paper on basic research in forestry.

Efforts are underway to improve our ability to analyze and evaluate past and potential research efforts. Other efforts such as that on eastern hardwood research planning are underway and have made a direct input into the recommended program.

The network of research planning and coordination among Federal and State research organizations with funding through USDA has been strengthened in recent years and did effectively contribute to the 1980 RPA process. We believe there are opportunities still evident to further strengthen this process, so as to improve achieving the RPA Act goals.

Among these are: One, a need to make research a component of State forestry planning conducted under the Cooperative Forestry Assistance Act of 1978. Inclusion of forestry research in such planning would help to assure identification of research needs from both State and national level perspectives.

Two, the need exists for linkage between the joint research planning activities related to RPA and the budget request development process at the Federal level for the McIntire-Stennis cooperative forestry research program. The Forest Service component of such research planning does get displayed in the program budget, as required in the RPA of 1974.

The State forestry research institutions are partners in meeting the regional and national research needs. However, there is not a mandated requirement for jointly displaying a program budget in the Federal budget process that provides an opportunity for those making decisions to see if all the parts are in place and fit.

Three, forestry research in Federal agencies other than USDA and in the private sector need to be more adequately involved in the planning system and in the research data base.

Four, meeting the scientific manpower requirements of the expanded programs of research and technology transfer represented in the 1980 recommended program will impact heavily on the institutions ASCUFRO represents. The McIntire-Stennis Act specifically authorizes support of graduate education of forest scientists. There presently is no defined program or budget linkage to support this involvement.

Five, extension education in forestry and range has much to offer in assisting the implementation of the 1980 recommended program. We believe the State forestry extension units have not been adequately involved in the development of the 1980 program. As a

result, the complementary role they could fulfill has not received the attention it deserves. Extension programs in all aspects of forest and range resources will be impacted by increased Federal activity in the forestry field. As noted with research, efforts to link extension planning to State forestry planning where it occurs would be valuable and desirable. We would hope that, as for the McIntire-Stennis cooperative forestry research budget requests, a way can be found to link the budgeting process for the forestry component of the Renewable Resources Extension Act of 1978—Public Law 95-306—with the budget review process for other Federal forestry programs within the executive branch and Congress.

In summary, ASCUFRO believes the 1980 recommended program accurately reflects and has benefited from the forestry research planning and coordination activities in which we and the Forest Service have intensively participated over the past several years. We believe a similar planning relationship for forestry extension education activities in the various States would strengthen future RPA program considerations.

We urge your consideration of the need for substantially increased Federal funding of forestry research and for the extension education and technology transfer components needed to move knowledge into practice to achieve the proposed 1980 program. We are concerned over the apparent devaluation of forestry research that has been evident in Federal funding since the late 1960's.

There has been a long history of Federal-State partnership in research to attack the issues and problems in forestry. The State component has received Federal funding but at a diminished level in real dollar terms and relative to the recent and potential growth of Forest Service research. There does not presently exist the same effective linkage between planning and budgeting at the Federal level for the State partners that exists for the Forest Service through the RPA. We urge consideration of a means to display, in a parallel way, the programs and requests for Federal funding of all forestry research in the executive and congressional appropriation process.

Senator MELCHER. I very much appreciate your testimony, and I hope we can continue that partnership between the land-grant colleges and the private and government sectors on the vital research. Thank you very much.

Dr. SKOK. Thank you, Mr. Chairman.

Senator MELCHER. Gene Bergoffen, National Forest Products Association.

STATEMENT OF GENE S. BERGOFFEN, ASSISTANT VICE PRESIDENT, RESOURCE PROGRAMS, NATIONAL FOREST PRODUCTS ASSOCIATION, ACCOMPANIED BY JOSEPH B. McGRATH, VICE PRESIDENT, GOVERNMENT AFFAIRS, AND MERLE E. CONKIN, RESOURCE ECONOMIST

Mr. McGRATH. Mr. Chairman, may I introduce our witness? My name is Joseph B. McGrath; I am vice president of the National Forest Products Association. With me is Mr. Gene Bergoffen, who is the assistant vice president for resource programs, and director of Federal forest management for our association. He is accompa-

nied by Dr. Merle Conkin. Dr. Conkin is our associate economic director and an assistant in resource programs.

Senator MELCHER. Thank you very much.

Mr. BERGOFFEN. Thank you, Mr. Chairman.

The forest products industry view of the 1980 Resource Planning Act documents was summed up well in your remarks at your June 27 hearing on RPA. You said the 1980 RPA documents submitted to Congress "violate the spirit and intent of the law." We heartily agree.

You said, "The so-called high bounds program looked pretty conservative when you examine the supply/demand projections of the assessment." Again, we agree. You said, "Neither program level talks about how the country is going to solve the problems that the assessment tells us we are going to face." We could not agree more.

Finally, you said that the RPA program does not provide Congress with any "targets to shoot for in the appropriations process, and therefore it is useless." This last point is most critical and leads us to conclude that the RPA process is in critical danger of rapid atrophy.

This "very disappointing product," you aptly called it, should be rejected in no uncertain terms. Congress would better serve the Nation if it followed its own judgment rather than relying on the administration's program of inherent budget restraint and purposeful inflation.

Using the timber program as an example, let us consider what the administration says versus what it does. The statement of policy says:

This Nation's housing requirements during the next 5 years are expected to place major demands on the forest products industry to increase production of lumber and wood products.

In its 1980 report to Congress summarizing the assessment and program, the administration says:

For the short term—the decade of the 1980's—when housing demands are expected to place added pressures on supply, a significant potential source of additional timber supply to meet these higher demand pressures are the large inventories of mature and overmature timber on public lands, particularly on the national forests in the West.

In its 1980 program, the administration says its timber goal for National Forest System lands is to "expand timber supply to meet projected increases in demand."

Now, after what it says, let us look at what the administration does. For fiscal year 1981, the administration's RPA program calls for a programed sale level from the national forests of 11.9 billion board feet. That is down 300 million feet from the 1980 sale program of 12.2 billion board feet.

If the administration's recommended program is followed, it will be 1984, halfway through that critical decade, before the sale program is back up to where it was last year, and that is the high bound. If the low bound is pursued, we will be at 11 billion board feet in 1984, or 10 percent below where we are today. Obviously, this program is not internally consistent with the assessment.

The immediate problem we all face is how to supply the wood needed to meet the housing demand of the 1980's at acceptable prices. This Nation has some of the most productive forests in the

world. If we act decisively and imaginatively now, we can meet domestic demand and make the United States a net exporter of wood products.

The 1980 assessment and program did not fail in terms of defining the timber demand/supply problem. The program is a failure because it does not do anything about the problem. There is no sense of urgency in it, and certainly no commitment to take action now.

Given this situation, the forest industry concluded that the possible results projected in the assessment—namely, inflationary wood product prices and a worsening trade deficit—would be detrimental to the Nation's economy and the industry's future. We had hoped that the Government might find that as well.

As a first step to doing something about this problem, the industry adopted a national wood consumer goal, and this is listed on page 6 of the statement. The public policy statement is:

In consideration of the Nation's economic, social and environmental objectives, the Nation's commercial forestlands should be managed to achieve efficient, continuing levels of timber productivity that will: (1) minimize real consumer cost impacts through an adequate domestic supply; and (2) build the potential for an international net trade surplus of forest products.

Now, that was the first step. The next step was tougher, and that is to translate these words into some numbers that make sense, and to put this social goals statement into specific numbers and targets over time.

To do this, we worked with the Forest Service timber assessment market model, which is available and has been developed and demonstrates the effects of various supplies on consumer costs, imports, balances between timber supply regions—the West, the South, the North, and so forth—and the balance between the supply from public and private lands.

Now, the effects of our goal in relation to the administration goal, after running these alternatives through the model, are demonstrated in the figures attached to our statement.

You can see on figure 1¹ that we would call for increasing timber removals by 52 percent by 2030, as opposed to 36 percent which we interpret the administration's program to call for by 2030.

The second chart demonstrates that our emphasis in the short term to meet timber supply needs is on national forests and other public lands and that the sales there must increase by 45 percent by the turn of the century, as opposed to 15 percent under the administration's program.

In figure 3, the industry removals are shown to be in agreement between the administration and our proposal. In figure 4, to demonstrate that we are not just calling for increases on the national forests without looking to the private lands of our Nation, we call for 80-percent increases in nonindustrial private land harvests by the turn of the century and beyond, as opposed to a 46-percent increase under the administration program.

Figures 5 and 6 demonstrate that the administration's program is substantially more inflationary and would rely heavily upon imports to meet timber supply needs.

¹ See p. 65 for the prepared statement of the National Forest Products Association.

Now, these charts indicate that the mix of timber outputs necessary to meet the industry goal would lead to the national forests first, with 50 percent of the softwood sawtimber inventory, and that this output must substantially increase during the next 20 years.

Second, we do agree that steps must be taken now to assure that needed investments are made on public lands, and that the climate for investments of capital in private timbergrowing activities is substantially improved.

On the latter point, we are in agreement with the administration. In the long run, private lands will be the major source of timber supply. But lead time is needed to get regeneration rates on these lands increased. If increases in regeneration are not accomplished and private harvest rates rapidly accelerate due to a pull-back of availability of national forest supplies, the ability to sustain the private harvest in the long run will be seriously jeopardized.

We are committed to achieving this goal. We have developed and are beginning implementation of a private woodlands program to create an investment climate necessary to achieve the increased outputs from private lands.

Incidentally, a bill which has been approved in conference by the Senate and one which you cosponsored, Mr. Chairman, H.R. 4310, involves investment tax credits and amortization of investments on private forest lands. This is a substantial first step toward improving the investment climate.

In this connection, with respect to private investments, we call your attention to the testimony of the National Association of State Foresters, the Forest Farmers Association, and the National Association of Conservation Districts, which you will hear later. These statements outline increased emphasis on State and private forestry programs needed to achieve the supply increases from private nonindustrial lands.

On public lands, we are working diligently to ensure that the National Forest Management Act planning results give a full display of opportunities to increase timber supply from the National Forest System, including the possibility of changes in current policy.

Overall, we are committed to this RPA process. We have established our long-range planning effort within NFPA, and we will continue to strive to make the process hold to the spirit and intent of the law.

In summary, Mr. Chairman, the RPA calls for a program which is responsive to the assessment, displays opportunities for action, and establishes national goals. What you have received is a program not responsive to the assessment; it is a no-action, business-as-usual approach and has an implied national goal of programed inflation. Such a program is unacceptable to the forest industry and, we believe, to the consumer and to the Nation. We urge Congress to reject the program and statement of policy and consider alternatives. As for the timber portion, we believe we have suggested a better way to go.

Thank you.

Senator MELCHER. Does the National Forest Products Association have any information that they could supply the committee on the

amount of diseased timber that ought to be cut this year, next year, or the year after?

Mr. BERGOFFEN. We do not have independent information, Mr. Chairman. We would be glad to work with you and the Forest Service to identify that and be sure that it is available for the record.

Senator MELCHER. I see thousands of acres of national forest land, some of it intermingled with private land, that is diseased and ought to be harvested very quickly in Montana. I do not know how much of an input that is, but you are recommending that softwood harvest be increased rather rapidly over the next 10 years off the national forests, and I am just wondering what effect this diseased timber has on that.

Mr. BERGOFFEN. There are two keys to that. The diseased timber that is there and dying and available for harvest is a significant source of supply. But the problems relate to a commitment to that particular timber area and timberland to long-term-timber productivity, and also access.

We tend to look at our situation on a 1-year-at-a-time basis. We argue about land that is available and not available for timber production, and then we do not make the long-term investments needed to put the land as a whole in a productive condition.

If we had a commitment to productivity and to access and if OMB and the Forest Service had an economic look at these lands over their long-term potential, we would find a lot more benefits than have been demonstrated in the program, and I think we would move faster to harvest that diseased timber that you are talking about.

Senator MELCHER. Well, I do not have any faith in OMB ever understanding that; I do not care who is President. It seems to me that we are in a little bit different category here when we talk about dead and dying timber. We should not be looking at it long term; we should be looking at it in the short term and making some decisions on just how we want to harvest it.

I personally do not want to harvest it by clearcutting, and I am well aware that some people in Montana who own the land themselves do not want to, either. I was just talking to Hersheys out there in the Dillon area and they harvested some exactly like the national forest had of dead and dying timber. They harvested it the way they wanted to, by bid, and they did not clearcut it.

They got the job done the way they wanted it done. Hershey did not want to clearcut it, and it was comparable to a lot of other scores of thousands of acres of national forest land. Whoever bid it was satisfied; it could not have been at extremely high prices. The prices were high all right, but not extremely high.

Mr. BERGOFFEN. There are alternative ways of harvesting the timber and using the potential. The key is the access to get to it, and investments in roads, people and, manpower to make it available.

Mr. McGRATH. Mr. Chairman, we will respond to your question, and we will also check with our federated associations to see if we can supplement the information which is otherwise available.

Senator MELCHER. I wish you would.

Mr. McGRATH. We would be very happy to do that.

Senator MELCHER. I wish you would, because there must be a considerable amount of timber in the intermountain area that ought to be harvested in the next 5 years, not 10 years. I am talking about the diseased timber; it ought to be started within a year or so, rather than programed after OMB agrees to something. Getting them to agree to policy seems to be a really long-term situation. I think this is sort of an emergency deal that ought to be looked at a little bit separately, but it would fit in with your recommendation of an increase in softwood harvest from the national forests over the next several years.

Thank you all very much.

Mr. McGRATH. Mr. Chairman, we would like to have our full statement submitted for the record, also.¹

Senator MELCHER. Yes; it certainly will be, and thank you.

Ron Michieli, representing the National Cattlemen's Association, the Public Lands Council, and the National Wool Growers. You are wearing three hats today, Ron.

STATEMENT OF RONALD A. MICHIELI, DIRECTOR OF GOVERNMENT AFFAIRS FOR LAND AND NATURAL RESOURCES, NATIONAL CATTLEMEN'S ASSOCIATION, AND EXECUTIVE DIRECTOR, PUBLIC LANDS COUNCIL, ALSO REPRESENTING THE NATIONAL WOOL GROWERS ASSOCIATION

Mr. MICHIELI. Thank you, Mr. Chairman. I am happy to be here today. I just wanted to express our deep regrets in the agriculture community for the loss of one of your top aides, Mr. Ben Stong, whom we will miss very much.

Senator MELCHER. Thank you very much, Ron.

Mr. MICHIELI. My name is Ron Michieli, and I am director of government affairs for land and natural resources for the National Cattlemen's Association, and executive director of the Public Lands Council. I am submitting this statement for those two organizations and the National Wool Growers.

We find the 1980 Resources Planning Act program and the President's statement of policy completely unacceptable. Because of our deep concern over the program's treatment of national forest grazing and the faulty economic analysis which is used to justify the argument that the national forests should not respond to the increased demand for range grazing production in the future, we have assembled a special task force to write a detailed white paper on the RPA program. This task force includes eminent range economists from the universities and livestock industry leaders. We will be working with Forest Service and Bureau of Land Management economists and officials, and it is our intention to produce a constructive, informative paper.

That task force will hold a 2-day meeting in Denver on September 24 and 25, following a 1-day public workshop on how economic analysis affects public rangelands planning and decisions.

That white paper will be submitted to this committee for your information and consideration. My comments, therefore, will be brief and general.

It is obvious that the 1980 program distorts the intent of Congress. It is not a professional document; it is a political document

¹ See p. 65 for the prepared statement of the National Forest Products Association.

shaped by the Office of Management and Budget. It bears little relationship, particularly as far as forest grazing is concerned, to the 1980 assessment.

The assessment estimates that the demand for range grazing will increase 41 percent by the year 2030 under the medium projection, and 63 percent under the high projection. The assessment indicates that the range has the forage potential to fill this demand.

The program, however, proposes an increase of only 6 percent in livestock grazing in national forests by the year 2030 under both bounds, high and low. Under the low bound, there would be near-term reductions. This failure to propose that the national forests play a role in meeting the increased needs of the future is ostensibly based on economics. It is implied in the brief program summary available that it would not be cost effective to increase national forest grazing by any great amount.

The program summary asserts:

On land where it is clearly economical to produce forage, every effort will be made to achieve optimum production, as national policy requires.

At another point, it is suggested that the increased demand be satisfied by private lands. In two recent RPA conferences I attended, the comments by many speakers were that livestock grazing should be shifted from the public lands to the private lands.

Ironically, the draft Resources Conservation Act documents covering private lands take a negative view of livestock grazing on private lands, suggesting that habitat quality is best if forests are not grazed.

In any case, it is interesting to note that the RPA program says that livestock grazing on private lands is more cost effective than grazing in the national forests.

The RPA program apparently bases its recommendations on an economic analysis which places a value to society of livestock grazing on the national forests amounting to between \$2.45 and \$5 per animal unit month of grazing, depending on the area. These figures on grazing values were based on a study by a Colorado State University economist whom I suspect is disturbed at how his limited data are used to draw unjustified and broad conclusions about cost effectiveness of national forest grazing programs.

The same economist, as a matter of fact, was one of the authors of a recent study submitted to the Forest Service and other Federal agencies which concluded that for each AUM reduction in Federal forage in the State of Colorado, there is a loss of \$30.37 in direct gross livestock revenues, and a loss to the State's economy of \$86.25 in business sales, and 0.73 man-days in employment. That study is entitled "Impacts of Federal Grazing on the Economy of Colorado," which was done by Bartlett, Taylor & McKean at Colorado State University in 1979, and we have that study available if you would like it made available for the record.

This study considers the interdependency of public and private lands in the West where the Federal lands provide critical seasonal forage—a point apparently not adequately considered in the RPA analysis.

Without getting into a detailed critique of the faulty economic analysis in the RPA documents, I want to say that the values to society of Federal grazing are underestimated and the costs are

overestimated. There is no consideration or credit given for the peripheral benefits of livestock grazing and range improvements, such as water quality improvement, reduction of soil losses from wind and water, improvement of riparian zones for fish, wildlife benefits, and improvement in cultural or social values.

There is no credit for the custodial stewardship provided by the grazer and, of course, no accounting of the multiplier effect on local, regional and national economies. Range grazing is energy efficient, but the impact of increased energy prices are not considered in the economic analysis or program report.

We will, of course, be addressing all these issues in greater detail in our white paper.

We had hoped that the Public Rangelands Improvement Act of 1978—PRIA—and the Department of Agriculture range policy statement of last October marked a reversal of the historic neglect that the Federal Government has displayed toward the use of forests and rangelands as an important source of red meat and fiber for a growing population.

PRIA said that vast segments of the public grazing lands were producing less than their potential for livestock, wildlife habitat, recreation, forage, and water and soil conservation benefits, and will remain so unless there are significant increases in levels of rangeland management and improvement funding.

The departmental range statement grew out of a range symposium in which Assistant Secretary Rupert Cutler admitted that range grazing was underrated and ignored as compared to other Department of Agriculture programs.

The RPA political program document is a step backward as far as range grazing is concerned, and we urge this committee to reiterate that we must start now to achieve the forage potential of the national forest lands, if the needs of a growing population are to be met.

That concludes my remarks.

Senator MELCHER. Thank you very much, Ron. I very much appreciate the position of the Cattlemen's Association, the Public Lands Council, and the Wool Growers. I guess I could add my "amen" to the points you have made; they are very potent points that I agree with. Thank you very much.

Mr. MICHELI. Thank you, and we will have that white paper to you just as soon as our study is completed in a couple of weeks.

Senator MELCHER. That will be very helpful for us.

The committee will be in recess for about 3 minutes.

[Whereupon, a brief recess was taken.]

Senator MELCHER. The subcommittee will come to order.

The next witness is Mr. Paul Swatek of the Sierra Club. Mr. Swatek?

STATEMENT OF PAUL SWATEK, CONSERVATION ADMINISTRATOR, SIERRA CLUB

Mr. SWATEK. Thank you, Mr. Chairman.¹

My name is Paul Swatek; I am conservation administrator of the Sierra Club, based in San Francisco. I have been working with club leaders, especially in California and the Northwest, on forestry and

¹ See p. 70 for additional material submitted by Mr. Swatek.

range matters, and this statement reflects some limited inputs from some of these other people in the club who have looked in a preliminary way at the RPA documents.

The future management of the Nation's forests and rangelands is of prime concern to the Sierra Club. Our 185,000 members are active users of the full range of multiple-use resources found on these lands, and are especially concerned about the wilderness values on the national forests. In addition, club members are concerned about the impacts of management decisions on other recreational uses, wildlife and fisheries, water resources, range, minerals and timber.

As you know, the Sierra Club has been involved with forestry issues consistently since its founding in 1892. We commented in some detail on the 1975 RPA program and assessment, and also on the 1979 draft program and assessment. A copy of our comments on the draft is attached to a copy that the committee has.

Members of our chapters and groups are now actively involved with the planning processes that are in progress in each region and on each national forest.

We are pleased to see the evolution of a more systematic approach to planning and management that will base decisions regarding the future of our forests and rangelands upon more accurate and complete information about the on-the-ground conditions and capabilities of the land.

We feel that if the national targets for outputs of both the market and nonmarket goods and services arise more from this bottoms-up kind of planning, we will see far less abuse of the resource and fewer cases of one use adversely impacting other uses.

We believe that more sensitive management coupled with more realistic goals can enable us to better harmonize the various uses of our forests and rangelands and allow us to sustain the outputs from a healthy resource base for decades to come.

The 1980 program is a substantial step forward in several respects. We strongly agree that the Nation must look more to private and industrial forest lands to meet future growth in demand for timber. We feel it would be a terrible mistake for the Nation to try to meet increasing demands for timber by rapidly liquidating the remaining old growth timber on our western public lands as the timber industry is urging. The impacts on recreational uses, wildlife, and fisheries is far too great. Furthermore, the ultimate socioeconomic impact upon dependent communities would be adverse; when supplies of timber do run out the impact will be more severe. Thus, we generally agree with the lowering of anticipated timber outputs from the national forests below the levels that were contemplated in the 1975 program. At the same time, we are generally in agreement with the substantial increase in projected State and private forestry programs. We note with favor that even at the lower bound in the recommended program these programs will be expanded.

The Sierra Club is also very interested to see the development by the Forest Service of a new, modified alternative, 4A, which appears to be modeled upon our suggestion that commodity outputs can be maintained near current levels, and indeed somewhat increased above them, while preserving more wilderness, by shifting

funds which would have been used to build roads on more economically marginal lands to more intensive management of timber and range on already roaded lands. We note that alternative 4A maintains a timber output level near the middle of the range in the recommended program, while accommodating a significantly larger National Forest Wilderness System.

We welcome some movement toward our request that better quantitative goals be set for the noncommodity outputs. Particularly, we would note the recommendation that we find in the more complete description of the 1980 program, which has not yet been released to the public, that anadromous fish habitat be managed to preserve 90 percent or more of potential and resident fish at 80 percent or more of potential. We view this kind of standard to be an essential complement to similar standards that have been suggested for commodity outputs. If we are going to establish target goals for commodity outputs as is suggested in the August 5, 1980 white paper—namely, 90 percent of the land's potential for timber and 85 percent for range—then we need complementary goals for noncommodity outputs.

We also then need to improve our ability to assess the impacts of managing the resource to achieve one set of target goals on other target goals. The very brief discussion of "multiple resource interactions" in the assessment is particularly interesting. It describes how primitive our ability is to predict how compatible different resource levels are with each other: The Sierra Club followed with considerable interest the May 1979 "Timber Harvest Scheduling Study" prepared by the Forest Service for the Six Rivers National Forest in California. This study, too, attempted to look carefully at how well commodity and noncommodity output targets can be reconciled to each other within a single national forest.

Hopefully, as new generations of forest plans are developed under the National Forest Management Act regulations and as the next RPA program and assessment are developed, we will be able to refine our understanding of how better to reconcile these competing resource output goals.

So far, I have focused on aspects of the 1980 program that we feel show progress. There are a number of areas about which we are quite concerned. One of the most serious relates to the decision by the administration to present a range of program outputs. It is necessary that the recommended program be realistic, of course, in terms of cost. We also accept that some degree of flexibility is wise to cover a range of future conditions. However, the recommended program presents ranges of outputs for the various resources which vary widely from median targets. The Sierra Club is concerned that the target goals for the timber and range outputs vary over a relatively narrow range, typically plus or minus 10 percent or less, while many of the noncommodity outputs vary by much more.

For example, the 1985 range for trail construction/reconstruction lies between 250 and 2,127 miles. The effect of this target-setting approach in the event of tight budgets will be to assure commodity outputs a continuation of relatively high output levels. By contrast, noncommodity outputs that have very low lower limits of projected output levels will likely be cut to save money, and the Forest

Service will be able to say that even much lowered output levels are consistent with its recommended program.

Previous witnesses have cited the example of the range for trail construction and reconstruction. Trail construction and reconstruction could be cut to only 42 percent of the 1978 base and still be consistent with the recommended program. The recommended program also contemplates the possibility that reforestation could be cut to 84 percent of the 1978 base, timber stand improvement to 68 percent, and that the amount of wilderness on the national forests could be as little as 33 million acres. We feel that these are all very inadequate.

One can see that the 1980 program sets target goals in a way that perpetuates one of the fundamental problems which the RPA was supposed to deal with; namely, the disproportionate funding of different programs in the Forest Service budget. The President's comment in his June 19 statement of policy that, quote, "it is my intention that the Department of Agriculture manage the National Forest System * * * with a keen sensitivity to the anticipated difficult economic and budgetary choices confronting this Nation over the next several years," underscores our concerns in this regard.

The Forest Service does not make it at all clear why the 1980 program target goals are presented in this way. We have all heard reports of the negotiations between the Forest Service and the OMB as the two agencies tried to reconcile the 1980 RPA program with the budget. It almost appears that to keep the cost of the recommended program within some cost limits established by the OMB, that funds had to be taken from some programs to keep the minimum output level for other programs up to a politically acceptable level. Specifically, we suspect that to keep the minimum timber harvest level up, funds had to be taken from some of the programs which show particularly low ranges of outputs. There does not appear to be a programmatically sound rationale for the low lower bounds of some of the resource outputs. It would be useful to have a report from the Forest Service that would explain the rationale behind and the consequences of some of these low lower bounds that one finds in the recommended program.

The Sierra Club is concerned about what we view to be an unacceptably low target for wilderness. The upper end of the range, 42 million acres, falls far short of our recommendation to the Forest Service in RARE II and short of what a feasible, realistic land allocation mix would provide. In developing the new, modified alternative 4A, the Forest Service has indicated that 47.8 million acres of wilderness can be established while maintaining and increasing the level of timber harvest from the national forests.

Thus, there is clear evidence that the maximum acreage for wilderness in the recommended program can be raised, as the Sierra Club and other conservationists have urged, without undue impact on commodity outputs. We believe that the 57- to 60-million-acre figure we recommended in the draft is feasible and deserves further scrutiny by the agency.

The RPA outputs do not anticipate the results of the consideration of departures from the current policy of nondeclining even-

flow. This is entirely appropriate, since the results of the forest land use planning effort must be completed before the judgment can be made as to whether or not there should be a departure. We are concerned with statements such as that in the white paper that "any supply identified is expected to be in addition to the volumes identified for harvest in the program." We foresee situations in which forest level planning will indicate that the timber output assigned to a forest from the top down is too high, that the land base is not capable of producing a level of production contemplated when the national and regional targets were disaggregated to the forest level, at the same time meeting other multiple use objectives.

This is one of the dangers we see from top-down planning. The NFMA regulations, in fact, anticipate such situations and provide that a forest may request a revision downward of its programmed cut if the land is found not to be capable of sustaining that level of cut. In such a case, the regional and national targets should also be corrected downward. In other words, departures may add to or subtract from the national timber output target. Peter Kirby, who will be following me, will address this further.

Our comments on the 1979 draft asked that the Forest Service make clear what assumptions about silvicultural systems and practices underlay their alternative programs. One still has trouble clearly understanding how the national forests would be managed under the recommended program. It would be very useful to have a clear statement of what could be expected to happen to rotation ages, diversity, the size of openings, how much old growth would be retained, and so forth.

We do note with considerable concern the indication on page 71 of the more extensive program document that "the minimum biological growth potential used to determine capability of land for timber production will be at least 20 cubic feet per acre per year. Regional foresters may establish a lower standard in regional plans." This makes no sense to us. A 20-cubic-foot standard is already dangerously low and is well below what most commercial timber operations would use. It has been in use for many years by the Forest Service and certainly should not be lowered.

I have summarized some of our favorable comments about the newly released RPA documents and some of our concerns. We look forward to receiving the more extensive program document and having the chance to study it and comment upon it more thoroughly.

Thank you for the opportunity to present our views.

Senator MELCHER. Thank you very much, Mr. Swatek. I think you have given us some pretty good ideas of where the Sierra Club is at in regard to the RPA.

I gather that you are not just simply emphasizing your single interest or trying to demonstrate a single interest in wilderness, though you do emphasize it quite a bit.

Mr. SWATEK. That is correct. Wilderness is a very substantial interest, but our interests go well beyond wilderness.

Senator MELCHER. Well, as one of the older environmental organizations in this country—perhaps you are the second oldest; the Audubon Society is older?

Mr. SWATEK. Right. I think the Massachusetts Audubon Society was founded 1 year before we were.

Senator MELCHER. But as one of the largest and oldest of the environmental organizations in this country, I am sure going to welcome the assistance of the Sierra Club in going after reforestation funds.

You did not mention much about range improvements, but I take it you are for that, too.

Mr. SWATEK. I think there are a number of things that can be done to improve the conditions on the range that we would support, yes.

Senator MELCHER. I think there has been altogether too much emphasis by environmental organizations on just the aspects of how many acres are put into the wilderness system, and not enough emphasis during the past 10 years on what is happening to public lands in general—just a little bit of lip service decrying overgrazing, whether there was overgrazing or not, and not identifying where. And everytime we tried to get some support from environmental organizations on reforestation and range improvements, it seems like it has been a day late and a dollar short.

You have emphasized that somewhat in relationship to the RPA. I hope we can count on the Sierra Club and other environmental organizations to be there when we need the help.

What is your judgment on getting rid of this diseased timber? Do you have any out in California?

Mr. SWATEK. I am sure we do.

Senator MELCHER. Well, wait a minute. I am not sure you do. Are you aware—

Mr. SWATEK. There are areas where there are salvage sales that have been programed, and that is the Forest Service's program in region V.

Senator MELCHER. Have you seen thousands of acres in a chunk all dead from bark beetles?

Mr. SWATEK. I am not the person in the club to answer that question. We have people out in the field who might know of such situations in California and elsewhere in the country.

Senator MELCHER. Well, I just wondered, because we view that—I have to view it in Montana, and it gets worse. I just wondered whether the Sierra Club had a position on it, because I think we need some drastic action. I have been thinking for the last several years that we need some sort of quick remedial action.

Mr. SWATEK. Certainly in situations where the decision has been made to manage those lands for long range timber production, I think the Sierra Club would be entirely in sympathy with efforts to salvage the timber. In cases where dead and dying timber lies within areas that we feel should be in wilderness, then I think we might just assume in some cases, let nature take its course. That depends on the land allocation decisions that have been made for the land base, and that is going to vary from site to site.

Senator MELCHER. Well, I understand that point. A lot of it is not going to be considered for wilderness ever, and it is still there and still dying, and dying very rapidly.

All right. Thank you very much, Mr. Swatek.

Peter Kirby of the Wilderness Society.

STATEMENT OF PETER C. KIRBY, NATIONAL FORESTS ISSUES
SPECIALIST, WILDERNESS SOCIETY

Mr. KIRBY. Thank you very much, Mr. Chairman.

My name is Peter Kirby, the national forests issues specialist for the Wilderness Society. We are a nationwide conservation group dedicated to the protection of America's remaining wildlands.

We support the RPA process as a way of bringing greater balance to spending among the multiple uses, of better involving the public in these long-range decisions, and of better disclosing the environmental impacts and trade-offs of alternative futures. We commented in great detail on the draft 1980 documents.

I will briefly go over and highlight my written testimony¹ and then, with your permission, would like a few moments at the end to respond to the suggestion of the timber products industry that Congress veto the program and statement of policy and send it back.

At the oversight hearings that you held last fall, we had an exchange, Mr. Chairman, about the position that environmental groups should take on the RPA program, and I mentioned at that time that environmental groups generally favored alternative 4, which would increase nonmarket outputs from the national forests. But we wished to see it modified so that commodity levels could be maintained or increased.

We are gratified that the Forest Service developed this alternative as a full blown, detailed alternative in the final program, although we are disappointed that it was not selected.

I would like to give you the opportunity to compare the two alternatives, the recommended program and this so-called alternative 4A. On page 2 are the statistics comparing, as I said, the recommended program and alternative 4A, the variation that we recommended.

As you can see, in the recommended program the high bound for wilderness is 42 million acres, assuming that all the further planning areas are designated. Under alternative 4A, the Forest Service indicates that the wilderness system could be expanded to 48 million acres of national forest land, about a 15-percent increase over the high bound of RARE II.

What is also very illustrative is that the commodity goals come out about the same under both alternatives. Livestock grazing goals are identical and timber sale goals are virtually identical. It is just a very small shortfall from the high bound.

The important point to draw from this is that Congress can go beyond RARE II in designating wilderness while assuring that the same market levels of renewable resources are achieved and, I might note, at about the same budget cost.

According to the program, the key to this alternative is more intensive management of the accessible portions of the national forests. Under this approach, the Forest Service states that the mix of outputs in 4A appears to be viable; that is, that we can go well beyond RARE II and still achieve commodity outputs that are about the same as the recommended program.

¹ See p. 100 for the prepared statement of Mr. Kirby.

Thus, we urge the subcommittee in its white paper to recognize that the RARE II recommendations are a floor and should not be a ceiling on congressional action. As this alternative illustrates, Congress can establish a National Forest Service wilderness system that is more ample, more diverse, and more accessible than RARE II will provide, and still attain the achievement or near achievement of high bound RPA market goals.

Related to this, as you were discussing with Paul Swatek a moment ago, is the greater intensive management that will be needed on accessible and productive national forest sites. Certainly, the Wilderness Society and other groups that are committed to 4A would like to play a role in getting the necessary funds to make those available productive sites, in fact, produce more. In this respect, we are in agreement with the feature of the white paper calling for increases in productivity on forest lands, public and private.

Let me turn to the second point about fisheries. As Paul mentioned, the program set a goal of protecting 90 percent of the productive potential of anadromous fisheries, and 80 percent of resident fisheries. This is a substantial improvement over the 1975 program that set the goal at 70 percent. It is an improvement that we think is very highly justified economically and environmentally.

The written testimony gives an example from the Six Rivers National Forest, where a recent study showed that if there is only a 5-percent decline in anadromous fish populations, there would be almost half a million dollars' loss in economic values. At the same time, the health of fisheries resources is an indicator of the health of the ecosystem.

We particularly look forward to the application of this standard when forests consider departures from evenflow nondeclining yield. As you know, under section 11 of the act, a departure cannot be approved unless it is consistent with all the multiple use objectives. So we look forward to having this high standard applied, because it will assure that if departures are approved, they are environmentally acceptable.

Finally, turning to the bounds, we share the criticism that SAF and others have very eloquently voiced about the tremendous disparity between the market and nonmarket outputs in the bounds, and so we would certainly support a nonacceptance of the low bound for the nonmarket elements.

But at the same time, looking forward to the NFMA planning over the next 5 years, I think there is a case that can be made for having some range of goals, rather than just a single number. It should be a narrow range, but I think there should be a range rather than a single number. We are certainly not infallible and do not know what is going to come out of the NFMA plans.

The Forest Service admits, for example, that it does not know what will come out of the marginal lands review; how much more land will be taken out of or added to the base that is available for timber harvest. So our recommendation is that there be a range of goals, not a very wide one, but let us say a 10 percent range for each element, commodity and noncommodity. So we recommend that the subcommittee allow a 10-percent variation below the high bound as to all the RPA goals.

Finally, Mr. Chairman, let me respond to the suggestion of the National Forest Products Association that Congress veto the program and send it back. I think this is extremely unwise both as far as the integrity of the process is concerned, and also as far as the substance of this program is concerned.

You were supplied with some documents from NFPA showing the tremendous adverse impacts—programed inflation, I think was the term—that will come from this 1980 program. Mr. Chairman, if you would look at the alternative chart that is proposed for the National Forest System—their figure 2 for Forest Service removals over the next 20 years—you will see a very large departures bulge, which is what the industry is proposing be done.

Whether that is good or bad, you cannot fault the 1980 program for not targeting a departures bulge because, as Paul Swatek pointed out, departures are to come out of the individual forest plans which have not yet been completed. Thus, we do not know here in 1980 whether the departures are achievable. In fact, it would probably violate the NFMA if the Forest Service targeted departures ahead of time, because they are to come from the ground up.

So I think one of the important elements in their criticism is extremely misleading, and it would be doubly unwise, therefore, I submit, for the Congress to veto the program. It would threaten the integrity of the act, and I think their criticism does not do accuracy to the 1980 program.

Thank you.

Senator MELCHER. I do not think we have said "veto." I think we have been contemplating amendments.

Mr. KIRBY. I agree, but the witness from NFPA recommended that Congress veto the statement of policy and program, and I was explaining why I think that is unwise.

Senator MELCHER. I see.

Thank you very much; we appreciate your testimony, Mr. Kirby. J. Walter Myers, Forest Farmers Association.

STATEMENT OF J. WALTER MYERS, EXECUTIVE VICE PRESIDENT, FOREST FARMERS ASSOCIATION

Mr. MYERS. Thank you, Mr. Chairman.

My name is J. Walter Myers and I am the executive vice president of Forest Farmers Association, which is headquartered in Atlanta, Ga. Forest Farmers is an organization of private timberland owners and primarily small individual owners in 15 Southern States. Our members own over 40 million acres of commercial timberland in the area we serve, and it is a pleasure to appear here today and to present our association's views on the program and statement of policy submitted by the administration in accordance with the Forest and Rangeland Renewable Resources Planning Act of 1974. In addition, I would like to comment on the draft white paper prepared by this subcommittee, in response.

Let me note that our association greatly appreciates the great interest and deep understanding of this committee and the full committee on forestry and related matters. We think you are doing a truly outstanding job.

We have reviewed the administration's current program and statement of policy carefully and discussed its recommended levels

of funding in some detail. Our distinct impression is that the administration's program and statement of policy are more nearly a recommendation on budget levels than a true assessment of the situation.

We do not feel that this approach was how the RPA planning process was envisioned to operate. We, therefore, were pleased to see this committee's response with its excellent white paper.

Now, the committee has asked for input from various organizations, and I would like to offer a few comments and observations for its consideration.

Since Forest Farmers is an organization of timberland owners and primarily private, nonindustrial owners, my comments will deal primarily with State and private programs, although we are also interested in research activities and national forest management. But I do feel that there are others more qualified than I to discuss these last two areas, and they have.

The South, the area in which our association operates, today offers the greatest opportunity for expanding the Nation's timber productivity. We have the acreage, the species, and the terrain most favorable to growing timber. Currently, there are some 224 million acres of commercial timberland in the 15 Southern States region served by Forest Farmers Association. Of this, the Federal Government owns approximately 8 percent, mostly in national forests; forest and related industries, 20 percent; and private, nonindustrial owners, approximately 72 percent.

Now, basically, the Federal and private industry lands are well-managed and they offer only limited opportunities for increased productivity. This is not to downgrade the situation, but we feel like the greatest opportunity exists on the forest lands owned by the private, nonindustrial group. They constitute not only the largest acreage, but the greatest opportunity for increased productivity.

Some estimate that on these lands, productivity could be doubled, but this may be optimistic. However, there are some problems to be overcome in increasing productivity on these lands. Among these are such considerations as profitability, motivation, taxation, investment capital, cash flow, protection, and insurance.

Now, one of the key problems is, how profitable is timber growing for private, individual timberland owners. This question is not a simple one, especially for an individual with little capital and low deferrability of income. If the individual can receive 10 percent annual return on guaranteed, short term Government bonds, it is difficult to sell him on a 20- to 30-year forestry development program at an indefinite rate which might run only 8 to 10 percent. And this would not be true if the timber burned down.

Also, there would be no cash flow in the interim. It is important to add here that our members do not seek excessive profits. What they want are stable markets and reasonable prices for their products which fairly reflect the long term capital investments and risk of timber growing.

When we are talking about stimulating forest productivity, we should also ask what is timber? From our association's perspective, it is a consumer product. We grow trees for lumber and related products for homes and commercial construction and paper prod-

ucts which make our way of life possible; all this with due consideration to the importance of environmental amenities.

The next question logically might be, do the Nation's consumers need these products? If the answer is no, there is no real problem. Few landowners plant trees because they enjoy planting trees, and no one harvests timber merely for the thrill of it.

However, if the Nation's consumers need these timber products, then it is important to consider how landowners can be motivated to grow the needed timber. Programs to motivate timber growing cost money, and the question arises, who pays for such programs? Our reply is to ask, who benefits? Is the benefit solely to the timber grower, the forest industry, the State, or the Nation? We feel that it is all of these and they should all share in funding these programs.

Maybe I am coming around the horn, Mr. Chairman, in discussing the RPA program, but I think this background is essential.

It is interesting to note here too that 31 private forest industries in the South now sponsor landowner assistance programs, and the acreage served runs in the millions. The companies certainly understand the importance of encouraging timber production on non-industrial lands, but the companies alone cannot and should not be expected to do the whole job, for they are only the processors of timber products.

Ultimately, the consumer who wants these products should also pay a major share of the costs of production. This involves State and Federal Governments, and this is, we feel, the basis for present, cooperative, cost sharing Federal, State, and private forestry programs. Since each shares in the benefits, each should pay a pro rata share of the costs, according to the benefits received.

With the preceding thoughts in mind, Forest Farmers Association endorses the National Association of State Foresters' recommendations on funding for these State and private forestry programs. To do less might well cause a shortfall in the Nation's timber productivity, which would impact on all of our citizens and perhaps especially on our low-income groups. Our affluent citizens will always likely be able to afford homes, but with prices steadily increasing, the outlook even now for adequate housing at a reasonable cost for lower income groups is not good.

We feel that with intelligent and balanced management of the Nation's vast forest resources, there is every reason to believe that these resources can provide adequate supplies of timber products not only to meet the Nation's consumer needs, but also to supplement energy supplies, provide exports to help with our balance of payments, provide recreational opportunities, et cetera.

To reach these goals, however, will take more adequate funding of forest development programs and incentives for nonindustrial owners, such as rural fire prevention and control, forestry incentives, timber capital gains benefits, investment tax credits, loan programs, crop insurance, and other innovative cost-effective ideas.

We consider an adequately funded and effective rural fire prevention and control program the greatest incentive of all. If the timber burns up, all the other programs are meaningless. We were very disappointed to see the cut in the level of rural fire prevention and control funds recommended in the RPA. We consider this

totally unacceptable. This is like owning part of a store and not wanting to pay part of the insurance; take the profits, but not pay the cost of protecting it.

We feel the job of greatly increasing the Nation's timber productivity can and must be done, but we do feel that the RPA assessment should more clearly define the needs and options and estimated costs. The Congress, with the President, can then determine what is desirable and affordable. Compromises will almost certainly have to be made, but our association urges the realistic setting of RPA goals, and commends this committee for its good work toward this end.

Thank you, Mr. Chairman.

Senator MELCHER. Mr. Myers, your testimony is extremely important in this hearing, because it is only with the melding of the national forests and privately owned forests that we are going to arrive at any kind of a policy as to what we are doing with our forest lands.

I suspect that all the points you made in regard to the opportunities for privately owned forest lands are on the realistic, perhaps conservative side. I appreciate that very much.

I do not know how much dependency this country is going to have on forest softwood products from Georgia or somewhere else in the South 15 years from now, in relationship to how much forest products we are getting off of our national forests. But I am alarmed enough to take very seriously all the points you make, and I will make sure that we do get on with them.

I particularly liked your last point of considering it as part of the national responsibility to put adequate funds into rural firefighting groups. That is certainly true, and I think it is very pertinent. I think we are considering cutting down this year, is that not true?

Mr. MYERS. Very substantially, sir.

Senator MELCHER. We will have to preserve that if we can. Thank you very much.

Mr. MYERS. Thank you, Mr. Chairman.

Senator MELCHER. Rex Resler, executive vice president of the American Forestry Association.

STATEMENT OF REXFORD A. RESLER, EXECUTIVE VICE PRESIDENT, AMERICAN FORESTRY ASSOCIATION

Mr. RESLER. Good morning, Mr. Chairman.

I would like to start off by indicating that the Society for Range Management wishes to associate itself with my written statement. Having said that, I would like, in the interest of time, to brief down my statement¹ and hopefully address some of the additional points that have been raised here this morning.

I would like it understood that the American Forestry Association is a citizen conservation organization, formed 105 years ago. We believe it is imperative that in order to satisfy future needs—

Senator MELCHER. 105 years ago?

Mr. RESLER. Yes, sir.

Senator MELCHER. Well, that puts you older than the Sierra Club.

Mr. RESLER. I hoped you would notice. [Laughter.]

¹ See p. 103 for the prepared statement of Mr. Resler.

Senator MELCHER. How about the Audubon Society?

Mr. RESLER. I am not sure what date they came into being.

Senator MELCHER. They might not have been chartered, but I think maybe they are a little bit older.

Go ahead, Rex.

Mr. RESLER. The key point, Mr. Chairman, is that we believe that the only way we are going to meet future demands is to do it in ways that are both environmentally and economically sound. To pursue either one of those goals to the exclusion of the other is not just poor public policy; it is absolutely suicidal.

I would like to say also that we particularly appreciate not only your comments this morning, but your persistent efforts to try to make this RPA process work. It is the only ball game in town; it is the only means for rationally and systematically assessing the current situation, projecting future needs and opportunities, and then charting a course that is likely to achieve the kind of future that we want.

In the absence of that kind of a process, it puts every organization and every interest group in a position of competing for their own self-interest, completely out of context of a rational planning process.

I think the 1980 RPA assessment is much improved over the 1975; more time was permitted, obviously. I would like to commend the Forest Service for improving both the quality of data and the clarity of presentation in this cycle.

I would like also to comment at this point that it should be understood that the Forest Service is not a free agent in developing that analysis, and particularly the conclusions and recommendations.

We are especially concerned with the President's statement of policy and recommended programs. In my view, that recommended program is seriously deficient. I think it could be safely said, as you have said, that it violates the spirit and intent of the act.

The bounds approach seems to me to be totally unacceptable, and I hope Congress takes an action to eliminate that concept early on. First off, the low bound does nothing more than project for the crucial 5-year budget period no growth. The upper bound, we believe, is highly conservative; it falls far short of matching supply and demand in the 20-30 time frame. But it is unrealistic to expect, in my view, that the administration and/or the Forest Service can redo that product at this time.

It seems to me that one of the options Congress has, as outlined in the white paper, is to basically accept the upper bounds as a planning device and an indication, at least, of a general trend for the 5-year period, and completely wipe out that lower bound.

If that concept stays in effect, it will effectively amend the RPA. It sets a precedent that I do not think we can stand, and I hope something is done to rectify it.

I am not satisfied with the state of the art and our analytical capability. It has been mentioned by Jeanne Edwards and others here this morning that some of the social and environmental benefits associated with improved range conditions, forest conditions, and others—we cannot compute the values for it, and therefore we tend to look at the returns to the Treasury.

I think that is not an acceptable pattern, because it will merely continue into the future—a tendency to underfund the natural resources programs. I would hope that the agency can, in its next cycle, do a much more effective job of analyzing the costs and benefits of both market and nonmarket commodities, displaying carefully where they feel there is a limitation on the analytical sufficiency, and relying more heavily on subjective judgments.

I see a trend evolving that greatly disturbs me. I think you alluded to it this morning. In my view, both the Resources Planning Act and the Resources Conservation Act suffer the very real risk of being captured by budget analysts. The involvement in this cycle of department analysts and OMB analysts early on tends to impose subjective judgments for fear of the conclusion.

I would like to urge, Mr. Chairman, that you consider signaling in some way what you have stated here this morning. I would like to see those agencies be held accountable for a thoroughly competent analytical job, but I would like it done in a professional context; the most analytical and antiseptic approach that we can find to analyze the options. Subsequent to that kind of an analysis, then the subjective judgments can be applied.

I like the tone of the white paper prepared for the committee. I would like to see more explicit targets set for noncommodity values. I can agree in concept that good conditions of the forests and ranges can be used as a surrogate for other values, but I am sure that it is understood that setting specific goals for those commodities might not be well received across the various interest groups.

One individual whom I respect highly referred to it as the logs and cows targets. I think the committee should consider one or two things: Either eliminating that kind of an explicit target for those two activities, and another option would be to request the Forest Service to try to define—if you accept the upper bounds, then try to define what those targets mean.

I want to emphasize that there is no requirement on the part of the administration or Congress to adhere to that target goal, that upper bound, if that is the one that is accepted. It is understood and explicitly reserved in the act that people can make decisions; the executive and legislative branches will make decisions as they go along. So, the idea of having bounds is compounding two negatives, and in the field of political science, that does not make a positive.

May I add another point in support of a point that Jeanne Edwards made? We need your personal attention, Mr. Chairman, and hopefully of the rest of the Senate, to the urgent need for funding the Renewable Resources Extension Act in this next appropriations bill. It has been lying dormant now for 3 years, and I would hope that we can find a means of getting some funding—preferably the full authorization—in this 1981 appropriations act.

I would like to have had time to comment on a couple of other points. On salvage, let me just say this. The Forest Service did conduct a study 4, 5, or 6 years ago; it was kind of an overview analysis of what is out there. The figures I recall are something like 26 billion feet of standing dead timber in the Western United

States, of which somewhere on the order of 10 to 12 billion feet could be recovered, provided the roadless condition is resolved.

I would like to point out as well that some of the research shows that standing lodgepole is quite sound and usable for various kinds of reconstituted wood products for a period of up to 17 years dead. I think there are some real potentials, and I would point out that all salvage material, under the explicit direction of the National Forest Management Act, is excluded from the sustained yield harvest level. Any salvage that comes out is not part of the sustained yield harvest level, the assumption being that once it dies, it is automatically dropped out of the inventory. So there are some potentials in that field.

I thank you, Mr. Chairman, very much for your personal support and leadership and I hope you are successful in getting Congress to address this important issue while there is still time.

Senator MELCHER. Rex, I am glad you mentioned that study; we are going to get it out and dust it off and see if any work has been done in the Forest Service or if there have been any additions or complementary features done by private landowners, such as Burlington, for instance, in Montana. Madison owns a lot of dead timber, and maybe they have some work they have done too.

Mr. RESLER. Well, Senator, your State has kind of a corner on the market, as you well know. I think there are some real potentials, and following that study or at about the same time frame, a revolving fund was established. One of the ways to get at that particular activity is merely to put some of the front-end money in that salvage fund.

Senator MELCHER. Well, that is a very excellent point, Rex, and it is something where we can certainly dig our heels in and try to accomplish it. I can assure you that there are a number of us that will attempt to put the \$15 million in for the 1978 act, which has never been funded, as you mentioned.

That study indicated that some of that diseased lodgepole still has value?

Mr. RESLER. Yes; it was badly checked at that time.

Senator MELCHER. Yes.

Mr. RESLER. But there is an operation, and there are several working now, but one particularly in eastern Oregon is using dead lodgepole pine; some of it is quite old. They are using it in making reconstituted wood products or comply products that are quite competitive with regular plywood in the construction trades. So there is potential use there, and frankly, it grieves me to see it standing there and going to waste.

Senator MELCHER. Well, some of the forest land that bothers me the most in Montana, just to see it dead and dying more, has some lodgepole in it that has been dead for at least 10 years, and it just keeps getting worse. So, to know that lodgepole that is standing there yet and is 10 years dead still has some value makes it more encouraging to attempt a salvage operation.

Mr. RESLER. Mr. Chairman, if I could impose for 1 minute, I would like to point out something else that has been touched on here. This 1980 assessment shows very clearly that out beyond the turn of the century, we are going to be heavily dependent upon

production from the nonindustrial private forest sector to meet our requirements.

We make up the difference presumably from Canadian imports. Two factors bother me. The Canadians say they cannot maintain the rate of increase in their exports and our imports that we are going to require; I think that is a given.

Second, to put our faith in production from the nonindustrial private forest lands in the Southern States without strong Federal support, as outlined in RPA and also by the National Association of State Foresters, is inviting disaster. It is just not going to happen. I would hope that you will look at that side of the question very critically.

Thank you, Mr. Chairman.

Senator MELCHER. Thank you very much, Rex.

Robert Bannister, National Association of Homebuilders.

STATEMENT OF ROBERT D. BANNISTER, SENIOR STAFF VICE PRESIDENT FOR GOVERNMENT AFFAIRS, NATIONAL ASSOCIATION OF HOMEBUILDERS, ACCOMPANIED BY GORDON P. STODDARD, LEGISLATIVE REPRESENTATIVE

Mr. BANNISTER. Mr. Chairman, my name is Robert Bannister. I am the senior staff vice president for Government affairs for the National Association of Homebuilders.¹ I am testifying this morning on behalf of the 122,000 homebuilders in this country that build over two-thirds of all the residential homes in this country in any given year.

I am accompanied this morning by Gordon Stoddard, our legislative representative.

We appreciate the opportunity to present our testimony on the 1980 report to Congress on the Nation's renewable resources. Mr. Chairman, I would like to begin this morning by pointing out a very important fact, and that is that this country is standing on the threshold of an explosion in housing demand. We are deeply troubled that we may not have the available timber to meet this demand.

At least in the foreseeable future, we see an unprecedented spiral in lumber prices. This increase will worsen the already serious problem of housing affordability. As you know, at this particular time less than 12 percent of the families in this country can afford the medium-priced, single-family home.

We have some serious reservations concerning the RPA program announced by the President on June 20. It does not recommend to the Congress a preferred short and long-range program of inputs and outputs for the Forest Service, as required by the 1974 Resource Planning Act. It does not respond to the needs outlined in the RPA assessment. The program as recommended by the President will not come close to meeting the realities of timber supply and demand that are foreseen in this decade.

America's forests are one of the country's greatest assets. Because of a lack of prudent investment and management, however, our public and private forests are not providing the timber and other resources which are needed by the American people.

¹ See p. 105 for the prepared statement of the National Association of Homebuilders.

We believe that Congress should act to improve the timber supply, to alleviate inflationary pressures on lumber prices, and promote housing affordability by drafting an adequate 1980 RPA program. Your subcommittee's white paper is an excellent critique of the RPA and is a significant step forward toward revising a statement of policy.

Mr. Chairman, the demand for housing, as I mentioned at the outset, will be much greater in the 1980's than it was in the 1970's. In this decade, we expect 11 million more individuals to reach the prime home-buying age of 30 than did in the 1970's. This demand will call for an additional 23 million units to be developed in this decade—an extraordinary demand, considering that the highest production in the 1970's reached just over 2 million housing units annually.

The recently released CBO study on Federal timber sales and lumber prices forecasts a continuation of the lumber price inflation of the 1970's. CBO projects that lumber prices will rise at an annual rate of 13.3 percent this decade. Based upon those projections, by 1990 lumber and wood products in new homes which currently cost approximately \$9,000 will reach, and probably exceed \$36,000.

As an association, we are very concerned about our ability as homebuilders to be able to produce and provide affordable housing in the 1980's. The number of first-time home buyers decreased by 50 percent from the years 1977 to 1979—from 36 percent to 18 percent of the market.

Mr. Chairman, we fully realize that there are many factors that contribute to increasing new home prices. However, few other factors are influenced as directly as lumber prices are by the supply of timber.

As owner of the national forests and public lands, the Federal Government is in a very key position to influence the supply of timber, and thus the cost of lumber and housing. We would urge this subcommittee to recognize the importance of housing affordability in the development of this long-range plan for forest outputs.

A few comments on timber supply: The Forest Service's RPA assessment and program are not optimistic about the availability of timber supply to keep up with the rising demand. It projects that a gap will develop between supply and demand that will be closed only by a spiral in prices which will choke off demand.

We believe, however, that the timber supply situation is even bleaker than the assessment indicates, for the following two reasons. First, we believe the Forest Service has grossly overestimated the ability of Canadian lumber supplies to increase or maintain their export levels to the United States in the next 10 years.

We are troubled that we are relying on foreign sources for almost 30 percent of the lumber used in America. There is a very striking and uncomfortable parallel between our reliance on foreign oil supplies for energy and timber for housing. The subcommittee's white paper is one that we substantially agree with, and to have a continued reliance on Canadian lumber, as the report found, is a serious flaw in the overall program.

Second, the RPA assessment and program rely too heavily on an increase in the acceptability of substitutes for wood products, and

we would like to make a major point here, Mr. Chairman. The lumber for homebuilding is a basic, traditional building material. No substitute material can compare in workability and flexibility; no substitute can adapt to both the onsite nature and the cyclical nature of the homebuilding industry as well as lumber.

Although increased use of substitutes in homebuilding could relieve pressure on timber supply, it is our judgment that it would not likely have a positive impact on the housing cost spiral.

Additionally, substitute materials are derived from nonrenewable resources. Greater energy requirements are necessary for utilizing nonrenewable resources than for timber resources.

Mr. Chairman, we fully agree with your statement made in the subcommittee on June 27 that the 1980 RPA documents violate the spirit and intent of the law. Instead of recommending a definite program of outputs for 5 years, as required by law, the administration has sent Congress a program that leaves wide latitude as to any national forest output in any of the next 5 years.

The high and low bounds of the 1980 program do not provide a measure of accountability. The vagueness of the program could allow for future budget cuts. While NAHB favors fiscal austerity, we cannot advocate cutting the budget in areas where increased outputs are anti-inflationary and where long-term planning is critical, such as the programs of the Forest Service.

NAHB strongly supports maximum feasible funding for Forest Service timber sales, management, research, and State and private forestry programs. We believe that the high bound of the President's recommended program is the minimum that should be spent on Forest Service outputs in the next 5 years.

NAHB is in agreement with the shift in emphasis of the 1980 program to increase timber production from private nonindustrial lands. We support efforts to increase this production through the State and private forestry programs of the Forest Service. Our private nonindustrial lands, in our judgment, represent a large untapped reservoir of softwood sawtimber.

However, the funding levels projected in the program for State and private forestry may not be sufficient, even at the high bound, to provide the degree of incentives necessary to promote increased timber harvests for these lands.

Although the program calls for much greater harvests from State and private lands to meet future demand, there is little additional Federal effort detailed in the program besides increased funding for State and private forestry programs. The program does not address the merits of tax incentives or loan programs to increase productivity of State and private timberlands.

While the program's emphasis on State and private forestry is admirable and worthwhile, it is clear that the national forests must be relied on for a great deal of timber needed in the short run. NAHB is very concerned about the levels of annual timber sales called for under both the high and low bounds.

Additionally, NAHB is concerned that under the recommended program, timber made available by departures from the nondeclining evenflow policy may not result in an addition to the aggregate supply of timber. NAHB fully agrees with the subcommittee that

"any supply identified for departure is expected to be in addition to the volumes identified for harvest in the program."

The President directed departures to be considered, with the objective of increasing the supply of timber and moderating housing costs, but the recommended program does not follow this intent.

National forest management and research should be heavily emphasized in the new RPA program.

A couple of closing comments, Mr. Chairman, on log exports; NAHB agrees with the subcommittee in its white paper that timber supplies must be viewed in a global context. The RPA program has not considered the global timber supply and has not adequately considered global timber markets or their impact on domestic supply. The 1980 program does not seriously address the import/export issue.

NAHB questions whether incentives for log exports are in the best interest of this country, in view of the anticipated lumber price spiral and the projected shortage of stumpage in the Northwest in this decade.

In 1979, exports reached a level of 3.8 billion board feet. This volume of timber would have provided enough lumber for over 320,000 new homes. It represents a 50-percent increase over the level exported in 1975.

In conclusion, Mr. Chairman, NAHB accepts the high bound of the President's recommendation as the minimum necessary to meet outputs. We made in the conclusion of our statement several recommendations which I will not go into at this point.

Thank you very much.

Senator MELCHER. Thank you very much, Mr. Bannister. I appreciate this thoughtful presentation, especially the realistic point that if we are going to build houses, we had better have some lumber, and getting substitutes for nonrenewable resources really does not save any money or look very feasible.

I am a little bit alarmed at the comments you made about exports and imports. I guess we should have been worrying about this over the last 5 years. It is high time we paid a little more attention to it now. If the administration is going to predict that we will not be able to get as many logs out of Canada, or any other forest products out of Canada the way we have in the past, I think we had better review our experience over the past 8 or 9 years concerning our reliance on oil and natural gas from Canada, and adjustments that we have had to make as they have cut down their exports to us.

I am not criticizing the Canadians for doing that, and I shall not criticize them for cutting down their exports of logs or forest products to us in the future, if that is their decision. They have to make their own judgments concerning their own people and their own future.

I think your testimony is very helpful to us, and I want to thank you for presenting it to us.

Jerry Partain of Humboldt State University, representing the Chamber of Commerce of the United States.

STATEMENT OF TATIANA ROODKOWSKY, ASSOCIATE DIRECTOR, RESOURCES AND ENVIRONMENTAL QUALITY DIVISION, CHAMBER OF COMMERCE OF THE UNITED STATES

Ms. ROODKOWSKY. Senator Melcher, I am Tatiana Roodkowsky, associate director of the Resources and Environmental Quality Division of the Chamber of Commerce of the United States. Unfortunately, our intended witness, Dr. Jerry Partain of Humboldt State University, was unable to make it here today.

In an effort to be brief and synopsize a little bit, Senator Melcher, a lot of what our statement says has already been addressed today, so I will just briefly summarize our statement and ask that our full statement be submitted for the record.¹

We certainly agree, Senator Melcher, with your previous forceful remarks concerning the 1980 RPA documents, in that the documents do not provide Members of Congress with a basis on which to make reasoned judgments about future appropriations or effectiveness of the management of our Nation's vast forests.

There is a strong general feeling across the country that we need to rededicate ourselves to increasing productivity. However, if productivity increases are to be achieved, a massive effort on all fronts is needed, and that is one of the reasons that I am here today, Senator. The U.S. Chamber of Commerce is greatly concerned with all the general ramifications.

This process cannot be done piecemeal. The Federal Government must be part of this effort to reestablish our economic preeminence in the world. It does appear that the Forest Service yet realizes this particular role in the national campaign through the RPA documents.

The policy statement is not responsive to the current economic situation. It is responsive to the limited budget situation. This narrow view of the economic situation completely ignores the effect that increased investment in our national forests will have on the economy. We need aggressiveness, imagination and initiative from the Forest Service, not retreat and retrenchment. The policy should be more definitive instead of discussing policy options such as low-bound or high-bound paths.

Timber, a renewable resource, is one of our primary concerns in the RPA report. For example, Simpson Timber Co., a U.S. Chamber member, has a long record of cooperation with the Federal Government in total forest management. The joint Simpson-Forest Service cooperative unit in Washington State demonstrates a timber company's concern for all forest resources.

In California, Simpson has greatly expanded its land holdings in the last 30 years. Many of these lands were cut over and unmanaged before Simpson acquired them. This timber company invested heavily in the rehabilitation and regeneration of these lands. They conducted an aggressive research program both in its plants and on its lands. All of this is being done in the face of more and more restrictive legislation at the Federal, State, and local levels.

The uncertainty that a typical timber company such as Simpson faces is growing instead of lessening. Yet, it has chosen to invest for increased production and productivity in the future. The U.S.

¹ See p. 109 for the prepared statement of Ms. Roodkowsky.

Chamber believes that all of the timber industry is responsible in this way, but no one company has the resources to bridge the productivity gap alone. We need Forest Service help.

Post-war demands for wood products caused a concentrated harvest of old growth timber on private lands in the Northwest. Now that the material is disappearing, we must look elsewhere to meet the Nation's needs for the next 10 to 20 years. The old growth on suitable Forest Service lands is the logical choice.

Unfortunately for the Northwest, the harvest boom to meet post-war demand leaves us with a shortage of timber now, when demand is predicted to increase as a result of the post-war baby boom now requiring more housing, and we have heard that addressed in today's hearing.

The U.S. Chamber is also concerned about the recreation objectives in the 1980 RPA report. The report claims to make recreation "more accessible, usable and enjoyable for urban residents." This may be true if you equate expanded wilderness areas with better recreation potential, for the Forest Service proposes to double wilderness areas under the low-bound approach by 1985, and should the high-bound track be followed, wilderness would almost be tripled.

But we do not think that this contributes much to meeting the recreational needs of the huge majority of our citizens; it is only part of it. Larger set-asides of productive forest land for the use of a few increases the cost of living to urban dwellers and makes it more difficult for these people to reach any recreation sites that might be added under a new program.

There is an underlying and false assumption in the administration that most of our Nation's recreationists use, and indeed prefer, land set aside for wilderness. This assumption disregards and excludes those individuals without economic means to reach remote wilderness areas, children and adults not accustomed or unable to enjoy a wilderness experience, or those who must use motorized vehicles—the young, the old, and the physically impaired.

The U.S. Chamber believes that wildlife habitat improvement could be expanded and better managed even in timber areas. National experience shows that we can manage many areas for both wildlife and timber, and these uses can be complementary in many cases.

The RPA report calls for defining, protecting, and augmenting habitats of endangered and threatened species, and protecting critical habitat of other species threatened by changes in the management or use of the land and water base. This report does not address the issue of integrating wildlife management with forest management. The two can and must be compatible.

In addition, there is a need to provide proper management for our Nation's mineral resources. Some of our national forests are located in highly mineralized areas such as the Overthrust Belt. The policies should and must address this.

In conclusion, the chamber believes there is substantive evidence that resources in a national forest can be managed on a true multiple-use basis while still protecting the basic land resource. We know this can be done and is being done on private forest land, but it takes additional investment for public lands by Congress. Before

that, however, it demands a Forest Service program that is aggressive and specific. The RPA report that Congress is now reviewing does not meet these criteria.

We would be pleased to assist the members of this subcommittee and the Forest Service to develop a more sound report and an approach which recognizes our Nation's need for a viable multiple-use policy.

All of us, including the timber industry, nonindustrial timber growers, environmentalists, ranchers, miners, skiers, off-road vehicle owners, other recreationists, and wilderness proponents, agree that we need to revitalize our economy so as to provide for the general well-being of the Nation. This revitalization includes timber lands management.

Thank you, Mr. Chairman, and I welcome any questions.

Senator MELCHER. Well, I want to commend you and the chamber for a very well-balanced approach. I think your points are excellent. Thank you very much.

Ms. ROODKOWSKY. Thank you, Senator.

Senator MELCHER. Ruthann Knudson, legislative coordinator for the Society for American Archaeology.

STATEMENT OF RUTHANN KNUDSON, LEGISLATIVE COORDINATOR, SOCIETY FOR AMERICAN ARCHAEOLOGY, AND RESOURCE MANAGEMENT ARCHAEOLOGIST, UNIVERSITY OF IDAHO

Dr. KNUDSON. Thank you, Mr. Chairman.

My name is Dr. Ruthann Knudson. I serve as the legislative coordinator for the Society for American Archaeology. I also am a faculty member in research archaeology at the University of Idaho.

We appreciate your invitation to the Society for American Archaeology to comment on the Forest Service's recently finalized assessment and report to Congress on its program under RPA, as well as on the President's accompanying statement of policy.

The professional and amateur members of our society which, by the way, unfortunately is only 45 years old, so we do not really compete, are most concerned about the conduct of cultural resource management, including the management of prehistoric and historic archaeological resources, on the lands administered under the RPA by the U.S. Forest Service.

We generally find the assessment, report, draft program, and the President's policy statement to be an inadequate treatment of the Forest Service's cultural resource management program, and I think, frankly, that is sort of a generous way to put it, from our perspective. The emphasis in these documents, where the topic is mentioned at all, which is only a few scattered sentences in two tables in the entire 1,500 pages of material, is on baseline compliance with Federal historic preservation laws and regulations. Nowhere in these discussions is there an adequate integration of a cultural resource management program within the Forest Service's goals, and certainly no outline of a policy of enhancement of these resources.

Somehow, the nonrenewable nature of our prehistoric and historic sites, objects and traditions has relegated them to a list of Forest Service resources that has little agency significance, with the result

that our historic resources on our public range and forest lands are in physical danger and their minimal management is inefficient and undoubtedly not cost effective.

There is a clear legislative base for development of an affirmative cultural resource management program within the Forest Service. A critical element of this is Executive Order 11593, which, by the way, was just incorporated in the law that you, Senator Melcher, passed out of committee last week, which requires public agencies to conduct inventories of the historic properties on their lands and to exercise caution to protect unknown sites until such inventories are completed. The National Historic Preservation Act of 1966, as amended, requires evaluation of the significance of identified resources and further requires that the President's Advisory Council on Historic Preservation be given the opportunity to comment on any Federal undertaking that will affect significant historic properties.

Finally, the Reservoir Salvage Act of 1960, as amended, requires Federal agencies to preserve historic and archaeological data that might otherwise be lost or destroyed as a result of any Federal undertaking. These, of course, are complemented by the National Environmental Policy Act of 1969, which lists cultural resources as an environmental aspect meriting protection and evaluation.

Unfortunately, specific Forest Service legislative bases for the present agency assessment and program have not taken cultural resources into account. The Multiple-Use Sustained Yield Act of 1960 was written before the 1966 National Historic Preservation Act. The focus of the Forest and Rangeland Renewable Resources Planning Act of 1974 placed considerable emphasis on the renewable aspect of its biological resources, which was obviously badly needed at that point, but did not provide consideration of the impact of those resource management policies on the nonrenewable minerals and historic properties. Even the 1976 National Forest Management Act goes no further.

However, the recently promulgated Forest Service planning regulations, 36 CFR 219, effectively raised cultural resources to the status of a program element within forest planning. It is disappointing that at the same time the new guidelines are being established, the Service continued to exclude the cultural resource base from adequate programing within the assessment, congressional report, or the policy statement.

But the Forest Service does have an ongoing program in historic management. The Service presently, as far as I can figure out, has at least 85 professional cultural resource specialists at GS-11 or higher ratings; at least 20 of these people have Ph. D.'s and solid professional credentials. In addition, the agency hires what I estimate to be some 400 to 500 temporary cultural resource specialists to conduct inventory and evaluation during the field seasons. To date, they must have some 100,000 prehistoric or historic archaeological or architectural properties identified on their lands, many of which are eligible for the National Register of Historic Places, and hence require affirmative management. They have a major resource that requires attention, have a significant staff to address the problem, yet have no effective means by which the staff can

develop the needed management program. We suggest that this needs to be changed.

One of the major problems with the Forest Service's stepchild approach to cultural resources is the resources' lack of identification as a program element within the 1974 and 1976 legislation. Because of this, there is no budget identification of this activity, and it is generally subsumed under "Recreation," as a line item, as a major activity and as some support services under "Timber."

During the past year, President Carter has called for a significant increase in timber sale goals, balanced by a concomitant decrease in recreation expenditures. As a result, there are more lands that require immediate resource inventory and less staff support for the inventory itself. It is our understanding that, at present, using whatever budgetary support as can be side-traced, the Service's northern region can look at only 25 percent of its timber sale lands before cut, and cannot begin to initiate a general response to the Executive order call for comprehensive resource assessment. And I might point out for your general information that most of that work is being done in Idaho and not Montana in the northern region.

A second major problem with their "you're not really here" approach to cultural resources is the lack of integration of in-service historic expertise in general planning and programing. The Service generally does not use the expertise for which they are paying salary. When they do use that staff, as for example when cultural resource specialists were asked to comment on the draft RPA assessment and program, those comments apparently are discarded soon after they are solicited. None was incorporated into any of the final RPA documents. This nonuse of staff expertise, which is a followthrough of the lack of program element identification for cultural resources, creates major problems in implementing historic preservation legislation.

This lack of affirmative integration of historic preservation concerns within general Forest Service management is reflected in their lack of followthrough in enforcing compliance by cooperative State forest programs to the Federal historic preservation laws and regulations and in the lack of research in cultural resource management on range and forest lands.

We have developed a list of questions about Forest Service management of their prehistoric and historic properties and general information base, to address some of these problems. The list is attached here,¹ and we suggest that you forward selected questions to the agency for response in order that the subcommittee may more fully understand this aspect of the total Forest Service resource management program.

In light of the foregoing discussion, we recommend that your white paper be further amended to recommend to the Forest Service that cultural resources be identified as an RPA program element, and that support for their management be clearly identified in the budget. This is necessary to provide a program that is, "responsive to professional requirements for sound land management," and should be specifically directed toward a program that is

¹ See p. 111.

oriented toward enhancement and affirmative management of the cultural resources, not just baseline compliance.

Preservation of our cultural heritage is indeed an amenity value within most economic considerations, but nevertheless merits positive support. There is a strong legislative base for this national program, developed pursuant to the wishes of the American people. We encourage the U.S. Forest Service to develop more fully what is now a stepchild program in cultural resource management, for more effective use of tax dollars and to protect our valuable, non-renewable human heritage.

Thank you, Mr. Chairman.

Senator MELCHER. Doctor, you did not mention FLPMA. I suspect that there is more guidance in FLPMA than in the 1976 National Forest Management Act as regarding the cultural resources in our public lands.

Dr. KNUDSON. As of, I believe, the last couple of months, the Bureau of Land Management has now instituted a budget item which allows them to do some integrated planning. Our attention at this point is more directed toward the Forest Service, since that is where we are seeing major problems—in the increase in timber goals, with a decrease in support for the staff to implement those.

Unfortunately, cultural resource management oftentimes, because it is not integrated into early planning, ends up being the bad person that is slowing down projects, which should never be the way business is done.

Senator MELCHER. Well, it should be in the early planning. I recall one complaint I heard directed at—I suppose it was BLM, or the Department of Interior, anyway, from a person who had a lease on some public land to draw a well, an oil well, an exploratory well. The stumbling block was getting the clearance on archeological values, and their report was that there was a tepee ring—you know, those stones—and that until spring and those could be evaluated for their significance, there would not be any further processing on the drilling permit.

The person who had the drilling permit knew the area very well and had been over it numerous times; they had been waiting for several years to get a drilling permit. They knew that it was plowed ground, but the fact that it was plowed ground, or cultivated ground, would obviously indicate the absence of any tepee rings, but it did not sink into the bureaucrat who was handling it.

Dr. KNUDSON. Unfortunately, there is always some problem with interpretation, and I think that particularly in Montana, with the BLM, we have made some progress. I believe that in a study, they have developed a project to look at tepee rings and develop some general concepts, so we do not have to look at every tepee ring in Montana.

Senator MELCHER. Well, I do not think you are going to find any on cultivated land, anyway.

You mentioned something about the Forest Service here as to how many people they have available. I guess we should be looking at how many people they have available in the BLM too, because they go hand-in-hand.

Dr. KNUDSON. Yes, they do. Again, the BLM has a program and they have some clear recognition within the agency, and that is

making a great deal of difference, whereas in the Forest Service there is no program identification at all.

Senator MELCHER. Well, Doctor, your outline of what we should be considering in this evaluation is most helpful to us, because I am afraid that without your testimony, it would probably be overlooked.

Dr. KNUDSON. Well, we appreciate the fact that we have been invited after 3 years of talking to your staff. We are learning a lot too.

Senator MELCHER. Thank you very much.

Maybe I will just call everybody up now. Jack Berryman, International Association of Fish and Wildlife Agencies; Dan Poole, president of the Wildlife Management Institute; Neil Sampson, executive vice president, National Association of Conservation Districts; and William Moody, State forester of Alabama, representing the National Association of State Foresters.

Jack, I believe you are first on the list; we will let you start.

STATEMENT OF JACK H. BERRYMAN, EXECUTIVE VICE PRESIDENT, INTERNATIONAL ASSOCIATION OF FISH AND WILDLIFE AGENCIES

Mr. BERRYMAN. Mr. Chairman, thank you very much.

I am the executive vice president of the International Association of Fish and Wildlife Agencies. I think you are aware of the fact that our association is a voluntary organization which consists of the State, Federal and provincial fish and wildlife agencies of the United States, Canada, and Mexico. Obviously, this morning I am speaking on behalf of the 50 U.S. State members.

One of our principal concerns, of course, is the maintenance of fish and wildlife habitat, especially with the increasing demands and competing demands that are being made upon all of our natural resources. It is for this reason that we appreciate very much this opportunity to comment, and also we commend the subcommittee and your leadership for the active role that you are playing.

As you can appreciate, this matter is of direct interest and intense interest to our members, because they have a legal and trust responsibility for the management of fish and wildlife resources which are obviously dependent upon habitat conditions.

All during the RPA process and its formation, our association has been active in making recommendations, and we at the moment have two committees that are at work in developing, with the other agencies, uniform habitat classification information in order to implement the process.

I mention this to indicate that we are not only supportive of seeing the intent of Congress carried out, but we are actively working and taking the necessary steps to see that it is implemented.

Now, we recognize that our Nation is going to periodically experience economic difficulties as is the case now, and it will not always be possible to appropriate the full amount of money that may be necessary and desirable. We recognize also that some issues will always receive favored attention in the appropriations and political process.

We recognize that the well-being of our fish and wildlife resources is tied irrevocably to forest and range practices on public and private lands, and to agricultural practices on private lands.

It is for these collective reasons that we want to encourage implementation of the RPA process. It is the only system by which the Congress itself can evaluate an assessment of needs, identify national goals, objectives and priorities, appropriate funds accordingly, and require that its mandate be carried out by the agency, and in a manner responsive to the priorities as identified by the Congress. Appropriately applied, it is a means for requiring accountability at every level of implementation, from the man in the field to the agency head.

Unless the Congress insists upon implementation, we will be right back where we started, with the Office of Management and Budget exercising discretion within priorities as established by an administration responding to the political pressures of the moment, with first attention to commodities. The end result will again become an annual exercise in expediency as opposed to long-range planning for producing food and fiber and for protecting environmental values in a way that will not diminish the productive capacity of our forest, range and agricultural resources.

We do not want RPA or RCA to become one more planning fantasy to go on the shelf. We are not at the moment concerned with the details of implementation. The important thing is that the Congress has established a management and policymaking process by which the executive and legislative bodies can plan for the future and give balanced attention to all resources, including fish and wildlife. We want to see that system implemented and improved.

With the increased emphasis on production of meat and timber, it is more important than ever to make certain that the approach is indeed balanced, with full attention to related resources.

As you mentioned earlier in the hearing, Mr. Chairman, if this is not the case, fish and wildlife and the related resources will take a back seat and become incidentals. They will become the victims of demands for commodity production.

Now, with the prospect of using food as a diplomatic tool and as a trade-off for energy, and with the increased demands being made upon U.S. productivity, we feel very strongly that the RPA process should become a national imperative. In meeting these needs, we must not reduce our national productive capacity nor give short shrift to related resources.

We are concerned and fearful that the low-bounds approach provides too much leeway and sets the stage once again for expedient, short-term decisions. While the high-bounds figures may not always be achievable, they provide a guide to relative priorities.

Mr. Chairman, we urge the Congress to take such action as may be appropriate to eliminate the low bounds and accept the high bounds as a planning guide to assure that executive agencies carry out the full intent of the act. Otherwise, Congress defaults on the process it has already authorized to assure balanced planning, the achievement of specific goals, and accountability.

Finally, Mr. Chairman, I would like to echo the comments made by at least two or three previous speakers and point out that the

successful implementation of either of these processes is going to require increased educational efforts, especially with the resource users. And we feel it is time for the Congress to appropriate the \$15 million that was authorized with the passage of the Renewable Resources Extension Education Act of 1978.

The State fish and wildlife agencies, the Fish and Wildlife Service, the Department of Agriculture, and the land-grant universities have already done a great deal of work in preparation for implementation of that act. Agreements have been taken; contacts have been made; projects are actually underway, as a demonstration to the Congress that they are ready. We urge that you use your influence, Mr. Senator, to pursue it.

Thank you, sir.

Senator MELCHER. Thank you, Jack.

Dan?

**STATEMENT OF DANIEL A. POOLE, PRESIDENT, WILDLIFE
MANAGEMENT INSTITUTE**

Mr. POOLE. Thank you, Senator.

I am Daniel Poole, president of the Wildlife Management Institute, and with your permission, I will skip a large part of my statement and summarize two or three points that have not been brought out this morning.

Senator MELCHER. All of your statement will be made part of the record, but please proceed with your summary.¹

Mr. POOLE. Thank you.

We commend the committee for its continuing examination of this subject, and we certainly pledge ourselves to helping you see it through to a successful conclusion.

Contrary to RPA's intent and what Congress has found, OMB, through the process that it has presented to Congress this round, would perpetuate the old squeaking wheel system of forest and rangeland management.

Now, in your invitation, Mr. Chairman, you solicited comments on the President's RPA statement of policy. I have a comment that pertains to the second basic principle in that statement, the principle involving environmental quality.

I find no reassurance whatsoever in the statement's pledge that "fish and wildlife habitat will continue to be protected." Habitat for all categories of animals—common, threatened, or endangered—is not being protected adequately now. We have a long way to go before wildlife habitat receives appropriate consideration in forest and rangeland programs, or in many other Federal programs for that matter.

Now, with respect to the statement's text on the recommended program, I offer a brief comment on point 3, minerals. In view of the repeated references to the national financial situation, economic efficiency, and so forth, I find it odd that mention is not made of the millions of dollars—approximately \$195 million for fiscal year 1979—collected from national forests and other public lands through mineral leases, royalties, and land sales that are diverted annually, and have been diverted annually for decades, to the entirely unrelated purposes of the reclamation fund.

¹ See p. 114 for the prepared statement of Mr. Poole.

I have nothing against reclamation, but I believe it is a paradox that at a time when renewable resources programs on national forests and other public lands are reduced or are not undertaken because of funding shortages, revenues derived from these same lands are financing completely unrelated activities. I think that reclamation should get its money through the front door the same way that we have to.

Point 4 of the statement deals with research. The administration's recognition of the need for studies to gain information to help protect streams and riparian habitat is encouraging. Not mentioned, however, is the urgent need to acquire information about the relationship of old-growth forests and fish and wildlife. This links in, of course, with the President's order to the Secretaries of Agriculture and Interior to speed up the updating of land management plans, with the objective of increasing the harvest of mature timber through departure from the current nondeclining evenflow policy.

There currently is only a sketchy understanding of the effect on fish and wildlife of accelerated old-growth liquidation. Research is needed, but no agency is investigating this subject at more than a token level.

Finally, Mr. Chairman, I want to comment briefly on the committee's proposed supplement to the statement of policy, which we hope and urge will be adopted. We agree with the committee's August 5 notice of general acceptance of the administration high-bound program. We do so with the qualification that there be full and effective coordination between resource activities in the field.

Each activity, and particularly those designated as market resources, poses potential harm to other resources and resource values if pursued in a highly singular manner. Unless this coordination occurs, we cannot accept the supplement's suggestion that all goes well with these other resources and values simply because timber and range goals have been somewhat firm.

This is not the case in the field. We have been there too many times on specific studies to accept otherwise, and there is no proof that it will be in the future in the absence of firm coordination requirements and accountability.

Thank you very much, Senator.

Senator MELCHER. Thank you, Dan.

Neil, I believe you are next.

STATEMENT OF NEIL SAMPSON, EXECUTIVE VICE PRESIDENT, NATIONAL ASSOCIATION OF CONSERVATION DISTRICTS

Mr. SAMPSON. Thank you, Mr. Senator.

I am Neil Sampson, executive vice president of the National Association of Conservation Districts. In the interest of time, I would like to just briefly summarize a few points, but I would like to enter our full statement and, in addition, a pasture and range improvement report that we published in 1975 that we think is pertinent to the topic.¹

Senator MELCHER. Your full statement will be made part of the record, and we are delighted to have the pasture and range improvement report also.

¹ See p. 115 for the prepared statement of Mr. Sampson.

Mr. SAMPSON. Thank you very much.

I am impressed today with the wide range of interests that come together with similar points of view about the Resources Planning Act. Our testimony, focuses on what we see as some shortcomings, but I think we first need to stop and take a look at the strength that we have in front of us.

Without the documents and the analysis and the assessment that have been done for the RPA, we simply would not be able to have an enlightened debate, I do not think, on the needs of the forest and rangeland resources of this country. We owe the sponsors of this legislation, both on this committee and those that are now gone, a long-standing debt of obligation.

There are two or three things that we would like to mention. First of all, the recommended program falls most short, in our judgment, in outlining an adequate program for cooperative State and private forestry. The needs of the private nonindustrial forests today are staggering, but so are the opportunities.

Of the 482 million acres of commercial forest land, 58 percent is held by private nonindustrial owners. Yet, the proposed budget for fiscal year 1985, even at the high bound, would give only 4 percent of the total Forest Service effort to State and private forestry. We feel this is totally inadequate to meet the needs of the private nonindustrial forestry sector.

In addition to the fact that there needs to be more budget attention given to cooperative State and private forestry, we feel that the RPA is deficient in not looking at other ways in which this outreach function can be improved.

We represent 2,950 conservation districts that have some 2.5 million cooperators, many of whom are woodland owners. In some States, pioneering efforts are already being tested, where district foresters are being hired by these conservation districts with funding from one or more State and Federal programs. This opportunity to increase the number of practicing foresters at the local level should be further investigated.

Another opportunity that has been mentioned several times is the Renewable Resources Extension Act, and we too urge that the full funding for that act be included in this year's appropriations budget. There is a tremendous potential for assistance in that act.

The issue of reforestation brings up some interesting points. We noted with some interest that in President Carter's June 27, 1980, message on the occasion of the 75th anniversary of the Forest Service, he said the following:

We have a tremendous potential to increase wood production. Yet, we are running about a \$3 billion trade deficit in timber products each year. By making our forests more productive and strengthening cooperation in this regard between the public and private sectors, we can become a net exporter of timber in time for the Forest Service's one hundredth anniversary. Let us, on this occasion, make this a priority goal and one that can be achieved in ways that are environmentally sound and cost effective.

Well, that is a laudable goal; it is one we fully support. But it seems to me that the President has two speech writers; one of them that works on this speech, and the other one that works on the RPA. They clearly did not get their act together, because we can find no evidence in the RPA that this sort of a goal was even

considered, let alone having the costs for it factored into the proposed program.

On the issues surrounding rangeland resources, we only have one comment, and that is that there are an awful lot of values on range besides cattle grazing, and the RPA needs to look beyond that.

The entire matter of noncommercial forest land is not directly addressed in the RPA proposal. As the energy situation causes us to consider new energy options, such as wood for home heating, wood for power generation, biomass, and alcohol fuel production, the productive capability of what we now consider noncommercial forest lands needs a great deal more work.

The "white paper" prepared by this subcommittee on the RPA is one with which we would like to associate ourselves. We particularly call attention to the target goals for forest productivity; they should be 90 percent of the land's potential by 2030. And 85 percent of the rangeland should be in an improved condition by that time. It is simply unwise to do any less.

I would like to close with a comparison of this with the RCA process. Under the Soil and Water Resources Conservation Act of 1977, you hope to get a similar set of documents to the ones you have in hand from the RPA. You are probably going to have to wait just as long and suffer just as hard to get them. But we think it is worth the wait, because we think that coupled together, those two sets of documents are going to provide an unprecedented opportunity, both in the Congress and in the public, to understand the soil, the water, and the renewable natural resources of this Nation.

The two assessments are going to demonstrate that the efforts of today are inadequate. We are losing productivity too fast; we are reinvesting too meagerly. We have put off essential investments too many times, and delayed the inevitable need to spend that money that it takes to rebuild the productivity of our land and water.

We kept thinking we could wait until tomorrow, and we did, and now tomorrow is here. The mood of the Nation today is clearly one of concern for productivity. There are strong calls for intensive efforts to reindustrialize. To many Americans, that will mean simply the renovation of a steel plant here or an auto plant there.

We must now make the case that, to forestry and agriculture, two of the Nation's most basic industries, the land, water, and natural resources are the factory that must be renovated. It is absolutely urgent that we move forward with this boldly and immediately.

The process that this subcommittee has created with the RPA and the RCA programs can give us a better understanding of the need for action and also give us some insight into the actions that must be taken. We commend the subcommittee for its leadership in this effort, and commend you personally, Mr. Chairman, for your personal leadership. We pledge our support as you move forward.

Thank you.

Senator MELCHER. Thank you.

Bill Moody is next.

STATEMENT OF C. W. MOODY, REPRESENTING THE NATIONAL
ASSOCIATION OF STATE FORESTERS

Mr. MOODY. My name is C. W. Moody, and I am the State forester in Alabama and here today as spokesman for the National Association of State Foresters.

Mr. Chairman, thank you for your commitment to the RPA process, as evidenced by this hearing and by the white paper of your subcommittee.

Speaking first to the white paper, we have prepared a supplement which is attached to our statement, which covers this subject and which we ask that you file for the record.¹

Senator MELCHER. We will make that part of the record, Bill.

Mr. MOODY. Thank you, sir.

We believe the white paper clearly puts the Resources Planning Act process in perspective. The act envisions a cooperative effort by the administration and the Congress, to be based on facts clearly available to both parties. This orderly process should result in a program that is in the best interests of the Nation.

Because of the inadequacies of the administration's offering, it is appropriate that the Congress recommend a revised policy and program, as provided for in that process. The National Association of State Foresters supports the recommendations contained in the white paper. We particularly call attention to and support the need for the following contained in the paper: A definite, clearly understood program and policy is required. Resources from all lands, regardless of ownership, must make their contributions to the Nation. There is a great need for long-term-resource targets to be defined. We are not in a position to respond to the specific targets suggested in the white paper, but will study the matter and provide the committee with our conclusions.

Turning our attention now, Mr. Chairman, to the program and policy submitted by the administration, NASF favors maximization of forest resource outputs of commercial forest lands of the Nation from all ownership, as I have previously mentioned.

Since State foresters are the primary source of assistance to private nonindustrial landowners and the conduit for public assistance to those landowners to achieve national objectives, the remainder of my remarks will be addressed to the private nonindustrial landowner needs and opportunities to contribute.

Fifty-eight percent of all U.S. forest land is owned by nonindustrial private landowners. The opportunities are good on these lands for intensifying management and increasing production of all forest resources, whether it is recreation, wildlife, fish, range, or water. But the most significant future need, as pointed out in the assessment, is for expanded timber production. Of the 284 million acres of nonindustrial private forest land, 124 million acres contain economic opportunities for intensified management practices.

The RPA assessment shows that the nonindustrial private landowners must increase their production by 40 percent by 2030, if the Nation's projected demands are to be met. The National Association of State Foresters believes that it is in the national interest to increase forest product supplies in order to reduce imports and

¹ See p. 118 for the prepared statement with attachments of Mr. Moody.

to dampen future price increases in lumber and wood-based products. The anti-inflationary effects of moderating wood prices is obvious under existing economic conditions, as is also the competitively priced products for trading in international markets.

Mr. Chairman, although timber is being sold from nonindustrial private lands now, less than one-third of the harvested land is being returned to softwoods because of investment problems for landowners. In fact, landowners in the South are investing in forestry on only 1 acre of every 9 harvested.

The problems encountered by the landowners include inadequate protection from fire, insects, and disease, lack of information on prices and investment opportunities, the long-term nature of forestry investments, small ownership, lack of adequate technical advice, lack of cash flow, and unfavorable tax treatment for forestry investment.

Federal-State cooperative forestry programs are directed at mitigating the forestry investment problems of nonindustrial private landowners. We know from experience that market forces alone will not ensure adequate management of these lands.

Analyses show that Federal-State programs under the Cooperative Forestry Assistance Act are an effective means of achieving national timber objectives at low public cost. These programs provide technical and financial assistance in all aspects of forest land management, protection, and forest products utilization, including wildlife, recreation, water, scenic and environmental values, and so forth.

We have studied the assessment, and it clearly shows that the nonindustrial private forest lands will have to fill the timber gap. However, the RPA recommended program for State and private forestry programs is not fully responsive to this need.

The National Association of State Foresters has developed a program that we believe is responsive, yet low-cost and efficient.

May I take just a moment, Mr. Chairman, to explain how we arrived at these budget levels, and then I will summarize the remainder of my statement?

In July of 1979, in Portland, Oreg., the National Association of State Foresters participated in a meeting with top officials of the U.S. Forest Service to begin the development of a program which would be responsive to the 1979 assessment, particularly as it relates to the nonindustrial private forest land owner.

The needs and opportunities responsive to the assessment and collected from the State foresters of the Nation had been aggregated by the U.S. Forest Service professionals and were available to us at that meeting. NASF responded to the assessment following this session in a document entitled "National Association of State Foresters Cooperative Program Response to the 1979 RPA Assessment". Mr. Chairman, I ask that this document, which is attached to the statement, be filed for the record.

Senator MELCHER. Yes, it will be made part of the record.

Mr. MOODY. Following that Portland meeting, NASF adopted its "1981-85 Program of National Association of State Foresters." We consider this program to be responsive to the assessment, to public comment, findings of regional and national nonindustrial private

conferences sponsored jointly by the U.S. Forest Service and NASF, and the State foresters' judgment of practical viability.

Budget levels in the program, while not identical to those contained in the previously mentioned response, are so close as to not require additional justification. I ask that that document be included in the record; it is attached to the statement, Mr. Chairman.¹

Senator MELCHER. Yes, it will be made part of the record.

Mr. MOODY. In summarizing the remainder, let me say that we have noted specific accomplishments to be envisioned by specific budget appropriations. I will single out for treatment the rural fire prevention and control part.

We are in dire need of an evidence of faith by the Federal Government in the protection of these forest lands from the ravages of wildfire. I would like to make the additional comment that NASF considers this to be the weakest response to the assessment in the RPA program for State and private forests. Protection of the private forests from wildfire is unquestionably a responsibility of the public sector.

It appears almost ludicrous that at a time when the Nation desperately needs landowners to invest in reforestation, the program submitted to the Congress by the administration would significantly weaken the only program offering protection for that investment from the ravages of wildfire.

Mr. Chairman, I will file the remainder of this statement for the record, including the specific items to be accomplished under the various budget line items and the levels of funding that we believe are the minimum necessary to ensure that the Nation's needs from private nonindustrial landowners be met.

In closing, we contend that cooperative forestry programs must be carried out at a significant level if the desired results are to be achieved. Consider the success of American agriculture. At the present time, 3 percent of forest landowners receive assistance each year, as compared to over 90 percent of those in agriculture.

Fully adequate production of renewable natural resources from the Nation's private sector will require participation of all concerned parties—nonindustrial private landowners, industry, and local, State, and Federal governments. Through this recommended program, the State forestry agencies, with the help of the Federal Government, will provide the leadership and direct assistance through which landowners will be informed of investment opportunities and will be motivated to practice improved forest management to meet the Nation's needs.

Thank you, Mr. Chairman.

Senator MELCHER. Thank you, Bill. I am glad you came on strong about this need to provide funds for rural fire prevention and control. I think you are absolutely right, and I hope that your association will communicate to every Senator that need, because it is just one of those items, you know, where if you do not come on strong and hit hard on it, you lose it.

Mr. MOODY. Mr. Chairman, we have been attempting to do that, and I would like to say that if the President's recommendations are adopted this year, your State will have 50 percent of the fire control funds next year that they had last year.

¹ See p. 132.

Senator MELCHER. Well, we are kind of dedicated to not letting that happen, but we want a few more votes to make sure.

All of you on this panel have to deal with the public and State officials rather directly. Is it not just obvious that if we improve rangeland, we improve wildlife habitat? Is that not so patently obvious?

This idea that somehow you are going to have a static amount of livestock grazing on forest land, but wildlife might decrease or go up—they go together, do they not?

Mr. POOLE. If I may answer that, Senator, it is a matter of specifics. If, for example, in rangeland improvement, a natural range burns and it is reseeded with crested wheat grass, as is happening in a number of areas, that is very fine for domestic livestock, but it is not too good for wildlife.

If, for example, in water development or development of springs and seeps, the area is fenced off in such a way that wildlife has little or no access to it, it may be helpful, again, to domestic livestock, but it is not helpful to wildlife.

So we are more concerned with how it is done and the specifics of the actual field programs. I have been reflecting while the other men have been testifying that perhaps my comments, because I attempted to be brief, may have appeared to do a bit of injustice to the committee's supplemental statement, and that is not my purpose.

I should have added perhaps that by requiring firm goals or firm targets and appropriating to them, and then exercising their oversight responsibilities, the committees of Congress can then get this accountability to see how these things interlock in the field.

For example, is a range restoration or improvement program working for the benefit of everything that is out there—for domestic livestock, for wildlife, for water quality, for soil erosion abatement, and all the rest of it?

Senator MELCHER. Well, I thought we touched base pretty well under FLPMA on rangeland improvement and the necessity of having advisory groups right in the area who knew something about what they were talking about for a specific opportunity.

But I renew my point about specifics. You do not want every rangeland improvement to be crested wheat grass. Crested wheat grass obviously has some value for certain birds and provides a cover where there might not be much cover otherwise; I do not know. I notice that some bird species nest there quite a bit.

Mr. POOLE. There are specific situations.

Senator MELCHER. Yes. Of course, in developing springs and water potential, I think it is clear under the act that it cannot be a one-way street, where it is all right for the cattle or the sheep, but it does not allow the antelope in to drink. I think that is clear enough.

Mr. POOLE. Unlike some of my contemporaries, I am not a hotel biologist. It is no thrill to me to go to some city and visit another neon palace. My purpose is to be in the field with BLM people and Forest Service people, and I see what is going on.

Senator MELCHER. Are you satisfied that we are making progress?

Mr. POOLE. We are making progress, yes; but I think that we have opportunity for much more.

Senator MELCHER. I would agree.

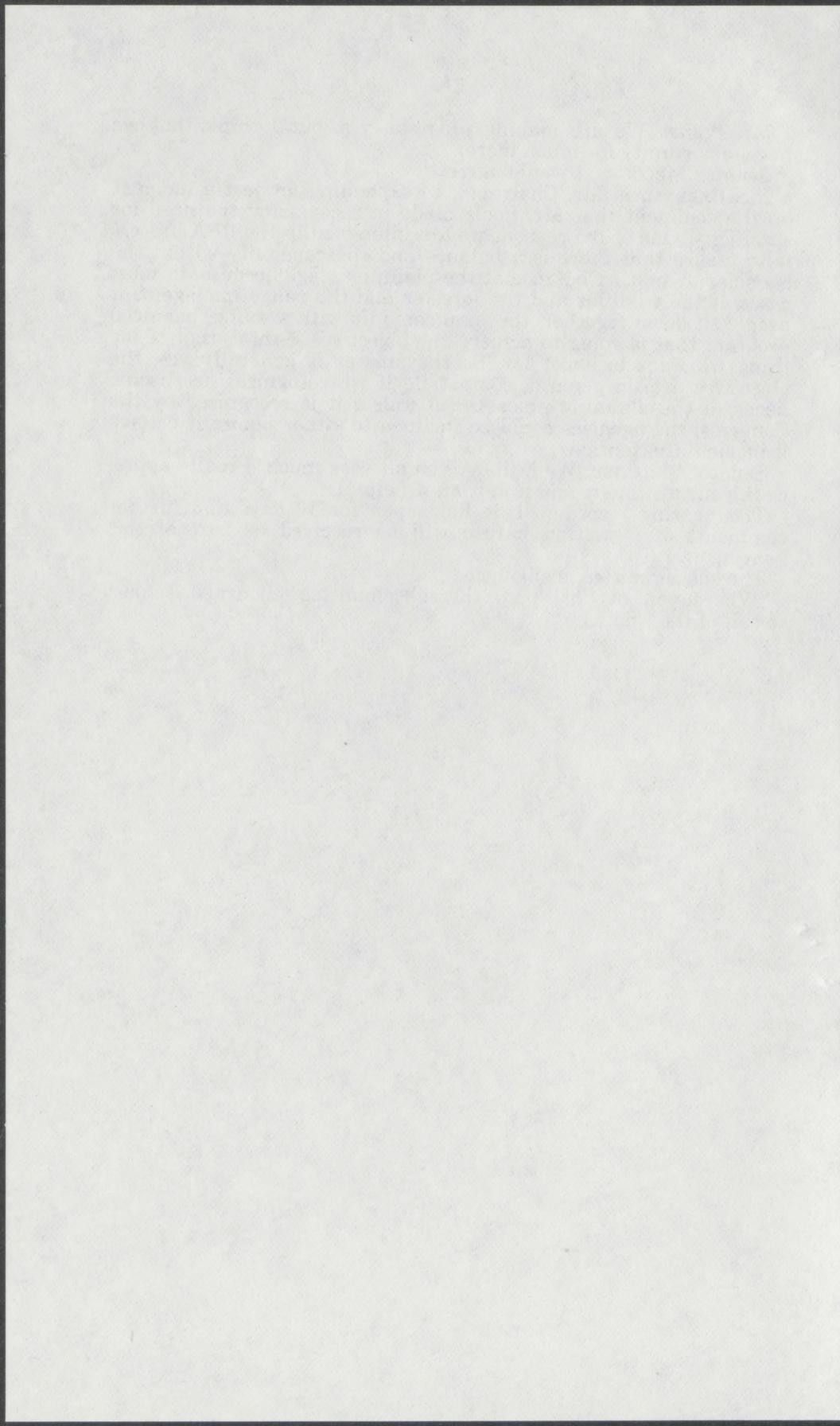
Mr. BERRYMAN. Mr. Chairman, in expanding for just a moment on the comment that Mr. Poole made in recognizing the need for specificity. One of the reasons we are interested in the RPA process is to assure that there is a balance and the capability within the agencies to support balance at the planning stage because, in most cases, if the wildlifer and the forester and the range management people sit down together, they can come up with a sound, balanced program that is going to achieve the objectives. I think that is the thing we want to shoot for. So the answer is generally yes, the objectives are, in general, compatible if we recognize the specific needs in the planning process. But unless it is recognized by the Congress, the agencies could be inclined to either ignore it or give it incidental attention.

Senator MELCHER. Well, thank you all very much. I really appreciate your testimony and find it most helpful.

The hearing record will be held open for 10 days and further comments of a written nature will be received as part of this hearing.

The subcommittee is adjourned.

[Whereupon, at 12:55 p.m., the subcommittee adjourned, subject to call of the Chair.]



A P P E N D I X

[The following support material was received by the subcommittee. See p. 12 for the oral statement of Jeanne W. Edwards, Saval Ranch.]

U.S. DEPARTMENT OF AGRICULTURE,
FOREST SERVICE,
September 15, 1980.

Mr. JAMES GILTMEIR,
Senate Agricultural Committee,
Washington, D.C.

DEAR MR. GILTMEIR: Mrs. Jeanne Edwards, owner of the Saval Ranching Company of Elko, Nevada, requested that we send you the enclosed writeup about the Saval Ranch Research and Evaluation Program.

Sincerely,

HALLIE L. COX,
Director, Range Management.

Enclosure.

SAVAL RANCH RESEARCH AND EVALUATION PROGRAM

In 1978, a research and evaluation program was initiated on the Saval Ranch in northeastern Nevada. This working ranch, on land typical of thousands of acres of rangeland in the Intermountain West, is an ideal laboratory for field studies.

In an interdisciplinary, cooperative effort, personnel are gathering information necessary to design a multi-resource rangeland management system. Knowledge gained will also be used to prepare sound grazing management plans and environmental assessments and to provide monitoring and research data to evaluate the effects of resource management actions.

OBJECTIVE

The specific objective of this program is to evaluate the effects of livestock grazing systems and range improvement practices on vegetation, livestock production, fish and wildlife and their habitats, watershed values, water quality, and other resources.

The objective is being approached in the following ways:

Inventory the basic resources in sufficient detail to guide the development of sound rangeland management and improvement practices.

Design and implement a grazing management system and necessary range improvements based on inventory information, livestock requirements, and multiple-use needs.

Establish monitoring systems of sufficient precision to detect changes in resources and outputs.

Establish a procedure to evaluate the accrued socio-economic benefits and benefit/cost ratio, and to determine the costs of implementing a complete management system.

STUDY AREA

The Saval Ranch is located about 50 miles north of Elko, Nevada at an elevation of about 6,300 feet. The ranch and grazing allotment contain about 12,000 acres of private land, 22,500 acres managed by the Bureau of Land Management, and 13,500 acres managed by the Forest Service.

The climate of the area is semiarid with cold, moist winters and warm, dry summers. Average annual air temperatures range from about 49 degrees fahrenheit in the valley to less than 42 degrees in the mountains. Annual precipitation averages about 9 inches in the valley and 18 inches in the mountains.

Flood plain soils are very deep, dark-colored, poorly drained, and calcareous. Soils on the terraces occur on sloping land, are dark-colored, very slowly permeable to water, and have hardpans. Upland soils overlay flint-like quartz and granite-like bedrock, are dark-colored, moderately to slowly permeable to water, and occur on steep slopes.

Natural vegetation is typical of the northern part of the Intermountain Region. Common shrubs include sagebrush, rabbitbrush, bitterbrush, snowberry, serviceberry, and chokecherry. Native grasses include needlegrass, bluegrass, squirreltail, wheatgrass, fescue, brome grass, and wildrye. In addition, there are about 4,000 acres of introduced crested wheatgrass. The most abundant broadleaf species are balsamroot, phlox, aster, lupine, milkvetch, hawksbeard, groundsel, wyethia, and wild buckwheat. Streamside vegetation is characterized by aspen, willow, and stringer meadow habitats.

Seven streams arise on land managed by the Forest Service and bisect some or all of the study area. Gance, Mahala, and California Creeks flow most of the year. Hill, Jim, Sheep, and Stump Creeks run water mostly during snow melt. In general, headwaters of Jim, Sheep, Stump, and California Creeks are stable. The headwaters of Mahala and Gance Creeks are less stable and channel cutting is active in some places.

Mule deer and sage grouse are the major game species, although 16 other game species occur. The "threatened" Lahontan cutthroat trout occurs in Gance, Mahala, and California Creeks. Other fish species are scuplin, sucker, shiner, and dace. Nongame animals are represented by 81 species—21 mammals, 53 birds, and 7 reptiles.

ACCOMPLISHMENTS

The first three years of this program have been devoted to obtaining the inventory of basic resources to provide baseline data for environmental assessments, management plans, and for future studies.

The following aspects of the program have been accomplished: Soil inventory; vegetation inventory; range site descriptions; inventory of game and nongame species; description of stream channels and water quality; inventory of aquatic habitat; inventory of fish populations; and inventory of macroinvertebrates.

THE FUTURE

Although a great deal has been accomplished, much remains to be done. The monitoring and research phases of the study will start in 1981 when livestock grazing begins under the management plan. Studies will be conducted in accordance with project proposals developed by resource and livestock specialists, and approved by a steering committee. The response of the soil, water, vegetation, livestock, wildlife, and archeological resources to various management and improvement practices will be measured. An economic study will analyze the trade-off relationships between livestock management and other multiple uses on public lands and the effects of land use decisions on private property values, ranch income, rancher capital, and land use practices. The study will also estimate benefits and costs to user groups, management agencies, and the public.

STEERING COMMITTEE

A steering committee is responsible for the development of overall plans and actions needed to accomplish the study. This committee of technical representatives from many agencies and organizations determines inventory levels, management practices, improvements, monitoring systems, research needs, and socio-economic evaluations. The committee also works with land managers to prepare coordinated rangeland management plans and environmental assessments for the study area.

ADDITIONAL INFORMATION

For additional information on the Saval Ranch Research and Evaluation Program contact:

COOPERATORS

Bureau of Land Management
Nevada Cattlemen's Association
Nevada Department of Wildlife

Saval Ranching Co.

Science and Education Administration
Soil Conservation Service
University of Nevada-Reno, College of
Agriculture
Forest Service, Humboldt National
Forest, Elko, Nev.

STATEMENT OF GENE S. BERGOFFEN, ASSISTANT VICE PRESIDENT, RESOURCE PROGRAMS, NATIONAL FOREST PRODUCTS ASSOCIATION

Mr. Chairman and Members of the Committee: I am Gene S. Bergoffen, Assistant Vice President, Resource Programs, for the National Forest Products Association (NFPA). Headquartered in Washington, D.C., NFPA is a federation of thirty-one forest industry associations in addition to direct company members. Through its membership, it represents more than 2,500 companies throughout the United States and Canada engaged in timber growing and the manufacture and distribution of forest products.

The forest products industry view of the 1980 Resources Planning Act documents has been summed up well in Senator Melcher's remarks opening the Subcommittee's June 27 hearing on RPA. Senator Melcher said the 1980 RPA documents submitted to the Congress "violate the spirit and the intent of the law." The forest products industry heartily agrees.

The Senator said "the so-called 'High Bounds' Program looked pretty conservative when you examine the supply/demand projections of the Assessment." Again, the forest products industry agrees.

Senator Melcher said "neither program level talks about how the country is going to solve the problems that the Assessment tells us we are going to face." We couldn't agree more.

And, finally, the Senator said that the RPA Program does not provide Congress with any "targets to shoot for in the appropriations process, and therefore it is useless." This last point is most critical and leads the forest products industry to conclude that the RPA process is in critical danger of rapid atrophy.

This "very disappointing product," as the Senator aptly called it, should be rejected in no uncertain terms. Congress would better serve the nation if it followed its own judgment rather than rely on the Administration's program of inherent budget restraint and purposeful inflation.

WHERE IS THE LOGIC

Using the timber program as an example, let's consider what the Administration says versus what it does.

The Administration says in the Statement of Policy, "This nation's housing requirements during the next five years are expected to place major demands on the forest products industry to increase production of lumber and wood products."

In its 1980 Report to Congress summarizing the Assessment and Program, the Administration says, "For the short term—the decade of the 80's—when housing demands are expected to place added pressures on supply, a significant potential source of additional timber supply to meet these higher demand pressures are the large inventories of mature and overmature timber on public land, particularly on National Forests in the West."

In its 1980 Program, the Administration says its timber goal for National Forest System lands is to "expand timber supply to meet projected increases in demand."

And, finally, in a White House release on June 27 in commemoration of the 75th anniversary of the Forest Service, the President set as a priority goal the prospect of the United States becoming "a net exporter of timber in time for the Forest Service's one hundredth anniversary."

Now let's look at what the Administration does. For fiscal year 1981 the Administration's RPA Program calls for a programmed sale level from the national forests of 11.9 billion board feet. That is down 300 million feet from the fiscal year 1980 sale program of 12.2 billion board feet. If the Administration's recommended program is followed it will be 1984 before the sale program is back to 12.2 billion board feet, and that is the "high bound." If the "low bound" is pursued, we will be at 11 billion board feet in 1984, or 10 percent below where we are today.

Obviously, this program is not internally consistent with the Assessment. The message to the American consumer is even more significant. The RPA Assessment concludes: " * * * that rising relative prices of stumpage and timber products will have far-reaching consequences of a diverse and complex nature. Consumer expenditures will increase, timber industry employment and output will decrease, environmental quality will be adversely affected, greater demands for energy will occur, and there may be a significant effect on balance of payments."

This is a pretty illogical set of results if we agree that one of our major national problems is inflation.

THE PROBLEM IS NOW

The immediate problem we all face is how to supply the wood needed to meet the housing demand of the 1980's at acceptable prices. The RPA Program talks about

the need for more intensive management on private and public lands to meet long-run demands. This is good and well-founded. This nation has some of the most productive forests in the world. If we act decisively and imaginatively now, we can meet domestic demand and make the United States a net exporter of wood products.

But the fact remains that it takes thirty to fifty years to grow a merchantable tree. Between now and thirty years from now we must use what is already in the ground and growing. The logical place to look for that increased supply is the national forests which control over one-half of the current softwood sawtimber inventory.

The 1980 RPA Assessment and Program did not fail in terms of defining the timber demand/supply problem. The Program is a failure because it doesn't do anything about the problem. There is no sense of urgency and certainly, no commitment to take action now.

A RESPONSIVE ALTERNATIVE

After review of the draft Program and Assessment in 1979, the forest products industry set out to build a timber program which was goal-oriented and responsive to the national needs identified in the Assessment. We believe the industry program is both logical and, most importantly, doable.

Industry's understanding of the results of the Timber Assessment is as follows:

(1) Solid wood demand will be at its peak during the next ten to twenty years due to the housing demand which will result from the WW II baby boom.

(2) Fiber demand, namely for pulp and paper, will increase throughout the fifty-year projection period in response to the general level of economic activity. Thus, demand on the timber resource will shift from the need for more sawtimber size trees in the short run to pulpwood size trees in the long run.

(3) The historical rates of increase in the relative prices for softwood stumpage and finished products, such as lumber and plywood, are projected to accelerate.

(4) Imports of softwood lumber from Canada are projected to increase.

The forest industry concluded that the results of the Assessment, namely inflationary wood product prices and a worsening trade deficit, were detrimental to the nation's economy and the industry's future.

As a first step to do something about this problem, we adopted a national timber goal. That goal is: "In consideration of the nation's economic, social, and environmental objectives, the nation's commercial forest land should be managed to achieve efficient, continuing levels of timber productivity that will: (1) minimize real consumer cost impacts through an adequate domestic supply; and (2) build the potential for an international net trade surplus of forest products."

The forest industry believes that goal is a logical and correct response to the problems identified in the RPA Assessment. Translated into timber outputs, our goal, as compared to the Administration's "High Bound," means that:

(1) Total softwood timber removals should increase by 52 percent, as opposed to the Administration's 36 percent by 2030 (figure 1).

(2) National forest sales must increase by 45 percent by the year 2000, as opposed to 15 percent (figure 2).

(3) Industry harvest must increase by 25 percent by 2030, similar to the Administration's conclusion (figure 3).

(4) Nonindustrial private lands harvest must increase by 80 percent by 2030, as opposed to the Administration's 46 percent (figure 4).

The mix of outputs necessary to meet the industry goal means that national forests, with 50 percent of the softwood sawtimber inventory, must substantially increase output during the next twenty years. Second, steps must be taken now to assure that needed investments are made on public lands and that the climate for investments of capital in private timber-growing activities is substantially improved.

On the latter point, the industry and Administration are in substantial agreement. In the long run private lands will be the major source of timber supply. But, lead time is needed to get regeneration rates on these lands increased. If increases in regeneration are not accomplished and private harvest rates rapidly accelerate due to a constrained availability of national forest timber, the ability to sustain the private harvest in the long run will be seriously jeopardized.

As an example of what can be accomplished by implementing a responsive timber goal and program, consider the following comparisons:

(1) Softwood lumber prices would be approximately 30 percent lower in 2030 under the industry's program as opposed to the Administration's "High Bound" (figure 5).

(2) Softwood plywood prices would be approximately 15 percent lower (figure 5).

(3) The United States would be a net exporter of softwood lumber (figure 6).

THE COMMITMENT

Mr. Chairman, the forest products industry has not developed this goal as a last minute response to the RPA Program. Our goal was adopted by the NFPA Board of Directors last November and was the culmination of industry study and debate over the last six years.

More importantly, the forest industry is committed to achieving the goal. We have developed and are beginning implementation of a private woodlands program to create the investment climate necessary to achieve the increased outputs from private lands. In this connection we also call the Committee's attention to the testimony of the National Association of State Foresters which outlines an increased emphasis on State and Private Forestry Programs needed to achieve timber supply increases from private, nonindustrial lands.

We are working diligently to insure that National Forest Management Act (NFMA) planning results in a full display of the opportunities to increase timber supply from the national forest, including the possibility of changes in current policy.

And, we are committed to the RPA process. We have established our own long-range planning effort within NFPA and will continue to strive to make the process adhere to the spirit and intent of the law.

CONGRESS SHOULD RESPOND

Mr. Chairman, the Resources Planning Act calls for a Program which is responsive to the Assessment, displays the opportunities for action, and establishes national goals. What you have received is a Program which is not responsive to the Assessment; is a no action, business-as-usual approach; and has an implied national goal of programmed inflation.

Such a program is unacceptable to the forest industry and, we believe, to the consumer and the nation. We urge Congress to reject the Program and Statement of Policy and consider alternatives. As for the timber portion, we believe we have a better alternative.

Figure 1
All Owners Removals

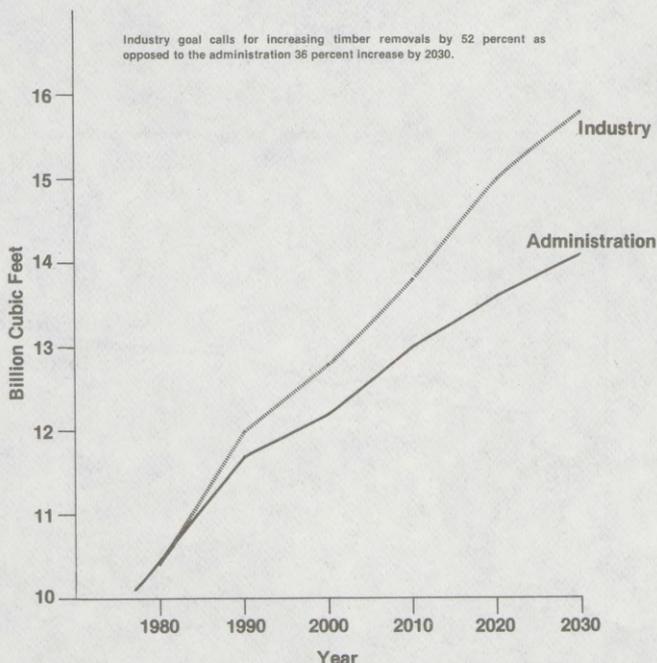


Figure 2
Forest Service Removals

National Forest sales must increase by 45 percent by the turn of the century as opposed to a 15 percent increase recommended by the administration.

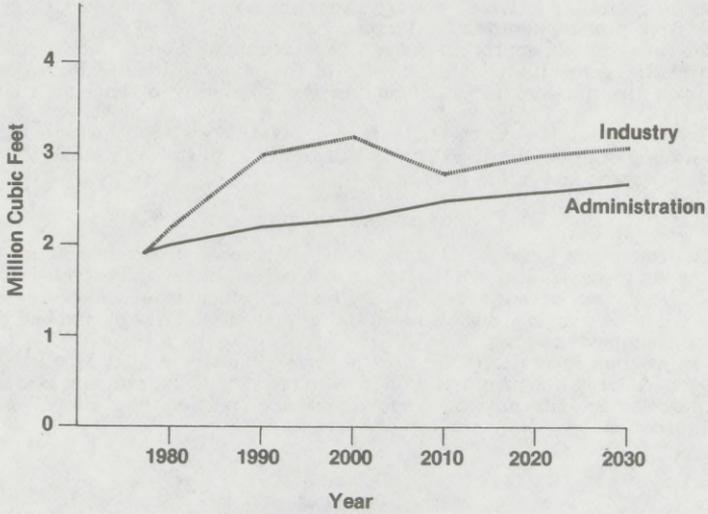
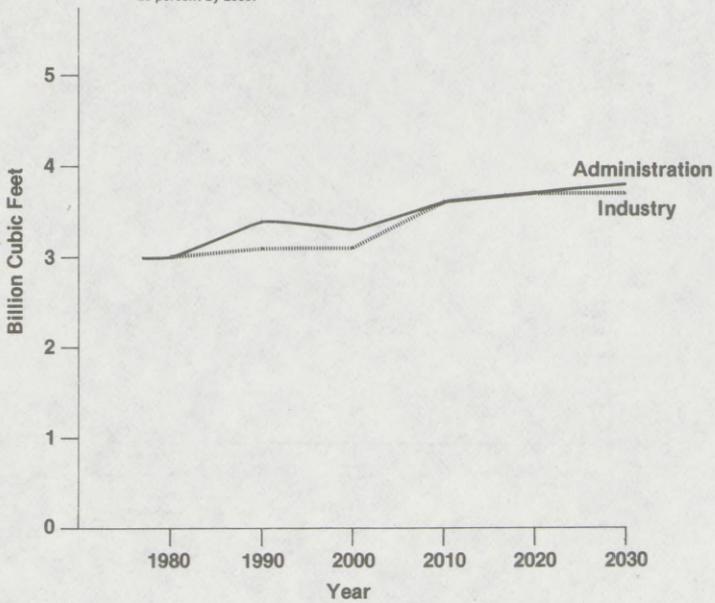


Figure 3
Industry Removals

Industry and administration agreed industry harvests will increase about 25 percent by 2030.



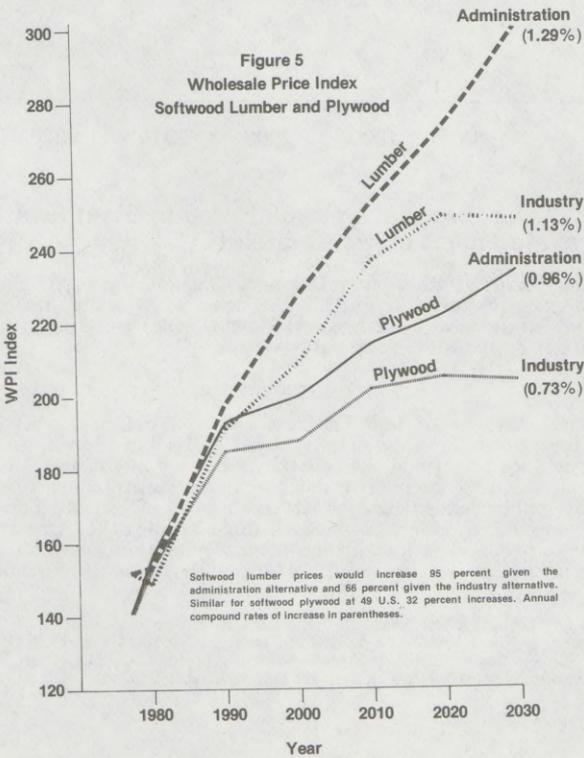
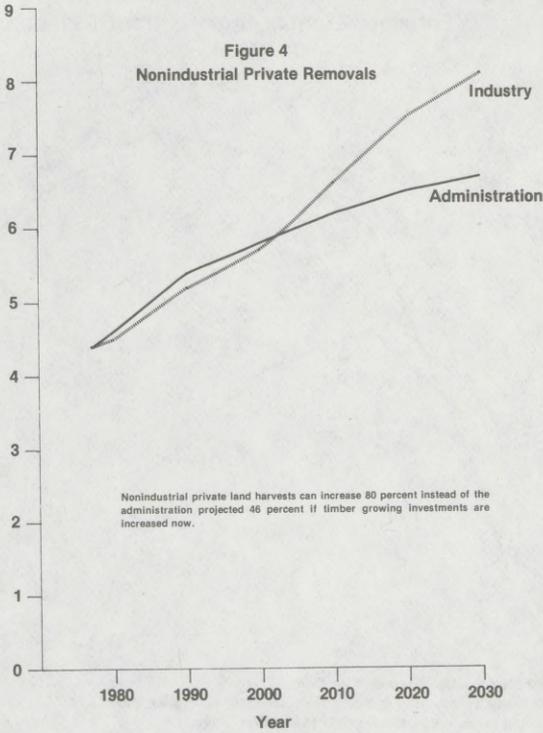
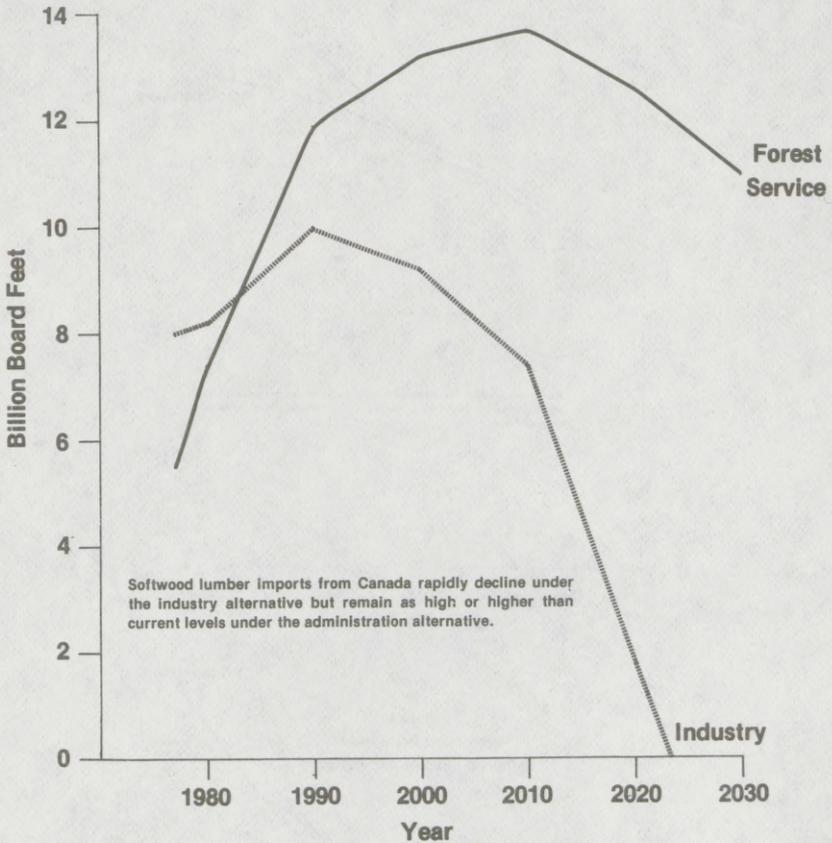


Figure 6

Softwood Lumber Imports from Canada



[The following material was submitted by Paul Swatek. See p. 26 for the oral statement of Mr. Swatek.]

COMMENTS OF NATURAL RESOURCES DEFENSE COUNCIL, INC., THE SIERRA CLUB AND THE WILDERNESS SOCIETY ON THE U.S. DEPARTMENT OF AGRICULTURE, FOREST SERVICE'S DRAFT PROGRAM AND ASSESSMENT PURSUANT TO THE FOREST AND RANGELAND RENEWABLE RESOURCES PLANNING ACT—JUNE 7, 1979¹

I. INTRODUCTION

The national Assessment and Program required by the Forest and Rangeland Renewable Resources Planning Act, 16 U.S.C. §§ 1600 et seq. (RPA), are documents of great importance because of the role they will play in shaping America's resource future and, in so doing, helping to determine the future character of some of our most valuable public lands, those which comprise the National Forest System. The Assessment and Program are a massive undertaking, the Assessment aimed at, among other things, no less a task than inventorying the renewable resources of the nation and predicting future trends affecting those resources, and the Program

¹Submitted by: Trent W. Orr, Natural Resources Defense Council, Inc., 25 Kearny Street, 2d floor, San Francisco, Calif., (415) 421-6561; Paul Swatek, Nicholas Van Pelt, the Sierra Club, 530 Bush Street, San Francisco, Calif., (415) 981-8634; and John C. Hooper, the Wilderness Society, 1901 Pennsylvania Avenue NW., Washington, D.C. (202) 293-2732.

aimed at the even more difficult task of translating the information gathered in the Assessment into a plan for the management of Forest System resources and Forest Service activities for the next fifty years.

The draft documents cover a wide range of resource elements, from timber to recreation to water. Reviewing and commenting upon these voluminous documents, which aggregate over 1,400 pages, in the seventy-three day comment period allotted, has been a formidable task. We have attempted to take a close analytical look at the treatment of the crucial resource elements discussed in the documents, but these comments are by no means comprehensive. Time and resource constraints have kept us from examining some elements in the detail we would have liked and have prevented us from addressing others at all, except tangentially. We hope that the Forest Service will recognize the public's difficulties in addressing so much in so little time and will consider additional public input received after the comment deadline to the fullest extent possible.

We would like to mention briefly three resource elements that we have not been able to address systematically for the reasons stated but which we feel are of extreme importance in the management of the National Forest System. These are wildlife, recreation, and water.

We do touch upon wildlife issues at many points, in discussing diversity on range and timber lands, the functions of Research Natural Areas, and management of old growth forests, for example. But many concerns are raised by the draft documents' treatment of this resource element which we have not addressed. For example, why do we not get more information on the effects of development activities underlying the various alternatives on fish and wildlife, such as the impact of sedimentation on anadromous fisheries? In addition to looking at those effects, the Forest Service should use the RPA process to look at wildlife as a resource to be addressed specifically and not just as an incident of managing timber or grazing or road construction. We hope that other organizations, such as the National Wildlife Federation, have been able to comment more directly and fully on these issues.

Water is one of the most important resources from our national forests and one of the most neglected. Especially in the West, a significant portion of the water supply has its origins in watersheds in the national forests. Silviculture, grazing, mining, and roadbuilding in these forests can all have serious detrimental effects on the quality of that water supply and the fisheries it supports. Program alternatives should set much more specific goals for water quality improvement than the vague language in the draft program—e.g., "Implement water resource improvements to improve water quality" (alternative 3, p. 222). The documents should also take water quality into account in planning future timber and grazing outputs and fully discuss the conflicts with water quality these resource uses produce.

As for recreation, again we address it indirectly below in discussing other resources, notably wilderness. But we must directly register, however briefly, our concerns about several problems that have come to our attention regarding recreation. First is the treatment of "dispersed recreation" as a single category. This unsubtle approach completely ignores the incompatibility of primitive and motorized dispersed recreation and the particular environmental degradation problems connected with the latter. These are issues of national importance and should be addressed in the RPA process.

Another recreation problem may arise from the Assessment's projections of future demand for various forms of outdoor recreation. For example, by 2030 the Assessment, pp. 85-86, predicts downhill skiing demand to be up 252 percent while hiking demand will only rise 59 percent. Figures like these should not be heavily relied upon but rather viewed with extreme skepticism: Who, fifty years ago, could have correctly predicted the levels of popularity of either skiing or backpacking in America today? Further, substitutability must be considered when making recreational decisions for national forest lands. That is, many developed recreational activities, requiring a relatively limited physical area, can be provided by private landowners, while dispersed recreational activities, such as hiking, bird watching, or rock climbing, require the sort of large natural settings that few private landholders are able or willing to provide but for which the national forests are uniquely suited.

For ease of reference, page references to the three RPA documents will be cited in the text below as follows: References to the Assessment will be cited as "A., p. . . ." Those to the Program will be cited as "P., p. . ." Those to the Summary ("A Report to Congress on the Nation's Renewable Resources") will be cited as "S., p. . . ."

II. AN OVERVIEW OF THE RPA DOCUMENTS

Before turning to our comments regarding specific resource elements, we feel that some general comments about the documents as a whole and about the range of alternatives considered in the draft Program should be made.

A. Technical problems in the documents

1. Lack of Connection Between the Assessment and the Program

The Program, according to 16 U.S.C. § 1602, is to provide for the conduct of Forest Service activities "in relation to the findings of the Assessment." That is, the information provided by the Assessment should be used to guide the Program and to assess the significance of differences in the mixes of resource outputs in the various proposed alternatives. It is not at all clear that this has happened with the draft Assessment and Program. Quite simply, there is little apparent connection between the two.

The Assessment is a document of a very general nature, and does not provide the methodologies from which to formulate alternatives of the sort present in the Program. After a very general discussion of resource interactions, A., p. 429 ff., the Assessment concludes: " * * * it is apparent that nearly all management activities on forest and range lands interact in some degree on all of the uses of these lands. It is also apparent that with the present state of knowledge, most such interactions can only be described—the data are not available for quantitative measurement of the affects [sic] of changes in management activities. A., p. 459 (emphasis added).

If this is truly the case, how did the authors of the Program arrive at the various alternative output mixes presented in Chapter 6, complete with numerical estimates of the level of each output? How can the alternatives be evaluated as to their internal consistency, let alone compared with one another? The final Assessment should present the model for predicting the interactions among resource activities, the tradeoffs in emphasizing particular resource outputs, that is the basis for the various alternatives presented in the Program. This would not only provide a link between the two documents, but would allow reviewers to see how increasing or decreasing any given output within an alternative would affect the other outputs provided by the alternative.

2. Inconsistencies in Information

The documents contain not a few inconsistencies in data presented at various points. These inconsistencies are most likely the product of different authors having prepared various sections of the document. Rigorous efforts should be made during the preparation of the final documents to reconcile as many such inconsistencies as possible.

Two examples will serve to illustrate this point:

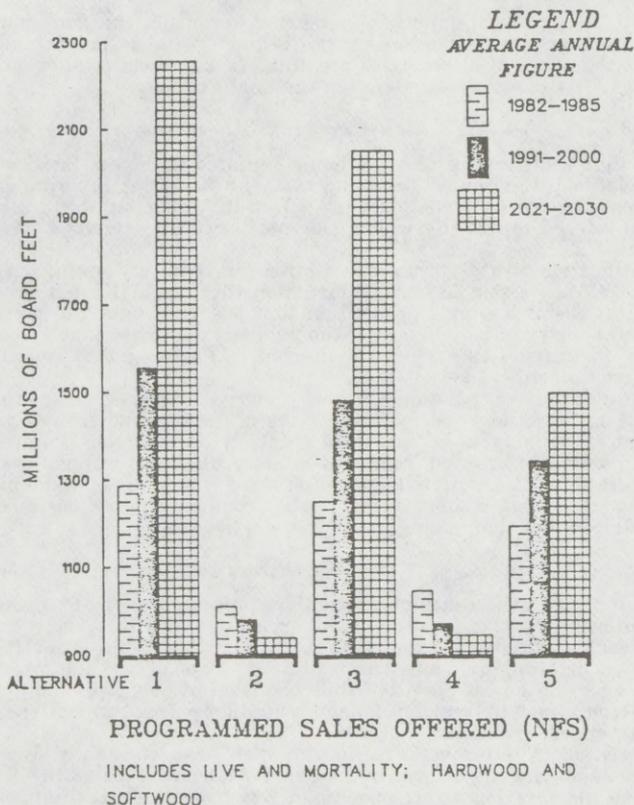
The national demand on U.S. Forests for softwood timber at projected equilibrium prices is displayed in table 6.5 (page 286). This demand is broken down by region in table 6.28 (p. 336). The sum of the regional demands [at equilibrium prices] of table 6.28 does not equal the national demand of table 6.5. " * * * Yet the sum of the demands for each year, including the base level projections, are identical in both tables. If the tables are not based on the same data, why do the years 1952, 1962, 1970, 1976 and the base level projections agree? If the tables are based on the same data, why do the equalibria disagree? ²

At A., p. 274, the assumed annual rate of change in relative prices of softwood lumber is given as 0.7 percent and of softwood plywood as zero percent. The discussion at A., pages 333-334, indicates a much more "substantial rise in the relative prices of softwood stumpage and most softwood timber products."

3. Misleading Graphs

A troublesome aspect of the Summary, which is the document upon which the vast majority of the public will rely for information about the Program and Assessment, is its use of misleading bar graphs to compare various outputs of the five alternatives for each of the nine Forest Service regions. In many cases, the ordinates of these graphs are numbered from some point far above zero. For example, the graph in the upper right hand corner of S., p. 147, reproduced below, portrays projected timber sales, in millions of board feet, from Region 1 for each alternative. Note that the ordinate is numbered from 900 million board feet. The effect of this is to make the projected sales for the year 2030 under Alternatives 2 and 4, both approximately one billion board feet, appear to be but a tiny fraction of the sales for the same year from the other three alternatives, which range from 1.5 billion to 2.3 billion board feet. The overall effect of the whole series of graphs is to distort greatly the differences among the five alternatives.

² Carey and Zangri, "RPA: Economics, Timber and Environmental Quality on the National Forests," John Muir Institute (1979).



4. Hidden or Missing Information

A great deal of information that is essential to proper understanding and evaluation of the RPA Assessment and Program is either hidden—that is, bits and pieces are spread throughout the documents or merely implicit in other statements—or missing altogether.

Examples of the former category, hidden information, are the timber management practices that would support the timber output goals of the five alternatives. While the various alternatives clearly must assume such practices to support their output goals, what these practices are is never plainly stated in one place so that the five alternatives can be compared in this regard. Rather, the information must be ferreted out from throughout the Program document (to the extent it can be found at all). See Part III.B.2., below.

The effects such management practices would have on other resources fall into the second category, missing information. The Program simply does not discuss the effects that choosing a certain timber output goal for a certain alternative could have on water, or wildlife, or recreation.

The "action options," which the Program presents as potential solutions to the policy issues it poses, offer another illustration of missing information. Nowhere are the rationale for, or the costs and benefits of, any of these options for resolving the policy issues given. Yet these issues are described as crucial to decisions on a final Program.

To ask the public to respond to alternatives and issues of great importance and then to deny it the information needed to respond intelligently is disingenuous in the extreme. Information about these most important aspects of the Program should be readily available to the reviewer.

B. Alternatives presented

Before we look at the specific implications of various of the five alternatives for the different resource elements we discuss below, several initial points need to be made about the range of alternatives presented and the sort of alternative that we would particularly like to see analyzed in the final Program.

1. Lack of a Preferred Alternative

We fear that a disturbing trend is being initiated in Forest Service procedures under the National Environmental Policy Act. The 1980 RPA Program is the second recent Forest Service national planning effort in which, at the draft stage, the Service has refused to identify which course of action it preferred. The first such effort was RARE II.

The identification of a preferred alternative serves a very useful purpose in the NEPA process. As we said in our comments on the RARE II Final Environmental Statement, "It seems a simple proposition that adequate public response to a proposed federal action can be had only if the public is told what that proposed federal action is."³ Identifying the preferred alternative focuses public attention on the action the government is likely to take.

With five alternatives, none of which is preferred, response is apt to be diffuse, pointing out some of the worst features of any of the five and some of the best. No one alternative is likely to be examined carefully as a whole. However, if a preferred alternative is identified, comment is more likely to examine systematically all the features of that alternative, including those which do not stand out as "best" or "worst" and to suggest improvements that complement the entire structure of the alternative rather than merely react to a single issue.

2. Range of Alternatives

Perhaps implicit in the range of alternatives presented in the Program there is a preferred alternative, whether the Forest Service intended it as such or not. This is so because each of the five alternatives reflects a different budget level, only one of which most nearly approximates the traditional level of funding which Congress appropriates for the Forest Service. While the level of Congressional appropriation may vary from year to year, it is highly unlikely that we will see a radical departure from past experience.

For this reason, Alternative 1, calling for high level outputs of everything and with an accompanying high level budget, and Alternative 2, calling for low level management and carrying a correspondingly low budget, are both almost certainly also-ran alternatives. Of the remaining three, on budget alone, Alternative 5, "Current Program," appears not surprisingly the likely winner, although these three are somewhat close.

It is instructive to note that "Current Program" and "1975 RPA" (Alternative 3) are two different entries in this race, which underscores the point that the preferred alternative, to be implemented effectively, must reflect current budgetary realities. If the Forest Service is truly interested in examining a range of feasible alternative programs for managing the national forests, it should develop a set of alternatives, each with a different mix of resource emphases, but all having essentially the same budget, which is set at a level reflecting an informed estimate of what Congress is likely to appropriate.

Beyond the obvious advantage of having alternatives that truly were alternatives, this system would also have the advantage of giving the reviewer immediate information on resource tradeoffs. With budget a constant, simply comparing the various alternatives would demonstrate how shifts in certain resource emphases affected other resources.

This approach should be taken to the extent possible in the final program. Perhaps the three alternatives closest to current funding levels, Alternatives 3, 4, and 5, could be adjusted so that their resource emphases are approximately the same as described in the draft while the budgets are equalized. Another alternative or two might also be added at this funding level (see II.B.3., below). The advantage of this approach is made most obvious by looking at the disadvantage of the old approach: With the old approach, you are either forced to take the one alternative that fits current budget trends whether it contains the best resource program or not, or to pick one of the others and be unable to put it properly into practice for want of funds.

³ "Comments of Natural Resources Defense Council on the RARE II Final Environmental Statement" (Mar. 14, 1979).

3. Suggested Alternatives

Having suggested an approach that would make budget something of a constant in creating RPA Program alternatives, we would like to suggest a particular sort of alternative for analysis in the final Program.

In examining the five proposed alternatives, it will be noted that only Alternative 4 emphasizes what are termed the "nonmarket outputs" of the national forests, such as dispersed recreation, wildlife habitat, and environmental quality. This alternative also sets the highest goal for wilderness designation. Clearly, this was intended to be the "environmentalists' alternative." However, Alternative 4 also projects serious decreases in timber and grazing outputs. For that reason, it is rather unlikely to be politically feasible.

We therefore urge the Forest Service to consider another alternative which would emphasize nonmarket outputs to a much greater extent than any of the existing alternatives other than Alternative 4, but which would not have the severe impact on commodity outputs of the latter. This alternative would be based on the theory that intensified management of timber on a smaller, more productive land base allow for both emphasis on nonmarket outputs and maintenance, or even modest increase, in timber outputs in the national forests. The intensive management would be financed, for the most part, by funds which would otherwise have gone toward the development of roadless lands (that is, roadbuilding). This approach recognizes that roadless areas tend to be less productive timberlands (which is often why they have remained roadless). By leaving them alone and expending timber management resources on environmentally sound management practices in productive areas with existing roads, we could perhaps get the benefits of both market and nonmarket outputs.

The Forest Service should analyze in earnest an alternative that proposes this tradeoff solution. It is an option that has not been adequately studied despite its potential to provide a solution to a controversy between forest uses that has been raging for years.⁴

We recommend that the tradeoff alternative that the Forest Service analyzes allow for modest increases in timber and grazing outputs by the year 2030. In keeping with the notion of intensive management on a smaller land base, roadbuilding would be sharply reduced. A National Forest System wilderness goal of sixty million acres should be included, and trail building for dispersed recreation increased substantially. Considerable assistance would be given to state and private forests to aid them in increasing outputs to make up for the slower rate of increase in timber outputs on the national forests. Finally, in line with our earlier suggestion, the budget for this alternative should be within the range which Congress is actually likely to fund.

III. THE TIMBER ELEMENT

Timber production involves radical physical alterations of large tracts of forest land, alterations which have direct, and often negative, effects on many of the other forest resource elements. Because timber production has such profound effects on other forest values, the proposed policies of the 1980 RPA Program which concern the nature and extent of timber production from the National Forest System must be subjected to extremely close scrutiny. This means examining the premises underlying these policies and the activities that would be entailed in putting these policies into practice.

The various economic assumptions upon which the draft Program's timber policies are based and the various timber management activities both explicitly and implicitly associated with the five Program alternatives are discussed in this part of our comments, along with our suggestions regarding more realistic economic premises and sound management activities which meet the requirements of law for national forest management. Much of this section relies upon and summarizes a report by the John Muir Institute for Environmental Studies entitled "RPA: Economics, Timber and Environmental Quality on the National Forests" (Cited as "JMI, p. "). A copy of that report is attached to these comments. The reader is referred to that report for a more thorough technical appraisal of the draft RPA Program's and Assessment's treatment of the timber element.⁵

⁴ It will not do for the Forest Service to respond that Fight, et al., "Roadless Area-Intensive Management Tradeoffs on Western National Forests," USDA Forest Service (1978), is dispositive of the issue. The authors themselves acknowledge their study to be far from conclusive.

⁵ Similar economic issues are also addressed in: Anderson, "Timber Supply, Housing Costs, and the U.S. National Forests," Sierra Club (1979).

A. Economic assumptions regarding timber

1. Timber Demand Projections

Three aspects of the Forest Service's projections of the nation's future demand for timber warrant attention: the projected rise in per capita disposable income, the projected rise in per capita consumption of lumber, and the uncertainty inherent in the long-range demand projections.

a. *Disposal income:* In arriving at the conclusion discussed below that per capita consumption of lumber will rise considerably by 1990, the Assessment assumes that per capita disposable income will continue to increase, equaling seventy percent of a growing GNP. A., p. 17. Even accepting without question that GNP will continue to grow at the predicted rate—by no means a certainty—this assumption is clearly open to question. The increasing costs of social security as increasing portions of the population enter retirement affect "take home pay" (although these costs are not deducted from calculations of "disposal income" as defined by economists). Further, real income will be diminished if recent trends toward increasing real costs of capital (interest rates), energy, and various food items continue. JMI, p. 11.

b. *Per capita lumber consumption:* According to the Assessment, per capita lumber consumption will be up twenty-five percent by 1990. A., p. 276. This is in part based upon the Assessment's questionable projection that per capita disposable income will continue to rise, discussed above. This projection is also made in the face of the assumption that the real price of lumber will continue to rise, A., p. 274, a situation which, under the most basic tenets of market economics, should result in *decreased* demand for lumber.

Finally, the long term trend in per capita consumption of forest products has been downward. This trend has held for over a hundred years. JMI, p. 11.

c. *Uncertainty in long-range demand projections:* Projecting the future levels of such things as population and GNP is an uncertain art at best. Projecting future demand for timber based on the results of those projections can do nothing but magnify that uncertainty. This can be readily seen by a comparison of a 1977 projection of future demand for lumber prepared by the President's Council on Wage and Price Stability (CWPS) based on Forest Service data and methodologies with the projection in the Assessment. While the CWPS projects more housing starts in 1990 than does the Assessment's low level projection, it predicts significantly less total lumber consumption for those starts than does the Assessment. At the very least, this discrepancy in projections based on the same figures points to the lack of precision they provide and the need to be conservative in relying upon them. As the same uncertainty underlines all such long-term projections, this criticism can be applied to all projections upon which the Assessment and Program rely.

However, the factors we examined in (a) and (b) above indicate that the Forest Service's lumber demand projections are not simply uncertain, but are based on inaccurate assumptions. In the face of a long term downward trend in per capita consumption of forest products and of rising real prices for those products, any projection which assumes an opposite trend must be looked upon skeptically. In addition, the Forest Service has evidently not taken into account recently developed housing designs which reduce the lumber needed to build a house, including one such design by an engineer with the Forest Service's Forest Products Laboratory which requires only seventy percent of the lumber used in conventional housing.

In sum, the projections of the Assessment regarding future demand for lumber and other wood products are at best uncertain and should be used conservatively. Further, it appears that at least some of these projections are based on dubious assumptions that run counter both to historical trends and present economic realities. New projections should be done based on more realistic assumptions.

2. Timber Supply Projections

Timber supply projections, though more firmly grounded in the real world—literally, since they are based on inventories of stands of trees in the nation's forests—are still subject to great uncertainty when cast very far into the future. This is so because the harvest schedules upon which such future supplies are predicated must actually occur as assumed in order for the projections to hold. Again, planning based on such projections should be conservative.

However, the greatest problem with the Forest Service's consideration of the timber supply issue is not mere uncertainty in predicting future supplies. Rather, it is the Service's apparent determination that the ideal to be strived for is to supply timber from the national forests at a rate that will stabilize timber prices at their current level. Throughout the Assessment and Program, clear indications are given

that timber price stabilization is the Forest Service's ultimate timber management objective. JMI, p. 44, fn. 39.

That this assumption is lurking beneath the surface of the RPA process, and not presented as a public issue or critically examined in any way, is deeply disturbing. Any attempt to stabilize timber prices through increased supplies from the national forests is likely to be disastrous to the other values of those forests, to many private non-industrial tree farmers, to local communities dependent on the national forests, and, ultimately, to the nation's future supply of timber. A hypothetical "history" of a stumpage price stabilization program will illustrate the point.

To keep real prices stable, the cut from the national forests would have to be increased to meet marginal demands. However, as can be readily determined from the Program itself (pp. 573-575), the rate of cutting required to accomplish this would exceed sustained yield levels. When they realized this, prudent private timber owners would also recognize that a supply shortfall was on its way and would begin withholding their timber from the market so as to profit when the national forests were depleted. Such withholding would accelerate the depletion process, for the Forest Service would have to cut even more to keep prices stable as private sources of timber withdrew from the market.

Further complicating matters is the fact that stabilized timber prices would not stabilize harvesting costs. As the latter rose, timber harvesters might not even purchase some Forest Service sale offerings. This would occur when harvest costs exceeded the stabilized price levels. At that point, to perpetuate the stabilized prices, the Service would have to subsidize sales increasingly, assuming directly or through payments to harvesters enough of the financial burden related to timber harvest to allow the harvesters to make a profit at the stabilized price. Thus merely maintaining current supplies at a stabilized stumpage price could become a serious and costly problem.

Even if the Forest Service did manage to stabilize prices (only so long as the supplies of timber on the national forests lasted, of course), other problems would arise. Artificial shortages of wood products—e.g., paper, plywood—could develop when increases in population resulted in increases in demand for these products. An increased demand for paper would lead to an increased demand for pulp and finally for the stumpage from which it is derived. But at stabilized prices, there would be no incentive for new timber growers to enter the market to meet that demand regardless of the demand for or the price of the final product. Only further government subsidy would permit that demand to be met.

A related problem is that stabilized stumpage prices reduce or eliminate market incentives to reforest harvested private lands. These incentives are already weak, due in part to the fact that the Forest Service's current system of pricing timber does not necessarily set a price which covers the costs of managing that timber. That is, the Service is currently selling a good deal of timber from various regions at subsidized prices, prices below its own sale-related costs. Private owners, who must recoup their costs and then some to stay in business cannot compete with these subsidized sales. It is not surprising that many private owners of commercial forest land are at present not actively managing those lands or timber production, or, even worse, are converting them to other uses entirely. A., p. 329. Naturally the massive subsidy of national forest sales that would accompany a price stabilization program would have far more drastic consequences upon the ability of small private forest owners, who presently control almost 300 million acres of the nation's commercial forest land, to manage that land profitably. A., p. 306.

Several other consequences of a price stabilization program warrant attention. Many new harvest and milling technologies have been and are being developed to increase the amount of processed products that can be produced from a given amount of timber. Such devices as thinner saw blades which reduce log waste by ten percent, computer scanning to determine the most efficient positioning of a log before its entry into the sawing process, and advances in plywood fabrication technology are currently available for securing more product from a volume of fiber. But if stumpage prices are stabilized, the manufacturer has less incentive to install more efficient technologies, since he is purchasing stumpage at the stabilized price and can sell finished products at a considerable profit, the market in those products having not been stabilized.

Local communities dependent on national forest timber will suffer in the long run. This is especially so in the Pacific Northwest, where the increased cutting to stabilize prices would be centered in that region's old growth. This accelerated cutting would cause a temporary boom and then an enormous collapse to a production level far below that prior to the boom when the supply of old growth was exhausted.

Finally, the price stabilization program would result in a nationwide timber shortage when the supplies finally were depleted and enormous profits to those private owners who held out until that time. Prices would skyrocket, obliterating the entire stabilization effort. And the numerous amenities which the National Forest System is uniquely equipped to provide through multiple use of its commercial forest lands would have also been lost as these lands were cut in this ultimately vain effort to keep prices down. JMI, pp. 14-16, takes a more technical look at this scenario.

3. Recommendations

In light of the grim outlook for a Forest Service program to stabilize timber prices, we urge that any assumption that price stabilization should be a goal of Forest Service planning be eliminated from the final Assessment and Program. To the extent that supply and demand projections used in the documents are based on an assumption of stable prices, they must be replaced by projections based on a valid market supply-demand analysis which treats price as a variable and not a constant in forecasting what the future demand for wood products will be.

In addition, the Program should clearly indicate that subsidized sales from the national forests, as a means of stabilizing prices or for any other reason, are inappropriate. Not until timber sales from the national forests are required to recover their related costs will the small holders of vast acreage of private timberland be able to compete on equal footing with those public timber sales. As the private timberlands are among the most productive in the nation, it is essential to our future timber supplies that we do everything we can to encourage their owners to manage them aggressively.

This is our response to the Program's first policy issue concerning the Forest Service's role in supporting development of wood production from nonindustrial private lands. Far more than present incentives programs, research, and the like directed at these lands, all of which we support, a policy that would prevent Forest Service sales from undercutting the ability of these small owners to achieve a fair return on their investment would encourage their active management of these lands.

Closely related to that issue is the Program's second policy issue concerning the level of timber production that the Forest Service should engage in on the national forests. To encourage greater production from private lands, the Forest Service should increase overall sales from the national forests at a slow rate, if at all. Adopting a policy that required the Forest Service to recover costs of sales would be compatible with this approach, as such a policy would prevent wholesale increases in production through the opening of large tracts of previously undeveloped national forest lands. Only those areas where the costs of development were low enough that they could be recovered at a timber price acceptable on the current timber market would be entered for timber production. The result of tying national forest timber production to market conditions in this manner would be to allow private timber producers to participate equally with the Service in that market.

B. Management of the timber element

So far in this part of our comments we have dealt solely with the economics of timber production, with timber as a commodity. Unfortunately, this limited aspect of our national forest timber resource is the only one which receives significant attention in the draft RPA documents. While the draft Program reviews the economic benefits of the alternative levels of timber supply, it does not clearly display the costs of mitigating environmental degradation that would result from the alternative program levels. Nor are the effects of timber production on other resources easily discerned in the RPA analysis. That trade-offs must be made among resources is frequently obscured by the assumption that additional funding can cure the negative effects of any level of timber management on the other resources.

In this section we examine the five alternatives proposed in the draft Program to discover the timber management practices that, either explicitly or implicitly, would accompany each. With this basis, we can more easily assess the impact of the various alternatives on forest values other than timber production.

1. Options To Guard Against the Effects of Uncertainty

Before turning to the specifics of the five alternatives, however, two matters must be briefly discussed. First is the notion that the perpetual management of a productive ecosystem (such as the Forest Service's desired timber management in the national forests) is a very uncertain science. Not enough is known about the interactions between the various components—plant species, animal species, soils, water, and so forth—that man can manipulate any one of these components with

any assurance that it will not damage one or more of the others and, hence, upset the entire ecosystem. Such uncertainty concerning the long term results of manipulating an ecosystem to produce certain outputs must be taken into account in planning.

The JMI report suggests three ways in which such uncertainty can be dealt with in timber management planning: (1) using conservative estimates; (2) replanning frequently; and (3) maintaining options. JMI, p. 27. We have already mentioned the need to be conservative in relying on projections of future events. Frequent replanning is mandated by the Resources Planning Act. Thus, the critical concern here is that of maintaining options to correct ecosystem management errors, without which replanning is unlikely to be effective.

This brings us to our second point, an examination of the various means of preserving options for managing forest ecosystems. Briefly, these are the following:

a. *Diversity*: Diversity, simply described, is the variety of plants and animals in a given ecosystem. It includes not only the variety of different species, but the variety within species—differences in age and genetic makeup. In §6(g)(3)(B) of the National Forest Management Act, Congress expressed its desire that diversity be maintained on the national forests. The importance of diversity to maintaining management options can be summarized as follows: "Maintenance of high level diversity helps preserve many species and ecosystem functions which might otherwise be lost. In the face of uncertainty as to the reliability of data on resource interrelationships, diversity preserves opportunities to satisfy a variety of resource needs." JMI, p. 28.

b. *Gene conservation*: As more and more of the national forest sites being reforested are stocked with the progeny of genetic improvement programs, the forest gene pool shrinks. As a result, overall species adaptability to unforeseen insect and disease epidemics and to the vast range of site conditions in the Nation's forests is lessened. It is essential to the future well-being of our forests that the multiplicity of genetic variations within tree species are preserved to ensure the continued availability of strains adaptable to future forest conditions.

c. *Soil productivity*: "Maintenance of the soil resource is essential to ensuring the continued productivity of forest ecosystems. Protecting this resource is a basic Forest Service responsibility under the Multiple-Use-Sustained-Yield Act. Soil productivity may be reduced through soil compaction and nutrient loss." JMI, p. 29.

d. *Inventory levels*: From their birth in the Creative Act of 1891, the national forests have carried with them some notion of being forest reserves, of providing an untapped buffer for the national timber supply to allow us safety and flexibility in dealing with future contingencies. High inventories allow the manager to adjust harvest levels up as well as down and to shift harvest patterns when the need arises. If plans are made to manage the national forests at "full capacity," we have sacrificed this invaluable historical function of the National Forest System as insurance against unpredicted future events.

2. Effects of the Alternatives on Preservation of Management Options

Having canvassed the factors which are crucial to the maintenance of timber management options in the face of our uncertain knowledge of the intricacies of forest ecosystems, we can now look at the RPA Program's proposed alternatives with an eye toward the degree to which each would preserve or foreclose these options. To do this requires a look at the utilization standards and management assumptions underlying each alternative, something which the draft Program, in a glaring omission, has nowhere explicitly and concisely set forth. However, a careful reading of the documents (and between the lines of the documents) by John Muir Institute forester Henry Carey has produced a very useful chart which pulls together information on the management assumptions underlying each of the five alternatives. JMI, p. 31. A copy of that chart is included here for reference during the discussions that follows.

It should be parenthetically noted at the outset that in order to meet the timber production goals of Alternative 1, all national forests would have to be committed to emphasizing timber management. With this in mind, it is difficult to imagine how these forests are also giving to provide the high levels of the other elements which the Forest Service claims would result from Alternative 1. For the same reason, Alternative 1 seems to run counter to the spirit and letter of the Multiple Use-Sustained Yield Act. If this is correct, it cannot be considered a legally proper alternative.

Alternative Harvest Schedule Policy	Rate of Old Growth Harvest	Conversion Period	Land Base	Silvicultural Systems	Stocking Control	Species Composition Control	Reforestation with Genetically Improved Stock	Fertilization	Utilization	Roads
1. Non-declining yield possible re-definition of sustained yield	Accelerate harvest	Within 1R 1/	All CFL 3/	Full intensity 4/	Strict on all CFL	Strict on all CFL	On all CFL	Where cost effective	All fiber used	All CFL by 2000
2. Non-declining yield	Would be maintained	Over Several R's	Currently accessible	Extensive	None	None	None	None	Emphasizes saw timber	Maintain current system
3. Non-declining yield with implied departures 1/	Accelerate harvest	Within first rotation	CFL	Full intensity	Where cost effective 6/	Where cost effective	On highly productive lands	Where cost effective	All fiber used	All CFL by 2010
4. Non-declining yield	Would be maintained	Over 1-1/2 rotation periods	Highly productive accessible areas	Prescriptions geared to non-market values	On highly productive areas	Cannot be determined from data	None	None	All fiber used	Maintain current system needed for timber production
5. Non-declining yield	Accelerate harvest	Over 1-1/2 rotation periods	CFL	Continue current applications of extensive and intensive management	Continue current applications of commercial and non-commercial thinning	Where cost effective	On all CFL	Where cost effective	Emphasizes saw timber and firewood	All CFL by 2020

FIGURE 1

a. *Diversity*: Forest diversity is most seriously affected by planting after timber harvests to produce forests containing only one or two commercially valuable tree species. Of the five alternatives, Alternative 1 is worst on this issue, resulting in large areas "dominated by one or two species" of tree on *all forests*. P., p. 457. Alternatives 3 and 5 could result in significant reduction in diversity on some forests. Alternatives 2 and 4 would have little impact on present forest diversity.

We note that conversion to commercially valuable species would have its most dramatic effect in the eastern national forests where hardwoods predominate. Because hardwoods are not presently as commercially valuable as softwoods, planting for commercial value in these forests would mean wholesale conversion from existing forest species. In response to RPA Issue 11, concerning eastern national forests, we would urge that great deference be given the diversity requirements of NFMA in managing the eastern forests and that research be initiated into increased utilization of hardwoods for various wood products. The success of the latter would, of course, ease the economic pressures for conversion.

All five alternatives seem predicated upon the use of only even-age management of timber, despite the requirement of the draft NFMA regulations that both even- and uneven-aged management systems be considered in forest planning. 44 C.F.R. 219.13(c) (May 4, 1979). Even-age management results in forest stands uniform in age as well as species. Rotation age, which is not discussed in the documents, except as a means of increasing yields through its reduction, is another important means of preserving diversity. Old growth stands have unique ecosystem functions and are essential to the survival of many species. However, none of the five alternatives recognize old growth management to provide a distribution of older age classes as a goal for planning. The old growth issue is a crucial one and is discussed in greater detail in the JMI report, pp. 33-38. Part III.C. of these comments discusses the need for the Assessment to inventory old growth.

b. *Gene conservation*:

"Alternatives 1 and 5 would have significant impacts on the gene pool of all national forests and Alternative 3 on the highly productive forests in each Region. The Forest Service has committed itself to an aggressive gene conservation program as an integral part of its overall tree improvement program. However, the need for the conservation program with its associated costs of record-keeping, seed tree nurseries and land withdrawals, is not explicitly discussed in the draft RPA documents.

"The extended rotation issue and the management of old growth reserves is relevant in the context of gene conservation as well. Juday states, 'An efficient, coordinated old growth management plan may be the most cost-effective method of maintaining a broad pool of crop gene trees.' Thus, some of the costs of gene conservation programs could be defrayed through old growth management plans." JMI, pp. 34-35.

c. *Soil productivity*: Very little data is available on such matters as soil productivity losses due to soil compaction or nutrient needs for forests under timber management. Thus an evaluation of the effects of the alternatives on forest soils is problematic. However, in light of the paucity of reliable information and the Forest Service's duty to maintain the productivity of soil, as one of the forests' most valuable renewable resources, the RPA Program should include in the alternatives various means of researching and monitoring soil problems. Instead, the draft documents assume that soil productivity is being maintained and that fertilization can cure any future problems.

d. *Inventory levels*: To very briefly summarize the discussion of this issue at pp. 36-38 of the JMI report, Alternatives 1, 3 and 5 call for accelerated harvest of the old growth inventory of the national forests. Under all three, the entire inventory would be liquidated within fifty years. The result of this complete liquidation would be to reduce greatly the nation's options for responding to unforeseen future events. We urge that the preferred alternative identified in the final PRA Program reject this approach and set a timber production goal which is low enough to allow the national forests to continue to function as reserves.

3. Recommendations

As stated above, the draft documents do not make explicit the management activities that would support the various alternatives. Yet it is crucial for the public to know what those activities would be in order to judge intelligently among the alternatives. The discussion above of the effects of management activities that can be inferred from the alternatives should make this clear. The final documents should, therefore, identify the management assumptions that support each alternative considered. A chart similar to the one presented in the JMI Report which

presents in one place the assumptions underlying all alternatives would be very helpful to reviewers of the final documents.

With the underlying management assumptions clearly identified, the documents should then go on to discuss their likely consequences on the forest ecosystem and related values and on the other resource elements.

Finally, we would urge that in dealing with the timber resource overall, the Forest Service must correct its most basic mistake, which is that of looking solely at projected input and output levels rather than at the character desired of the actual forests themselves. Forests must be managed as ecosystems (which they are) and not treated merely as factories for the production of commodities (which they are not). The latter view seems to have led the Forest Service to ignore harm to these forest systems that could result from various timber management practices or to treat that harm as something that could easily be cured by increased spending.

The final result of all this planning—RPA, regional, and forest—for our national forests will be individual forest plans which determine the character of their respective forests. Out of that single character will come each forest's ability to provide a mix of multiple uses. The fact that it is a total forest ecosystem that makes possible those uses must not be forgotten. Only by concentrating on the well-being of the entire integrated system, and not just on certain components of that system, can those multiple uses be sustained.

C. Old growth timber assessment

The wildland attributes and resources described in the Assessment should include those for which there is considerable public concern and where the presentation of data would provide a factual basis for decisionmaking.

One wildland resource with highly desired attributes is old growth timber, provisionally defined as forest stands whose establishment predates the beginning of commercial logging operations in the region in which they occur. We are aware of no formal definition. However, there seems to be general agreement that it refers to uncut stands on the national forests. In the Pacific Northwest, the dominant and codominant trees are at least 200 years old; in the case of noncommercial or inoperable forest stands on harsh sites, often considerably older. This discussion, and our recommendations, are confined to commercial species on commercial forest land, regardless of ownership.

The fate of old growth stands is the subject of political contention and the source of a major policy debate. See III.B.2.a., above, and JMI, pp. 33-38. The issue is not new, nor will it be resolved with the adoption of a recommended 1980 RPA alternative. We therefore ask that an old growth Assessment be included, insofar as possible, in the revision of the draft Assessment document, and that it be a feature of subsequent assessments. Figures on the extent of old growth on some national forests are available, and could be extracted from national forest inventory data and from forest survey data. Old growth distribution and inventory data are valuable for forest planning; many plans are developed without detailed unit-specific information on old growth. The completion of forest plans in the 1980's could permit aggregation of data on old growth in the national forests for a 1990 Assessment. However, some policy options relating to old growth will have been compromised or foreclosed ten years hence. We thus list several reasons for at least a provisional 1980 old growth Assessment and discuss some parameters of the resource that ought to be displayed.

1. Rationale

The national forest harvest policy issue (number 2) center on the rate of conversion of old growth to managed stands, with the impending exhaustion of privately-held old growth implicit in the question of whether the Forest Service should make available additional supplies. Certainly, more information is needed by reviewers of the RPA documents to reply adequately to this issue. What is the nature of the old growth resource from which these supplies would be drawn, and where is it located? What is the extent of old growth on industrial holdings, on O & C lands, on state timberlands, and on small nonindustrial categories, *e.g.*, "productive reserved"? Is it possible to subdivide the old growth inventory by cover type, site class, age class, mortality classes, net annual growth, and other mensurational characteristics displayed for forestland and sawtimber in the draft Assessment?

Even the maintenance of current policy, which involves eventual liquidation unless land is allocated to reserved categories, does not foreclose the need for an Assessment: This [prevailing] policy of old growth liquidation must not be either reconciled with or modified by the new process of planning and allocating the national forests which was introduced by the National Environmental Policy Act of 1969 and the National Forest Management Act of 1976. In order for the public and resource managers to be able to make informed decisions in this process, we all

need to have an understanding of the roles and functions of old growth in the ecosystem; and if old growth is to become a goal or product of management, managers need an old growth management information base.⁶

Juday refers to the "important ecological characteristics" of old growth in this passage. They include habitat for specialized wildlife, exceptional microfloral diversity, and influences on forest watersheds.

With regard to wildlife at least, the Assessment states: A major constraint on understanding wildlife conditions is the lack of inventory data defining the extent of existing habitats. There is no comprehensive and quantitative inventory of available habitats for any substantial part of the Nation. *Measurements of animal habitats that can be related to information on other resources are needed.* A., p. 216 (emphasis added).

Clearly, inventory data on the extent and character of old growth habitat are unavailable. Knowledge of this data would serve to focus the value questions and judgments surrounding the policy issue, and collection of this data should begin at forest, regional, and national levels of inventory.

This data should be conventional in nature, derived from measurements taken during Forest Surveys, compartment examinations, aerial cruises, and remote sensing. Of course, the intensity of inventory and the detail of the resulting assessment will correspond to the level of study, with ecological appraisals and stand writeups at the forest level and more generalized data for the Assessment.

Geographic data on old growth extent and status is important, because it is the spatial distribution of old growth that ecologists cite as crucial to the overall perpetuation of the resource, to the design of protected reserves, and to the silvicultural benefits it supplies for adjacent commercial forest land. What old growth types occur only on one type of ownership in a region? Where is the Forest Service's obligation to provide research sites, large logs, or specialized bird and animal habitat most acute?

An assessment must proceed from a technically sound definition, and might encompass stands with large trees, cut selectively in earlier years, large second growth trees in "productive reserved" land classes, and managed stands producing timber on exceptionally long rotations. Old growth benefits are not derived solely from "primeval" stands, nor is the policy issue surrounding them confined to the West Coast. If old growth can be acceptably defined and described in mensurational as well as ecological terms, it can be studied as a sub-element of timber in the RPA Assessment, and its status noted in recurrent inventories.

IV. WILDERNESS

A. Wilderness destination

This section of our comments discusses the Wilderness Element of the RPA Assessment and Alternative Program Directors, with reference to the following:

- (a) Assessment of the Outdoor Recreation and Wilderness resource system;
- (b) issue areas, including the omission of a Policy Question, and accompanying options for the National Wilderness Preservation System on the NFS;
- (c) the Alternatives, their accompanying National Goals and Output Targets; and
- (d) a preferred Alternative.

The assessment—Several inferences about the Wilderness allocation process may be drawn from a reading of the Assessment, which is of necessity limited in its scope. These are:

(1) Measurement of "dispersed recreation" does not provide a confident basis for estimation of the "recreational demand" for wilderness. It should be refined or supplemented with estimates of supply and demand for primitive recreation. In addition to other demands for wilderness besides recreation, there is evidence of massive demand for recreation requiring the exercise of non-mechanized skills in relatively or completely unmodified settings within extensive tracts of land. This category of dispersed use is by no means confined to presently classified conservation systems. It deserves separate treatment in the *Assessment*, and to be distinguished from what we term "sociologically but managerially incompatible uses" that are also "dispersed" but not permitted in wilderness.

The *Assessment* states, "The accuracy of recreational use estimates is generally low and any analysis of demand must be cautious." This suggests that increases in wilderness recreation demand, with the assumption that a greater land base will be needed, must be used carefully in formulating wilderness allocation alternatives. This uncertainty does not mean that no alternatives can be formulated, but it counsels caution about setting targets, caution that errs on the side of the resource.

⁶ Juday, "Old Growth Forests." 8 Environmental Law 497, 498 (1978).

RARE II demonstrated that there is a dissonance between the pace of development and decision-making, and the uncertainty regarding the demand for wilderness 40 or 50 years from now.

(2) An analysis of demand and supply of wilderness must note that "non-recreational demand" for wilderness also comes from recreationists whose concern is not exclusively activity-oriented, but contains a significant altruistic or biocentric⁷ element. This has often shown up in the political arena and shows every sign of increasing. It has two concomitants: (a) willingness to demand wilderness designations whether or not the lands in question have outstanding recreational merit and (b) a concern about the adequacy of the Wilderness Preservation System in protecting wildlife, "natural integrity," and "a very wide range of ecological, geological, or other features of scientific, educational, or historical value." The Alaska lands legislation is perhaps the greatest manifestation of a biocentric demand for wilderness, which has obvious implications for the management of the National Forest System.

A related development is the appearance of a wilderness constituency among land managers who understand its inherent values and its usefulness in securing wildland benefits, only one of which is recreation. Philosophically and professionally, wilderness management has advanced greatly as a serious natural resource specialty. Forest Service research has played a role in this development.

Yet another foreseeable development is an increasing sophistication in the wilderness recreationist; he or she can discern unnatural conditions, seek more—instead of less—rigorous conditions and management standards, and additional and more varied wilderness lands.

Policy issues—The Forest Service has surprisingly omitted wilderness allocation as an "issue area" with accompanying options. One must infer that it is: (a) of insufficient importance; (b) believed to be adequately resolved under RARE II; or (c) embodied in other Issue Areas without explicit mention; or (d) adequately covered by the five alternative program directions. We feel that this is a glaring omission, that a wilderness "issue area" should be formulated, and that options should correspond to allocation controversies. The display of wilderness element goals, activities, and outputs under each Alternative demonstrates that the nature of the ultimate WPS on National Forests is at issue, but is not addressed by a policy question. Such policy questions might read, "What criteria will the Forest Service use in recommending improvements and additions to the National Wilderness Preservation System on the National Forests?" and "What should the Forest Service take to minimize conflicts between nonwildernesses and building and improvement of the National Wilderness Preservation System?" An issue description and list of options could be: The Forest Service can recommend, and expedite establishment of a wilderness system on the NFS that ranges in size from 22 to 60 million acres, utilizing varying combinations of existing wildernesses, pending proposals, RARE II lands, and qualifying roadless areas for which Land Use Plans had been prepared before RARE II. There will be varying impacts on the utilization of other resources, chiefly timber, and opportunities to compensate for subtractions of wilderness from a commercial forest land base. The Forest Service has the opportunity to recommend designation of lands to attain varying ranges of natural and recreational diversity, and to complement wilderness on other Federal lands. Wilderness management and research emphases can vary accordingly.

Several options could be adopted for consideration in recommendations to Congress. These include, but are not limited to, (1) utilize systematic criteria and acceptable methodology to recommend a NFS wilderness system of about 60 million acres, with units well distributed over the NFS; (2) adopt strong regional emphases in recommendations for wilderness targets, relaxing use of accessibility and representativeness criteria; (3) concentrate the production of non-wilderness resources on land already developed or of low suitability for addition to the NWPS; (4) rely on non-wilderness designations for wilderness recreation; (5) continue reliance on land-use planning, RARE II recommendations, and pending proposals in making recommendations ("current approach").

The foregoing list of options encompasses strategies that the Forest Service could adopt or has seemed to adopt. The list is not exhaustive, nor are the options mutually exclusive. Nevertheless, they speak to a variety of approaches to wilderness on the NFS, all of which have advocates.

⁷J. C. Hendee, et al., 1978. Wilderness Management. USDA, Forest Service Misc. Publ. 1365. "... the issue of what philosophy will underlie wilderness management is crucial to the future of the National Wilderness Preservation System. The Wilderness System we will have in the year 2000 will be a direct product of the philosophy that guides the many related policy and management decisions. It is our judgement that a predominantly biocentric position is appropriate, necessary, and defensible." p. 20

Our comments on the RARE II process⁸ pointed out the many inadequacies in the means employed by the Forest Service to resolve the fate of roadless areas and to establish valid criteria for selecting new wilderness candidates. The criteria for as well as the size of wilderness allocations are still at issue. Similarly, the qualitative characteristics of the Wilderness System on the NFS and the question of acreage are similar in importance. The Program Alternatives embody acreage targets but do not give enough indication of the expected nature of the overall NFS wilderness system—the landscapes and ecosystem diversity that would be achieved, geographic distribution and accessibility to populations, inclusion of wilderness wildlife, relationship to highly productive lands. Some inferences can be drawn from the graphs, showing Regional targets, that accompany descriptions of each Alternative. What is lacking, though, is discussion of some *thematic* criteria and goals that correspond to “identified policy issues” for wilderness.

For example, Alternative 1 (the “high activity” alternative) places considerable reliance on wilderness designations in Alaska and the Intermountain Region. What is the implication of the strategy for providing “geographic distribution and accessibility,” in view of the low population densities in those regions and their remoteness from large centers of population?

Similarly, does Alternative 1, with its very high anticipated timber output and intense silviculture activity, coupled with a target of 42 million acres of wilderness, satisfactorily address a “trade-off” theme? For a revised Alternative 1, or a variant with feasible budget levels for the NFS and the timber element, what would be the effect on timber output of a wilderness target of 55 to 60 million acres? We would like to see an alternative, developed in response to our alternative, that contains our preferred acreage goal for wilderness and a timber output that equals or moderately exceeds current levels. We suspect that a high wilderness target need not be linked to high budget levels.

As we suggest below in our discussion of wilderness management, there is a need for less time-pressured research on wilderness allocation criteria and methods, so that such perceived needs as ecosystem representation can be met. We see no alternative, however, that directly addresses the “representativeness” theme and specifies a concomitant research effort.

A “thematic” Alternative 5 (“current approach”) for wilderness would be responsive to an explicit option, relying on the purposes and outcome of RARE II to specify a range of outputs for wilderness recommended from the further planning category. The “Current Approach” alternative would have to recognize that more wilderness would be drawn, at citizen and Congressional initiative, from lands unacknowledged in RARE II or under Land Use Plans completed before RARE II hence excluded from that process.

One can envision yet other alternatives responsive to reasonable policy criteria; for example, a desirable “mix” of areas of different size within the Wilderness System. Such a size criterion might favor large areas over small ones within the same range of acreage targets.

The five Alternative Program Directions for wilderness are unsatisfactory because of their unresponsiveness to current allocation issues. There is no alternative target that results from an option to sustain current grazing and timber outputs while providing for a wilderness system of 57–60 million acres. The “tradeoff” question for timber was not addressed, although the same theme was apparent in Alternative 1 for range.

There is too little acknowledgement of the opportunity for significantly greater additions to the current wilderness system, beyond the designation of lands recommended for wilderness and further planning. There are additional eligible lands, as well. These additional sources (which should be acknowledged in a program and assessment as comprehensive as RPA) include some 36 million acres of land recommended for nonwilderness under RARE II, about 20 million of which are in contention and could ultimately be classified wilderness at citizen and Congressional initiative, and noninventoried roadless areas.

These potential sources, and the great uncertainty of the outcome of the allocation process, points to the need for an alternative that sets a high level of wilderness additions from which Congress may choose. The impacts of a higher level of recommended wilderness on conflicting uses should be explored. The grounds for resolving the timber/roadless area question have been suggested elsewhere; how can they help to formulate a recommended alternative for wilderness designation?

We seek a wilderness target of from 57 to 60 million acres for the NFS, and the use of sound criteria to help determine the allocation of those lands among Regions.

⁸ Sierra Club and NRDC, comments on USDA, Forest Service's Draft Environmental Statement on RARE II (*op. cit.*), dated 9/29/78.

An acceptable alternative entails an increase in wilderness recommendations beyond the upper limit of Alternative 4, but should not necessitate the reduced forage and timber outputs under that Alternative.

In the presence of continued uncertainty about the nature of roadless area ecosystems—"the lack of inventory data defining the extent of existing habitats" (A.p. 216), the 1980 RPA Program should recommend a wilderness alternative that reflects caution about impairment and alteration of undeveloped lands whose representatives or uniqueness is imperfectly known. The data and information to make truly sound decisions to irreparably alter much *de facto* wilderness are not available.

B. Wilderness management

This section of our comments specifies emphases for wilderness management consonant with the protection and enjoyment of existing resources and our recommendations for increases in the diversity and extent of wilderness on the National Forests. We call attention to our wilderness designation recommendations for the National Forest System, and in calling for a 60 million-acre Forest Service Wilderness System, we are seeking a commensurate devotion of management attention to these lands.

We believe that the conceptual basis—the framework—for wilderness management has advanced tremendously in recent years,⁹ that wilderness management "has emerged as a serious resource specialty,"¹⁰ and that the state-of-the-art has important implications for the designation process.

The RPA Program provides an opportunity to adopt some desirable management goals to meet needs that conservationists and wilderness specialists have identified and to translate these into policies and programs over the horizon of the Program when allocation decisions will have been completed. We also attempt to specify what the general intent of a preferred wilderness management goal means in terms of RPA Alternatives. Wilderness management has too often been thought of as a sidelight to the contentious issues of designation with no bearing upon the classification process.

In terms of RPA, we concur with three of the most outstanding wilderness researchers, who wrote: "Adequate management of the National Wilderness Preservation System will not be possible unless Congress appropriates the necessary funds. To date, Congress and the agencies have assigned wilderness management to a lower priority than many other programs involving more intensive land uses. There are several elements we consider important in a comprehensive wilderness administrative system and stongly urge particular attention to such elements by Congress in considering the necessary funding for such a program * * *. Moreover, as new areas are considered for addition to the Wilderness System, careful thought should be given to their money requirements for cost-effective management to meet established wilderness objectives."¹¹

What follow are the emphases that we believe deserve an initiation or an increase in management effort:

1. Wilderness Ecosystems

Our comments on a desirable emphasis for completion of a system of Research Natural Areas on the NFS are not intended to be exhaustive with regard to the subject of the role of natural areas in protecting ecosystems. (See Part III.A. below). The justification for establishing wilderness has too often been construed by the Forest Service to be recreation and attractive scenery. research in wilderness has largely been recreation-oriented, and we infer that some RPA alternatives would continue this indefinitely.

Whatever the chosen alternative under "National Goals—Wilderness," an increased wilderness administration program will be necessary to implement the goal of incorporating and retaining features of "ecological value."

The deficiencies of using the Kuchler system were pointed out during RARE II.¹² A Forest Service scientists suggest that " * * * in the West, the habitat-type approach, with some modification to recognize existing communities or cover types, appears well-suited for stratification of wilderness tracts."¹³ The recommendation implies a more intensive level of wilderness inventory for at least two reasons. First,

⁹ J. C. Hendee and George Stankey, 1973. Biocentricity in wilderness management. *BioScience* 23 (9): 535-538.—J. C. Hendee, *et al.*, 1978. *Wilderness Management*. USDA, Forest Service Misc. Publ. No. 1365, pp. 137-147.

¹⁰ Hendee, *et al.*, *op cit.*, p. 364.

¹¹ Hendee, *et al.*, *op cit.*, pp. 374-375.

¹² Comments of the Sierra Club and the Natural Resources Defense Council on the USDA Forest Service's Draft EIS on RARE II, 1978, 48 pp.

¹³ J. F. Franklin, *in* J. Hendee, *et al.*, *op. cit.*, p. 205.

wilderness management often focuses on "problem" tracts and must proceed with broader offsite capabilities. Second, in order to specify needs for natural area systems, we must know what landscape units are already encompassed in reserves.

Wilderness management has largely focused on specific trouble spots—e.g., degraded lakeshores, meadows, and trails, areas where livestock congregate—but researchers suggest that we need to know more about wilderness tracts as a whole. Part of this need has to do with off-mentioned "reference areas" purposes of wilderness designation.¹⁴ "A * * * word on the present state of monitoring, or baseline data collection, in wilderness is in order. At best, it is woefully inadequate; in most areas, it is essentially absent * * * No other natural resource managers would ever tolerate such an inadequate inventory base in their programs. For example, there are extensive systems of continuous inventory plots, comprehensive stand examinations, simulation models, and complex data storage and retrieval systems. Certainly, this type and intensity of inventory and monitoring is not advocated for wilderness. But it should make the wilderness manager aware of the total inadequacy of past efforts and the imperative for improving a data base in the future."¹⁵

The need to know what is going on takes on particular force with respect to commercial uses and the need to manage them within the statutory limits of the Wilderness Act, calling for "natural integrity" and "primeval character and influence." Chief among these nonconforming uses is livestock grazing, the impacts of which on important national forest lands are discussed in Part V. We believe that, although wilderness grazing amounts to only about 200,000 AUM's, its presence in an unsatisfactorily controlled condition is disproportionately responsible for public objections to NFS grazing. We condone the continuation of grazing in established NFS wildernesses, providing it is or will be carefully managed. The Forest Service therefore has an obligation to all interests to specify and eventually attain proper management, which we hope will be little different than the conditions obtaining on all NFS rangelands after a reasonable span of time.

Undoubtedly more rangeland wilderness will be encompassed in the final system, and expectations of quality administration will be greater. Livestock grazing will be expected to conform to ecological criteria—e.g., the "reference area" function cited by the Society for Range Management—as well as to the aesthetic conceptions of wilderness visitors.

We urge more attention to non-conforming use management to comply with the Wilderness Resource Management Plans and to forestall the need to eliminate these uses altogether, for, as an ecologist studying wilderness grazing concluded: "* * * one can expect that the impacts of (abusive) livestock grazing will become offensive when they are recognized as cultural features * * * For those concerned with the preservation of natural ecosystems, then, the problems are not merely ones of resting resource-community development or maintaining national, rather than regional or local, viewpoints in decision-making. More fundamentally, the preservation of such systems depends upon the difficult problem of knowing what is natural and what is not."¹⁶

Whether fire suppression, grazing, or more subtle human influences are in question, the statutory charge of the Wilderness Act would seem to mandate a "substantially increased" wilderness research and administration program. The scope of the present programs is not sufficient to handle problems already acknowledged nor to manage those anticipated with the growth in the Wilderness System on the NFS and on other federal lands with substantially less agency experience in wilderness management and research. As we suggest, the problems are not all recreational, yet "visitor" problems have provided the main impetus for Forest Service wilderness research and management; this could be substantially broadened.

We recall a statement in the *Assessment*, p. 43, that "while it is not reasonable to quantify demands for recreational uses and activities of wilderness in a meaningful way, it does seem reasonable to assume that demands for most of these uses, as for recreation, are likely to increase in the decades immediately ahead." A commensurate "nonrecreation" wilderness administration program seems called for, and is best identified with Alternative Program Direction 4, regardless of the ultimate size of the Wilderness System on the NFS. We find the other program directions for wilderness management rather too recreation oriented, for instance, Alternative 5, "Current Approach," which specifies "a partial research effort (that) would, for instance, measure use, explain user characteristics, and solve sanitation problems."

¹⁴ Society for Range Management, "Benchmarks" Policy Statement on Wilderness Management, Denver, Colorado.

¹⁵ J. F. Franklin, in J. Hendee, et al., op. cit., p. 211.

¹⁶ Thomas R. Vale, 1977. *Forest Changes in the Warner Mountains, California*. Annals Association American Geographers, Vol. 67: p. 45.

In summary, we concur with the tone of the section on wilderness management opportunities in the draft *Assessment*, pp. 146-147, and urge that wilderness administration receive the attention it deserves, both as an anticipated substantial fraction of the future NFS and as a Program element with special public and statutory demands upon it.

2. Wilderness Research Emphases and RPA Program Alternatives

A substantially increased research effort in NFS wilderness could, as we suggest, contribute to the resolution of allocation controversies and to the more efficient discharge of the Forest Service's statutory and regulatory responsibilities. The emphases cited below are particularly germane to RPA and the allocation of research manpower and funding to wilderness. The lands recommended for "further planning" as a result of RARE II offer appropriate locales for studies with a "policy" orientation. And, as we note with regard to grazing, research sites can be made coincident with the boundaries of administrative units, or identified wilderness candidates.

a. *Comparative methodology in wilderness/nonwilderness allocations*—The Forest Service developed the WARS methodology for use in RARE II, and "in theory, (it) would appear to be a sound technique for evaluating certain aspects of the wilderness resource having to do with scenic and recreational values as perceived by the recreationist.¹⁷ Our objections to the manner of its employment in RARE II have been spelled out previously.¹⁸ But we foresee a need for some wilderness attribute methodology in the future, one that is developed with the help of a variety of interests and with substantial expertise from outside the Forest Service.

We do not believe, however, that attribute ratings should be inflexibly translated into recommendations, that the purpose of further planning studies is solely to arrive at a rating, or that all controversy can be stilled by the application of an "objective" methodology.

There are encouraging signs, however, that some scientific criteria can be applied to the allocation process. Three such areas of analysis are assessment of the economic benefits of non-development, the effect of wilderness designation on pre-existing uses, and the "representativeness" criterion that arose in RARE II. On this subject, a conservationist with long experience in the Rocky Mountain region wrote, "Diversity data and information could have enriched RARE II * * *" He went on to the heart of the allocation issue in reviewing the history of public involvement in RARE II:

In the hearings, the battle lines were familiar—economics vs. environment and much of the argument turned on questions of fact. How much merchantable timber really is in a disputed area? What is it really worth? What natural features or habitats are found there and how much land is really needed to protect them? Or are they really protected elsewhere?

In fact, as the hearing progressed, the reliability of official facts and figures itself became an issue.

Groups on several sides of the question accused the Forest Service of preparing faulty environmental impact statements. But in some respects, the Forest Service was dealt an impossible hand from the beginning. Probably the only systems more complex than economic systems are ecological ones, and under the best of conditions the task would be formidable. How would you organize enough information about 62 million acres to predict the environmental and economic impact of *hypothetical alternative actions*? Yet much of the data did not even exist, let alone computer programs to transmute data into all the information needed for such major policy decisions.¹⁹ (emphasis added)

"Wilderness research" alternatives in RPA are conceived too narrowly if research is not viewed as integral to the allocation process. As an example: there is statutory direction to perform mineral studies in Primitive Areas proposed for wilderness, and in Wilderness Study Areas designated by the Bureau of Land Management. What other kinds of scientific information might Congress want about candidate lands, and what is the Forest Service's role in supplying it and in anticipating it in RPA implementation? The summaries of National Wilderness Research goals, S., p. 127, would be improved by a statement of the level of allocation-oriented research appropriate to each Alternative. Such a statement appended to Alternative 4 might read, "Conduct substantial effort to increase public and Congressional awareness of the natural elements, opportunity costs, development cost-effectiveness, and other

¹⁷ Sierra Club and Natural Resources Defense Council, Inc., *op. cit.* p. 15.

¹⁸ *Ibid.* pp. 15-16.

¹⁹ G. Jon Roush, 1979. "The Nature Conservancy in the Rockies," *The Nature Conservancy News*, Jan.-Feb., p. 5.

attributes of candidate wilderness in order to provide a more solid factual basis for allocation decisions. Research should guide preservation of a very wide range of values for natural integrity and for ecological and geological features."

V. THE RANGE ELEMENT

This section contains a discussion of the rangeland Assessment and Alternative Programs direction for range. The topics discussed include the proper conceptual approach to National Forest rangeland, range management with reference to sensitive areas, a NSF rangeland reference area system, research emphases, and the Alternatives.

We call attention to the fact that *range* is a varied kind of land, and not just a use associated with livestock. On the NFS, "range" may mean, in addition to native grasslands and shrublands, the understory of xerix timber types, the early stages of succession following regeneration harvesting, noncommercial woodlands, and converted forestland. Much of the "diversity" alluded to in recent regulations pursuant to the NFMA is contributed by forbs, herbs, and grasses, whether grazable or not, which are impacted by nonrange use. Range management, therefore, is closely related to how well the Forest Service discharges its statutory direction regarding diversity under NFMA and fulfills the habitat diversity criterion adopted under "National Wildlife Goals." In fact, "Range" and "Wildlife" concerns or elements are hard to separate, not just because livestock affect wildlife, but because animal life depends on understories as well as on the dominant tree species of forestlands.

A. The assessment

We note with concern the importance attributed to beef in the range grazing demand—"beef overrides the effects of other sources of animal protein insofar as they influence demand for range grazing." A., p. 223. Whether or not the expansive prediction of 159 pounds per capita of beef consumption in 2030 is correct or not, we infer that a particular consumer demand will be "driving" use of the range resource. There is nothing sacrosanct about a high level of beef consumption and its automatic identification with a high standard of living.

We are aware of the environmental and trophic disbenefits and inefficiencies resulting from reliance on grains to feed livestock and feel that a shift to use of rangelands and pastures is desirable. Nevertheless, we take a critical attitude toward the compulsion to view the public lands as "red meat" production units vital to meeting excessive projected—and present—demands for beef. This is not to say that public land grazing is unimportant or can be reduced without adverse economic impacts; rather, we make a case for decoupling National Forest System grazing from national demand.

If National Forest red meat output can be substantially increased over the RPA planning horizon, consistent with range restoration, fine—but even the change from the present 9.9 million AUM's to a postulated 15.3 million AUM's in 2025 (Alternative 1) would represent a minor contribution compared with the potential increase from other range and pasture lands. From the 1976 level of 217 million AUM's of range (excluding pasture forage), demand is projected to rise to 45 million AUM's by 2030; an increase of 233 AUM's. The most "active" range alternative, 1, would contribute but 5.4 million more AUM's to that total—an addition that amounts to about 2 percent from what we regard as the most critical portion of the grazable rangeland base—the National Forests.

Our basic point is this: the demand for beef is projected to be high, unrealistically so; yet even if it can or should be met, the contribution of National Forest ranges is small. This is not because of "multiple-use constraints"²⁰—which often are synonymous with range management principles that cannot be violated—but because of the nature and distribution of the NFS rangelands.

We acknowledge that National Forest ranges often have important complementary relationships with private and other federal rangelands, but this does not weaken our basic point. The NFS can do very little to make up the projected shortfall in supply relative to demand, a project itself questionable.

Once NFS output is decoupled from enormous national demands, RPA can look at other policies and goals for cattle and sheep for local use, habitat restoration, watershed improvement, maintenance or ranching lifestyles, etc. The policy questions, options, and RPA Alternatives may then be examined, and the potential of non-NFS forage sources assessed.

²⁰ For example, see: E. Treiman, 1976. *Grazing on the National Forests—Ten Years After the Wilderness Act*. Senior Thesis, University of California, Santa Cruz. The author demonstrated that no decline in grazing levels was attributable to wilderness classification of rangelands on the NFS.

Other aspects of the assessment: The section on range condition (pp. 241-244) contains a display (Table 5.8) of "national" range condition using a curious undocumented breakdown into condition classes. Why was Soil Conservation Service procedure (*National Range Handbook*, 1976) not used for this? The definition given in the Assessment for "high" condition is curious; is it synonymous with "excellent"? If so, it is too hard, in contrast to SCS ratings, which specify 75 percent or greater of site potential.

Unless sufficient justification is provided for use of this condition classification, it should be replaced with SCS criteria.

"Trend" data are vital, indeed inseparable, from condition data; why are the former deleted? Where are the ranges, by ecosystem, going? The ten-year interval between Assessments is a span of time appropriate to note "national" changes in response to programs and thus to judge their efficacy. For example, the Forest Service might specify its planned contributions, under each Alternative, to the improvement in NFS and other forested range which would be assessed in 1990 and at subsequent intervals.

B. Rangelands conceptual approach

The JMI Report refers to a way of thinking about wildlands and their products that we find at variance with the approach shown in Policy Question 13 with respect to "range." JMI, p. 39. In addition to the commodity demand—forage—for range resources, we can refer to the "ecological demand" for rangelands. Carey and Zangri write: This demand focuses on diversity, gene conservation, soil productivity, and the maintenance of relatively high levels of inventory as indicators of the integrity of the forest ecosystem. Once recognized, this demand could be easily balanced with commodity production objectives. However, the current Forest Service absorption in *projecting output levels rather than displaying the character of the target forest* [or range] is an important hurdle which must be overcome. JMI, p. 39 (emphasis added).

The "projecting of output levels" pervades the setting of Alternatives for range; output targets are set which may or may not be attainable either politically or budgetarily (e.g. 6.2 million AUM's) but are certainly unaccompanied by other goals and indices. These need not be wholly qualitative, but could be; for example, "attain 'good' or better ecological range condition on 60 percent of NFS rangeland, presently supporting 'X' Animal Unit Months," or "attain 'excellent' condition on rangelands designated for recreation, Special Interest, and wilderness purposes by 2020."

The problem then becomes one of specifying what ideal and acceptable conditions are. There are accepted technical definitions which have a forage—production orientation but also indicate condition for other uses—watershed, esthetics, wildlife forage to some extent, diversity, soil productivity.²¹ Conditions for rangelands can be assessed in other ways: soil loss estimations, the welfare of "plant management indicator species (JMI, p. 40), populations of wildlife having strong dietary overlap with livestock, availability and representativeness of reference areas, and so forth. Other RPA Elements, such as fish and wildlife, that are affected by rangeland management have these and other indices. We question whether the NFS data base on indices is sound enough to permit specifying AUM targets. Under the National Forest Management Act, forest (and sub-forest) planning must begin with an assessment of land capability and suitability and proceed from there to develop output targets that can be aggregated into regional and national targets. As stated in a November 8, 1978, evaluation of the NFMA regulations by Resources for the Future: While the Assessments and Programs will be iteratively developed, with cumulating information over time, it must be recognized that the attainable national targets must be extracted from the soils and management intensity on the ground level, namely the national forest.

Thus, we urge that:

National targets for AUM's support on the National Forest System be stated as a range, reflecting uncertainty about their attainment until unit data on rangeland capability are available.

Outputs/targets under each Alternative include targets for condition attained and desirable trend initiated in terms of acreages of NFS land, by ecosystem and productivity class.

The Forest Service select and apply additional criteria for satisfaction of rangeland goals. As we elaborate below, these criteria include accepted measures of non-forage range health such as native species diversity, quality of reference areas, and water quality—measures that are not always subsumed under "range condition and

²¹ SCS, 1976. *National Range Handbook*. ref. 305.

trend" as commonly determined, and that do not automatically accompany increased AUM output.

The Forest Service recognizes that non-budgetary, non-programmatic factors now play, and will play, without institutional changes, significant roles in public land grazing. These include the proprietary nature of the allotment arrangement, local pressures that override resource decisions, the readjustments in BLM grazing (which mean unacknowledged impacts on the National Forests), the appreciating "cash value" of AUM's and their heavy use in securing credit, and the potential for range improvement through reductions which, although politically unpopular, could bring about increased capacity in the next century after a transition period. The last factor may not require any increased appropriations, simply the resolve to carry it out where applicable.

C. Issue areas and alternative programs for range

As was implied in our discussion of the conceptual approach to rangelands, the policy question posed in terms of forage development—seeing the NFS as composed of livestock production units—should instead reflect a broader view of range as a *kind* of land with a variety of outputs. Wildlife conflicts, the continuation of abuses, and impaired productivity suggest that environmental issues revolve around NFS grazing, so that ways of resolving these problems should underlie RPA alternatives. Our discussion of supply and demand suggests that "forage development" on the NFS is of little *national* consequence, whereas improvement of the 100 or so million acres of NFS rangeland (or its maintenance of it is in good condition) is. National Forest rangelands include high mountain watershed, the great majority of the alpine range in the United States, popular wildernesses, and "fragile" Southwestern rangelands.

As all the alternatives are designed to comply with the statutory directives to the Forest Service, the issue is not whether NFS ranges will be restored to their full productive capacity but how, at what rate, and for whom.

The basic charge to the Forest Service, which we believe is stated strongly in the statutes, is to maintain high-quality range management. In the case of the National Grasslands, the obligation was even manifested in the acquisition of derelict farm and rangeland from the private sector.

1. The Alternatives for Range

a. Alternative 1. This alternative embodies an interesting approach analogous to a suggestion made for timberlands—that "marginal" or undeveloped lands be "retired" and production concentrated on the "best" lands.²² Surely the idea deserves more study, and we will not attempt to analyze it in depth. We merely note that concentrating on grazing the most productive lands may entail increased conflicts, simply because high forage-producing lands are some of the very best lands for other uses and values.

The alternative specifies essentially retiring 23 million acres of NFS rangeland. As these millions of acres have no doubt supported a great deal of traditional use, we question the feasibility of this alternative. In suggesting that grazing reductions have a role in initiating desirable trend and good condition on much land, we do not necessarily mean that those lands should be permanently retired. They may be less cost-effective, but still usable by livestock under properly managed extensive systems.

There seems to be confusion between the terms "low condition" (P., p. 129) and "little opportunity for future grazing"; the former describes a condition that is not immutable, whereas the latter phrase implies lack of capability. They do not necessarily describe the same lands. The public needs to know what will happen to these 23 million acres of low-condition range when grazing is phased out. Will they remain always of low condition (a capability judgment), or will they improve and regain grazing value? If some or all of the 23 million acres are *unsuitable*, and are now grazed as an anachronistic practice, they should be retired under any alternative. If these lands will regain grazing value, then soundly managed grazing should not necessarily be ruled out forever by blanket retirement.

The contraction of grazing under this alternative also seems inconsistent with the National Goal of "permit[ting] grazing within presently ungrazed ecosystems." P., p. 129 What ungrazed ecosystems (Potential Natural Communities or Forest Range Environmental Study types) would be grazed? We need this information to evaluate environmental concerns involved.

²² D. Pavelchek, 1979. 1980 RPA update, unpublished, on file with Sierra Club, San Francisco, California.

In view of its potentially great impacts, Alternative 1 should have a better research basis. The "tradeoff" question for timberlands is highly controversial and has become the subject of study.²³ Alternative 1 appears to embody a similar approach, but because range is a less visible issue, it has received no comparable treatment. We urge that it be the subject of a "tradeoff-forage use consolidation" study that would be the basis for reformulating the Alternative in 1985. Its findings would be germane to the policies regarding BLM-administered rangelands and private sources for forage.

b. Alternative 2: There is little to indicate the rationale for considering this alternative—is it for "environmental" as well as budgetary reasons? Are downward adjustments to be the result of a policy decision or of technical judgments intended to put use within "the sustained natural capacity of the range"? P., p. 175. As a *custodial* approach, it seems neither necessary nor desirable, but it embodies some approaches that could result in an upturn of forage output after a transitional period of reduced stocking. The statement, "it is anticipated that very little change in rangeland ecological conditions would take place," implies that improvement would never occur and that natural succession has no role in range improvement under reduced stocking. This is, of course, incorrect and indicative of the lack of documentation given this alternative.

An improvement in Alternative 2, from our standpoint, would address the capabilities of the NFS to reach an increased forage level in the 21st century after a transitional period that largely, but not exclusively, relied upon reductions (for ecological, not budgetary, reasons) to permit succession to work. Improvements would concentrate of those sites where succession needs help from man.

c. Alternative 3: Much of our comment on Alternative 1 applies here. The approach is the same, but reflects a lesser budget level.

d. Alternative 4: The goals, outputs, and activities for all elements under Alternative 4 suggest an "amenity" orientation. We question the viability of this alternative, which so emphasizes amenities to the reduction of current levels of grazing use as to appear to be intended to polarize grazers and those who favor amenities.

As we stated under "Wilderness Management," Part IV.B., there must be more attention to the management of livestock in designated areas, but that should be for the sake of the *resource* as well as for recreation. There is no reason that environmentally responsible goals such as "reduce level of livestock grazing in riparian zones and other important wildlife and recreation areas" cannot be a feature of other alternatives that assign grazing a full role in non-sensitive areas.

In brief, any "environmental" alternative should be based on a determination of what is best for the rangeland resource; any alternative should therefore be "environmental" and not falsely polarize interests.

e. Alternative 5: A "current approach" alternative has considerable merit if it results in satisfactory conditions and does not signify a perennial holding action because of chronic underfunding. We suggest that several persistent problems of grazing abuse under "current approach" are institutional rather than technical or budgetary in nature. We are alarmed at the statement that "ecological conditions of rangelands would be improved where cost-effective opportunities exist," as if effectiveness is measured only by forage and the Forest Service did not have an obligation to improve ecological conditions on all rangelands. The five alternatives are said to be each consistent with statutory and regulatory directives to the Forest Service. Our interpretation of these is that care and improvement of all lands is mandatory and fundamental, and that *effectiveness* in analysis cannot be solely in terms of the "driving" use, in this case forage production.

2. Conclusion

We are not prepared to endorse any one Alternative for adoption as a 1980 Recommended Alternative for the range element. We suggest a broader research and policy base for formulation of 1985 alternatives. We think that our recommendations point to increased budgetary, policymaking, and conflict-resolving efforts for range. The disproportion between element funding and range element funding for any of the five alternatives is astounding: range would receive from about 6 percent to 7 percent of the attention given to timber. Yet grazed rangeland occupies over 100 million acres of the 180 million acres on the NFS, and often values of equal units of rangeland and commercial forest land are quite comparable: Examples are wildlife production, recreational interest, and water flows. Rangelands are capable of contributing as much or more sediment under poor management as timberlands,

²³ E.g., Fight, et al., "Roadless Area-Intensive Management Tradeoffs on Western National Forests," USDA Forest Service (1978).

yet this and other equivalencies in harms from inadequate management, as well as in values, are simply not reflected in budgeting and program formulation.

D. Range research

1. Rationales

We urge a considerably expanded role for Forest Service range research, for the following reasons:

(1) Much of the livestock management on the NFS is essentially custodial, and the technical basis for continuing these practices or for replacing them with grazing systems is weak.

(2) Many range types occur on both the NFS and the public lands, yet the Bureau of Land Management has no research arm to speak of. In developing and implementing its grazing Environmental Statements, the BLM needs to refer to applicable research. The Forest Service has long carried out range research on desert and non-NFS lands.

(3) Grazing can have such profound effects on other RPA elements that the benefits of applied research are not confined to "range" nor to forage production alone.

(4) Controversy over past livestock effects, current practices, and the impact of new systems is at a high level. Proposed rules pursuant to the NFMA will require a stronger technical and professional foundation for the care of NFS rangelands. The "diversity" requirements of NFMA, for instance, put strong demands on range management as a discipline with a floristic basis.

(5) Expansion of wilderness and other designated areas on the federal lands will involve rangelands with special range management requirements.

For range, and for range-based wildlife and aquatic research, we recommend the document, *Range, Wildlife, Habitat and Fisheries Research Needs and Priorities*, as a prospectus for NFS range research.²⁴

2. Reference Areas

Because range science is comparison-oriented and involves actions to attain standards, it requires study plots and areas and experimental ranges. We have elsewhere made recommendations pertaining to Research Natural Areas (Part VII below) and here describe the value of an expanded system of range areas consonant with recommendations for expanded range research and improved grazing management.

We think that the status of range natural areas is at least as unsatisfactory as it is for timberlands, and, in the case of wilderness, one major protective category is closed to logging yet open to grazing. The reference-area value of grazed wilderness lands is therefore seriously compromised. The need to locate, designate, and study rangeland areas is almost exclusively the responsibility of the Forest Service when a range ecosystem occurs just on the NFS. Alpine rangelands, for instance, are practically confined to the National Forest System.²⁵ Other productive types, such as mountain parklands, are mostly found on the national forests.

The classificatory basis for reference-area selection is not complete, but the work of the SCS, academic range scientists and ecologists, and interagency committees provides ample basis to being.²⁶ For example, the Assessment provides a basis for an initial stratification against which the national forest contribution can be compared: to facilitate analysis of their range potentials and capabilities, the 54 ecosystems described in the Forest and Rangeland chapter were subdivided into 126 potential natural communities. A potential natural community, or PNC, is defined as the plant community that would be expected to dominate an area under the prevailing climate, soils, and physiographic situation if the influence of man or natural catastrophes were eliminated. Each potential natural community was further subdivided into four productivity classes and four condition classes. Each resultant PNC-productivity-condition class combination was considered as a resource unit. A., p. 220, fn.

This suggests that, at a minimum, there should be 504 (4x126) reference areas to encompass samples of all PNC's in each of four productivity classes, assuming that only "climax" or "excellent" condition ranges are included. What portion of the 126 PNC's are rangeland and are found on the NFS, and what portion are only or nearly exclusively found on the NFS? The Assessment should supply these figures for calculation of a minimal natural-area system for national forest rangelands.

²⁴ Joint Task Force, 1977. *Range, Wildlife Habitat, and Fisheries Research Needs and Priorities*. Western Regional Planning Committee. 27 p.

²⁵ Forest-Range Task Force. 1972. *The Nation's Range Resources—A Forest-Range Environmental Study*. Forest Resource Report No. 19, USDA Forest Service. 147 p.

²⁶ USDA Soil Conservation Service. 1976. *National Range Handbook*. Revision.

Reference-area needs are greatly amplified if we consider the need to have managed range study areas (those in "good" or better condition or exemplifying exemplary grazing practices) and a redundant reference-area system so that allotment managers and ranchers can study ungrazed conditions or proper use on individual districts or forests. Other reference areas would be established to surround habitats of special plants, unusual range plant communities, and to provide for wildlife studies. Probably every grazed wilderness should have fenced or inaccessible reference areas to permit assessment of departures from "naturalness" that may be due to livestock abuses.

How might completion of a satisfactory reference area system for NFS rangelands be accomplished, given the impetus provided by the National Forest Management Act regulations and increased public interest in the condition of NFS rangelands? We suggest that efforts move in tandem in three main areas:

Devote increased attention to the problems posed by livestock in presently designated and candidate wilderness, in view of the statutory direction to maintain "natural integrity." Although wilderness rangelands need not be pristine, they should still serve reference functions in comparison to undesignated rangelands. An appropriate goal for wilderness grazing early in the 21st century might be the attainment of "excellent" condition and the complete protection of sensitive sites by means that conform to the Wilderness Act and the individual Wilderness Resource Management Plan.

Rangeland Research Natural Areas should be established within the context of regional assessments such as those we endorse for the forest lands.²⁷

A strictly forest approach lacks the perspective afforded by an awareness of regional needs. In this framework, NFS lands would likely be heavily targeted for their ability to fill identified gaps in montane rangeland RNA's. "Non-management" criteria will play a large role here.

Lastly, an identification of reference area needs for "routine" management would be performed at the forest and district levels: the status of enclosures, prime range sites, and sensitive areas would be reviewed for their contribution to implementation of grazing resource plans. This program corresponds to the requirements of the NFMA regulations for "monitoring" and other functions.

We recommend adoption of the following abbreviated goal statement, for inclusion under the range element in the 1980 RPA program:

Rangeland Reference Areas, NFS—Substantially increase number and variety of rangeland reference areas for research, conservation, and administrative purposes; complete assessment of individual Forest needs by 1990. Attain "excellent" conditions on wilderness ranges by 2020. Repair or expand deteriorated or inadequate enclosures.

E. Miscellaneous

1. Forest Floor Diversity

There is a greater relationship between the range and timber elements of RPA alternatives than is acknowledged in the Summary. Silvicultural practices have impacts on forest herbage—not just forage, but all understory vegetation—that have great implications for the conservation of diversity, a term given formal definition in law. "Diversity" in forest ecosystems cannot refer solely to the mix of tree species, age classes, and timber types present on a management unit, but means the understory, and, by extension, its ability to produce forage and other "range" benefits under varying silvicultural regimes.

In view of the budgetary disproportions between timber and range in all of the alternatives, the public should be informed of how, in the broad sense, forested range vegetation will be affected by timber element alternatives.

2. Private Nonindustrial Rangeland

The *Forest-Range Environmental Study*²⁸ refers to "exploitative grazing" on 4½ of every ten acres in the Eastern Forest ecogroup, a problem that suggests the need for State and Private Forestry efforts, an unrealized potential for restoration and increased production, and the existence of a "private nonindustrial rangeland" issue analogous to that widely acknowledged to exist for private timberlands.

²⁷ C. T. Dyrness, et al., 1975. *Research Natural Area Needs in the Pacific Northwest: A Contribution to Land-Use Planning*. USDA Forest Service General Technical Report PNW-38.

²⁸ Forest-Range Taskforce. 1972. *The Nation's Range Resources—a Forest-Range Environmental Study*. Forest Resource Report 19. USDA Forest Service. p. 23.

3. Noncommercial Forests and Woodlands

There are several recent developments that point to the need more carefully to inventory, plan for, and use noncommercial woodlands and forests, a broad type included in the range element. A., p. 220. In view of the extent of the pinyon-juniper type alone on the NFS, this forest-range category would benefit from more explicit discussion in the Assessment and Program. Some observations and recommendations:

(1) The eradication of pinyon-juniper to increase water flows and to improve soil retention is an almost totally discredited practice in terms of its effectiveness and conformity to multiple-use directives. Benefits of conversion for wildlife and forage have often not been cost-effective, and the practice must be carried out on a case-by-case basis, with multidisciplinary review. Forestry benefits have often been totally ignored in such analyses.

(2) The silvicultural basis for managing woodlands for green fuelwood, nuts, posts, and other products has improved considerably, but is inadequate for large-scale operations.

(3) The Forest Service should no longer manage woodlands in an unregulated category where green wood demands are high. An addendum to the timber management plan for the Carson National Forest now specifies sustained-yield for woodlands, in view of growing fuelwood demands.

(4) In terms of growth capabilities, woodlands are submarginal according to recent definitions but nevertheless need study and management under forestry principles.

(5) The use of woodlands for commercial chipping and fuelwood operations on a large scale is questionable in view of the availability of forest residues from more humid sites. Large-scale exploitation of woodlands for nonlumber uses would indicate a desperate supply situation on other lands.

(6) We emphatically object to the renewal of large conversion operations to meet a higher output target for NFS AUM's, as under Alternative 1.

VI. THE MINERALS ELEMENT

A. General concerns

Policy Question 14 regarding extraction of minerals on NFS lands shows a strong bias toward minerals development. It reads: "What actions should the Forest Service take to *facilitate* exploration, development, protection and restoration (reclamation) of NFS lands for energy-related and other important minerals?" (Emphasis added.) The word "*facilitate*" connotes acceleration of exploration and development. We feel that Forest Service minerals management should stress conserving these resources and managing their development in harmony with other resources uses.

This balancing of the use of minerals with other uses assumes discretionary authority to devote a given parcel to its highest and best use or mix of uses. The Forest Service does not presently have this authority; under existing law, hard rock mining can pre-empt any other use. While the Interior and Agriculture Departments have the authority to decide if, where, when, and how to develop salable and leasable minerals, under the 1872 Mining Law they do not have such authority for locatable minerals. Since prospecting for and development of hard rock minerals are a source of major environmental impacts and dislocations of other uses on NFS lands, this lack of authority is a serious impediment to meaningful land use planning on the national forests.

16 U.S.C. §1601 directs the Forest Service to include in the Assessment "a discussion of important policy considerations, laws, regulations, and other factors expected to influence and affect significantly the use, ownership and management of forest, range and other associated lands." Therefore, it would be appropriate for this Assessment to include a discussion of how replacement of the 1872 Mining Law with a statute providing the secretary with leasing authority for hard rock minerals would enable the Forest Service to integrate hard rock mining activity into its land use plans and thereby provide more protection for grazing, timber, recreational and ecosystem resources.

Also in line with the Sec. 3(4) directive to discuss important policy considerations, the Assessment should discuss alternatives to the *de facto* policy of full-speed-ahead development on its lands to meet short-term demands for energy and metals. In some quarters the response to shortages has been to propose extraction of as much of a given reserve as is technically and economically feasible; others suggest that conservation, substitution and recycling be instituted before exhaustion of non-renewable resources and the loss of the environmental values that exhaustive development would require. In the context of diminishing reserves and the economic impetus to develop remaining resources on the national forests, the Forest Service,

as guardian of the public's land, must aggressively defend our multiple renewable resources from indiscriminate exploitation of non-renewable resources.

In general, the RPA draft discussion of minerals is superficial, inconsistent, and in places unclear. On page 80 of the Alternative Program Directions draft, under Issue Area No. 12, it is stated in the Overview: "Generally the Forest Service is neither administratively responsible for minerals disposals nor for administration of applicable minerals laws and regulations on NRS lands. Nevertheless, the Forest Service has a role in determining whether mineral development should be allowed and how such development is to be conducted."

The Forest Service *can* influence leasing decisions and *can* also influence development of hard rock minerals as they affect surface resources through its regulations, 36 CFR 252 (1978). It would be appropriate to elaborate on this role in the Assessment.

The five "Forest Service Action Options" in the Overview barely relate to the five Alternative Program Directions. The first option listed seems to correspond to Alternative 5, the current approach which leaves initiative for mineral development to other agencies. This approach leaves a lot to be desired in that agencies such as DOE have a narrow focus. Some agency needs to consider the relationships among various resources and that seems an appropriate function for the Forest Service when the resources involved are under its jurisdiction. All four of the remaining options would accelerate mineral development on NFS lands. The option that is missing is a long-range program of phasing various minerals deposits on-line by an evaluation process that would consider regional and national minerals needs, comparative richness of various deposits, broad impact, logical regional infrastructure buildup, etc.

B. Recommendations on alternative program directions

1. Operations

Alternative 1—"Fully integrate proposals and resulting activities with other resource plans and needs." What does this really mean? It implies balancing mineral uses with other uses, and, as indicated above, to do this "fully" presupposes discretionary authority to allow or prohibit mining on a case-by-case basis, authority which the Forest Service (Agriculture Secretary) does not now have. While we agree that this should be the goal, the discussion needs to point out that full authority to implement the goal is not available without changing the law.

Alternatives 2 and 4—"Limit actions on mineral proposals, giving priority to energy and to 1872 mining law operations." What limiting affect does this have in the total minerals development picture? Most of the minerals activity on NFS lands is regulated under energy fuels leasing systems or the 1872 Mining Law, so limiting actions on what remains will have a barely noticeable effect.

2. Abandoned Mineland Reclamation

The goal is best stated in Alternative 4.

3. Assistance to States and Private Land Owners

This should be provided as indicated under Alternatives 1 and 4.

4. Surface Environmental and Mining Research

The goals are best stated under Alternative 1; however, there are additional research considerations not mentioned in the draft.

There are unrealized opportunities for relieving the pressures to develop low-grade fuel and non-fuel mineral reserves through conservation and substitution, and, in the case of metals, by recycling. These opportunities can be met at least partially by adequately funded federal research programs for both renewable energy sources and substitution and recycling of metals. Insofar as failure to improve research in these areas directly contributes to increased pressure to develop low-grade mineral resources in environmentally sensitive areas on public lands, it would be appropriate for discussion of this type of research need to be included in the RPA draft.

VII. OTHER CONCERNS: RESEARCH NATURAL AREAS

A. The need for a research natural area system

This section discusses the role Research Natural Areas (RNA's) should play in the RPA program, with particular reference to timber ecosystems. Our comments on

rangeland RNS's and reference areas are found in our discussion of the Range element, Part V., above.

We believe that detailed discussion of RNA's is warranted in our RPA response for several reasons: Opportunities to establish additional RNA's, and to carry already-identified candidates to approval by the Chief will, on some Standard Component lands, be foreclosed during the 1980's unless designation is pursued more vigorously. Also, we have asked natural-area workers to convey their concerns about RNA's to the Forest Service, and recent administrative actions²⁹ set the stage for accelerated, systematic designation of RNA's with the aim of completing a system well before the end of the RPA planning horizon.

We were disturbed to find practically no mention of RNA's in the RPA documents, believing that the Nation's interest in natural areas are by no means confined to Wilderness. Indeed, RNA designation might be identified as a minor "issue area" with options and corresponding alternative goals. As we read the documents, we must infer that some options for RNA's and other baseline areas are implicit in such element alternatives as "Research Construction," "Lands" or "Habitat Diversity." Similarly, there is no mention of RNA's as components of the NFS infrastructure, which includes roads, trails, research facilities, and improvements. In this section, we specify some preferred options and commensurate national goals for RNA designation, inventory, and research.

The statutory and regulatory basis for the use and designation of RNA's is clear.³⁰ Nor is it for lack of suitable definitions that the status of RNA's on the National Forests is unsatisfactory.³¹ We acknowledge the leadership of the Forest Service—particularly certain administrators and units of the Forest Service—in designation of federal RNA's, but initiatives seem to have slackened. Yet, as a prominent scientist wrote, "Not nearly enough Research Natural Areas have yet been established, nor has the program ever received the financial and policy support it deserves in the upper administrative levels of the agencies."³² We are aware of the frustration felt by Forest Service scientists and by natural area workers at the slowness with which RNA's are designated, and, in particular, the difficulties in getting commercial timber types represented. A recently-compiled listing of RNA's on California national forests shows a heavy predominance of unusual and noncommercial conifer types and nonforest communities.³³

Furthermore, we have evidence to show that the process of RNA designation has been so protracted, and so subject to land managers' preferences, that suitable candidates found by scientists and line staff have been included in timber sales.³⁴ Despite the small subtraction from the commercial forest land base that a system of timberland RNA's would make, candidates are vulnerable to logging and silvicultural activities.

Because proposed forested RNA's usually (but not necessarily) encompass tracts of old growth timber, RPA options that deal with "liquidation" rates are of particular concern. Option 1 of Issue Area 2 is preferable in this respect, with the qualification that we are concerned about the *outcome* as well as the *rate* of old-growth conversion.

Similarly, wilderness designation goals bear on the question of RNA's. Suitable candidates undoubtedly can be found in all three RARE II categories. Those with especial interests in RNA's would likely favor our suggested goal for Alternative S/W simply because, in the face of Forest Service slowness or indifference to RNA designation, it offers the best hope of reserving candidate RNA's from irretrievable development until at least such time as they can be protected on their own merits. The ultimate size of the Wilderness System on NFS lands might otherwise be a matter of indifference to RNA interests.

²⁹Federal Register, May 4, 1979, p. 26596, §219.12(m) of Proposed Rules; Forest Service Manual 4063. Amendment 31, March 1979.

³⁰Endangered Species Act of 1973; 87 Stat. 884; 16 U.S.C. 1531-1534; National Forest Management Act of 1976, 90 Stat. 2949, §6(g)(3)(B); Forest and Rangeland Renewable Resources Research Act of 1978, 92 Stat. 353; 7 C.F.R. 2.60(a); 36 C.F.R. 251.23.

³¹FSM 4063.02; see also J.F. Franklin and J.M. Trappe, 1968, *Natural Areas: Needs, Concepts, and Criteria*. *J. For.* June 1968 pp. 456-461; C.T. Dyrness *et al.*, 1975, *Research Natural Area Needs in the Pacific Northwest: A Contribution to Land-Use Planning*, USDA Forest Service General Technical Report PNW-38, pp. 1-2.

³²Robert E. Jenkins, 1976, "Wilderness: From the Viewpoint of Preserving Ecological Diversity," paper presented to Allegheny Section, Society of American Foresters, Dover, Delaware, February 5, 1976. 18 p. unpub.

³³J. Major and M. Barbour, eds., 1977, *Terrestrial Vegetation of California*, John Wiley and Sons, New York, pp. 82-83.

³⁴John Moore, 1979, "The Forest Service Role in Preservation of Natural Areas," unpubl. paper on file with Sierra Club Legal Defense Fund, Inc., San Francisco, California, p. 4.

We are aware of the distinctions between wilderness and Research Natural Areas, and note that in both Forest Service policy and the writings of scientists the two are kept apart. A recent directive (FSM 4063, Amend. 31) reads, "Research Natural Areas shall not be designated within wilderness if there is a feasible alternative for representation of the vegetation type outside of wilderness." They are complementary but separate programs, and RNA's cannot be subsumed under any RPA Program Element—wilderness, for example, without explicit mention. We might note that some studies cannot now be carried out in wilderness because of inaccessibility, restrictions on structures and instruments (although these are less stringent in wilderness than some assume), and recreation and grazing uses. Conversely, the extensiveness of most wilderness tracts offers research opportunities not found in conventional RNA's.

In a spectrum of reserved areas, Research Natural Areas can play important functional roles in addition to serving as research sites and representative tracts. As Juday suggests, a network of "old growth enclaves" is necessary to supply benefits that cannot be assured by designating old growth wilderness "fortresses" amidst managed timberlands. He writes: "* * * a strategy of old growth management that relies primarily upon [wilderness] designations will leave many millions of acres without old growth benefits. Whether the system could survive such a loss involving the vast majority of its range is problematical."³⁵

With this in mind, we believe that, once a minimal RNA system is objectively identified,³⁶ redundancy should also play a role in the formulation of RPA alternatives. The need for several examples of each "cell"³⁷ has been given particular emphasis by the promulgation of National Forest Management Act regulations.³⁸ Section 219.12(m) of the Proposed Rules places RNA identification and designation in a forest context, and the NFMA specifies that monitoring shall be carried out on a forest basis to assess the impact of silvicultural and other activities.

Scientists, line officers, and even the informed public should have resource to "baseline" areas within each forest. One example of a forest cover type or habitat-type in a region will not serve planning purposes. Limits on field time, and the geographic variability of a given cover type, mean that personnel should have reference areas on the forests they administer. A redundant system can help serve this goal. A multiplicity of RNA's taking in a given natural element insures that a range of sub-specific genetic and ecotypic variation is subsumed under a forest cover type, and that catastrophic loss of an RNA's communities can be compensated for.

An aggressive Forest Service program to find, segregate, and study RNA's will encourage other Federal agencies to do so, much as the Bureau of Land Management is following the precedents of the Forest Service in reviewing wilderness lands as a part of the multiple-use scheme. We urge that "increased technical assistance" through State and Private Forestry be made available for natural-area work on non-federal public and private or "quasi-public" (e.g., Nature Conservancy) forests and woodlands. Assistance to state Natural Heritage Programs can be made in the form of natural-area inventories and data collection. The Forest Service is obligated to provide some of its specialized talent in wildland science to landowners who wish to fulfill "preservation" objectives as well as to those needing assistance better to produce commodities.

A Research Natural Area system is a necessary accompaniment to any timber alternative and the accompanying levels of silvicultural research and application. The need for RNA's is particularly acute if intensive silvicultural options are undertaken, as with Alternatives 1 and 3. Should intensive practices be applied to the NFS, a greatly expanded, intelligently planned and regularly used RNA system is necessary for the following purposes, under the assumption that, over large tracts, they will be practically the only unmanipulated areas other than "leave strips" along streams:

Most intensive silvicultural practices are controversial in some degree, whether because their efficacy is questioned or because they have damaging "side effects." The impacts of herbicides on nontarget plant and animal species would be studied with reference to unsprayed alder or other hardwood stands. One can foresee that the information provided by baseline areas could play a role in resolving litigation over the impacts of silvicultural practices on organisms and watersheds.

Data on empirical yields, growth rates, stand development under natural mortality, tree-ring characteristics, and stand structure have by no means been fully gathered for all the important commercial species and forest types. Old-growth

³⁵ Juday, *op. cit.*, p. 508.

³⁶ Dyrness, *et al.*, *op. cit.*, inside front cover.

³⁷ Dyrness, *et al.*, *op. cit.*, p. 15.

³⁸ Federal Register, May 4, 1979, Proposed Rules, §§ 219.5(k), 219.9(i), and 219.11(i).

stands, and regrowth exempt from treatments, are vital for the acquisition of this data.

Natural Areas encompassing high-site lands or superlative stands complement intensive silviculture, which is often applied to "best" lands. Under intensive regimes on the NFS, there is a need to adopt site-productivity as well as taxonomic and age-class criteria to the selection of RNA's.³⁹

The usefulness of RNA's as genetic reservoirs is often cited but takes on particular meaning for intensive silviculture using tree improvement. A system of RNA's spanning the altitudinal and latitudinal gradients of tree species' ranges, perhaps with reference to seed zones, could aid provenance studies, the search for superior genotypes, and the study of the ecological correlates of desired tree characteristics.

RNA's provide information on the natural fate of forest debris that is typically removed for chipping, burning, or fuelwood after logging. The thorough use of residues as an energy source (Issue Area 3) will undoubtedly spur controversy over the role of detritus in forest ecosystems.

An intensively managed NFS landscape will intensify the influences on unmanaged reserves. This suggests that RNA's be larger and more diverse in the future, for several reasons: they must be buffered from spray drift, windthrow, soil mass movement, and siltation. There is a trend to larger RNA's so that different aspects, soil associations, intermingled "cells,"⁴⁰ and mobile organisms are taken in.

B. Recommendations

We are not prepared to specify—nor is anyone informed about research needs on the federal lands—the "ideal" size of "the national network of RNA's" on the National Forest System.⁴¹ What is needed is not an acreage goal, but a substantial commitment to complete a system, with some reasonable degree of redundancy, that represents the natural "elements" occurring on the NFS and provides for their spatial requirements.⁴² As we explained, the RNA system should correspond to the timber supply and silvicultural practices alternatives chosen. If the Forest Service chooses to increase timber supplies and to intensify silviculture, the need for RNA's, "old growth enclaves," and Experimental Ecological Reserves is commensurately more urgent.

We point out the gross regional differences in commitment to RNA designation and study, and find the Pacific Northwest systems and approaches excellent guides for efforts in other regions and Experiment Station areas of responsibility. The interagency, multidisciplinary approach used in the Pacific Northwest is a fine model.⁴³ RNA needs, criteria, and candidate sites are well identified and need only a substantial commitment of manpower, budgeting, and coordination with other forests uses for fulfillment of a Region 6 system by about 1990. The Heritage Programs of the Nature Conservancy, well underway in several states with NFS lands, are the basic paradigm for determining natural area needs and filling them without unwarranted subtractions from the renewable resource land base.⁴⁴

While we suggest that Regional Research Natural Area Committees be allotted the manpower and funds to expedite their work and to fulfill obligations set down by recent directives,⁴⁵ we also urge that the Forest Service use the skills of line staff (technicians, foresters, and soil specialists, for example) to sample existing RNA's and locate candidates during forest planning. The directives in the proposed NFMA rules assign RNA's a "baseline" purpose in addition to their use by scientists for basic research.

The growth of citizen and academic interest in plant and animal conservation has meant a corresponding increase in the pool of botanical, zoological, and limnological talent available to sample RNA's and interpret the significance of candidates. We recommend that the Forest Service expand funding and support for native plant societies, universities, and conservation organizations capable of performing inventories, basic research, and baseline data gathering in RNA's. We recall the statement of a scientist concerned with the role of natural areas in land management who wrote, "Although the value of protective disuse for natural areas is beyond debate, it would be enhanced by at least some data collection * * * The more precise and replicatable the data collected, the more potentially useful will they

³⁹ C. T. Dyrness, *et al.*, *op. cit.*, p. 41; G. Juday, *op. cit.*, pp. 499-500.

⁴⁰ J. F. Franklin, personal communication, May 18, 1979.

⁴¹ Federal Register, May 4, 1979, 26596, § 219.12(m) of Proposed Rules.

⁴² Robert E. Jenkins, 1978, "Heritage Classification: The Elements of Ecological Diversity," *The Nature Conservancy News*, Vol. 28:1: 24-25.

⁴³ C. T. Dyrness, *et al.*, *op. cit.*, pp. 13-15.

⁴⁴ R. Jenkins, *op. cit.*, p. 25.

⁴⁵ Communication from Zane G. Smith, Regional Forester, Region V, USFS, to Forest Supervisors and LTBMU Administrator. Ref. 4060, dated Dec. 13, 1978. Enclosures.

become. There is considerable literature outlining techniques which permit useful data acquisition even by careful laymen."⁴⁶

Finally, we ask for inclusion of the following National Goal statement in the 1980 Recommended RPA Program. It refers to non-Forest Research Areas, as well.

Research Natural Areas, NFS—Substantially increase systematic designation of Research Natural Areas representing plant community types, "special species" habitats, productivity classes, and aquatic communities found on the National Forest System. Complete Regional assessment of unfulfilled needs and identify suitable candidates and alternates by 1985; provide NFS share of national network by 1995. Routinely utilize RNA's in developing and monitoring silviculture, range management, and habitat improvement practices. Accelerate designation of RNA's representing prime rangelands, superlative forest stands, and highly productive forest sites. Provide forestry assistance to owners and managers of private and nonfederal public land natural areas.

STATEMENT OF PETER C. KIRBY, NATIONAL FORESTS ISSUES SPECIALIST, THE WILDERNESS SOCIETY

Mr. Chairman and Members of the Subcommittee: my name is Peter C. Kirby, National Forests Issues Specialist for The Wilderness Society. The Society is a nationwide conservation group dedicated to the protection of America's remaining wild lands. We support the RPA process as a way of bringing greater balance to spending among the multiple uses, of better involving the public in long-range policy and budget planning for the Forest Service, and of better disclosing the environmental impacts and resource tradeoffs of alternative futures for the National Forests.

1. Alternative 4a—beyond the RARE II recommendations

At the RPA oversight hearings of this Subcommittee last fall,¹ Mr. Chairman, you asked about the position taken by conservation groups on the draft Program. At that time a number of groups, joined by strong public comment, generally favored Alternative 4, the alternative that would most increase NFS nonmarket outputs such as wilderness and wildlife, as modified to maintain or increase market outputs. Alternative 4, you may recall, had exaggerated the impacts of greater NFS emphasis on nonmarket outputs, for example, by recommending reduced timber management on the lands that would be available. While, disappointingly, the Forest Service did not select this popular alternative, as modified, as the recommended Program, to their credit they did develop and display this alternative in some detail in the final Program. For your convenience in comparing the two alternatives, some of the key output and budget levels are set out below. First is the recommended Program and second is Alternative 4a, so-called because of its resemblance to Alternative 4.

As you can see, the high bound for wilderness in the recommended Program is 42 million acres by 1990, on the assumption that almost all the RARE II further planning areas are designated. Under Alternative 4a, in contrast, the nation could eventually attain almost 48 million acres of NFS wilderness. And, as the alternative indicates, this increase of about 15 percent beyond the high bound of RARE II could be achieved with relatively little shortfall in NFS commodity levels. Livestock grazing goals are the same for both alternative. Timber sales for Alternative 4a fall in the higher reaches of the recommended Program's range, and, in fact, are only percentage points below the high bound.² Also noteworthy is that 4a costs only about as much as the recommended Program. Alternative 4a illustrates, in brief, that Congress can go beyond RARE II in designating wilderness while assuring the same market levels of renewable resources—and paying no more for it.

According to the Program, the key to Alternative 4a is more intensive management of the accessible portions of the National Forests. Under this approach, the Forest Service states that the mix of outputs in 4a appears to be viable. Program at 438. The sound and carefully crafted guidelines (e.g. on streamside management) recently adopted under the National Forest Management Act should go a long way towards obviating environmental conflicts that might otherwise arise as a result of a small land base from which to harvest timber.

⁴⁶ Robert E. Jenkins and W. Brian Bedford, 1973, "The Use of Natural Areas to Establish Environmental Baselines," *Biological Conservation*, 5: 3: 172.

¹ Oversight on Resources Planning Act, Hearing before the Subcommittee on Environment, Soil Conservation, and Forestry of the Senate Committee on Agriculture, Nutrition, and Forestry, 96th Cong., 1st Sess., (Oct. 2, 1979), pp. 34-35.

² For 1986-90, for example, Alternative 4a calls for timber harvests of 12.3 billion fbm annually, only .6 billion fbm below the high bound. That is less than a 5 percent difference.

PROJECTED NATIONAL FOREST SYSTEM PROGRAM OUTPUTS, ACTIVITIES, AND COSTS—RECOMMENDED PROGRAM

Program element and activity	Unit of measure	Base year 1978	Range	1981	1982	1983	1984	1985	1986- 1990	1991- 2000	2001- 2010	2011- 2020	2020- 2030
				High	Low	High	Low	High	Low	High	Low	High	Low
Wilderness: Wilderness management.....	Million acres.....	15.3	High.....	33	39	40	41	41	42	42	42	42	42
			Low.....	.....	33	33	33	33	34	34	34	34	34
Range: Grazing use (livestock).....	Million AUM.....	9.9	High.....	10.0	9.9	10.0	10.0	10.1	10.1	10.1	10.2	10.3	10.6
			Low.....	.....	9.8	9.6	9.5	9.4	9.4	10.0	10.2	10.3	10.6
Timber: Programmed sales offered.....	Billion board feet.....	12.2	High.....	11.9	11.9	12.1	12.2	12.5	12.9	13.7	14.9	15.8	16.4
			Low.....	.....	11.0	11.0	11.0	11.0	11.0	12.5	12.7	13.0	13.2
Total National Forest Service.....	Million dollars.....	1,666	High.....	1,666	2,171	2,243	2,295	2,359	2,400	2,300	2,346	2,404	2,439
			Low.....	.....	1,840	1,842	1,831	1,827	1,919	1,852	1,883	1,912	1,888

PROJECTED NATIONAL FOREST SYSTEM PROGRAM OUTPUTS, ACTIVITIES AND COSTS

[Alternative 4a]

Program element and output/activity and unit of measure	Base year 1978	Annual units									
		1978	1981	1982	1984	1985	1990	2000	2010	2020	2030
Wilderness: Wilderness management (million acres)	15.3	37.8	40.6	41.7	43.0	45.3	46.9	47.1	47.3	47.5	47.3
Range: Grazing use (livestock), million animals unit months	9.9	10.1	10.1	10.1	10.1	10.2	10.0	10.2	10.2	10.5	10.3
Timber: Programed sales offered (billion board feet)	12.2	11.7	11.8	11.9	12.0	12.0	12.3	12.3	13.5	14.5	15.1
Total National Forest Service (million dollars)	1,665	2,160	2,274	2,341	2,375	2,450	2,230	2,114	2,228	2,287	2,259

The White Paper reiterates that Congress will make the final decision on the size of NFS wilderness. We urge the Subcommittee to recognize the RARE II recommendations as a floor not as a ceiling for Congressional action. As illustrated by Alternative 4a, Congress can establish a NFS wilderness system that is more ample, more diverse and more accessible than RARE II will provide and still attain the achievement or near-achievement of high bound RPA market goals.

As noted, the key to a workable 4a is more intensive management on the accessible, more productive NFS sites. In this respect, we support the White Paper's goal of increasing NFS forest productivity to a higher percent of its potential. The increases, however, should be carried out only on lands well suited to greater management intensity and with measures that are proven environmentally acceptable and consistent with other multiple use objectives. Also, the additional investments must be cost-effective, so as not to unfairly compete with the private tree farmer who must earn a profit or draw excessive demand to the National Forests.

2. Fisheries—increased protection

Between the draft and final RPA Program the Forest Service developed a new issue on the priority to be given fish and wildlife in NFS management. The final Program directs that these resources be given increased emphasis. Evidence of this emphasis is the Program policy that anadromous fish habitat be protected at 90 percent or more of its potential productivity and resident fish habitat at 80 percent or more of its potential. This is a welcome improvement from the 1975 Program goal of protecting fish habitat at only 70 percent of potential.

The Six Rivers National Forest serves as a good example of the importance of this standard. According to the "Timber Harvest Scheduling Study" of May 1979 for the Six Rivers, only a 5 percent decline in anadromous fish populations (resulting from a hypothesized 9 percent increase in delivered sediment) would result in an economic loss in value of over half a million dollars. Given the much higher sediment loads that can be expected from roading the fragile, unstable watersheds of the Six Rivers, unwise development of the now roadless areas could result in far greater losses to the fisheries resource than might be returned in timber values.

The 80/90 percent protection for fisheries provided in the final Program is an apt shorthand recognition of their value. *We urge the Subcommittee to expressly list wilderness productivity at 90 percent of potential as a long-term goal for NFS management.* At present the White Paper sets out specific goals only for timber and range. These goals need to be balanced (and, to some extent, checked) with the strict, quantified RPA standard for fisheries protection.

Finally, the fisheries standard is significant as an assurance that departures from even-flow sustained yield, if any are selected in the upcoming land management plans, will be environmentally acceptable. As the Subcommittee knows, Section 11 of the NFMA allows departures *only* if they are consistent with all the multiple use objectives of the forest plans. If a departure would drop fisheries protection below the 80/90 percent RPA level, it cannot by law be selected. Since fisheries productivity is a sensitive indicator of the general health of an ecosystem, this high standard of protection will serve as an appropriate and visible limit on unwise departures.

3. Bounds—a better way

We share many of the Subcommittee's concerns about the use of the bounds approach in the final Program. Especially objectionable in our view is the disparity in the range of the bounds for the nonmarket elements as compared to the market goals. For trails, for instance, there is a six or sevenfold difference between high and low (e.g. for 1983, 2282 miles worked at the high bound but only 290 at the low). Fish and wildlife, soils and others suffer from comparable expanses. Commodity goals,

however, have relatively narrow ranges: timber, for instance, varies only about 10 percent between high and low. When the budget dollars are lean, the "bounds" message is that the nonmarket elements are dispensable, second-class citizens. So too for forest planning, when the bounds eventually reach the ground level, the relatively narrow and fixed ranges for market elements will invariably give them priority over the wide, low-bottom goals for the nonmarket elements. Thus, we favor Congressional disapproval for the low broad for nonmarket elements.

However, we support the view that the 1980 Program should set goals as ranges, but not meaninglessly wide ranges. There should be *some* flexibility when the goals are assigned to the regions and then on to the forests. The NFMA imposes some different responsibilities on the Forest Service from "business-as-usual" with results that cannot be fully foreseen at this point. The marginal lands review is a case in point. The Forest Service expressly admits in the Program that on this critical issue which will determine the size of the land base available for harvest that it does not know how the results of the review will turn out. The values of assigning ranges, albeit narrow ones, is that there will be room for adjustment, without having to undertake a formal renegotiation of the goals. Thus, we recommend that the Subcommittee allow a 10 percent range below the high bound as the RPA goals to be achieved and assigned. This will provide for meaningful goal-setting while anticipating and allowing for adjustments to on-the-ground capabilities.

STATEMENT OF REXFORD A. RESLER, EXECUTIVE VICE PRESIDENT, AMERICAN FORESTRY ASSOCIATION

Mr. Chairman, my name is Rexford A. Resler. I represent The American Forestry Association, a citizen's conservation organization of some 80,000 members located in every state of the Union and many foreign countries. For 105 years, AFA has been working to improve the protection and management of the nation's natural resources. We believe it is imperative that we satisfy existing and growing future demands in ways that are both environmentally and economically sound. To pursue either goal at the expense of the other is not simply poor public policy; it is suicidal.

Mr. Chairman, I want to thank you for your dedication and persistence in trying to achieve the full promise embodied in the Resources Planning Act. For far too long, we have been making decisions on the allocation of land and resources, on long-term investments in the management of resources, and on policies affecting the protection and management of resources in the private sector in an uncoordinated, annualized, and incremental manner that is leading us inexorable into a rather dismal future. When the Resources Planning Act was passed in 1974 at the instigation of Congressional leadership, it set into motion a long-range planning process that holds great promise if it is used effectively by the administration in power and by Congress, and is strongly supported by the diverse interest groups, each of whom wish to achieve specific objectives. This is the only call game in town—the only means for rationally and systematically assessing our current situation, projecting future needs and opportunities to satisfy those needs, and then charting a course that is most likely to achieve the kind of future that we want for ourselves and for future generations. So it is imperative in my view that we make the RPA process work, and we do it now. Otherwise, it will lose credibility and fall of its own weight.

The Resources Planning Act requires the President to present a definitive statement of policy and to recommend a program defining the course of action it intends to pursue in the ensuing five-year period to guide policy and budget decisions. The Administration's Statement of Policy and Recommended Program was transmitted to Congress six months late and is, in my view, seriously deficient.

The 1980 assessment is significantly improved over the 1975 product. I wish to commend the Forest Service and the Administration for improving both the quality of data presented and the clarity of that presentation, but we are not satisfied with the conclusion contained in the recommended program.

We are deeply concerned with the "bounds" used to define the recommended program. The "lower bound" defines a no-growth option for the 1981-85 period. The "upper bound" describes a very conservative course for the future which, if followed, would result in significant gaps between supply and demand by the year 2030. If Congress accepts the bounds approach by failing to act, the RPA process will be seriously impaired. It would amount to an amendment of the RPA legislation by executive action. The Statement of Policy and the Recommended Program make clear that the Administration does not intend to make an explicit commitment to the future by defining that which the Act requires—an explicit goal to *guide* both the Executive and Legislative Branches of government. The bounds approach makes clear that budget formulations in the future will be guided analysts on a year-to-year basis, precisely as was done pre-RPA.

The President states that "the 1980 program recommended by the Secretary of Agriculture is presented as a range and will be used to guide budget proposals, land management planning, and other government actions." I believe the Secretary of Agriculture recommended the upper bound, and the Office of Management and Budget recommended the lower bound. I do not believe that a range will effectively guide land management planning as required by the National Forest Management Act nor does it provide much of a clue as to future government actions. I would add that the concept embodied in RPA does not lock the Administration or Congress into either recommending funding for or Congress appropriating monies in accordance with the specific recommended program. Those options are reserved to the President and to the Congress as they consider each appropriations act.

I suspect that the involvement of Department and OMB budget analysts throughout the process unduly influenced the conclusions. It seems that the specific objective was to hold down front-end costs, that is, capital investments from which there is no immediate return to the Treasury. Furthermore, we are concerned that the cost-benefit analyses reflect our inability to impute social benefits for which there is no established market. The social and environmental benefits that flow from well-managed forest and range lands, from the reduction of losses to fire, insects, and disease on both public and private lands, and to the prompt regeneration of non-industrial private forest lands, cannot be fully evaluated based on the present state-of-the-art. When we can, with reasonable accuracy, measure public benefits from improved wildlife habitat, from clean water, from stable soils, from enhanced aesthetic qualities, and from the economic stimuli to both the local and national economy that result from improved condition of forest and range land, then the art of economic analysis will have arrived. Short of that, long-term investments in improving the productivity of the land and the protection of stable environments have to be largely a subjective judgment. As it now stands, economic analysis is too frequently used as a vehicle for justifying an unrelated objective. It is interesting to note that the recommendations for additions to the Wilderness System are based more on public want than on imputed value.

It is probably unrealistic for Congress to expect the Administration and the Forest Service to completely re-do its product within a short time frame. I don't believe that is even necessary. But Congress could amend the Recommended Program by agreeing to accept the President's upper bound as a planning device.

I would also urge Congress to make it clear that the approved program, i.e., the upper bound, should not be perceived as a constraint in the land management planning process. I believe the Forest Service should have clear direction as it develops the first cycle of land management plans (Sec. 6, NFMA) to assess the potential capabilities of the land without budgetary constraints or prior administrative decisions in existing land use plans on the allocation of lands and resources. If this were done, in 1985, the Forest Service would be in a much stronger position to display the full range of resource options. We would be developing an objective data base on which subjective decisions could be made in the 1985 RPA.

I would like to comment on a process I see evolving that disturbs me. Both the Resources Planning Act and the Resources Conservation Act should be an objective assessment of the situation on the forest, farm, and rangelands of the nation. The projections of supply and demand should be the most competent that can be devised. The alternatives should be displayed with clinical objectivity and be as completely uninfluenced by budgetary considerations as is possible. The analysis of cost and benefits should be similarly objective, using the latest state-of-the-art analytical techniques, and with their limitations clearly defined. With that kind of antiseptic data base, then subjective judgments may be applied and, of course, should be applied. With that sequence of decision making, I have no problem whatever. What I am concerned about is a movement in the direction of department and OMB analysts being unduly involved in those early analytical phases. I am concerned with the prospect that subjective judgments are being applied too early in the analytical process as a means of predetermining conclusions. I fear in the long run that the RPA and RCA analytical processes will be "captured" by budget analysts using the rationale that they must understand the data base and analytical assumptions. I have no problem with the analysts being kept fully informed and with advising on the adequacy of analytical tools, but I object strenuously to the imposition of subjective judgments prematurely in what should be an objective analytical process.

I think the Forest Service and the Soil Conservation Service should have the analytical talent to accomplish that phase of the process in an objective and sophisticated fashion, and they should be held accountable for the quality of the end product. The Presidential Statement of Policy and the Recommended Program should be based on the same data that will eventually be presented to Congress. In

the absence of objective analysis of resource capability, the credibility of the end product will suffer. I am not suggesting that the agencies be given a blank check to propose what they will in the way of the programs and budgets. I am suggesting that there is a logical separation between the analysis of options and the subjective judgments for which our elected leadership and their appointees are responsible. More specifically, I do not wish to see the RPA and RCA analytical process consolidated, presumably for reasons of efficiency, in the Department of Agriculture.

Finally, I wish to address the White Paper prepared by the Subcommittee on Environment, Soil Conservation, and Forestry. I believe it to be an effective summation of the RPA assessment and program. The proposed supplement to the Statement of Policy describes realistic goals. The idea of establishing explicit goals for timber and range has merit, but it may pose some problems. The idea of using condition of forest and range lands as a surrogate for measuring improvements in all resource values is an idea with which I generally concur, but which can also be abused. However, it is imperative to retain broad-based support for the RPA process. There may be opposition to setting specific goals for "logs and cows" and not for other related values. The Subcommittee might consider requesting the Forest Service to display in conjunction with its annual RPA report a program that would embody those specific targets coupled with similar targets for other resource outputs. I would guess that the Forest Service could provide such information within a reasonable time frame if requested specifically to do so.

Thank you for the opportunity to present our view on the 1980 RPA assessment and program. I strongly urge that both Houses of Congress move as expeditiously as possible to amend and/or supplement the Presidential Statement of Policy and Recommended Program. Failure to do so will seriously undermine the credibility of the RPA process and plunge us again into a competitive arena in which every person, every interest, must fight for survival. The real losers will be future generations.

I would like to close with a comment on a related matter. The Renewable Resources Extension Act (PL 95-306) was enacted in 1978, but has yet to be funded. One of the broadly recognized needs to bring about improved management of forest and rangeland in private ownership is technical assistance. The Administration has not requested funding for PL 95-306 since the President signed the Act into law.

It is our hope that the Senate will appropriate the full authorization of \$15 million for fiscal year 1981 in the Agriculture Appropriation bill. Your support would be greatly appreciated so we can commence to implement the plan which has been approved by the Secretary of Agriculture.

STATEMENT OF FREDERICK J. NAPOLITANO, ON BEHALF OF THE NATIONAL
ASSOCIATION OF HOMEBUILDERS

Mr. Chairman and Members of the Subcommittee: My name is Frederick J. Napolitano and I am a homebuilder from Virginia Beach, Virginia. I am testifying on behalf of the more than 122,000 members of the National Association of Homebuilders (NAHB), who employ more than 3,000,000 persons. NAHB is the trade association of the home building industry of which I am Vice President and Treasurer. I am accompanied today by Robert D. Bannister, Senior Staff Vice President for Government Affairs, and Gordon P. Stoddard, Legislative Representative. We appreciate this opportunity to present our testimony on the 1980 Report to the Congress on the Nation's Renewable Resources.

Mr. Chairman, America is standing on the threshold of an explosion in housing demand. I am deeply troubled that we may not have the lumber available to meet this demand. At the very least, an unprecedented spiral in lumber prices will occur in this decade that will worsen the already serious problem of housing affordability, particularly for young first time homebuyers. We have grave reservations concerning the RPA Program as announced by the President on June 20. It does not recommend to the Congress a preferred short and long range program of inputs and outputs for the Forest Service, as required by the 1974 Forest and Rangeland Renewable Resources Planning (RPA) Act. It does not respond to the needs outlined in the RPA Assessment. The Program as recommended by the President will not come close to meeting the realities of timber supply and demand foreseen in this decade.

America's forests should be one of our greatest assets to meet the entire range of our renewable resource needs. Because of a lack of prudent investment and management, our public and private forests are not providing the timber and other resources which are needed by the American people. We believe that Congress should act on lumber prices and to promote housing affordability by drafting an adequate

1980 RPA Program. The Subcommittee on Environment, Soil Conservation and Forestry's White Paper is an excellent critique of the RPA and is a significant step towards a revised Statement of Policy.

Housing demand and affordability

Mr. Chairman, the demand for housing in the 1980's will be at much greater levels than in the 1970's. During this decade eleven million more Americans will reach the prime home buying age of thirty than did in the last decade. The rate of family formation will be twenty-five percent higher in the 1980's. This basic demographic pressure will be combined with pent-up demand that was left unsatisfied by the present severe downturn in our industry. When added to the number of families currently occupying substandard housing and the number of housing units removed from the market each year by demolition, disaster or other means, an additional 23 million housing units could be needed during the next ten years, an extraordinary demand for housing. This demand for housing would not even be met by a level of production 2 million units per year, which has traditionally been considered "a very good year for housing."

The forecast for new home production detailed in the 1979 Resources Planning Act (RPA) Assessment is essentially consistent with our projections. The Assessment forecasts new home production at a level above 2 million units annually in the 1980's. According to the Forest Service, this level of production will cause a spiral in lumber prices which will eventually work to choke off demand for lumber and housing and only then bring demand into equilibrium with the available supply.

The recently released Congressional Budget Office (CBO) study on federal timber sales and lumber prices forecasts a continuation of the lumber price inflation of the 1970's. CBO projects that lumber prices will rise at an annual average rate of 13.3 percent in this decade. CBO notes in its study by 1990 this nation will have experienced two decades of annual average lumber price increases in excess of thirteen percent. Based upon CBO's projections, by 1990 the lumber and wood products in a new home which currently cost approximately \$9,000 would cost over \$36,000. The cost of wood products will have increased their contribution to the total cost of a new home from approximately 14 percent to 16 percent in 1990. If housing costs escalate at rates similar to those of the 1970's, CBO projects that the typical new home is likely to cost \$210,000 to \$220,000. Mr. Chairman, as you are well aware, a home of that cost would be unaffordable by all but the very wealthy in our society.

NAHB has posed the question, "Where will our children live?" and is gravely concerned that this country will not be able to provide affordable housing for potential first-time home buyers in the 1980's. A recent study by the U.S. League of Savings and Loan Associations shows that the number of first-time home buyers decreased by 50 percent between the years 1977 to 1979, from 36 percent to 18 percent of the market. The study also showed that buyers increasingly need two incomes to afford a home. Mr. Chairman, we fully realize that many more factors than lumber prices are involved in the new home price spiral, however, none of the other factors are influenced as directly as lumber prices are by the supply of timber. As owner of the national forests and through state and private forestry assistance, the U.S. Government is in a key position to influence the supply of timber and thus the cost of lumber and housing. We would urge this Subcommittee to recognize the importance of housing affordability in the development of this long range plan for forest outputs.

Timber supply

The Forest Service's RPA Assessment and Program are not optimistic about the ability of timber supply to keep up with rising demand. It projects that a gap will develop between supply and demand that will be closed only by a spiral in prices which will work to choke off demand. However, for the following reasons we believe that the timber supply situation is even bleaker than the Assessment indicates. First, we believe that the Forest Service has grossly overestimated the ability of Canadian lumber suppliers to increase or even maintain their exports to the United States in the next 10 years. A March 1980 report by the Government of the Province of British Columbia states that the Province will have difficulty increasing its exports to the United States. Timber production will have to be decreased in many areas, the report states, in order to assure a continued supply in the future. Although it is possible that timber production in the eastern Provinces of Ontario and Quebec could increase, it is doubtful that Canada will be able to appreciably increase its exports to the U.S. in view of the situation in British Columbia.

Further, we are troubled that we are relying on foreign sources for almost 30 percent of the lumber used in America. There is a striking and uncomfortable parallel between our reliance on foreign oil supplies for energy and foreign timber

for housing. We are concerned with the inflationary impact lumber imports have on our balance of payments deficit. We agree with the Subcommittee's White Paper that the expected continued reliance on Canadian lumber "is a serious flaw in the Program."

Second, the RPA Assessment and Program rely too heavily on an increase in the acceptability of substitutes for wood in home building to relieve the pressure on the timber supply. Lumber is the homebuilder's basic, traditional building material. No substitute material can compare in workability and flexibility and can adapt to both the onsite nature and the cyclical nature of the homebuilding industry as well as lumber. Although increased use of substitutes in homebuilding could relieve pressure on the timber supply, it would not likely have a positive impact on the new home price spiral. Prices for materials such as steel, aluminum, plastic, and especially concrete have risen at rates which are at least comparable to those of wood products.

Additionally, substitute materials are derived from non-renewable resources. Greater energy requirements are necessary for utilizing non-renewable resources than for timber resources. The RPA Assessment estimates that more than eight times the amount of energy is required to produce the concrete and steel necessary to replace a like quantity of timber in home construction. Greater use of wood substitutes would thus likely mean a continued or increased dependence on foreign energy sources. NAHB is also concerned that production of substitutes will result in substantially higher emissions of air and water pollutants. Implementations of air and water quality standards would lessen this pollution but society will pay for this through higher prices or diversion of investment capital.

The President's recommended 1980 RPA program

Mr. Chairman, we fully agree with your statement at the Subcommittee's June 27 hearing on RPA that the 1980 RPA documents "violate the spirit and the intent of the law." Instead of recommending a definite program of outputs for five years as required by law, the Administration has sent Congress a Program that leaves wide latitude as to any national forest output in any of the next five years. Congress intended the Program goals to serve as a measuring stick in their annual deliberations on appropriations levels for Forest Service programs. The high and low bounds of the 1980 Program do not provide a measure of accountability. The vagueness of the Program could allow for future budget cuts. While NAHB favors fiscal austerity, *we cannot advocate cutting the budget in areas where increased outputs are anti-inflationary, and where long-term planning is crucial*, such as the programs of the Forest Service.

NAHB strongly supports maximum feasible funding for Forest Service timber sales, management, research, and state and private forestry programs. We believe that the high bound of the President's recommended Program is the minimum that should be spent on Forest Service outputs in the next five years. The Forest Service is administering one of the greatest natural resources in the world. The national forest system has the potential to be a *net revenue source* for the U.S. government. Even now, returns to the government through timber sales come close to meeting the expenditures of the Forest Service. The Forest Service estimates that under the high bound, returns to the government for sale or lease of national forest resources are expected to increase more than 6 percent per year versus 4 percent per year for the low bound during the five year planning period. For the next two to five years, national forest programs would generally be operating at a small net loss but thereafter returns to the government would exceed costs. By 1995 the Forest Service would be running a net surplus of 800 million to 1 billion dollars. Mr. Chairman, there are not many programs that can match that projection of income to the federal government.

State and private forestry

NAHB is in agreement with the shift in the emphasis of the 1980 Program to increasing timber production from private non-industrial lands. We strongly support efforts to increase this production through the state and private forestry programs of the Forest Service. Our private nonindustrial forest lands represent a largely untapped reservoir of softwood sawtimber. An ongoing study by the Forest Service and the Forestry Industry Council shows that 74 percent of the economic opportunities for increasing timber supplies in the U.S. are on private non-industrial land. Although private non-industrial land represents 58 percent commercial forest land in this country, it provides only 29 percent of softwood removals. This compares to the timber industry which owns 14 percent of America's commercial forest land but provides 38 percent of all softwood removals.

Private non-industrial forest land clearly offers the greatest long run potential for increasing the supply of timber for the homebuilding industry. However, the fund-

ing levels projected in the Program for state and private forestry may not be sufficient even at the high bound to provide the degree of incentives necessary to promote increased timber harvests from these lands.

Although the Program calls for much greater harvests from state and private lands to meet future demand, there is little additional Federal effort detailed in the Program besides increased funding levels for state and private forestry programs. It is curious that the Program does not address the merits of tax incentives or loan programs to increase the productivity of state and private timber lands. Much attention has been focused on the need to increase incentives, especially for small landowners, to practice reforestation and prudent timber management. NAHB believes that the recommended Program is greatly deficient in this area. We note that Congress is presently considering reforestation tax credit proposals introduced by Senator Packwood and Representative Weaver of Oregon. We urge that they be considered in the revised Statement of Policy.

Timber sales

While the Program's emphasis on state and private forestry is admirable and worthwhile, it is clear that the national forests must be relied upon for a great deal of the timber needed in the short run. NAHB is very concerned about the levels of annual timber sales called for under both the high and low bounds. Under the high bound, timber sales would decrease from the 1980 level of 12.2 to 11.9 billion board feet in 1981, then it would gradually rise to 12.5 billion board feet in 1985. Under the low bound it would decline to 11 billion board feet in 1982-85. Based upon the demand for housing, even the high bound is not an adequate level of sales.

Additionally, NAHB is concerned that under the recommended Program, timber made available by departures from the nondeclining evenflow policy may not result in an addition to the aggregate supply of timber. NAHB fully agrees with the Subcommittee that "any supply identified (for departure) is expected to be in addition to the volumes identified for harvest in the Program." The President directed that departures be considered with the objective of increasing the supply of timber and moderating housing costs. Surprisingly, the recommended Program does not follow this intent. Under the recommended Program timber harvested through departures could be used in substitute for timber from regular sales. NAHB would question the wisdom of departures that do not serve to increase aggregate production. Further, it is disturbing that the Forest Service cannot estimate how much and what kind of timber can be obtained through departures from the even-flow policy so that better planning could be done for meeting demand in this decade.

Timber management

National forest management and research should be heavily emphasized in the new RPA Program. If the Forest Service made adequate management investments, national forest timber production even in the near future would be much greater. We note with interest that the Subcommittee's White Paper states that the current average growth rate on the commercial forest base in the national forest systems "is 45 cubic feet of wood per year, or 60 percent of the average potential growth—74 cubic feet per year." We agree with the Subcommittee's proposed target goal for forest productivity of 90 percent of potential growth or 67 cubic feet each year by 2030 in order to meet increased demand. This goal could be achieved if the Forest Service pursued an aggressive program of reforestation, timber stand improvement, research and more effective land management.

Log exports

NAHB agrees with the Subcommittee in its White Paper that timber supplies must be viewed in a global context so that reasonable supplies can be planned from all four sources of timber—foreign nations, private non-industrial lands, industrial lands and the public lands. The RPA program has not considered the global timber supply and has not adequately considered global timber markets or their impact on domestic supply. Although the import and export of raw logs is one of the major policy questions that the Forest Service was asked to consider by the 1974 RPA Act, the 1980 Program does not seriously address the issue. NAHB questions whether log exports are in the best interest of this country in view of the anticipated lumber price spiral and the projected shortage of stumpage in the Northwest in this decade.

In 1979 log exports reached a level of 3.8 billion board feet. This volume of timber would have provided enough lumber for over 320,000 new homes. It represents a 50 percent increase over the level exported in 1975. There is evidence that the practice of third party substitution of national forest timber for private exported timber is contributing to the rise in log exports. A report by the Northwest Independent Forest Manufacturers estimates that 200 million board feet of timber is exported annually through this loophole. Direct exports of Federal timber and substitution of

Federal timber for private exported timber are prohibited by law. In view of the impending shortage of private stumpage in the Northwest, it could become difficult for private owners to both keep up their private log exports and run private timber through their mills. More timber owners will be tempted to buy Federal timber to run through their mills in order to maintain their private exports. This could have a major impact on the supply and price of timber for domestic lumber processing.

Log exports have likely contributed to the inflationary spiral of national forest stumpage prices. Since 1970, national forest stumpage prices for Douglas fir from the west side of Oregon and Washington have increased over 915 percent. Since almost a third of our log export volume is made up of private Douglas fir, the demand for Douglas fir from the export market has most likely increased the pressure on the national forests to provide Douglas fir for domestic mills, serving to bid up the price. We strongly believe that the issues of substitution and the impact of log exports on national forest stumpage prices should be considered in the revised Statement of Policy.

Conclusion

The United States has a unique and valuable natural resource in its forest land. National self-sufficiency in renewable resources should not be a dream for this country—it should be a reality. The RPA offers a unique opportunity for Congress to set this nation on a course towards reaching self-sufficiency in its renewable resources. Our national forests will require major investments in order that they may provide more timber products in this decade, but these investments will pay off in future increased revenues to the Treasury. Further, an increased supply of timber will result in lower prices for wood products. Lower lumber prices would help lessen our present serious problem of housing affordability. Increased timber supplies will mean that the environmental pollution and high energy consumption associated with the use of substitute building materials such as steel and plastic will not be as great.

In conclusion, NAHB accepts the high bound of the President's recommended Program as the minimum necessary for national forest outputs and we make the following recommendations for a revised Statement of Policy:

1. The President's directed departures from the even-flow policy should provide *additional* timber from the national forest in this decade; and
2. The Forest Service should end the practice of third party substitution of national forest timber for private log exports and make a thorough examination of the impact of log exports on national forest stumpage prices; and
3. State and private forestry programs should be funded to their maximum feasible extent and the Administration should seriously consider changes in the tax structure dealing with reforestation and other qualified forestry expenditures to increase production from private non-industrial lands; and
4. The Forest Service should pursue aggressive programs of reforestation, timber stand improvement, effective land management and research in order that the Subcommittee's goal of 90 percent of the potential annual growth rate can be achieved by 2030, thereby increasing the productivity of the national forest system.

Mr. Chairman, thank you for this opportunity to present our views. We would be happy to respond to any questions that you might have.

STATEMENT OF TATIANA ROODKOWSKY, ASSOCIATE DIRECTOR, RESOURCES AND ENVIRONMENTAL QUALITY DIVISION, CHAMBER OF COMMERCE OF THE UNITED STATES

I am Tatiana Roodkowsky, Associate Director of the Resources and Environmental Quality Division of the Chamber of Commerce of the United States. I am pleased to represent the more than 101,000 members of the U.S. Chamber, the world's largest federation of business and industry.

My appearance today is to address the Forest Service's recent White Paper concerning the Forest and Rangeland Renewable Resources Planning Act. The U.S. Chamber is extremely concerned with this report because it is a poor instrument for guiding public policy. We urge Congress to accept this report with modifications. The report is incomplete in its assessments of policy options and their probable consequences and should be clarified. For example, the report should include a better policy statement concerning our nation's need to extract energy resources from our forest areas. We urge Congress to request a more complete analysis of policy options, particularly multiple-use management of timberlands. The policy options must address means for the revitalization of the country's economy so as to provide for the general well-being and all aspects of society must contribute to this goal. The remainder of this statement elaborates on the basis for our conclusion.

We certainly agree with Senator Melcher's forceful remarks concerning the 1980 RPA documents in that the documents do not provide Members of Congress with a basis on which to make reasoned judgments about future appropriations or effectiveness of the management of our nation's vast forests.

There is a strong general feeling across the country that we need to rededicate ourselves to increasing productivity. However, if productivity increases are to be achieved, a massive effort on all fronts is needed. It cannot be done piecemeal. The federal government must be part of this effort to reestablish our economic pre-eminence in the world. It does not appear that the Forest Service yet realizes its role in this national campaign. In short, the Forest Service must set increased productivity goals for itself. Increased productivity in the Forest Service will enable it to conduct its present activities at the same cost. The 1980 RPA report is totally inadequate in this respect and represents an almost total abdication of Forest Service responsibility.

The policy statement is *not* responsive to the current economic situation; it is responsive to the limited budget situation. This narrow view of the "economic situation" completely ignores the effect increased investment in our national forests will have on the economy. We need aggressiveness, imagination and initiative from the Forest Service, not retreat and retrenchment. The policy should be more definitive instead of discussing "policy options" such as "low bound" or "high bound" paths.

Summary of timber concerns

Timber, a renewable resource, is one of the four primary concerns in the RPA report. For example, Simpson Timber Company, a U.S. Chamber member, has a long record of cooperation with the federal government in total forest land management. The joint Simpson-Forest Service cooperative unit in Washington State demonstrates a timber company's concern for all forest resources. In California, Simpson has greatly expanded its land holdings in the last 30 years. Many of these lands were cut over and unmanaged before Simpson acquired them. This timber company invested heavily in their rehabilitation and regeneration. They conduct an aggressive research program both in its plants and on its lands. All of this is being done in the face of more and more restrictive legislation at the federal state and local levels. The uncertainty a typical timber company such as Simpson faces is growing instead of lessening, yet it has chosen to invest for increased production and productivity in the future. The U.S. Chamber believes that all of the timber industry is responsible in this way, but no company has the resources to bridge the productivity gap alone. We need Forest Service help.

The RPA report states: "In a broader context the Program indicates that more timber will have to come from private, nonindustrial forest lands * * *"

This assumption ignores our vast forests on public lands. The Forest Service owns more than 188 million acres of forest land. To meet our nation's need for timber, we must open up more of these lands. Otherwise, we will tax limited land areas beyond their capabilities.

Postwar demands for wood products caused a concentrated harvest of old growth timber on private lands in the northwest. Now that that material is disappearing, we must look elsewhere to meet the nation's needs for the next 10 to 20 years. The old growth on suitable Forest Service lands is the logical choice. Unfortunately for the northwest, the harvest boom to meet postwar demand leaves us with a shortage of timber now, when demand is predicted to increase as a result of the postwar baby boom now requiring more housing. This coincidence of events makes it even more important for the Forest Service to respond positively to our needs in the far west.

Recreational priorities

The U.S. Chamber is also concerned about the recreation objectives in the 1980 RPA report.

The RPA report claims to make recreation " * * * more accessible, usable and enjoyable for urban residents." This may be true if you equate expanded wilderness areas with better recreation potential, for the Forest Service proposes to double wilderness areas under the low bound approach by 1985 and should the high bound track be followed wilderness would be almost tripled. But, we do not think this contributes much to meeting the recreational needs of the huge majority of our citizens. Larger set-asides of productive forest land for the use of a few increases the cost of living to urban dwellers and makes it more difficult for these people to reach *any* recreation sites that might be added under new programs.

There is an underlying and false assumption in the Administration that most of our nation's recreationists use—and indeed prefer—land set aside for wilderness. *This assumption disregards and excludes those individuals without economic means to reach remote wilderness areas, children and adults not accustomed—or unable to*

enjoy—a wilderness experience, or those who must use motorized vehicles—the young, the old, and the physically impaired.

Necessity for a multiple-use approach

The U.S. Chamber believes that wildlife habitat improvement could be expanded and better managed, even in timbered areas. National experience shows that we can manage many areas for both wildlife and timber and these uses can be complementary in many cases. The RPA report calls for: "Defining, protecting and augmenting habitats of endangered and threatened species and protecting critical habitat of other species threatened by changes in the management or use of the land and water base."

The report does not address the issue of integrating wildlife management with forest management. The two can and must be compatible.

We encourage careful analysis of the relationship between fisheries management and other forest resources. We are finding that management practices previously thought to negatively affect fish production are not the real culprits. More research is needed for intensive and wise fisheries management.

Range management has been seriously neglected in the Forest Service. Some private forestland owners have demonstrated that with careful management, range, timber, and wildlife resources can be combined successfully. The Forest Service must allocate more of its funds to range management and research.

The Organic Act of 1897 focused upon water and timber as the primary resources to be protected and produced on national forests. More recent legislation has expanded the role for national forests, but these two resources remain paramount. Much has been written and said about the water quality of our rivers in the last few years. We have heard that you can't build roads, harvest timber, graze cattle on forest land and still produce high quality water in the same watershed. The State of California, which has extremely high water quality standards, recently reported the results of a recent water quality study. In Humboldt County, California, where Simpson Timber has its largest land holdings, where the Forest Service has a large ownership, and where heavy timber harvesting has continued for 35 years, the three main rivers ranked in the top ten in the State for quality. One river in the area was number two. All of them showed evidence of *improved* quality since previous studies.

Conclusion

The Chamber believes that there is substantive evidence that resources in a national forest can be managed on a true multiple-use basis while still protecting the basic land resource. We know this can be done and is being done on private forest land, but it takes additional investment for public lands by Congress. Before that, however, it demands a Forest Service Program that is aggressive and specific. The RPA report Congress is now reviewing does not meet these criteria. We would be pleased to assist the Members of this Subcommittee and the Forest Service to develop a more sound report and an approach which recognizes our nation's need for a viable multiple-use policy.

All of us—the timber industry, non-industrial timber owners, environmentalists, ranchers, miners, skiers, off-road vehicle owners, other recreationists, wilderness proponents—agree that we need to revitalize our economy so as to provide for the general well-being of the nation. This revitalization includes timberlands management.

[The following material was submitted by Dr. Ruthann Knudson, Legislative Coordinator, Society for American Archaeology. See p. 49.]

The U.S. Forest Service presently has 85 professional cultural resource specialists on its national staff, at GS-11 or higher ratings; 20 of these individuals have Ph.D.s. In addition, the FS hires temporary cultural resource specialists to complete inventory and evaluation during field seasons, perhaps some 4-500 additional specialists. To date there must be in excess of 100,000 prehistoric and historic properties identified on FS lands. The new FS planning regulations, 36 CFR 219, require recognition of cultural resource management needs early and throughout Forest planning. However, there is no mention of cultural resources as a significant FS responsibility in the President's July 19 Policy Statement on RPA, and only token mention of the subject in the final "1980 Report to Congress on the Nation's Renewable Resources" or "An Assessment of the Forest and Range Land Situation in the United States."

Within the President's Policy Statement he identifies three important principles: economic efficiency, environmental quality, and social values. It can be assumed that protection and enhancement of our cultural heritage falls within the second and third of these categories, but there is no mention of them. They are not identified as a program element in the Policy Statement. The President also specifies two special concerns as related to USFS management: timber production, and environmental values (both of which he wishes to see enhanced). Cultural resource management would fall under the latter rubric, since in the 1980 Report to Congress (p. xi) it is discussed under "Physical-biological Effects" under "Environmental Values."

All discussions of "Recreation" in the Report and Assessment do not mention cultural resource management, yet within the FS CRM is presently subsumed under Recreation budgets at a major level, and under "support services" for timber and grazing on the other hand.

Never is cultural resource protection and enhancement (management) seen as a significant element and end in itself within the FS program. It's only mention is token compliance with existing Federal historic preservation laws, and no assessment of even the ongoing program!

All of the subsequent questions hinge on one basic one: Why does the Forest Service not identify *cultural resources* as a program element? Even if it is not specified in the 1974 RPA Act or its amendment, it is apparent in its 36 CFR 219 regulations and present staffing that it is a significant aspect of Forest resource management—why not recognize it?

Why were no specialists in cultural resource management involved in the preparation of the Assessment?

Resource inventories

The Forest Service is presently conducting inventories of cultural resources on lands that are going to be adversely impacted by undertakings such as timber sales, but only on a project-by-project basis (and even at that, the estimate is that only 25 percent of the sales in Region 1 [Northern] will be field checked. No attempt is being made at present to comply with E.O. 11593, which requires that Federal land-managing agencies systematically inventory the cultural resources on all their lands.

How many historic properties have been identified on FS lands? How many of these have been evaluated and determined eligible for listing on the National Register of Historic Places?

What is the FS doing to provide a national cultural resource data base that is comparable from one State to another, one region to another?

How adequate is the present inventory program to identify properties subject to immediate adverse impacts? What are the long-range plans for compliance with E.O. 11593?

Is FS expertise adequate to identify and evaluate prehistoric as well as historic archaeological sites, historic architectural and engineering properties?

Is the Forest Service developing models of natural resource distributions (e.g., landforms, soils, bedrock, vegetation, game ranges) that are useful as predictive models of prehistoric and historic site distributions?

The recently passed Central Idaho Wilderness Act of 1980 (P.L. 96-312) requires that cultural resource inventory be conducted in that wilderness; how much such inventory has previously been conducted in wilderness? What are the FS plans for completion of such reconnaissance?

Land management planning; resource interactions

The 36 CFR 219 regulations specify that cultural resources management needs be identified in forest plans.

Is evaluation of these needs being carried out in an affirmative way, e.g., is the protection and enhancement of forest cultural resources seen as an end in itself, an amenity or non-market value that merits evaluation as a desired alternative?

Is the identification and evaluation of cultural resources initiated early enough to plan their management realistically?

Is there enough flexibility in alternatives for planning so that there may be minor modifications in those plans (e.g., excluding 5 acres for a timber sale in order to protect a 19th century homestead) to protect cultural resources?

Is there recognition in planning that cultural resources may be identified during operation of a timber sale, and that measure may need to be taken to protect or salvage those resources before the sale may be completed?

Is cultural resource management planning within forests well integrated with state historic preservation plans and programs?

How strong a voice do cultural resource specialists have in planning teams? Do they serve as technical advisors only, or do they have real participation in resource planning?

Prehistoric archaeological sites are frequently significant records of past climatic change, or variation in land use patterns; is the Forest Service making use of any of this information in developing its broader natural resource management plans?

Is the planning process adequate to make tradeoff decisions among alternatives that affect cultural resources? Are cultural resources given any real standing in the trade off decisions other than required by law?

Is the consumptive use of archaeological sites (research excavation) being considered as an alternative in cultural resource management planning in the Forest Service?

Both strip mining and stream dredging destroy archaeological properties. What is the Forest Service doing to mitigate these effects? Are existing authorities adequate to prevent cultural resource damage from mining activities?

Analysis of the assessment and program

How can the Forest Service effectively use its cultural resource specialists if their programs are not even identified in the *Assessment and Program*? Why are cultural resources not identified as a significant resource set requiring assessment? They are not renewable, but neither are minerals and yet the latter is clearly identified as an element for planning.

Basic salary support for cultural resource specialists is presently included within the Recreation budget within the Forest Service, yet there is no mention of cultural resources within the Assessment of the recreation program. Why not?

If there was an assessment of the cultural resource element within the Forest Service, how might it be handled? Are the data sufficient to evaluate the relative type, size, uniqueness or typicality, and/or integrity of properties?

How well is the Forest Service able to protect identified cultural resources? From vandalism? From natural deterioration?

Funding and manpower

At this time the Forest Service is apparently spending some \$5 million per annum in salaries for cultural resource specialists, plus support; these activities have Management Information Handbook (MIH) codes but within the budget are subsumed under Recreation or as support for undertakings such as timber sales.

What sort of activities are budgeted under the MIH codes Cultural Resource Inventories (306), Cultural Resource Evaluation (307), Cultural Resource Protection (308), and Cultural Resource Enhancement (309)? What were the expenditures for these activities in Fiscal Year 1979, or estimated for Fiscal Year 1980? Projected for Fiscal Year 1981, Fiscal Year 1982? Identify their relationship to budget line items.

Are the manpower levels presently assigned to cultural resource management adequate for identification, evaluation, and protection of cultural resources on FS lands? If not, what level of staffing and/or support is needed?

What are the priorities for supporting cultural resource activities as compared with other FS activities (timber management, fish and wildlife management)?

What are the levels of professional training required for cultural resource specialists in the FS? Is the support adequate to provide specialists with appropriate training?

During the past year timber goals have been increased, yet the Recreation budget that supports cultural resource inventory in timber sales has been cut significantly. Is that not inconsistent?

How does fiscal support for cultural resource management compare with that for other resource programs in the Forest Service? Fish and wildlife?

Forest and range research

Assistant Secretary Cutler in May 1980 told the Society for American Archaeology that the U.S. Department of Agriculture needed "to back our cultural resource management program with a solid research component." What are the Forest Service plans to develop cultural resource research programs?

The Forest Service has a program of managing some of its lands as Natural Research Areas (NRAs), free from any significant human disturbance; what is your program of evaluation of the cultural resources in potential NRAs, particularly their archaeological component, before they are set aside?

Evaluation of cultural resources must be done within a regional context; does the Forest Service support any regional archaeological or historic research to provide a framework for this evaluation?

Is the Forest Service conducting any research into the history, and remnant historic properties, of the Service itself?

State and private forestry assistance

The regulations for the protection of historic and cultural properties (36 CFR 800) apply to "any Federal, federally assisted or federally licensed action, activity, or program or the approval, sanction, assistance, or support of any non-Federal action, activity, or program."

What is the Forest Service doing to see that State and private forestry programs that receive Federal assistance comply with these regulations?

STATEMENT OF DANIEL A. POOLE, PRESIDENT, WILDLIFE MANAGEMENT INSTITUTE

Mr. Chairman: I am Daniel A. Poole, president of the Wildlife Management Institute, with headquarters in Washington, D.C. The Institute's program has been devoted to the improved management of renewable natural resources in the public interest since 1911.

It is a pleasure to respond to the Committee's invitation to appear. We commend the Committee for its continuing examination of this subject, and we share its obvious desire that the Forest and Rangeland Renewable Resources Planning Act be implemented through responsive and balanced programs. RPA and the companion RCA are the only comprehensive, long-range resources planning efforts in the country, and the public interest is well served by making them succeed.

As commonly experienced with a new undertaking, and particularly one as complex as RPA, questions are raised about adequacy and scope of data, assessments and analyses. We are not seriously concerned about this aspect, because continuing refinement normally follows conscientiously applied effort. The latest assessment is an improvement over the first, and further improvement is expected in the future.

The main failing of the RPA process at this time is that the Congress is not receiving the specific alternatives that the process is capable of producing. Rather, Congress has received a rewrite dictated by the Office of Management and Budget, a rewrite that, if accepted, largely would reinstate the earlier unsatisfactory situation that prompted enactment of the RPA.

Increasingly, in recent years, Congress has expressed desire for program balance in the administration of the national forests. The Appropriations Committees have striven to cooperate with that objective. But the path being followed by the President's staff denies the authorizing and appropriations committees of the specific guidance they seek and need. Failure of the 1980 RPA to designate preferred alternatives suggests that the Administration would settle for continued program imbalance and delay in attaining improved outputs of goods and services from forests and rangelands.

In my organization's primary area of interest—wildlife—this means that budget requests could continue to fall short of RPA goals as they have in the past: by 40 percent in fiscal year 1977, 54 percent in fiscal year 1978, 43 percent in fiscal year 1979, 40 percent in fiscal year 1980, and by 32 percent in fiscal year 1981. In contrast, timber management was only 16 percent, 7 percent and 0 percent below RPA goals in the past three fiscal years. Intensification of timbering activities, without corresponding capability for coordination with wildlife, holds great potential for harm to wildlife and to other resources and values as well. Contrary to RPA intent, OMB would perpetuate the old squeaking wheel system of forest and rangeland management.

Under the 1980 RPA program, with its high and low bounds, and in the absence of explicit planning goals, the inference is that Congress pick and choose within the proffered range to fund program elements and activities. Taking a not-unrealistic position by suggesting that designated market resources would receive more sympathetic funding than nonmarket resources—as they have in the past—the disparity in units of outputs in program elements and activities is of great interest.

For example, using Table 1 on page 8 of "The 1980 Report to Congress on the Nation's Renewable Resources," for the year 1982, the low bound units of measure or outputs of the following market resources would be as follows—98.9 percent of the high bound for range; 92.4 percent for timber sales; 92.4 percent for reforestation; 80.5 percent for timber stand improvement; and 90 percent for minerals. For the same year, the low bound wildlife habitat improvement output would be only 41.1 percent of the high bound and for anadromous fish, only 20 percent. For the 5-year period, the results are little different. As they say in Las Vegas, the spread is not the same.

Nor is it the same if one uses a similar high bound-low bound comparison, according to Table 1, but works cumulatively to the year 2030. Low-bound outputs for range would average 97.2 percent of the high bound; timber sales 86.9 percent; reforestation 82.8 percent; and for timber stand improvement 70.4 percent. Through the same planning horizon, wildlife habitat improvement, if funded at the low

bound level, would attain only 52.4 percent of the planned high bound wildlife outputs. Anyway one figures, Mr. Chairman, wildlife comes up short over both the near and long term.

Without question, Mr. Chairman, the high bound-low bound approach holds potential for continued serious imbalance in administration of national forests and rangelands.

In your invitation, you solicited comments on the President's RPA Statement of Policy. I have a comment that pertains to the second "Basic Principle" regarding Environmental Quality. I find no reassurance whatsoever in the statement's pledge that " * * * fish and wildlife habitat will *continue* to be protected." Habitat for all categories of animals—common, threatened or endangered—is not being protected adequately now. We have a long way to go before wildlife habitat receives appropriate consideration in forest and rangeland programs or in many other federal programs for that matter.

With respect to the Statement's text on "The Recommended Program," I offer a brief observation on Point 3, Minerals. In view of the repeated references to the national financial situation, economic efficiency, etc., I find it odd that mention is not made of the millions of dollars—approximately \$195 million for fiscal year 1979—collected from national forest and other public lands mineral leases, royalties and land sales that are diverted annually, and have been for decades, to the entirely unrelated purposes of the Reclamation Fund. It is a paradox that at the same time that renewable resources programs on national forests and other public lands are reduced or not undertaken because of funding shortages, revenues from these same lands are financing unrelated activities.

Point 4 of the Statement deals with Research. The Administration's recognition of the need for studies to gain information to help protect streams and riparian habitat is encouraging. Not mentioned, however, is the urgent need to acquire information about the relationship of old-growth forests and fish and wildlife.

In addition to present cutting, this need ties in directly with the President's order that the Secretaries of Agriculture and Interior "use maximum speed in updating land management plans * * * with the objective of increasing the harvest of mature timber through departure from the current nondeclining evenflow policy."

There currently is sketchy understanding of the effect on fish and wildlife of accelerated old-growth liquidation. Research is needed, but no agency is investigating this subject at more than a token level.

Finally, Mr. Chairman, I want to comment briefly on the Committee's Proposed Supplement to the Statement of Policy. We agree with the Committee's August 5th notice of general acceptance of the Administration's high bound program. We do so with the qualification that there be full and effective coordination between resource activities in the field. Each activity, and particularly those designated as "market resources," poses potential harm to other resources and resource values if pursued in a singular manner. Unless this occurs, we cannot accept the Supplement's suggestion that "all goes well" with these other resources and values simply because timber and range goals have been somewhat firmed. That is not the case in the field—we have been there too many times on specific studies to accept otherwise—and there is no proof that it will be in the future, in the absence of firm coordination requirements and accountability.

We urge that the Committee seek some resolution of the 1980 RPA by Congress, with the addition of the Committee's supplement. We also urge that the Committee re-emphasize its desire to be provided with firm goals, instead of ranges, and that these be included in the 1985 update. Firm goals give the Forest Service something to report and serve as a check for field compliance.

Should RPA fail because of the Administration's refusal to face up to the need, then it appears that serious consideration should be given to some other approach than annualized appropriations, which have produced such unsatisfactory results to date.

STATEMENT OF NEIL SAMPSON, EXECUTIVE VICE PRESIDENT, NATIONAL ASSOCIATION OF CONSERVATION DISTRICTS

Mr. Chairman, Members of the Subcommittee: We appreciate the opportunity to testify today on the Program and Statement of Policy that has been submitted to the Congress in accordance with the provisions of the Forest and Rangeland Renewable Resources Planning Act. The RPA is a significant piece of national law, and establishes a planning process that we in NACD support very strongly. The products we have before us today have a great deal of merit, as well as some shortcomings, in our view.

Our testimony will focus on the shortcomings of the Administration's proposal, but before we begin on those details, we should establish a broader perspective. We commend the U.S. Forest Service for the work and skill that has gone into the RPA documents. The Assessment is a comprehensive review of the resource base, its strengths, its problems, and the opportunities we have for improving it. The recommended Program represents, in our view, a valiant effort to identify and quantify the outputs that can be anticipated from a range of public investment in resource management programs.

The problem is that the recommended program does not identify what we *must do* to retain the productivity of the nation's forest and range lands, but what the budget analysts think we can *afford to do*. We think that is shortsighted.

The challenge, and the opportunity, before the Congress is to review those decisions and decide what is best in terms of the long-range interests of the people of the nation. And that, we must not forget, is the strength of the RPA process. For all the criticism we may bring to bear on the documents before us, if we did not have them, we would have far less opportunity to hold an enlightened debate on this vital topic. The nation owes a long-standing debt of gratitude to the far-sighted sponsors of this legislation.

The recommended Program in the RPA documents falls most short, in our judgment, in outlining an adequate program for Cooperative State and Private Forestry. The needs of the private non-industrial forests today are staggering, as are the opportunities for vastly improved productivity.

Of the 482 million acres of *commercial* forest land, 58 percent, or 278 million acres, are held by private non-industrial owners. 116 million acres is owned by farmers as part of their total farming operation. Yet, the proposed budget for Fiscal Year 1985, at the high bound, is only \$112 million out of a total of \$2.738 billion. That would amount to 4 percent of the total Forest Service Budget. This appears to be entirely inadequate to meet the needs of the private non-industrial forestry sector.

At a series of conferences held during 1979, which culminated in a national conference last November, participants identified the present federal tax structure as one of the most serious deterrents to proper forest management on private lands. The report of that conference states that taxes are a perennial disincentive to private forest management. These conferences were co-sponsored by the U.S. Forest Service. Yet there appears to be few references in the RPA documents to this problem. There is no mention of it at all in the Recommended Program. It appears that the government has asked the public for its opinion and then ignored what it heard.

The same conference recommended that adequate staffing was needed in order to be able to assist at least 400,000 landowners each year with forestry planning activities. The 1980 RPA Program recommends the same goal: 400,000 forest management plans per year. This represents approximately 10 percent of the private forest landowners in the nation. It is certainly a realistic and conservative goal. Certainly, we cannot expect to achieve significant improvements in the productivity of the private non-industrial forest lands of the nation over the next few decades, if we cannot even reach the majority of the owners with planning and management assistance in the foreseeable future.

But the goal, even though modest, is so far above what is happening today it staggers the imagination. The current rate of planning assistance provided by all sources: state forestry agencies, the Soil Conservation Service, consulting and industry foresters, and universities is in the range of 60,000 landowners per year. Something dramatically different needs to be done. There not only needs to be significantly more effort expended in the Cooperative State and Private Forestry Program, but there also needs to be some new approaches devised.

One mechanism that has not been explored at all in the RPA is the increased use of local conservation districts as a means of reaching small forest landowners. There are some 2,950 conservation districts covering over 95 percent of the nation. They serve some 2.5 million cooperators, many of whom are woodland owners. In some states, pioneering efforts are being tested whereby district foresters are being hired by conservation districts, with funding from one or more state and federal programs. This opportunity to increase the number of practicing foresters at the local level should be further investigated. Yet there is no mention of such an approach in the RPA documents.

Another opportunity available is to increase the focus of agricultural extension programs on forestry and range. The Renewable Resources Extension Act would greatly aid this process, but funding has never been requested by the Administration nor provided by Congress, so that program languishes.

NACD strongly supports the Cooperative State and Private Forestry Program through the state forestry agencies, and feels that it should be a far higher proportion of the Forest Service budget. New opportunities for effective forestry programs should also be explored. The task is simply too immense, and too critical, for us to be satisfied with the level of effort under way today, or the levels proposed by the RPA documents.

The issue of reforestation, both on public and private lands, is a critical one. Reforestation on private, non-industrial lands must be greatly accelerated if these lands are to furnish the timber projected to be needed in the future.

It is estimated that in the southeast alone, there is an increase in the backlog of unreforested areas of close to 1 million acres each year. Conservation districts and their state associations in those states have, over the last two years, conducted a concentrated information campaign to encourage landowners to accelerate tree planting efforts. Many conservation districts have furnished equipment and trained crews at cost to landowners willing to cooperate in local tree planting programs.

On National Forest lands as well, the attention to reforestation must be intensified. But it will take a great deal of investment and effort. I'd like to quote from President Carter's June 27, 1980 message on the occasion of the 75th anniversary of the Forest Service: "We have a tremendous potential to increase wood production. yet, we are running about a \$3 billion trade deficit in timber products each year. By making our forests more productive and by strengthening cooperation in this regard between the public and private sectors, we can become a net exporter of timber in time for the Forest Service's one hundredth anniversary. Let us on this occasion make this a priority goal—and one that can be achieved in ways that are environmentally sound and cost effective."

That is a laudible goal, and one we fully support. But the President's message was apparently not captured in the RPA, for we can find no assurance in the recommended program that the investments needed to reach such a level of timber production are even remotely considered.

We would also like to speak to the issues surrounding rangeland resources. Our analysis of the range management sections of the documents indicates that the sole indicator of the need for range improvements is the demand for grazing of cattle. There are many other values provided by good rangeland, including watershed stability, water quality, outdoor recreation, and fish and wildlife. Although these are difficult to express in dollar terms, compared to AUM's, they must be part of the equation in calculating needs on the nation's rangelands.

We will submit for the record, along with copies of our testimony, a Pasture and Range Improvement Report compiled by our association in 1979 to outline the need for range management and the proposed solutions to the poor range conditions in this country today. This report was developed by a National Coalition for Pasture and Rangeland Improvement that included many federal agencies, environmental organizations, farm and commodity organizations, and professional societies. The recommendations it makes are significant, and go far beyond the limited vision portrayed in the RPA Program proposal.

The entire matter of non-commercial forest land is not directly addressed in the RPA Program proposals. These lands have both timber and range potentials. Many acres of these lands, with minimum investments, could be brought into productive use. This is going to be increasingly critical as the supply of timber products is more seriously taxed, and as new uses of wood for energy are developed. These uses, which range from fuel for direct burning in home heating or power generation to conversion of cellulose to liquid fuels, could be increasingly significant in the near future.

During the past few years there has been a significant increase in the use of wood for home heating. This utilizes all types of forest products, both low quality stock and some stock which should more appropriately be used for timber, turning stock, and specialty products. There are millions of acres that could be planted to fast-growing species such as hybrid poplar, specifically for energy production. The potential for achieving this increase in biomass production from forest lands will demand a significant increase in technical assistance to the landowners involved.

The development of improved technology for converting wood products into alcohol fuels seems assured. At a meeting of the Bio-Energy World Congress and Exposition in Atlanta this past April, most of the speakers agreed that wood, rather than grain, would be the most economical and plentiful source of biomass for energy production in the future. This portends a far greater pressure on forest lands, both commercial and non-commercial, than would be indicated by past evaluations. It also indicates that there will be the need, and the economic incentive, to develop far more efficient timber harvest and utilization techniques that can capture a far higher percentage of the cellulose produced on the land.

The White Paper on RPA prepared by this subcommittee in response to the RPA Program documents is a thorough analysis of the situation. It documents that the Recommended Program, even at the high bound, does not meet the needs of the resources as outlined in the RPA assessment. We fully support the recommendations made in this paper, and commend the subcommittee for developing it. We particularly call attention to the recommendations that the target goal for forest productivity should be 90 percent of the land's potential by 2030 and that 85 percent of the rangeland should be in improved condition by that time. It is simply unnecessary, and clearly unwise, to do less.

This Subcommittee will, we hope, receive a similar set of documents in the near future under the provisions of the Soil and Water Resources Conservation Act of 1977. Those documents, coupled with the RPA documents, give you an unprecedented opportunity to understand the soil, water, and renewable natural resources of this nation. You will have, for the first time, the kind of information needed to evaluate federal programs and budgets, and make enlightened recommendations to the Congress and the people of the nation as to what must be done to keep our natural resources productive.

The two assessments are going to demonstrate that the efforts of today are inadequate. We are losing productivity too fast, reinvesting too meagerly. We have "put off" too many times, the inevitable need to spend the money that it takes to rebuild the productivity of our land and water. We kept thinking we could wait until tomorrow, and we did, but now tomorrow is here. The mood of the nation today is clearly one of concern for our productivity. There are strong calls for an intensive effort to "re-industrialize." To many Americans, that will mean simply the renovation of a steel plant here, an auto plant there. We must now make the case that, to forestry and agriculture, two of the nation's most basic industries, the land and water is the "factory" that must be renovated.

The time is now, and the process that this Subcommittee has created with the RPA and the RCA efforts can give us not only a better understanding of the need for action, but also the insight as to what actions must be taken. We commend the Subcommittee for its leadership in this effort and pledge our support as you move forward.

STATEMENT OF C. W. MOODY, REPRESENTING THE NATIONAL ASSOCIATION OF STATE FORESTERS

My name is Bill Moody—here as spokesman for the National Association of State Foresters.

We would like to express our appreciation to Senator Melcher for his commitment to the Resources Planning Act process and for the opportunity to appear here to discuss this matter of great significance to the Nation.

The current RPA Assessment projects that expected increases in population, economic activity, and income will increase demand for products from forest and range lands faster than supplies become available under current management levels. The adverse effects associated with this outlook are not inevitable, however, because the Nation has a huge land and water base from which to draw renewable resources. Production is far below potential. Opportunities exist to greatly increase production from forest and range lands; enough to meet projected demands for nearly all renewable products.

The National Association of State Foresters favors maximization of forest resource outputs from all forestlands of the Nation as consistent with good stewardship practices and the protection and/or enhancement of multiple resource values whether public, industry or privately owned. Since the State Foresters of the Nation offer the primary source of help to the private nonindustrial landowner and serve as the conduit for public programs designed to assist and/or motivate private landowners to manage their forest lands, the major thrust of this testimony will be concerned with the private nonindustrial landowner and programs designed to assist and/or motivate him to manage his lands in such a way as to meet projected national needs.

Fifty-eight percent of all U.S. forest land is owned by nonindustrial private owners. The opportunities are good on these lands for intensifying management and increasing production of all forest resources: recreation, wildlife and fish, range, and water, but the most significant need is for expanded timber production. Of the 284 million acres of nonindustrial private forest land, 124 million acres contain economic opportunities for intensified management practices.

The Nation's commercial timber base is shrinking. Publicly owned supplies are becoming more expensive and difficult to harvest as a result of access limitations and withdrawals for non-timber purposes. Industry owned supplies are expected to

level off. Meanwhile, timber demands keep increasing. The result is that timber prices have increased substantially and are expected to continue increasing faster than inflation. The assessment projects significant shifts in softwood saw timber supplies among ownerships. Future increases must come primarily from nonindustrial private forests. The share from these lands must increase from 29 percent of the total in 1976 to 41 percent in 2030 to meet projected demands. In other words, the Nation needs a 40 percent increase in timber output from nonindustrial private lands.

The National interest favors increasing supplies to reduce imports and to dampen future price increases in lumber and wood-based products. The anti-inflationary effect of moderating wood prices is of obvious value under existing economic conditions as is also competitively priced products for trading in international markets.

Although timber is being sold from nonindustrial private lands, less than 1/3 of the harvested land is being returned to softwoods because of investment problems for landowners. In fact, landowners in the South are reinvesting in forestry on only one acre of every nine harvested. The problems encountered by landowners include: inadequate protection from fire, insect and disease, lack of information on prices and investment opportunities, the long-term nature of forestry investments, small ownerships, lack of adequate technical advice, lack of cash flow, and unfavorable tax treatment for forestry investment.

FEDERAL-STATE COOPERATIVE PROGRAMS

The Federal-State cooperative forestry programs are directed at mitigating the forestry investment problems of nonindustrial private landowners. We know from experience that market forces alone will not assure adequate management of these lands. Analyses show that the Federal-State programs under the Cooperative Forestry Assistance Act are an effective means of achieving National timber objectives at low public cost. These programs provide technical and financial assistance in all aspects of forest land management, protection, and forest products utilization. The landowner is assisted in managing his land for the total range of forest resource values, including wildlife, recreation, water, scenic, and environmental values—as well as fiber production.

A concerted effort is now underway to expand and intensify analyses of the cooperative forestry programs. We expect these studies to improve our understanding of the most cost effective ways of providing forestry assistance. As new program strategies, such as tax treatments and loans become available and are tested, they can be meshed into ongoing programs, replacing or reducing those less effective.

The State Foresters like the Federal philosophy for delivering forestry assistance to nonindustrial private landowners. Rather than build an extensive Federal force, the USDA Forest Service supports State organizations to provide forestry assistance at the local level. This serves to strengthen the State forestry agencies while combining the efforts of the different levels of government. I would like to emphasize that any increases in appropriations for the cooperative forestry programs would go primarily to the States for program implementation rather than to Federal administration.

It is also important to note that the dollars shown with RPA program levels are Federal funds only. Not shown are the non-Federal investments that are induced by Federal funding of the cooperative forestry programs. States are required to at least match the Federal contribution for most of the programs. Many States contribute far more than the required amount. Landowners must provide at least 25 percent of the cost of reforestation and timber stand improvement to participate in the incentives program.

PROGRAM RECOMMENDATION

We have studied the assessment and it clearly shows that nonindustrial private forest lands will have to fill the timber gap. However, the RPA Recommended Program for State and Private Forestry programs is not fully responsive to this need. The National Association of State Foresters has developed a program that is responsive, yet low cost and efficient.

May I take just a moment, Mr. Chairman, to explain how we arrived at the budget levels in our program.

In July of 1979 in Portland, Oregon, the National Association of State Foresters participated in a meeting with top professionals of the U.S. Forest Service to begin the development of a program which would be responsive to the 1979 Assessment, particularly as relating to the nonindustrial private forest landowner. Needs and opportunities responsive to the Assessment and collected from the State Foresters of the Nation had been aggregated by U.S. Forest Service professionals and were available to us at that meeting. The National Association of State Foresters re-

sponded to the Assessment following this session in a document entitled, "National Association of State Foresters Cooperative Program Responsive to the 1979 RPA Assessment". Mr. Chairman, I ask permission to file this document for the record at this time.

Following the Portland meeting the National Association of State Foresters adopted its "1981-1985 Program of National Association of State Foresters". We consider this program to be responsive to the Assessment, public comment, findings of Regional and National nonindustrial private conferences sponsored jointly by the U.S. Forest Service and National Association of State Foresters and the State Foresters judgment of practical viability. Budget levels in the program, while not identical to those contained in the previously mentioned "Response" document are as adjusted by the Executive Committee of the National Association of State Foresters and are so close to the Portland program budget levels as not to require separate justification. Mr. Chairman, I ask permission to file this document for the record.

I would like to summarize for you now, in terms of the respective cooperative programs, the program recommended by NASF. I would also like to submit for the record a table that displays the costs of the NASF program and a graph that compares these costs with those of the RPA Recommended Program.

FOREST INSECT AND DISEASE MANAGEMENT

Increased assistance would be provided for efficient management of forest insects and diseases. This program includes forest pest management on National Forest and other Federal lands as well as on State and private lands. Integrated pest management strategies will be stressed with particular emphasis on spruce budworm, gypsy moth, bark beetles, Douglas-fir tussock moth, and dwarf mistletoe.

Detection and evaluation surveys would increase from 460 million acres in 1981 to 635 million in 1985.

Proposed funding of this program is for 33 million in 1981 rising to 41.6 million by 1985.

RURAL FIRE PREVENTION AND CONTROL

Intensive fire protection would be provided on wild lands, high-value watersheds, managed plantations and other valuable lands, especially where they border urban areas. Fuel management activities would be emphasized, and the number of acres burned should be held to 1,800,000 in 1981 dropping to 1,720,000 by 1985. This is an "insurance" program to help protect the public investment in State and private forest management.

The recommended funding is \$40 million in 1981 rising to \$47 million in 1985.

I would like to make the additional comment here that the NASF considers this to be the weakest response to the Assessment in the RPA recommended Program for State and Private Forestry. Protection of private forests from wildfire is unquestionably a responsibility of the public sector. It appears almost ludicrous that at a time when the Nation desperately needs landowners to invest in reforestation that the program submitted to the Congress by the Administration would significantly weaken the only program offering protection for that investment from the ravages of wildfire.

RURAL FORESTRY ASSISTANCE

Increases assistance would be provided to landowners for forest management and to loggers and processors for improved wood utilization. The emphasis will be on increased timber production, but improved management of related resources will occur simultaneously. A key to improved forest management is the one-on-one technical assistance by foresters in preparing, implementing, and updating individual forest management plans that reflect landowner objectives.

An expanded program of pine reforestation in the South is included, as is a hardwood management and utilization initiative in the East. Assistance would include development, demonstration, and application activities in the use of wood for energy.

Reforestation and timber stand improvement efforts would involve a significant increase in incentives payments through the Forestry Incentives and Agricultural Conservation Programs to complement increased technical assistance. An objective would be to increase publicly assisted reforestation from 326 thousand acres per year in 1978 to 840 thousand acres in 1981 and 1220 thousand by 1985. These attainments would occur through coordination with forest industry programs that assist private landowners.

Utilization of wood would be improved by 225 million cubic feet in 1981 increasing to 235 million by 1985.

Funding for this program would need to be \$33 million in 1981 rising to \$37.2 million by 1985.

URBAN FORESTRY ASSISTANCE

A high level of technical assistance would be provided to aid in the establishment, protection, management, and utilization of trees for environmental enhancement, amenity values, and energy conservation. Approximately 2,800 communities, towns, and cities would be assisted in 1981 increasing to 5,500 by 1985. This program is also an important means of encouraging management of rural forest lands owned by urban dwellers.

Proposed funding is \$6 million in 1981 rising to \$8.5 million in 1985.

ASSISTANCE IN MANAGEMENT, PLANNING, AND TECHNOLOGY IMPLEMENTATION

Increased assistance would be provided to State forestry agencies to promote improved planning, to increase efficiency and effectiveness, and to help put new knowledge and technology to use. Emphasis will be placed on forest resource planning, including the development of better forest inventories, analytical techniques, and the preparation of State Forest Resource Plans. Forty-eight States are now working to complete such forest resource development plans over the next few years.

The recommended funding is \$8 million in 1981 decreasing to \$7.1 million by 1985 as management and planning assistance progresses to a maintenance and updating stage.

GENERAL FORESTRY ASSISTANCE

GFA projects are special purpose projects that include:

Gifford Pinchot Institute for Conservation Studies—A National focal point for research and education activities related to the conservation and wise use of natural resources.

FIRESCOPE—A research development and application program in cooperation with the State of California.

Other special projects—These include demonstration of Dutch elm disease control and elm tree utilization and assistance to the State of Minnesota and to resort owners and operators impacted by expansion of the Boundary Waters Canoe Area.

Proposed funding is \$8.9 million in 1981 dropping to \$5.2 million by 1985.

ALLOCATED FUNDS

State forestry agencies participate in several programs for which funds are appropriated to other USDA agencies and then allocated to the Forest Service.

Rural Community Fire Protection is very important to the cooperative fire protection program. Funding for RCFP is recommended at \$6 million in 1981 rising to \$8.7 million in 1985.

The Forestry Incentives and Agricultural Conservation Programs are basic to public assistance for reforestation and timber stand improvement on nonindustrial private lands. Recommended funding for FIP is \$33 million in 1981 increasing to \$40.8 million in 1985. For ACP the recommended funding of forestry practices is \$5.9 million in 1981 rising to \$6.6 million in 1985.

CONCLUSION

In closing, NASF contends that the cooperative forestry programs must be carried out at significant levels if the desired results are to be achieved. Consider the success of American agriculture. At the present time, only 3 percent of forest landowners receive assistance each year as compared to over 90 percent in agriculture.

Fully adequate production of renewable natural resources from the Nation's private sector will require the participation of all concerned parties; nonindustrial private landowners, industry, and local, State and Federal governments. Through this recommended program, the State forestry agencies with help of the Federal government will provide the leadership and direct assistance through which landowners will be informed of investment opportunities and will be motivated to practice improved forest management.

TABLE 1

COMPARISON OF NASF RECOMMENDED PROGRAM COSTS AND RECENT BUDGET LEVELS FOR STATE AND PRIVATE FORESTRY PROGRAMS
Appropriated Funds in Budget Format (Million Dollars)

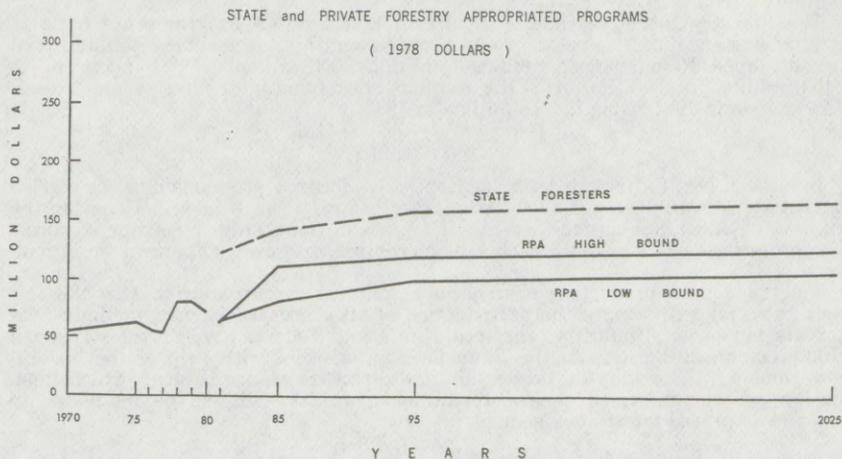
	Recent Budget Levels ^{1/}			NASF Program ^{2/}				
	FY 1978 Approp.	FY 1980 Approp.	FY 1981 Pres.'s Budget	1981	1982	1983	1984	1985
<u>Cooperative Land and Resource Protection:</u>								
Forest Insect and Disease Mgt.	25.3	20.5	22.1	33.0	35.2	37.3	39.4	41.6
Rural Fire Prevention and Control	30.1	22.4	13.9	40.0	41.7	43.5	45.3	47.0
Total, Cooperative Land and Resource Protection	55.4	42.9	36.0	73.0	76.9	80.8	84.7	88.6
<u>Cooperative Renewable Resource Management and Utilization:</u>								
Rural Forestry Assistance	13.3	13.4	19.2	33.0	34.1	35.1	36.1	37.2
Urban Forestry Assistance	3.5	3.6	---	6.0	6.6	7.2	7.9	8.5
Assistance in Management, Planning, and Technology Implementation	3.9	3.7	6.0	8.0	7.8	7.6	7.4	7.1
Total, Cooperative Renewable Resource Management and Utilization	20.7	20.7	25.2	47.0	48.5	49.9	51.4	52.8
<u>General Forestry Assistance</u>								
Pinchot Institute	0.5	0.6	---	0.7	0.8	0.8	0.9	0.9
FIRESCOPE	1.2	2.4	---	2.4	2.4	2.0	1.5	1.0
Special Projects	2.5	6.3	3.4	5.8	5.8	5.0	4.2	3.3
Total, General Forestry Assistance	4.2	9.3	3.4	8.9	9.0	7.8	6.6	5.2
TOTAL, STATE AND PRIVATE FORESTRY ^{3/}	80.4	72.9	64.6	128.9	143.4	146.3	149.3	151.8

^{1/} Actual dollars

^{2/} Constant 1978 dollars

^{3/} Total may not add due to rounding.

COMPARISON of PROGRAM RECOMMENDED by STATE FORESTERS
with RPA RECOMMENDED PROGRAM HIGH and LOW BOUNDS



NATIONAL ASSOCIATION OF STATE FORESTERS' RESPONSE TO "A CONGRESSIONAL RESPONSE TO THE PROPOSED PROGRAM AND STATEMENT OF POLICY" BY SENATE SUBCOMMITTEE ON ENVIRONMENT, SOIL CONSERVATION, AND FORESTRY—PRESENTED BY C. W. MOODY—SEPTEMBER 16, 1980

The wisdom of Senator Humphrey and the original sponsors of the Resources Planning Act is evident in the current proceedings underway in the Subcommittee on Environment, Soil Conservation and Forestry. The Act outlines an orderly process whereby the Administration and Congress might have access to information along with professional analyses so that they might make decisions and take action as needed to insure that the Nation's forest and rangeland renewable resources make their necessary contribution.

"A Congressional Response to the Proposed Program and Statement of Policy" (White Paper) as developed by Senator Melcher's Subcommittee on Environment, Soil Conservation and Forestry clearly puts the Resources Planning Act process in perspective. The Act envisions a cooperative effort by the Administration and the Congress to be based on facts clearly available to both parties. This orderly process should result in a program which outlines actions that are responsive to long and short-term forest resource and rangeland needs of the Nation. Actions taken and programs enacted in this way can be properly balanced with other current national needs and priority.

Because of the inadequacies of the Administration's offerings, it is appropriate that the Congress recommend a revised policy and program as provided for in the RPA process. The National Association of State Foresters commends the Committee for the effort underway and supports the Committee's recommendations contained in the "White Paper". We particularly call attention to and support the following items:

A definite, clearly understood program and policy is required.

Resources from all lands regardless of ownership must make their contribution to the Nation.

There is a great need for long-term resource targets to be defined. NASF is not in a position to respond to the specific targets adopted but will study the matter and provide the Committee with our conclusions.

The National Association of State Foresters wishes to express appreciation to Senator Melcher and the Subcommittee on Environment, Soil Conservation and Forestry for its commitment to the Resources Planning Act processes and its vigorous efforts to insure that the processes work as designed to do by the original Act.

[The following material was submitted by C. W. Moody, National Association of State Foresters. See p. 57 for oral testimony of Mr. Moody.]

NASF COOPERATIVE PROGRAM RESPONSE TO THE 1979 RPA ASSESSMENT

The Resource Planning Act requires the Forest Service to periodically prepare a Recommended Program that is responsive to the findings of the Assessment. This report describes the Program that State forestry agencies recommended early in the RPA process to be most responsive to meeting the needs identified by the Assessment from private and State-owned forest lands. This Program is responsive to the Assessment and to public comment, and it is fully within the practical bounds of the organizational capability of the State agencies. The funds designated in the report are Federal contributions only, collectively, State contributions would be considerably greater. This information was used in developing the Secretary of Agriculture's Recommended Program but does not reflect the policy decisions and budget criteria used in selecting the Secretary's Program.

SUMMARY

Here are some key points that emphasize the importance of the Program:

Seventy-two percent of all U.S. forest land is in private ownerships, primarily in the East where 81 percent of the population is located and near markets.

Fifty-eight percent of all U.S. forest land is owned by nonindustrial private owners.

Of the 284 million acres of nonindustrial private forest land, 124 million acres contain economic opportunities for intensified management practices.

Most of the economic opportunities are for softwoods in the South.

To meet projected demands, timber supplied from nonindustrial private lands must increase from 29 percent of the total in 1976 to 41 percent by 2030. Future

increases in timber supplies must come primarily from nonindustrial private forests.

At present levels of forestry investments, timber prices will rise at an annual rate of 2.5 percent per year above the annual rate of inflation.

The national interest favors increasing supplies to dampen future price increases in lumber and wood-based commodities and to reduce imports.

At present and future prices, timber is being sold off the nonindustrial private lands, but less than 1/3 of the land area is being returned to softwoods. This is a result of forestry investment problems for the landowner such as: lack of information on prices and investment opportunities, the long-term nature of forestry investments, small ownerships, lack of adequate technical advice, cash flow problems for the landowner, and unfavorable tax treatment for forestry investment.

Forest lands must be adequately protected from fire, insects, and diseases if landowners are to make substantial investments.

Analyses show that cooperative programs carried out through the forestry agencies in each State provide technical and financial assistance in all aspects of forest land management, protection, and forest products utilization that is cost effective in achieving national objectives of increasing timber supplies at a low public cost.

They also result in the landowner managing his land for the total range of forest resource values including wildlife, recreation, water, scenic, and environmental values.

These programs must be carried out at significant levels if the desired results are to be achieved. At the present time, only 3 percent of the forest landowners receive assistance each year as compared to over 90 percent in agriculture.

As new program strategies such as tax treatments and loans become available and are tested, they can be meshed into ongoing programs, replacing or reducing those less effective.

The programs have been small (only 4 percent of the Forest Service budget contributes to cooperative programs), but directed to 57 percent of the total land area.

Fully adequate production of renewable natural resources from the Nation's private sector will require the participation of all concerned parties; nonindustrial private landowners, industry, and local, State, and Federal governments. Through this recommended Program, the State forestry agencies with the help of the Forest Service will provide the leadership and direct assistance through which landowners will be informed of investment opportunities and will be motivated to practice improved forest management.

THE PROCESS

Early in the process five Alternative Program Directions representing an array of Forest Service program levels were formulated. Formulation of these Directions began long before the 1979 Assessment was completed so they were initially based on the findings of the 1975 Assessment. As updated Assessment information became available, it was used and where appropriate, program adjustments made. Each Alternative Program Direction was formulated to be legally and physically viable. They were issued for public review.

The Alternative Program Directions were described in terms of "market" (timber, forage, minerals, and water) and "nonmarket" (recreation, wilderness, wildlife and fish) resources. Two of the Alternative Program Directions prescribed low levels of both market and nonmarket production for cooperative programs (one basically equivalent to current program levels and the other representative of zero base budget); one prescribed moderate levels of production (basically equivalent to the 1975 Recommended Program); and two prescribed high levels of production (one in concert with high levels on National Forests and the other to counterbalance low market production on National Forests).

The Alternative Program Directions, in response to national guidelines, were developed from the ground up through the cooperative efforts of State forestry agencies and Forest Service Regions and Areas. States provided data for two program levels, current and high, and they developed goals, issues and objectives to characterize program needs and direction. It was assumed that cost and work force inputs would not change from those in Fiscal Year 1978 for the current level, but the mix of activities and outputs could change. For the high level it was assumed that inputs would not be constrained if increases in Federal funding were matched by increases in State funds. The information from the States was used to develop the data for the five Alternative Programs.

Public participation in RPA decisionmaking was invited at several points in the process. The most significant public involvement occurred with the release of RPA draft documents in March 1979. Briefings and meetings were held throughout the country to acquaint the public with the RPA process and the draft documents and

to encourage comment. When the formal comment period closed, over 1,600 respondents had replied.

Public opinion

Public comments indicated broad support for cooperative programs from many sectors. Respondents requested greater emphasis on the management of nonindustrial private lands. They favored strong cooperation between State and Federal governments. Those interested in noncommodity resources generally supported strengthened cooperative programs that would shift much of the commodity production from National Forests to the private sector and thereby allow increased management of National Forests for noncommodity uses. Commodity groups thought that increased production is necessary from both private and public lands to meet future needs.

State forestry agencies and other respondents emphasized that stronger cooperative programs are needed regardless of management direction on National Forests. Many stressed the need for increased attention to hardwoods as a source of timber products and of energy, particularly in the eastern States where 73 percent of the commercial forest is on nonindustrial private lands. There was strong support to expand technical assistance for multiresource management, application of new technology, and more educational opportunities to improve public and landowner awareness of multiresource land management.

The public comments were analyzed and subsequently influenced the final selection of criteria for evaluating Alternatives.

Three types of analyses (economic, social, and physical/biological) were applied during formulation of Alternative Program Directions and later during comparison and evaluation of Alternatives. Physical and biological analyses were designed to evaluate influences of program activities on plant and animal life, air, water, and land. Social analyses evaluated effects of activities on cultural and institutional values. The economic analysis used in evaluation of cooperative program activities included the Timber Assessment Market Model, a spatial market model that projects long-range trends in price, consumption, and production of timber.

A significant step in the determination of a recommended Program occurred when Alternatives were evaluated at the regional level and trial program mixes of various resource elements that were considered responsive to specified decision criteria were selected. The criteria included Assessment findings, public comment, organizational capabilities, NEPA and other legal requirements, results of analyses, and administrative and policy directions. A meeting was held in Portland, Oregon in late July of 1979, at which Regional Foresters and Area Directors presented the recommended program proposals. A representative of the National Association of State Foresters was present. One adjustment in the proposals for cooperative programs was negotiated; the Rocky Mountain and Southeastern selections of the highest Alternative for the protection element were revised downward to be consistent with other regions and to constrain total costs. With this adjustment the combination of recommended programs was judged responsive to decision criteria, and it was consequently adopted as part of the Forest Service proposal for the Recommended Program. It was presented as such in discussions with the Department of Agriculture.

ASSESSMENT FINDINGS

The 1979 RPA Assessment projects that expected increases in population, economic activity, and income will increase demand for products from forest and range lands faster than supplies become available under current management levels. The adverse effects associated with this outlook are not inevitable however, because the Nation has a huge land and water base from which to draw renewable resources. Production is far below potential. Opportunities exist to greatly increase production from forest and range lands; enough to meet projected demands for nearly all renewable resource products.

The Assessment places great emphasis on the importance of nonindustrial private forest and range land in meeting the needs of the Nation for natural resource products and services. This land includes 284 million acres or 58 percent of the commercial forest land. The opportunities are good for intensifying management and increasing production of all forest resources, e.g. recreation, wildlife and fish, range, and water, but the most significant need is for expanded timber production.

The Nation's industrial timber supplies are shrinking. Publicly owned supplies are becoming more expensive and difficult to harvest as a result of access limitations, environmental considerations, and competing land uses. Industry owned supplies are expected to level off. Meanwhile, timber demands keep increasing. The result is that timber prices have increased substantially and are expected to continue increasing faster than inflation. The Assessment projects significant shifts in

softwood sawtimber supplies among ownerships. The share from nonindustrial private forest lands is expected to increase from 29 percent of the total in 1976 to 41 percent in 2030.

These softwood supply projections show a future doubling of softwood timber harvest in the South in response to rising stumpage prices. This increase in Southern harvest will not only offset expected declines in other parts of the country, particularly from private lands on the West Coast, but will also provide for an overall increase in total United States softwood supply.

However, lags in pine regeneration over the past 14 years clearly indicate significant problems in continuing these higher softwood harvest rates. Since 1965, pine regeneration in the South has been declining, while hardwood regeneration has been increasing. These changes have not been fully appreciated. They are masked by continued increases in pine volume and in net annual growth of pine that resulted from earlier high rates of regeneration. On nonindustrial private lands, rates of pine regeneration have been lower since 1965 than they were during the Soil Bank era.

Some measure of the effects of this shortfall in pine regeneration is shown by the long-run projections prepared for the 1979 Assessment analysis of the timber situation. Largely as a result of this shortfall, net annual growth begins to decline after 2000. Given the high levels of harvesting which would be associated with maintaining an equilibrium between softwood timber demands and supplies, the inventories of softwood growing stock would also begin to decline significantly. Projected declines of this size mean that maintenance of the equilibrium levels of harvests for periods beyond the next few decades will require increased investments in various management programs. It also suggests that without greatly expanded management programs, prices in the latter part of the projection period and in the decades that follow are likely to rise more rapidly than indicated in the equilibrium projection.

Research conducted in support of the 1979 Assessment also shows that there are numerous opportunities for investments in forest management that would yield positive economic returns. If these investments were made, timber supplies could be increased substantially. The study shows that there are economic opportunities for more intensive management on 168 million acres of commercial timberland in nonfederal ownership, some 33 percent of the Nation's total. With treatment of these acres, net annual timber growth could be increased by 12.7 billion cubic feet, a volume roughly equal to 1/3 of the total net annual growth in 1976. The bulk of opportunities are for softwoods on nonindustrial private lands. Achieving these growth increments would require several decades. The effects of investments in these economic opportunities cannot be realized until trees grow to marketable size. Furthermore, substantial capital, \$13.3 billion, over a 10- to 15-year period would be required to do the job on all identified acres.

About three quarters of the economic opportunities on an area basis involve reforestation or conversion of existing stands. This category includes regeneration of nonstocked acres, harvesting mature stands and regenerating the tract, and conversion of existing stands to more desired species. Reforestation and conversion efforts account for about 90 percent of the investment opportunities.

Results of other studies are increasingly documenting the effectiveness of cooperative forestry programs, thus lending support to the Assessment findings.

The analysis of the 1974 Forestry Incentives Program investments indicated an average internal rate of return of 10.2 percent on direct treatment costs, both public and private. The estimated first rotation softwood yield increase (977 million cubic feet) is a full 27 percent of the softwood removals (3,640 million cubic feet) from farm and miscellaneous private lands in 1976. But the projected FIP yield is from only about 210,000 acres of softwood treatments, less than 0.1 percent of the farm and miscellaneous private acreage. This comparison suggests the potential for increasing timber yields through moderately intensive culture on highly productive land.

The study results emphasize the need for careful selection of sites to maximize the cost effectiveness of public incentives payments. Careful case selection requires the intensive involvement of professional foresters. Thus, an effective cost-share program must be associated with an equally effective technical assistance program.

Analysis of the improved wood utilization programs have demonstrated that immediate increases in available wood volume are realized through better harvesting and processing techniques. Assistance to loggers for harvesting improvement results in about 5 percent more useable wood volume through better felling and bucking practices. Application of improved sawmilling procedures resulted in about 10 percent savings of wood volume in sawmills studied in the South.

THE PROGRAM

The Program developed during the early stages of the RPA decision-making process to be responsive to the Assessment is a consolidation of the state's Cooperative Forestry Programs by the Regional Foresters and Area Directors at the July 1979 meeting in Portland. The NASF participated in that meeting. It is responsive to the Assessment, public comment, and State Foresters' judgment of practical viability. Table 1 compares projected Program costs with recent budget levels. A description of the Program in terms of the various cooperative forestry assistance programs follows. Projected outputs, activities, and costs are shown in Table 2.

Forest insect and disease management

The Program would provide increased assistance for efficient management of forest insects and diseases on State and private lands. It would also provide increased implementation of integrated pest management on National Forests and other Federal lands.

There would be a nationwide emphasis to shift away from the crisis management of direct suppression to more effective and environmentally safe integrated pest management techniques. This strategy would include more detailed detection surveys to locate emerging problems and evaluations to identify forest areas susceptible to pest problems. Prevention would be stressed through forest management actions to reduce stand susceptibility. Control would emphasize nonchemical tactics such as biological agents, parasites, predators, and genetic resistance. These integrated pest management strategies would receive high priority implementation for spruce budworm and gypsy moth in the Northeast, Western spruce budworm in the Northwest and Southwest, bark beetles in the South and West, and Douglas-fir tussock moth and dwarf mistletoe in the West.

TABLE 1
 1/
 COMPARISON OF RPA PROGRAM COSTS AND RECENT BUDGET LEVELS
 Appropriated Funds in Budget Format (Million Dollars)

	2/			3/					
	Recent Budget Levels			RPA Program					
	FY 1978 Approp.	FY 1980 Approp.	FY 1981 Pres.'s Budget	1981	1982	1983	1984	1985	1995
<u>Cooperative Land and Resource Protection:</u>									
Forest Insect and Disease Mgt.	25.3	20.5	22.1	31.0	33.2	35.3	37.4	39.6	42.8
Rural Fire Prevention and Control	30.1	22.4	13.9	38.7	40.4	42.2	44.0	45.7	50.5
Total, Cooperative Land and Resource Protection	55.4	42.9	36.0	69.7	73.6	77.5	81.4	85.3	93.3
<u>Cooperative Renewable Resource Management and Utilization:</u>									
Rural Forestry Assistance	13.3	13.4	19.2	32.1	33.2	34.2	35.2	36.3	47.0
Urban Forestry Assistance	3.5	3.6	---	5.6	6.2	6.8	7.5	8.1	10.8
Assistance in Management, Planning, and Technology Implementation	3.9	3.7	6.0	7.7	7.6	7.4	7.2	7.1	6.8
Total, Cooperative Renewable Resource Management and Utilization	20.7	20.7	25.2	45.4	47.0	48.4	49.9	51.5	64.6
<u>General Forestry Assistance</u>									
Pinchot Institute	0.5	0.6	---	0.6	0.7	0.8	0.9	0.9	0.9
FIRESCOPE	1.2	2.4	---	2.9	2.4	2.0	1.5	1.0	0
Special Projects	2.5	6.3	3.4	6.7	5.8	5.0	4.2	3.3	0
Total, General Forestry Assistance	4.2	9.3	3.4	10.2	8.9	7.8	6.6	5.2	0.9
<u>TOTAL, STATE AND PRIVATE FORESTRY</u> 4/	80.4	72.9	64.6	125.3	129.5	133.7	137.9	142.0	158.8

1/ The Program developed for Cooperative Programs at July 1979 meeting in Portland.

2/ Actual dollars

3/ Constant 1978 dollars

4/ Total may not add due to rounding.

TABLE 2
PROJECTED STATE AND PRIVATE FORESTRY RPA PROGRAM^{1/} OUTPUTS,
ACTIVITIES, AND COSTS

Program element and activity	Unit of measure	Base Year 1978	Annual units					
			1981	1982	1983	1984	1985	1986
RECREATION								
Cooperative Technical Assistance for Dispersed Recreation	Thousand acres	81	205	230	255	280	305	475
WILDLIFE & FISH								
Cooperative Technical Assistance for Wildlife Habitat Improvement	Thousand acres	170	860	930	1005	1080	1150	1575
RANGE								
Cooperative Technical Assistance for Range Improvement	Thousand acres	50	155	180	205	230	260	410
TIMBER								
Reforestation (RFA, FIP, ACP)	Thousand acres	326	840	935	1030	1125	1220	1300
Timber Stand Improvement (RFA, FIP, ACP)	Thousand acres	275	640	665	690	715	740	1030
Timber Prepared for Harvest	Million cubic feet (MCF)	225	330	345	360	370	385	545
Woodland Owners Assisted	Thousand owners	165	260	270	280	290	300	365
Improved Utilization of Wood	Million cubic feet (MCF)	164	225	228	230	233	235	270
HUMAN AND COMMUNITY DEV.								
Technical Assistance for Urban & Community Forestry	Thousand urban areas	6.5	2.8	3.5	4.2	4.8	5.5	7.2
PROTECTION								
Insect & Disease Management Surveys	Million acres	600	460	505	550	590	635	670
Rural Community Fire Protection	Thousand approved applications	3.0	3.4	3.6	3.8	4.0	4.2	4.1
Fire Loss on Protected Area	Thousand acres burned	1700 ^{2/}	1800	1780	1760	1740	1720	1670
WATER, MINERALS, LANDS, AND SOILS								
State Forest Resource Planning	Million acres	--	185	180	175	170	165	190
Cooperative Technical Assistance for Landowner Forest Management Plans	Million acres	3.2	4.2	4.5	4.7	5.0	5.2	5.9
Cooperative Technical Assistance	Person years	--	66	67	68	69	71	71
COSTS STATE AND PRIVATE FORESTRY^{3/}								
Appropriated ^{4/}	Million dollars	80	125	130	134	138	142	159
Allocated ^{5/}	Million dollars	37	51	54	58	62	65	73
TOTAL S&PF	Million dollars	117	176	184	192	200	207	232

1/ The Program developed for Cooperative Programs at July 1979 meeting in Portland.

2/ Cooperative Fire Loss base figure is calendar year 1977.

3/ All Costs are shown in constant 1978 dollars.

4/ Projected estimates of funds appropriated to the Forest Service for cooperative forestry assistance under P.L. 95-313.

5/ Projected estimates of funds appropriated to other USDA agencies for programs which receive assistance from the Forest Service and State forestry agencies, including (1) forestry practices under the Agricultural Conservation Program and the Forestry Incentives Program funded through the Agricultural Stabilization and Conservation Service; (2) Rural community fire protection funded through the Farmers Home Administration; and (3) funds allocated to the Forest Service by the Soil Conservation Service for the forestry aspects of watershed planning, flood prevention, river basin surveys, and resource conservation and development. A breakdown of these funds is shown on page 17.

New and improved pest management techniques developed by the Expanded USDA Research and Application Programs and other research findings would be disseminated through publications and training. Special projects such as demonstration areas, pilot control projects and loss assessment projects would be established for major insects and diseases.

New activities for protection of urban trees, stored wood, and wood products would be initiated.

Funding requirements for this program are \$31 million in 1981 and \$33.2 million in 1982, rising to \$39.6 million by 1985 and \$42.8 million by 1995. Corresponding acres of survey are 460 million in 1981, 505 million in 1982, 635 million in 1985, and 670 million in 1995.

Rural fire prevention and control

The Program would provide technical and financial assistance to protect human and natural resources, financial investments, environmental quality, and basic productivity of the land on approximately 1.5 billion acres of nonfederal rural lands. This assistance is required to guard the national interest that exists in the production of certain goods and services from rural lands and in the protection of rural communities.

The production of renewable resources from rural lands has historically assumed a basic level of fire protection. Without this protection, State and Federal investments such as cost-shared reforestation projects or loans to construct rural facilities can be made only at a significant risk that the investments will be lost to fire. Portions of the Program are specifically designed to provide protection to such investments. For example, funds and technical assistance would be used to intensify fire protection in southern pine plantations less than 10 years old. This age class is most susceptible to fire damage. The intensified assistance would be to protect both the investments and the national interest in the production of softwood fiber on these nonindustrial private lands as well as other nonfederal rural lands.

Intensified protection would also be afforded to hardwood stands in the East where improved production will contribute to economic stability and future wood supplies.

The Program likewise provides for the protection of key forested and nonforested watersheds from fire. These watersheds provide domestic and industrial water supplies. Protection of watersheds also reduces sedimentation of reservoirs and the costs of maintaining the interstate waterways of commercial shipping traffic.

The treatment of manmade fuels and naturally occurring fuels is an integral part of the fire protection effort in many parts of the country. The Program would provide for helping to treat these fuels, and more importantly, for converting much of these forest fuels into usable energy supplies to help offset energy shortages and make the Nation more energy self-sufficient.

The Program would provide additional funds to the State of Alaska to enable the State to assume protection responsibilities for nonfederal rural lands currently being protected by the U.S. Department of the Interior. It will also enable other States to organize, train, and make firefighters available outside of their State and on Federally owned lands in support of Federal fire organizations, thus helping to protect resources on these lands as well.

Funding of the program is projected at \$38.7 million in 1981, \$40.4 million in 1982, \$45.7 million in 1985, and \$50.5 million in 1995. (These amounts do not include funds allocated for rural community fire protection.) Associated fire losses on rural lands protected through the Program are expected to be 1.8 million acres in 1981, dropping to 1.78 million in 1982, 1.72 million in 1985, and 1.67 million in 1995.

Rural forestry assistance

The Program would increase financial and technical assistance for resource management on private forest lands and utilization assistance to loggers and processors. Landowners would be motivated to practice multiresource management so that the private sector, in keeping with its potential, would contribute more of the Nation's renewable natural resources. A key to the success of this goal is provision of one-on-one technical assistance by State service foresters and consulting foresters in preparing, implementing, and updating individual forest management plans that reflect landowner objectives. A goal is to prepare 400,000 of these plans each year by 1985. The plans are the documents which guide and foster actual on-the-ground management practices. They provide the focus and directions for such various management purposes as dispersed recreation, wildlife habitat improvement, forage production, and protection of soil and water quality. For example, the Program proposes to increase assistance for wildlife habitat improvement from 170 thousand acres in 1978 to 1,150 thousand acres in 1985, and 1,575 thousand acres in 1995. Most of this increase would occur in the Northeast.

However, most assistance would be directed to the timber resource. The most critical finding of the Assessment is that major increases in wood supplies must come from nonindustrial private lands and that these lands are not being adequately regenerated following harvest. To improve on this the Program would increase technical assistance and cost-sharing, and a market information and price reporting system would be implemented. Assistance for timber management and improved wood utilization would include development, demonstration, and application activities in the use of wood for energy. Technical assistance to landowners would emphasize timber harvest, timber stand improvement, and reforestation.

Major emphasis would be given to increasing reforestation following harvest, particularly in the South where a 10-year pine regeneration initiative will be implemented. This involves a significant increase in incentives payments through the Forestry Incentives and Agricultural Conservation Programs to complement increased technical assistance. Substantial increases in financial assistance would be provided to State forestry agencies for seedling production and nursery improvement and for tree improvement. This is basic to expanded reforestation. An objective would be to increase publicly assisted reforestation from 326 thousand acres per year in 1978 to 840 thousand acres in 1981, 935 thousand in 1982, 1220 thousand by 1985, and 1300 thousand by 1995. These attainments would occur through coordination with forest industry programs that assist nonindustrial private landowners.

Improved wood utilization represents a highly cost-effective means of increasing wood supplies immediately as well as in the future. Technical assistance to loggers and processors would be increased to avail operators of proven procedures for improving harvesting, processing, and use of wood and wood-based products. Utilization improvement includes many opportunities to convert wood waste to energy uses. A hardwood management and utilization initiative would be implemented in the East whereby low quality trees would be removed and converted to practical uses leaving high quality hardwood stands to mature for future consumption.

Since a major objective of rural forestry assistance is to increase timber supplies, it is useful to translate how the Program would contribute to the supply pipeline. Estimates of the volume of wood generated or saved currently and in the future as a result of one year's accomplishment (1982) of the various activities are shown below:

Activity	Basis of protection	Volume produced or saved (millions of cubic feet)	When expected (years)
Reforestation	75 ft ³ per acre annual growth	3,500,000	30-120
Timber stand improvement.....	25 ft ³ per acre increased annual growth.....	1,000,000	20-110
Timber prepared for harvest	State foresters' projections	345,000	1-3
Improved utilization of wood.....	State foresters' projections	228,000	Annual

Funding for the program would need to be \$32.1 million in 1981 and \$33.2 million in 1982, rising to \$36.3 million by 1985 and \$47 million by 1995.

Urban forestry assistance

The Program includes a significant increase in financial and technical assistance to States and cities for urban and community forestry. Projected funding levels are \$5.6 million in 1981 and \$6.2 million in 1982, rising to \$8.1 million by 1985 and \$10.8 million by 1995. The primary benefit of the urban forestry program is improvement of the quality of life in urban areas through planning, management, and care of trees both in large cities and small communities. This improvement occurs through changes in environmental, economic, and aesthetic conditions. Urban trees reduce noise, improve air quality, increase residential values, reduce energy consumption by modifying building temperatures, and improve outdoor recreation opportunities. Assistance would be increased for planning, planting, care and maintenance, utilization of urban wood wastes and conversion to energy, multiple-use management (e.g., recreation and wildlife habitat), training, and demonstration projects and pilot tests.

Projected program accomplishments as expressed by urban areas assisted are 2.8 thousand 1981, 3.5 thousand in 1982, 5.5 thousand in 1985, and 7.2 thousand in 1995. The apparent discrepancy between 1978 accomplishments and those targeted for the future (Table 2) is due to improved definition of the accomplishment category and reassessment of existing urban areas.

Assistance in management, planning, and technology implementation

The Program would increase assistance to States for developing more efficient State forestry organizations, increasing State forest resource planning, and transferring promising research results and other new technology to potential users. Projected funding is \$7.7 million in 1981 and \$7.6 million in 1982, dropping slightly to \$7.1 million by 1985 and \$6.8 million by 1995 as organization management and planning assistance reaches a maintenance and updating stage.

Organization management assistance would be provided on request to State forestry agencies for such areas as: organization and staffing, workload analysis and work planning, program evaluation, personnel systems, safety, information and education, automatic data processing applications, and other administrative and managerial needs and opportunities.

Planning assistance would emphasize preparation of high quality State Forest Resource Plans, development of analysis techniques, better inventories of forest resources, and an increase in breadth of interdisciplinary skills. Acreage included annually in State Forest Resource Plans would approach 200 million acres. Effects of this planning emphasis would include comprehensive and implementable forestry plans for the States, increased reliability of State input to RPA, greater scope of resource management considerations, and increased production potential.

The implementation of research results and other new technology would be expanded through improved coordination of technology transfer systems, pilot tests, and demonstrations of improved management, protection, and utilization techniques.

General forestry assistance

The Program includes \$10.2 million in 1981 dropping to \$900 thousand by 1995 for GFA projects. These are special purpose projects. FIRESCOPE, a research development and application program in cooperation with the State of California, and other special projects involving the Boundary Waters Canoe Area and demonstration of Dutch elm disease control would be terminated no later than 1985. Only the Pinchot Institute for Conservation Studies would be funded beyond 1985.

Allocated funds

State forestry agencies participate in several programs for which funds are appropriated to other USDA agencies and then allocated to the Forest Service (Table 2). Projected Program funding for these allocated programs is:

[In millions of dollars]

	1981	1985	1995
Forestry incentives program.....	30.5	40.8	48.2
Agricultural conservation program.....	5.9	6.6	7.4
Rural community fire protection.....	5.1	8.7	9.1
Soil Conservation Service programs (watershed planning, flood prevention, river basin surveys, and resource conservation and development).....	9.7	8.6	8.5
Total.....	51.2	64.7	73.2

1981-85 PROGRAM OF NATIONAL ASSOCIATION OF STATE FORESTERS

The National Association of State Foresters is composed of the directors of the state forestry agencies of each state. The primary responsibility of their agencies is to conduct forestry work for the public good on state and privately-owned forest lands in their respective states. In cooperation with private, federal and other state agencies, organizations and individuals, the State Forester works to direct and strengthen all forestry programs within that state.

Nonindustrial private forest lands, comprising 58 percent of the productive forest area in America, are the key to meeting future needs for wood products and other benefits both tangible and intangible. State Foresters are responsible for the protection of these lands and for providing technical advice and assistance in their management. Keeping in mind both the needs of the public and the rights of private landowners, the National Association of State Foresters has established goals for these lands and defined both long-term and short-term objectives for private forestry, which will help the Nation meet future needs for renewable resources.

Privately-owned forest lands are a great national asset, providing public benefits far beyond timber products. The National Association of State Foresters fully supports the right of a private citizen to own forest land and to pursue personal objectives on that land, as free as possible from government regulation.

Moreover, the Association believes that the public benefits derived from well-managed private forest lands should be supported by public contributions for their protection and management. Good stewardship is the responsibility of every landowner. The private landowner should expect to make the necessary investments to achieve his own goals. The public should expect to carry the burden of management to achieve public values and objectives. Costs of private forest management should, therefore, be a shared responsibility between federal and state government and the landowner. State forestry programs are the vital link between private ownership and public need for the forest resource.

NATIONAL GOALS 1981-85

In furtherance of this overall philosophy of shared responsibility and cooperation and to help meet the Nation's needs for renewable resources as shown in the 1980 Renewable Resources Planning Act Assessment, the National Association of State Foresters has adopted a set of goals that chart a course of forestry cooperation and provide a context for each state's plan of action. They are not listed in order of priority, since each is important in a significantly different way. The association believes that the achievement of these goals is the minimum action necessary to ensure that the future forest needs of the Nation are met. These goals include:

- *Funding of the Cooperative Forestry Assistance Act of 1978 at a level consistent with the 1980 Renewable Resources Planning Act Program as approved by the Committee of State Foresters.

- *Enactment of legislation which provides both a tax credit for reforestation, timber stand and other capitalized forest management costs, and allows for the early recovery of these costs.

- *Amendment of inheritance laws to enhance the ability of families to retain and manage their lands for long-term timber production, rather than forcing them to sell their land or timber to meet inheritance tax obligations.

- *Reduction of capital gains tax rates on timber income and assurance that this tax treatment is available to all private forest landowners.

- *Adequate funding of federal programs for protection of the forest resources. Protection from fire, insects and diseases is fundamental to all other forestry activities and programs.

- *Emphasize more effective utilization of renewable forest resources, especially to replace nonrenewable resources, with particular emphasis on the conservation and generation of energy to replace imported oil.

- *Enact legislation implementing a pilot program of loans to provide periodic income to forest landowners.

- *Modification of the federal manpower programs to permit those employed by these programs to carry out forest land improvement work for private nonindustrial owners.

- *Increased funding for the Forestry Incentives Program (FIP) to help meet future national needs for timber through increased productivity on private nonindustrial forest lands.

- *Increased funding for forest research to achieve improved management of forest lands.

- *Provide for expanded collection of resource and landownership data to evaluate past program performance and to help develop future public and private programs to assist private nonindustrial landowners.

- *Funding of the Renewable Resources Extension Act of 1978 at the authorized level (\$15 million).

- *Implement legislation providing federal disaster insurance for timber, to cover the full value of timber and/or investments at the time of loss.

- *Funding urban and community forestry programs to help improve the environmental quality of urban areas along with providing for the general well-being of the majority of urban residents.

- *Provide greater coordination of programs which provide increased information and technical assistance to private forest landowners through the state foresters, consultants, extension service agents and industry foresters.

- Provide better timber market information to assist private landowners in management and marketing decisions.

- Achieve through voluntary programs water/air quality objectives defined by federal/state law.

Provide accurate and detailed information to private forest landowners on the costs, returns, and benefits of improved forest management.

STATE GOALS 1981-85

Although the National Association of State Foresters endorses common national goals, it does not propose state-level goals which apply equally to all states. Each state is unique in its resources and needs. However, a coordinated state plan with goals appropriate to each state is strongly encouraged. Therefore, the following goals are for consideration by the states:

Provide adequate funding for state forestry agencies for the protection and management programs of forest lands and related resources.

Develop reasonable and uniform state tax policies which promote the retention and sustained management of forest land for timber production and other forest benefits.

Achieve water and air quality objectives defined by federal and/or state law through voluntary programs.

Develop and implement state incentive programs that will complement the federal cost-sharing Forestry Incentives Program (FIP).

Develop and implement long-range comprehensive plans for the protection and development of the states' forest resources.

Develop and implement programs which limit the legal liability of private landowners who allow public use of their forest lands.

Promote coordinated public and private forestry education programs.

Promote state level systems of timber price reporting that provide landowners and the public information on timber values.

Evaluate and promote the effectiveness of public and private forestry assistance programs.

Strengthen forestry research through the coordination of public and private research agencies at the state level.

Initiate and maintain education programs to better equip foresters to work with private nonindustrial landowners.

Support independent forestry committees that promote and coordinate all state level efforts to increase the productivity of private nonindustrial forest lands.

INDUSTRY GOALS 1981-85

The National Association of State Foresters does not set goals for the forest industry. The Association can, however, suggest courses of action which would be mutually beneficial to both the industry and the Nation. The following actions, if vigorously pursued by the forest industry, will help achieve America's forest resource goals:

Provide adequate financial support to strengthen state, regional and national forestry associations, including financial support for state forest productivity committees.

Develop and implement an intensive public information program backed by adequate staff and funding.

Support landowner assistance programs (public and private) which perform forest management, tree planting, and stand improvement work on private nonindustrial forest lands.

Motivate and help owners of private nonindustrial forest lands to reforest or improve their stands, especially when timber is purchased.

Strengthen and expand the Tree Farm Program.

NASF 1981 LEGISLATIVE PROGRAM

The Resources Planning Act assessment for 1980 shows that, if current practices are continued unchanged, by the year 2000 this Nation will experience serious shortages of timber, outdoor recreation areas, clean water, wildlife habitat and many other benefits provided by productive forest land.

At the current levels of management, forest resources cannot long sustain the schedule of projected increases in demand. Unless present management practices are improved, the Nation will experience substantial price increases for wood products and a significant reduction in softwood inventories. Recent findings of the Forest Industries Council—Forest Productivity Project—supports this conclusion. The Council's study of the major timber producing states shows that there are opportunities on all forest ownerships to increase productivity with the greatest opportunities on the private nonindustrial forest lands. If these opportunities are captured, then the United States can grow sufficient timber to:

(a) Minimize adverse consumer cost impact through an adequate domestic supply; and

(b) Build the potential for an international net trade surplus of forest products.

Of all the economic opportunities for increasing future timber production, 74 percent lie within the borders of nonindustrial private ownerships. Industry and government forests are already producing at much closer to capacity. The present alarming trend, however, is for the private landowner to harvest his timber without making the necessary investments to reforest the cutover area.

Millions of acres of private land harvested since 1972 are already in this situation—cut over but not reforested—and it's estimated that hundreds of thousands of acres are added to this category each year. Many private nonindustrial landowners are simply unable or unwilling to make the investments in reforestation without additional incentives to reduce the risk.

The State and Private Cooperative Programs authorized by the Cooperative Forestry Assistance Act of 1978 are aimed at providing those incentives. Through the state forestry organizations, the federal government can aid the private landowner with financial and technical assistance and protection from fire, insects and disease. However, to be effective in meeting long-term future needs, these programs require sustained and increased funding levels.

The national goals listed elsewhere in this brochure are believed by the Association to be the minimum action necessary to confront that problem. Each state forester will work within his own state to achieve those goals which will improve and strengthen the forestry programs in that state.

However, if America is to meet its future needs for renewable resources, favorable action by Congress on appropriations and related forestry legislation is essential. The National Association of State Foresters supports the following appropriations levels for U.S. Forest Service-State Forestry and related programs in Fiscal Year 1982:

Forest insect and disease management—\$33,000,000. Integrated pest management strategies will be stressed with particular emphasis on spruce budworm, gypsy moth, bark beetles, Douglas-fir tussock moth, and dwarf mistletoe. Detection and evaluation responsibilities will cover 505 million acres of high-value forest lands.

Rural fire prevention and control—\$40,000,000. Intensive fire protection will be provided on wild lands, high-value watersheds, managed plantations and other valuable lands, especially where they border urban areas. Fuel management activities will be emphasized and the number of acres burned should be held to 1.78 million. This is an insurance program to help protect the public investment in state and private forest management.

Rural forestry assistance—\$33,000,000. Forest Management assistance will be increased with emphasis concentrated in the South and East but some increase in the West as well. An expanded program of pine reforestation in the South is included, as is a hardwood management and utilization initiative in the East. Objectives will include: 470,000 acres of reforestation; 250,000 acres of timber stand improvement; 345 million cubic feet of timber prepared for harvest; 228 million cubic feet of improved wood utilization; multiresource management plans for 4.5 million acres of forest land; assistance to 270,000 woodland owners; and technical assistance for dispersed recreation, forage production, soil and water protection and improvement, and 930,000 acres of wildlife habitat improvement.

Urban forestry assistance—\$6,000,000. This will provide a high level of technical assistance to aid in the establishment, protection, management, and utilization of trees for environmental enhancement, amenity values and energy conservation. Approximately 3,500 communities, towns and cities will be assisted.

Assistance in management, planning and technology implementation—\$8,000,000. Strengthened assistance will be provided to state forestry agencies to promote better planning, to increase efficiency and effectiveness, and to help get new knowledge and technology put to use. Emphasis will be placed on forest resource planning, including the development of better inventories of forest lands, analytical technologies, and the preparation of state forest resources programs which will cover a total of 180 million acres.

Gifford Pinchot Institute for Conservation Studies—\$700,000. Research, workshops and symposia will be continued at the Pinchot Institute which, in addition, to being a national historic landmark, is rapidly becoming a national focal point for research and education activities related to the conservation and wise use of the Nation's natural resources.

Firescope—\$2,400,000. Development and implementation will be continued on this system for coordinating mobilization and fire fighting efforts on multi-jurisdictional fires. A number of the principal system components, such as the mapping program,

the Incident Command System, and the fire behavior and predictive modelling module will have application in several different geographic areas of the country.

Special projects—\$5,800,000. Funding would be provided for special projects that include demonstration of Dutch elm disease control and elm tree utilization and assistance to the State of Minnesota and to resort owners and operators impacted by expansion of the Boundary Waters Canoe Area.

Forestry incentives program (USDA-ASCS budget)—\$33,000,000. Activities will be doubled, with the emphasis concentrated in the South, East and West Coast to coincide with increased management activities in the Rural Forestry Assistance program. Objectives will include 400,000 acres of reforestation and 365,000 acres of timber stand improvement.

Agricultural conservation program (USDA-ASCS budget)—\$15,100,000. (Standard ACP program—\$6,100,000; fuel wood project—\$9,000,000.) Activities to improve the quality of timber stands and establish new stands for conservation purposes will be increased with emphasis in the South, East and West Coast. Objectives will include 65,000 acres of reforestation and 50,000 acres of timber stand improvement.

The New England Fuel Wood Project to improve hardwood stand management through provision of fuel wood for home heating would be expanded to include 42 states. Thinning of hardwood stands would provide 1¼ million cords of fuel wood, approximately 100,000 cubic feet of solid wood.

Rural community fire program (USDA-FmHA budget)—\$6,000,000. Activities related to the fire protection of human and natural resources in small rural communities will be intensified. Emphasis will be placed on increasing the number of approved applications for community assistance to 3,600.

Forest service research—\$144,000,000. The improved technology developed through forest research contributes to better management and production of natural resources from all the Nation's forest and range lands, private as well as public.

McIntire-Stennis cooperative forestry research (USDA-SEA)—\$13,000,000. Forestry Research at public universities will be strengthened. Federal appropriation which must be matched by the states providing necessary dependable base which encourages responsible long-term forestry research.

Renewable resources extension (USDA-SEA)—\$15,000,000. An expanded program of education and information would be provided to forest and range landowners, processors, and users of natural resources that would complement the technical assistance provided through the cooperative forestry assistance programs and would implement the Five-Year National Plan for Renewable Resources Extension Programs.

STATEMENT OF WILLIAM H. GREINER, EXECUTIVE VICE PRESIDENT, SOIL
CONSERVATION SOCIETY OF AMERICA

The Soil Conservation Society of America (SCSA) is a non-profit, scientific and educational organization dedicated to promoting the conservation of land and water resources. The Society appreciates the opportunity to comment on the Resource Planning Act (RPA).

The Society is concerned with all natural resources, not only in the United States and Canada, but the world. It recognizes that tremendous pressures are going to be placed upon these resources during the decade of the 1980's and beyond.

The RPA process looked at resource protection to the year 2030. It has been pointed out by many authorities that the United States population will increase dramatically between now and the year 2030. Some predict an 81 million increase with significant variations by regions. Assumptions also indicate that the gross national product will probably double by the year 2000 and redouble by 2030. In addition to this, disposal income will rise, and sufficient capital for investments in natural resources will be needed. Figures also indicate that approximately ¾ of the United States is in forest or rangelands, with approximately the same area in each category. Some portions of the U.S. are more heavily forested than others and these regional problems must be taken into consideration in any assessment that is made which affects forests, forest products, and rangelands.

The SCSA has recognized that the protection of prime forest land is becoming increasingly important. Forests provide a multitude of non-commodity benefits in addition to wood fibers. These are usually lost when forest lands are converted to other uses. The Society is interested in all areas of the RPA process; however, remarks will be confined primarily to water, forests, rangelands and mineral elements of the national forest program. Some discussion will also be given regarding the state and private cooperative and research programs.

Rangelands

The western regions of the United States contain most of the nation's rangelands. Much of the forage used for livestock production and wildlife species are derived from these rangelands. In addition, recreation and watershed values accrue. Problems that have occurred in the past are over-grazing due to competition between livestock and big game in some areas. Approximately 2/3 of all rangeland is privately owned. However, public lands are especially important to range operations and management in certain locales. Projections indicate the demand for red meat will rise in the years ahead, and as a result, the demand for use of rangelands and forages will also rise.

The Society would like to encourage those responsible for the management of the nation's rangelands to make adequate provisions to ensure that over-grazing does not occur which will result in damage to the resource and increased erosion on unprotected lands. Much concern has been expressed regarding the erosion that is occurring on government as well as private rangelands due to over-grazing.

We must use rangelands for grazing in order that the production of red meat can be increased according to needs, but the use of these lands will take careful planning and close cooperation between government administrators and ranchers (land users).

The rangelands of this country have in the past and will continue in the future to provide a great deal of recreation for the citizens of this country. This is in the form of hunting, fishing and other uses. These recreational demands will increase as the work week decreases and per capital income rises. However, careful planning must accompany these uses. In recent years there has been a dramatic rise in the use of motorized off-road vehicles such as snowmobiles and trail bikes. This has had a significant impact on the forests and rangelands of this country. This had not been recognized 20 years ago, but the problem now confronts this country and must be examined in any future planning. Conservationists are concerned about the effect these off-road vehicles have with respect to destroying vegetation and creating more problems from erosion and degradation of the environment.

In summary, it appears that much longer planning horizons must take place regarding the management of rangelands and it should also be recognized that higher levels of funding will be necessary to maintain and increase range improvements. This funding level has not been adequate in the past and the Society would urge that a higher priority be given in the budgeting process for forests and rangelands.

Water

All predictions for the future indicate that the use of water will increase dramatically between now and the year 2030. The forests and rangelands of this country, both government and private, contain the headwaters of most streams, and much of the water available for human use can be considered an integral part of the forest and range resource. Proper watershed management on forests and rangelands will be needed to meet the problems of adequate water supplies in the future. The impact of how forest lands and rangelands are used in its relationship to water quality will have a noted effect on this resource. Water must be an integral part of the planning process in any long range plan dealing with forest and rangelands. It is questionable whether the Resource Planning Act has given a sufficient amount of study to this important resource. There appears to be a lack of information about the cost of various actions that will be taken to offset potential problems arising with respect to water use and water quality. As a result, the cost of management responses in the RPA process seems to be inadequate.

State and private cooperative research programs

The United States has long recognized the need for adequate research in many areas of agriculture, conservation and related programs. Research in forestry programs has been in existence for a number of years under various authorizations by Congress. This is good because without adequate research it would not be possible to meet the needs of this country for wood products. RPA stresses the need for comprehensive forest and range research to assist in achieving national goals for these resources. Research is necessary because it produces the foundations and knowledge for advancement in technology and methodology, and research will produce much needed information with respect to increasing the yields of our forests and rangelands in the coming years.

It is questionable whether or not the RPA has given sufficient consideration to research needs for forests and rangelands. SCSA would urge that high investments be made in research for forestry and rangelands which will provide dividends to present and future generations. This, also, needs a higher priority in the budgeting process.

State and private forestry involvement

The 1980 RPA program places great reliance on state and private forestry programs, not only for timber production but for non-commodity values as well. However, the program is not clear regarding who is to be responsible for the various phases of the program and how it is to be carried out. The activities of other federal agencies with program efforts in these areas is rather unclear as is the involvement of state agencies. While some increases are proposed for state forestry agencies, the increases in reforestation, recreation and wildlife and how they are to be achieved is not significantly explained. It must be recognized that many state forestry agencies lack legislative authority to work in fields of wildlife, recreation, wilderness, etc. Also, the relationship of other agencies is not adequately spelled out. The involvement of state and private forestry interests is imperative to the future well-being of forestry programs.

Timber resources

Experts indicate that production of wood products will continue to be a major use of forest lands in the years ahead. Wood is a widely used material in this country as well as the world. Nearly $\frac{1}{3}$ of the nation's land area is forested, but about $\frac{1}{3}$ of that is either incapable of growing commercial timber or reserved for other uses. As a result, there are approximately 482 million acres of productive and available timber land that can be used. More than 28 percent of this land is publicly owned, another 14 percent held by forest industries, and the remainder, or about 58 percent, is in small woodlands owned by private citizens. Timber supplies will increase during the next half century or to the year 2030; however, the demand for wood products is projected to increase faster and there will assuredly be price increases. The consumption of wood in various manufactured forms has been rising since the early 1950's and projections indicate this trend will continue.

There are many uses for wood, such as pulp wood, plywood, composition board, fuel, and the list goes on and on. It will be necessary in future years to utilize both our public and private forest lands to their fullest potential to meet these needs. However, this use must be done in tune with recognized management concepts. Mature trees must be utilized rather than left to die and decay.

The 1980 RPA program proposes that less be cut from federal lands and more trees and forest products be taken from state and private forests. This proposal should be questioned quite seriously since 51 percent of the country's softwood saw timber resource is on national forest lands. It is questionable whether or not state and private forests can meet the demand for timber resources in the coming decades. If these demands cannot be met it will be detrimental to the American consumer because higher prices for wood products will result. Forestry experts have recognized that the greatest opportunities for increasing timber supplies over the long term lies within the nation's commercial timber lands, and these commercial lands are capable of growing more timber faster than it is now doing.

During the decade of the 80's, when housing demands are expected to place increase pressure on supply, potential sources of additional timber supplies are the large inventories of mature and over-mature timber on public lands, particularly the national forests in the west. These trees must be utilized to meet the demands of this country. The use of these trees will also have a beneficial effect because the thinning resulting from their use will give other trees more room for growth and will result in much better species and varieties.

The public participation process

In recent years it has been quite evident that federal, state and local governments have, through various laws and regulations as well as determined efforts, involved the public in planning procedures. This is good but it also contains problems. Individuals and groups must be encouraged to participate in planning and other activities relating to RPA. However, it must be recognized that the average citizen is not familiar with forestry terms and terms that have been generated in the RPA report. He or she cannot be knowledgeable about all aspects of forestry. Therefore, it is imperative that reports be written in understandable terms and meetings conducted in the same manner. As an example, the terms "highbound" and "lowbound" are confusing language to the average citizen. The terms are easily understood by people employed in government agencies that use these terms, but the average citizen has no conception of what is meant by many of the terms unless an adequate explanation is forthcoming. This same line of reasoning can also be equated to all aspects of the RPA program. To achieve full participation by the public, government agencies will need to be patient and understanding so that an adequate communication can exist between the planner and the public participant.

Various documents report that there are two public planning processes, the formal and the informal. Both of these processes must be utilized to their fullest

potential. However, it would seem that more information can be forthcoming through the informal process because the participant will be more likely to ask questions and submit responses than in the formal hearing process. Therefore, government agencies involved implementing the RPA are encouraged to involve as many participants in the informal process as possible. It seems that this would achieve the desired end result more readily than any other method. However, it should be noted that it was difficult to follow the planning strategy as it related to public participation in the RPA process. Assurances must be made that the program from all elements, including inventories through program selection and implementation, will be adequately described to insure that public participants will be involved in the total process.

Minerals

The SCSA recognizes that a large percentage of the minerals of this country are located on forests and rangelands. The Society is concerned about the growing impact of surface mining on our soil, water, plants and related natural resources. That impact is growing because the domestic mineral industry continues to expand. It must. Minerals and the mining industry have played a major role in the development of the United States. Their importance to our material well-being, economy and the country's national security cannot be underestimated. Surface mining will continue to expand because a very high percentage of the country's metallic and non-metallic minerals are obtained through this process. Surface mining is now common in most states. The Society is concerned about the surface mining impact on the environment. It can affect a wide range of soils, vegetation, ecosystems, watershed and climatic zones. In any planning that might occur in the RPA process, the Society would like to encourage more research and development in land reclamation technology. This is needed because every site to be reclaimed has its own special problems. New techniques must be developed and known practices applied to help solve special problems. The Society would also like to encourage better planning and more long range planning before mining. It should be known precisely what existed before if it is hoped to improve reclamation later. Pre-mining plans should include complete inventories of soil, water, overburden, plant communities, wildlife and other natural resources. And the Society would like to encourage reclamation techniques that provide the greatest choice of alternative land uses. The widest possible choice of land uses later is what the proper reclamation technique should provide, given the physical and chemical make-up of the soil.

Conclusion

The Soil Conservation Society of America appreciates the opportunity to comment on the RPA process. Not all of the areas in the RPA report were discussed in this statement. SCSA compliments USDA and all individuals involved who have assisted with this effort. It is one of the most ambitious resource planning efforts ever attempted by this country and will provide lasting dividends for years to come. Many resource plans will be developed as a result of the RPA process. However, SCSA is hopeful that these plans are not just more plans to be laid upon the shelf for future reference. It is time for the United States, through Congress and the Administration as well as through USDA and other agencies in cooperation with state and local government, to take meaningful action to initiate a much-needed program for our forests and rangelands. It was also pointed out in this statement that the need is apparent for the involvement of the private citizen through the public participation process. Again, this will take careful study on how it can best be implemented. The involvement of agencies at all levels of government plus a wide variety of interested organizations and individuals is readily apparent.

STATEMENT OF R. M. FREDSELL, DIRECTOR, RESOURCES, WESTERN WOOD PRODUCTS ASSOCIATION

We certainly appreciate your action in holding hearings recently to consider the views of people who are concerned with the 1980 Forest Service Program documents pursuant to the RPA. The hearing of September 16, 1980 took place at the same time as the annual fall meeting of Western Wood Products Association where great disappointment and alarm were expressed regarding the scope and mode of the Program as presented. If possible, please include our following comments in the Hearing Record.

Western Wood Products Association represents manufacturers of lumber in the twelve contiguous western states. Our membership currently produces 18 percent of total annual national lumber consumption. Many of these companies are owners

and managers of commercial forest land and yet all are obliged to look to the extensive western national forests as a vital source of timber supply.

In essence we support the position and proposals of the National Forest Products Association as presented at your hearing on September 16, 1980. The timber program outlined in the NFPA statement represents a private forestry commitment that is attainable—but only if the public sector of forest resources can fulfill a productive responsibility in the nation's economy as well. The goal of the forest industry addresses what must be done to achieve self-sufficiency in timber products for this nation to the substantial betterment or our international net trade balance, dampening of inflation and making shelter available for American families at an affordable cost. Diminishing Forest Service resource productivity programs is an incredibly myopic short run approach for the purpose of playing budgetary number games. We also believe that all other renewable resources that are glossed over in the present unambitious Program, can be provided in ample quantities to satisfy present and future demands if the Congress will give some strong redirection.

Since the inception of RPA we have encouraged the development of a system that was clearly recognized as a rational means of assessing and responding to national needs for renewable resources in the most balanced and productive way possible. Now we seem to be witnessing the destruction of this system before there has been any reasonable opportunity for it to work as Congress intended. As recently presented, the Forest Service Program is a blueprint for underachievement by the responsible agency and submarginal productivity from the National Forest in all respects except for wilderness and roadless recreation.

Even if Congress directs that national forest programs proceed to meet the "high bounds" of the Program as presented, there would be in inappropriate ceiling constricting the development of forest plans pursuant to NFMA. Use of the very conservative and misnamed "high bounds" would impair productivity for years and act as a disincentive for the Forest Service to manage the national forests for badly needed productivity by promoting low expectation forest plans.

Our declining productivity in this country is closely linked to the allocation of resource potentials to limited noncommodity uses and disincentives to manage accessible renewable resources in an optimal manner. Limited use allocations of land also foreclose the majority of outdoor recreational opportunities on public lands. These circumstances are characteristic of the RPA Program and Statement of Policy as presented to Congress. We strongly urge that the Congress totally reject these proposal documents and direct the Forest Service to carry on management of the national forests as was projected by the 1975 RPA Program. This should continue until such time as a new Program can be prepared that is responsive to the Assessment and the obvious needs of the consumers and the nation.

Thank you for this opportunity to comment on one of the most important resource issues which must be resolved in this country today.

STATEMENT OF WILLIAM E. SHANDS, SENIOR ASSOCIATE, THE CONSERVATION FOUNDATION

Thank you for your invitation to testify before the Subcommittee on Environment, Soil Conservation and Forestry during its oversight hearings September 16, 1980, on the Program and President's Statement of Policy required by the Forest and Rangeland Renewable Resources Planning Act. I regret that I must be out of the city on that date, and thus will be unable to testify in person on behalf of The Conservation Foundation. Instead, I am writing this letter to present the views of the Foundation on the RPA Program and Statement of Policy.

The Conservation Foundation is a 32-year old non-profit research and communications organization based in Washington, D.C. Its principal purposes are to improve the quality of the environment and to promote wise use of the Earth's resources. The Foundation achieves these purposes by conducting interdisciplinary research and by communicating its views and findings to policymakers and opinion leaders. The Conservation Foundation does not have members and is not a lobbying organization.

Historically, the Foundation has had an active program devoted to policy for the nation's public lands, including the national forests. This has included a two-year study of the 49 national forests east of the 100th meridian (Shands and Healy, *The Lands Nobody Wanted: Policy for National Forests in the Eastern United States*, The Conservation Foundation, 1977) and other reports on forest policy issues. Most recently, under a cooperative agreement with the USDA Forest Service, The Conservation Foundation produced a *Citizens' Guide to the Resources Planning Act*, which involved a comprehensive analysis of the Act and Forest Service programs to implement it, and sponsored three meetings to inform key leaders about RPA. A

meeting for leaders from a seven-state region was held in April at Cable, Wisconsin; another for national leaders was held in June at Coolfont, West Virginia; and the third, for 100 Forest Service personnel from across the nation, was held in July at Salt Lake City, Utah. Improving the RPA process and products was a major objective of The Conservation Foundation project.

At the national and Forest Service meetings, we asked participants to identify what they believed to be the major issues associated with RPA and to propose actions to resolve them. A copy of the Foundation's summary report of these two meetings is attached. It is the basis for the comments which follow.

At the outset, the Forest Service is to be commended for its work on this second RPA Assessment and Program. Overall, it is much improved over the 1976 versions. While The Conservation Foundation believes that the 1980 documents have their shortcomings, we have been impressed with the Forest Service's willingness to discuss these candidly and forthrightly with the public at our meetings and at other meetings. We are confident that the RPA staff is dedicated to producing a superior update of the RPA Program in 1985.

In this letter, we want to focus on the high-low bounds concept and the RPA Program as a problem-solving mechanism.

The high-low bounds concept

This approach (which did not originate with the Forest Service) to describing the RPA Program and investments required to support it has proven to be most confusing to the public and, I daresay, to Forest Service staff in the field. The intent of the Resources Planning Act was to set forth long-term renewable resource objectives, establish output targets to accomplish these objectives, and estimate the investments necessary to achieve them. This does not mean that the administration has to propose annual budgets equal to the RPA targets, nor does Congress have to appropriate the funds. But the Program, in our view, is to establish long-range goals and provide benchmarks for the Executive Branch, the Congress, and the public to use in judging progress toward achieving the goals. However, instead of clear funding targets over the years, the 1985 Recommended Program is depicted in terms of a "high bound", which would provide for moderate investments in renewable resources development, and a "low bound" that for the next five years is essentially the status quo. Any administration budget that falls within the range of these bounds, in the Administration's view, is consistent with the RPA Program. The bounds concept, in our view, seriously undermines the intent of RPA.

The Program does establish long-term direction for renewable resources development, as defined in the Program's objectives for each resource element. However, these can be achieved only if all elements are funded at or near the high bound. Budgets or appropriations which fall substantially below the high bounds will not achieve Program objectives, even though technically they are in conformance with the Administration's definition of the Program.

Further, the bounds approach appears to aggravate the possibility that various resource elements might be funded at levels that vary greatly. We note that while there is a relatively narrow range between the bounds for timber (12.5 mmbf versus 11 mmbf in 1985), the range between the high and low bounds for wildlife habitat improvement, anadromous fish, and trails is proportionately much greater. In short, budgets and appropriations could conform to the RPA Program but result in a program that was seriously imbalanced among the various resources.

We also suspect that there will be problems in disaggregating these ranges to the Forest Service regions and the individual forests.

Finally, we believe that the obfuscation of the Program through use of the bounds approach could discourage public participation and even contribute to public disillusionment in the entire RPA and Forest Service planning process.

The Subcommittee's general acceptance of the high bound as the 1980 Recommended Program is a wise course of action. We hope that the administration will be persuaded to abandon the bounds concept when the 1985 update is prepared.

The RPA as a mechanism to resolve issues

It was the general consensus of those who attended the National Conference at Coolfont that the RPA Assessment and Program should clearly define the important renewable resource issues confronting the nation over the next 40-50 years, and then describe measures to deal with them. Both the national leaders at Coolfont and Forest Service personnel at Salt Lake City expressed concern that the 1980 RPA Program did not identify and address the critical resource issues facing the nation. At best, many saw the Program as a "reactive" plan, in which the Forest Service set forth how it proposed to react to a relatively safe set of assumptions about future developments, rather than dealing aggressively with a challenging set of issues. To be sure, the Forest Service did identify 14 issues and, in the Report to the Congress,

articulate policy aimed at their resolution. In the complete Program, some of these are developed further in policy initiatives relating to the relevant resources and Forest Service activities. However, we believe the issues discussion to be inadequate in content and lacking the sense of urgency required to generate public interest in the Program and the achievement of resource objectives over the long term. While some of the issues selected were of pressing national concern (e.g. production of wood from private, non-industrial land, pesticide use), and others could be judged to be of concern to a large portion of the population (Forest Service emphasis on wildlife and fish, Eastern National Forests), the discussion is general and innocuous. There is no discussion as to why these are important issues; it must be left to the reader's prior knowledge and imagination. One does not get a sense that these are *critical* issues—issues important to the lives and welfare of individual Americans. If the public is to see value in the RPA process, it will have to be persuaded that the RPA Program, and other Forest Service plans, will deal with the important issues that affect the public generally. Further, there was no discernible link between the issues and the five alternatives chosen for evaluation in the Draft Program.

We urge that the 1985 Update be framed around the resolution of a limited number of major national issues identified by the Forest Service with the assistance of the public. In its analysis of the alternatives, the Forest Service should evaluate each alternative on the basis of how well it addresses these issues. Then the public could use these analyses in choosing between alternatives. Thus the Program would not simply allocate resources to deal with basic assumptions on population and economic growth, as the 1980 Program appears to, but would also focus on resolving important long-term public issues.

The Subcommittee is to be commended for developing the White Paper and Supplemental Statement of Policy, particularly as it identifies issues not adequately dealt with in the Program. We believe that it deserves the endorsement of the Senate, perhaps through a Concurrent Resolution, and urge that this be pursued by the Subcommittee.

In conclusion, the discussions at the meetings we convened on RPA have convinced us that there is broad public recognition of the need for long-range planning for the nation's renewable resources. We found that the RPA Process is generally supported by a broad array of forest interests. For the most part, those participating in the three meetings saw RPA as a workable mechanism for resolving tough issues and providing coherency to resources policy.

We must recognize that RPA is a dynamic process still very much in the developmental stage. The 1979 Assessment and 1980 Program documents are a substantial improvement over the 1975 versions. However, both the 1975 and 1980 Assessments and Programs can be regarded as experiments in the adequacy of data and intellectual processes. The 1985 Program update, which should be nourished by the information in regional and National Forest plans, should provide a clearer picture of the effectiveness of RPA as a management tool.

Even so, The Conservation Foundation feels that there has been considerable progress since 1974, when Senator Hubert H. Humphrey observed "We have a mess on our hands. . . Instead of having a comprehensive plan for the governing and protection of our natural resources, we have tended to focus on each problem individually." With the continued interest of the Subcommittee, hard work by the Forest Service, and continued involvement by the public, we believe that the process ultimately will work as Humphrey and the Act's other authors intended it to.

Enclosure.

CONSERVATION FOUNDATION REPORT ON RPA MEETINGS: NATIONAL CONFERENCE AT COOLFONT, W. VA.; FOREST SERVICE WORKSHOP AT SNOWBIRD, UTAH; ISSUES, CONCERNS AND SUGGESTIONS

While improved and effective public participation in RPA was the principle goal of the Conservation Foundation—USDA Forest Service cooperative project, the ultimate purpose was to improve the entire RPA process. With this in mind, participants at the final two meetings—the National Conference at Coolfont, West Virginia and the Forest Service Workshop at Snowbird, Utah—were asked to identify problems associated with the development of the RPA Assessment and Program and with Forest Service planning at the regional and forest levels, and to suggest how these problems might be addressed.

The two conferences provided insights into RPA Forest Service planning from two different perspectives: one, an informed and heterogenous lay public with national interests; the other, composed of Forest Service staff, an equally informed and heterogenous group, but with specific responsibilities for the implementation of the 1974 law. The viewpoints and perspectives were divergent, but the matters chosen

as "issues of concern" reveal a high degree of agreement among those participating at both meetings. Four broad categories of "issues" were identified.

1. Problems of presentation of the Program and Assessment, particularly their complexity;
2. Data needs and inadequacies;
3. Coordination; and
4. Public participation and communications.

A draft summary and synthesis of the concerns of the two groups and of the suggestions made for addressing these concerns follows. As promised by Project Director William E. Shands, this draft report is being sent to participants of the Coolfont meeting for their review and comment. Comments will then be incorporated into the final report to the Forest Service.

COMPLEXITY AND PRESENTATION PROBLEMS

Complexity

Problems of presentation contribute to and increase the overall confusion expressed by both groups at the complexity of RPA elements and processes. Three factors were identified at the root of this problem.

Linkages. Despite the ubiquitous flow charts, there appeared to be considerable uncertainty at both the National Conference and Forest Service Workshop, about how national Program direction would be reflected in Regional plans and National Forest plans. Participants at both meetings had many questions about the relationship of the regional plan to the Service's State and Private forestry activities and Research. (This was reflected in a number of listings of "unanswered questions" on evaluation forms returned by Forest Service Workshop participants.) How the Program will affect Research, and how Research will respond to regional and forest plans, was never adequately explained at the National Conference.

Associated with difficulty in comprehending linkages between RPA elements and Forest Service activities is a perceived absence of a clear link between the Assessment findings and the recommended Program. Participants at Coolfont asserted that they could not see clearly how the recommended Program responded to the Assessment. There was some skepticism as to whether the developers of the Program actually used the Assessment data (although the Forest Service staff insisted that they did).

The "Bounds" concept. At the insistence of OMB, the Forest Service's recommended program does not describe a single recommended funding level, but presents a high bound and low "bound" for Program funding. Thus any budget request or appropriation level falling within these bounds presumably complies with the Program. There were numerous questions as to whether the concept is workable and what it means in terms of Executive, Congressional and agency accountability. Most participants were not aware of its origins, and questioned what positive advantages it offered the Agency.

Program rationale. Participants at the National Conference, and to a lesser extent, those at the Forest Service Workshop, asserted that the Program failed to include a clearly-worded rationale for the recommended Program and how the Service established its Program "agenda". This problem is related to what National Conference participants perceived as an absence of a "sense of mission" on the part of the Forest Service, which, if clearly stated in the Program, might help define Program objectives. This is dealt with in more detail at the conclusion of this summary.

Presentation

Both audiences expressed considerable confusion over the presentation and format of the current RPA Program and Assessment. Frustration was felt by lay and technical audiences alike at the plethora of graphs and charts used as illustrative materials. For some members of the Coolfont group, the charts and graphs simply had no real meaning—terms such as "roundwood" and "softwood" mean little to the person unfamiliar with forestry terminology. For those who were familiar with the jargon, there were different problems: the graphs and descriptive material omit information which is crucial to understanding the demand for, condition, and productive capability of a given resource. Several examples were brought out in the course of both meetings. For example, Bob Wolf, of the Congressional Research Service, pointed out at the Coolfont meeting that the timber resource graphs omit information on actual timber growth, presenting information only on anticipated demand and timber to be offered for sale under different funding levels. The recreation resource graph is particularly misleading, many participants felt. At first glance, the use line appears to indicate *actual* use (in recreation visitor days) of the forests under different funding levels. RPA staff director Tom Hamilton explained,

however, that the line actually referred to the number of visitors who would be served at some "adequate" level under the different levels. Some participants urged that another line be added depicting the actual number of people the Forest Service anticipates would come to the forests seeking recreation (it is possible, for example, that a family going to a forest for recreation, upon finding the campground closed, might simply pitch a tent by the side of the road—thus still counting as RVDs of actual use), but at a less satisfactory level of service, and with some possible adverse environmental impacts. A third example is the wilderness graph, which depicts acres of wilderness under different funding levels, implying that at the high bound of the Program there would be 41 million acres of wilderness in National forests (the Program so states explicitly). When Coolfont participants observed that the Congress determined the amount of wilderness irrespective of funding, Hamilton explained that the graph actually represented the Forest Service's *capability to manage* a given quantity of wilderness.

Both groups provided numerous suggestions for improving program presentation.

Suggestions

1. The Forest Service should provide additional information, such as that suggested earlier, for timber, recreation, and wilderness and perhaps for other resources as well. Program alternatives would thus be more understandable to both lay and non-lay publics. A more succinct description of program elements, employing descriptive units understandable to laymen (not, for example, "acre equivalents of wildlife habitat"), also would make both Program and Assessment more understandable to a wider range of people.

2. The "linkage problem" described above suggests that a clearer relationship needs to be established between Assessment and Program. There was a suggestion at the National Conference that the Assessment be prepared two years ahead of the Program. A two year separation between the two might better illustrate the connection between a given policy choice and both the reasons and opportunities for it as expressed in the Assessment.

3. Participants also noted that the recommended Program did not specifically address the National issues identified by the Forest Service as priority matters; the Program should be linked to those issues, and the relative differences in resolving the issues among Program alternatives should be more evident. One suggestion was for the Forest Service to assemble alternatives into more coherent and succinct packages, each with a description of the issue(s) it is specifically designed to address, and the policy choices involved.

4. Participants suggested that the Forest Service clearly spell out the rationale for Program priorities.

5. With regard to the "bounds" concept, participants would benefit from a description of it, including its meaning, rationale, and its advantages and disadvantages.

DATA NEEDS AND INADEQUACIES

Both groups recognized and discussed several problems relating to data in general.

First, participants at the National Conference expressed difficulty in understanding the meaning of some units in which program targets are expressed. This is especially true of units used to express National targets which are indirect measures of something—the acre-equivalent for wildlife is a good example. Participants cited a real need for better measures—such as the animal population numbers now being devised by the Forest Service. Further, participants at the National Conference generally felt that units of measure—particularly the acre-equivalent for wildlife, and RVD's for recreation—used in the National Program became meaningless, at least to the public, when disaggregated to the Regions and Forests.

Participants in both groups expressed equal concern over inequalities among resource elements in both amount and type of data available. Timber data is still far and away superior over data for other resources, especially the non-market resources such as wildlife and recreation.

Further, National Conference participants felt there should be more information on forest resources in urban areas. Participants pointed to the brief treatment of urban forest resources in the 1980 assessment, asserting that all renewable resources should be considered by the RPA, including those in urban or non-rural areas (urban forestry is dealt with in more detail later in this report).

Another problem singled out by conference participants relates to the inadequacy of data on resource interactions and tradeoffs. Says Perry Hagenstein, "... data that describe the interrelationships among resources and uses on any category of forests and rangelands are practically non-existent. The Forest Service is faced with making judgement about resources, their uses, and their interrelationships in a

partial information vacuum." (p. 37, *Citizen's Guide*). As a result, the tradeoffs involved in any resource management decision are not evident.

There were also questions raised at the National Conference about the validity of the assumptions used in the Assessment. The Assessment is based mainly on assumptions about population, the gross national product, and disposable personal income. A number of participants at the National Conference were dubious about these assumptions as depicted in the Assessment and suggested that they could be affected by domestic policy choices as well as international developments.

Finally, Derrick Crandall, of the International Snowmobile Industry Association, observed that the Assessment and Program fail to consider adequately what resource objectives might be met by the private sector. For example, he pointed out that snowmobile trails are often both built and maintained by users through agreements with both public and private landowners, at little or no cost to public agencies. These kinds of opportunities, he asserted, are not adequately treated.

Suggestions concerning data needs and inadequacies were quite numerous from both audiences. An analysis of the evaluations received by The Conservation Foundation after both conferences revealed that the majority of those who still had unanswered questions about RPA expressed concern over data adequacy.

Suggestions

1. To clarify the links between National targets and forest capability, participants from both groups suggest that the Forest Service standardize data collection and presentation.

2. Where there are gaps in the data, they should be evident so that corrective action can be taken. Participants suggested that in the Assessment there be a standard format for presenting information. Thus one might see quickly that there was good information on timber demand, but little information on wildlife demand. Because resource tradeoffs are not clear in the data, there is no complete picture of resource problems and/or base opportunities.

3. Participants also urged the development of a more sophisticated display of resource interactions and tradeoffs involved in allocating goals among regions and forests: people want and need more concrete information about the consequences of a given policy choice. The Forest Service also needs to provide additional and improved data for resources other than timber, and non-traditional items, such as urban forestry, deserve further consideration in future Assessments.

4. On the question of the validity of Assessment assumptions, Maitland Sharpe of the Izaak Walton League urged that the assumptions be tested for sensitivity to different domestic policy options (for example, a prohibition on the export of timber) as well as some possible international developments.

COORDINATION

Intra-agency coordination

Forest Service Workshop participants from S&PF and Research indicated during both formal and informal sessions that they are still uncertain about their roles in the RPA process. Several individuals, both in evaluation questionnaires and comments to CF staff, perceive little or no relationship between their work and that of the National Forest System. (This feeling of alienation and/or distance appears to be less pronounced with S&PF than with Research.)

Both S&PF and Research have difficulty in seeing how their work ties into a program which 1) emphasizes the National Forest System (understandable perhaps, since this is the largest Forest Service Program), and 2) responds to national needs and objectives and is susceptible to relatively frequent Executive Branch and Congressional policy and budgetary changes. S&PF, for example, must respond to the needs and policies of the states, which may not be absolutely consistent with national policy. Research, on the other hand, apparently finds it difficult to change direction quickly because its work involves long lead times. Research is further constrained by staff makeup; a shift in emphasis from timber to recreation, for example, would require a major change in staff makeup. Both S&PF and Research staff expressed uncertainty as to how their programs will be addressed in the regional plans.

Despite present Forest Service activities, uncertainty remains about the extent of coordination with other federal agencies and state agencies. Participants at both meetings generally felt that input from other agencies, such as the Bureau of Land Management and state wildlife agencies, is not apparent either in the Program or other planning documents. (However, there were no specific suggestions about how this should be dealt with.)

Suggestions

1. Both groups asserted that the Washington Office define more clearly the contributions of S&PF and Research in meeting RPA objectives.

2. The Forest Service also should improve liaison between Research (and the two S&PF area offices in the East) and regional foresters in the preparation of regional plans.

A WORD ABOUT URBAN FORESTRY

At the Regional RPA meetings in Wisconsin in April urban forestry emerged as a prime concern of a number of participants, and not only those representing urban minorities. There was at the time considerable discussion concerning the brief treatment of this subject in the 1980 Program and Assessment.

The interest in urban forestry kindled at the Cable meeting was further pursued and developed by several participants at the Coolfont meeting. Jane Galvin-Lewis and Wyman Solomon, both of the National Council of Negro Women, urged that the Forest Service devote greater attention to urban forestry because it represents an ideal avenue of communication with urban and minority citizens whose awareness of and interest in natural resources is not well developed. Wyman Solomon stressed the potential of an urban forestry program to contribute not only to an improved urban environment, but to improved social welfare as well, through provision of jobs for urban youth. Other conference participants, one an urban forester from Indiana, stressed the importance of including natural resources in non-rural areas in future Programs and Assessments as integral parts of the nation's forest and rangeland resources.

Suggestion

The Forest Service should take advantage of the enthusiasm displayed at these two meetings; one suggestion was that future efforts bring Forest Service personnel to the cities, in addition to taking urban citizens to the forest. The implication was that the Forest Service staff should be exposed to urban needs and, further, that urban residents felt more comfortable on their home territory.

PUBLIC PARTICIPATION AND COMMUNICATIONS

Public participation and communications were given a great deal of attention by both groups.

Poor Public Understanding of RPA. Both workshop groups felt there was poor public understanding of RPA and that RPA as a process lacked visibility. There were many suggestions for correcting this.

RPA As A Concept. Both groups agreed that RPA needs to be conceptualized and packaged so people can understand it, and in a manner that will encourage people to participate in the process. The Forest Service needs a simple, recognizable symbol which asserts not only with RPA exists, but that there is a reason for it.

Suggestions

1. Suggestions cited earlier in this report under *Complexity* and *Presentation* should serve well in improving public understanding of RPA. Additionally, however, Coolfont conferees thought that if relevant information were directed to specific constituencies in specially prepared bundles, each interest group would be in a better position to keep abreast of the planning process as it relates to its own concerns. Care would have to be taken, however, to ensure that information pertaining to each resource be clearly linked or associated with other resource information when an understanding of such relationships is important. For example, the relationship of timber operations to wildlife management should be explicit in any information directed to the wildlife constituency.

2. Forest Service participants admitted to a lack of understanding of RPA by their colleagues. Because the Forest Service needs its own core of well-informed individuals, it was suggested that the Forest Service consider designating an individual or group of individuals at every organizational level whose responsibility it would be to know the RPA process and communicate it to their colleagues. Special materials would probably assist these persons in such a task.

3. At the Forest Service Workshop, Jack Roberts illustrated the utility of seeking professional communications advice in establishing a new "image" for RPA. While the "Plan Ahead" idea may or may not be appropriate, Roberts' development of the idea showed how such a symbol could serve to anchor RPA in the minds of the public and unite the Forest Service in its RPA implementation task. The enthusiasm after Jack's talk for this concept suggests the potential of such a symbol to clarify, enliven and underscore the importance of RPA.

A "SENSE OF MISSION"

Both groups, but especially those at the National Conference, expressed concern that the RPA Program did not express a clear "sense of mission" on the part of the Forest Service, nor really address critical resource issues. At best, many of those at Coolfont felt the Program to be a "reactive" plan, in which the Forest Service set forth how it proposed to react to a relatively safe set of assumptions about future developments, rather than dealing aggressively with a challenging set of issues. There was a suggestion that the Forest Service Chief consult with his advisers and prepare a list of the 10 top renewable resource issues which must be addressed over the next 40 years and some basic principles to deal with them. There are significant political obstacles, to be sure, in using the Program for this purpose. But where else are we to find out just what the nation's critical renewable resource issues are?

The Coolfont group intimated that the Forest Service is undergoing an "identity crisis" and needs a new sense of purpose to serve as the foundation of the RPA Assessment and Program. They suggested, in essence, that the Forest Service establish itself as *the* spokesman and advocate for conservation and wise use of renewable resources, and develop a conservation strategy to be clearly articulated in the Program.

STATEMENT OF WILLIAM N. DENNISON, EXECUTIVE VICE PRESIDENT, WESTERN
TIMBER ASSOCIATION

Mr. Chairman and Members of the Committee: We appreciate the opportunity to present this statement to the Subcommittee. Western Timber Association is an organization of 38 companies which operate manufacturing plants dependent wholly or in part on the National Forests of California. Our Members process about 90 percent of the timber offered for sale in California annually.

We participated actively in the development of the Forest and Rangeland Renewable Resource Planning Act of 1974 [16 USC 1600], its subsequent amendment popularly known as the National Forest Management Act of 1976, and the implementing regulations required by the Act.

The intent of the Act is to bring rational planning and accountability to management of the National Forests. The concept of a Renewable Resource Assessment, followed by a Program for the National Forests which would show how these lands could meet these needs, is sound. All endeavors require accountability if they are to be successful, and this is required by the Act. Unfortunately, after two tries, the Forest Service has not performed as required. It has neither planned rationally nor adequately accounted for its lack of performance. This becomes clear from even a cursory review of the 1980 documents by a knowledgeable reviewer.

The recommended goals show little correlation to the needs indicated in the exhaustive assessment of the nation's needs. It appears to reflect current political philosophies towards conservation than to face hard facts. The result is a recommended Program which is meant to reflect leisure time and "... the good life ..." rather than the facts of life. This "return to nature" philosophy stands between the RPA Assessment and a realistic RPA Program.

FEW SIMILARITIES BETWEEN 1975 AND 1980 PROGRAM

Like the 1975 Assessment, the 1980 document also notes that the demand for wood is going to increase. The 1980 report confirms: "Wood prices will continue to rise in the short and long term with the sharpest increases in the 1980's when housing starts are expected to be at peak levels." (Page V)

Further warning is given in the report's predictions that softwood timber prices will increase 2-2½ percent per year above the general price level with the greatest increase in the South. The Forest Service has even recognized that the increased costs will have "... various and widespread impacts." The Assessment states that: "Some users of timber would switch to other materials—metals, plastics, glass and concrete—the manufacture of which creates more pollution and consumes more energy than does wood manufacture." (Page 37) There is no discussion of the danger in placing greater reliance on our non-renewable resources.

Unfortunately, the recommended solution for this known problem is to assume that the non-industrial landowners will take care of the long term needs and that departure from the Forest Service non-declining yield policy will provide wood for the 1980's. The recommended timber harvest program for both California and the nation is not even intended to meet the National Forest's share of the nation's needs, however, and through 1985 is scheduled to be less than the volume sold last year. In essence, the Program recognizes that timber needs will be great in the

future but proposes that the Forest Service take no action on the National Forest system to meet them. We don't think this is what RPA intended.

Another, truly incredible, solution to ease the problem is given on page 37: "Assuming less land in the future for growing timber than is available now, how are these rising demands to be met? If the present trend continues and future demand increases faster than supply, the two will be reconciled by an upward price adjustment that will lower the demand and increase the supply until demand and supply are balanced." Programmed inflation is the answer.

The President's Statement of Policy accompanying the documents skirts the overall serious issues and apparently expects bigger and more expensive results from industry: "Timber supplies from National Forest Land will be *maintained* (emphasis added) through more complete utilization standards and intensive management on more productive sites. Timber sale contracts will be modified where feasible to increase utilization. A complete review of appraisal and timber sale receipts will be conducted." (Page 5—Statement of Policy).

The President's view on this issue may very well have been influenced by a statement in the Assessment. (Page 38): "Another good way to help meet the demand for more wood is to use more of the tree where it is efficient or cost effective to do so. Traditionally, only the large, straight portion of the main bole has been used. The rest of the felled tree—top, limbs, bark, and foliage is left to rot or burn. This waste material represents a tremendous resource awaiting only the appropriate economic and technological developments to render it marketable for pulp, fuel and possible petrochemical substitutes." The statement is oversimplified, leads the novice reader to envision great wastes, does not speak to the immediate needs of our housing industry, and is not completely factual.

CONTINUED "LIP SERVICE" FOR DEPARTURE

Credit must be given to President Carter for his June 1979 "order" to consider departure from the Forest Service's self-imposed policy of non-declining yield. He reiterated his concern in the June 20, 1980 statement: "The nation's housing requirements during the next five years are expected to place major demands on the forest industry to increase production of lumber and wood products. In the long run, private forestlands are expected to become a chief source of increased timber supply, but during this decade careful consideration must be given to increased supplies from Federally-owned lands, particularly the National Forest System." The President then notes that he has given direction to accelerate National Forest land management plans with the objective of increasing the harvest of mature timber.

However, only forty National Forests have been identified by the Forest Service where departure may be a viable option. (Page 11—Report to Congress) Sixteen of these forests have been selected for accelerated forest planning. Four are scheduled to have draft plans completed by December 1980, and there are doubts about this schedule.

Eight forests are scheduled to have completed draft plans by December 1981, the remaining four by December 1982. The other 24 forests, theoretically, will have their draft plans completed by 1983.

What outputs of timber may be expected during the next five years, the years in which President Carter has expressed concern for housing demands?

We are told that it takes 3 to 7 years to prepare a timber sale and meet today's requirements. Sales sold, because of increased road construction requirements, generally cannot be logged until two years following the contract award. Thus, we can expect at least 5 to 10 years before timber from any sales sold under departure from the nondeclining yield policy hits the market. That means the possibility of sales from four forests nationally with volume in excess of the RPA goal by 1985-1990; eight more between 1986-1992; not much help for the next 5 years of housing demand.

There are several other problems with the argument that "departure" will meet our nation's immediate needs given current attitudes. There is no doubt in most minds that attempts to depart from the Forest Service's nondeclining yield policy will meet resistance through court actions.

In fact, resistance to "departure" is already occurring within the Forest Service despite orders from the President to consider it. Statements such as "We cannot increase our sell program, because we already are on departure" do not leave room for much optimism. There must first be a sincere desire to look at departure without bias before we can expect results.

The stated views on social effects, (Page 18), shows a lack of real concern for community stability: Social effects such as population dynamics, community economy, and leisure opportunities are expected to be generally favorable throughout the program range with more or greater favorable effects at the High Bound. Negative

impacts would tend to be localized and temporary as communities supported by renewable resource activities adjust to changing conditions. This is not a very sympathetic tone, nor the intent of the Resource Planning Act. It implies that timber-dependent communities will find some other means of support, or die.

TIMBER REDUCTIONS IN FACE OF NEED

The program is displayed by Low and High Bounds for each resource. The High Bound proposals " * * * will increase more rapidly the supply of renewable resources and provide increased protection of environmental values. It goes on to say: "The High Bound * * * reflects an earlier and greater increase in production to meet demands projected in the Assessment, and greater policy response to public preferences." Despite RARE I and RARE II where the bulk of the public input opposed more Wilderness, we are now apparently being told that the public wants reduced timber harvesting and substantially increased wilderness classifications. This is reflected in the High Bound Programmed Sales Offered of 11.9 bbf for 1981-82, and 12.1 and 12.2 bbf for 1983 and 1984. The sell would not increase above the 1978 level of 12.2 bbf until it reaches 12.5 in 1985. For California, we are to expect a sale program of only 1.91 bbf in 1982, 1.96 bbf in 1983, 1.98 bbf in 1984 and 2.1 bbf in 1985. In short, even the High Bound does not meet the public needs reflected in the Assessment.

Meanwhile, Wilderness acreage nationally is expected to increase from the 1978 level of 15.3 million acres to 33 million acres in 1981 and 41 million acres in 1984 on the High Bound. In California 5.0 million acres of Wilderness is expected by 1982.

The Low Bound is " * * * more responsive to the current economic situation." Although the report states that the Low Bound reflects economic analysis, careful environmental considerations, policy judgment response to the current economic outlook and the Assessment over the long term, we have not yet found this detail. The Program is not to be based on budget restraints, but is to be based on the Assessment. The Program should drive the budget, not vice versa.

The Low Bound program provides only 11 bbf of timber sales through 1989. California's share of this would be only 1.75 bbf for the same period. However, Wilderness acreage would still increase by 15 million acres to 33 million acres. Californians could expect 3.3 million acres under the Low Bound.

The 1975 RPA recommended program that industry strongly supported recommended a 1979 high and low of 15.3 and 14.2 bbf. Congress funded only 12.4 bbf, and that volume was sold. Now, narrow, short-term thinking would decrease the timber goals just at a time when our nation is facing its greatest need.

Actually, the Forest Service itself has shown that the reductions in harvests shown in the 1980 program and their adverse social effects need not occur. The Timber Harvest Scheduling Study ordered by Congress on the Six Rivers National Forest has shown that even when meeting all of the environmental protection requirements in law, timber production from that forest could be doubled for several decades before returning to the long term sustained production level.

Forest Service and industry analysts have shown that it is possible for the National Forests to meet a greater share of national timber needs without sacrificing other resource outputs. This can be accomplished through departure from the nondeclining yield policy. The documents presented to Congress are deficient in that the program displays no alternative based on rational economic approaches to meeting timber needs.

NONINDUSTRIAL FOREST LANDS—THE PRIMARY GOAL

We are concerned that the Forest Service is reluctant to continue as a timber producing agency. This is demonstrated by the statement under "State and Private Forestry": "Increased timber production on nonindustrial private ownership would be the primary goal." The problem is not in the recommended goal, but the high expectations based on simplistic reasoning that harvest from these lands can meet most of our nation's demands in the near future. As noted in the industry's Forest Productivity Project, "Private nonindustrial lands (58 percent of total commercial forest) is producing 63 percent of their potential." Some of this land will produce wood for our present needs, but most requires investments to be made today in thinnings, regeneration, etc. in order to yield returns in 25 or more years.

This full story must be made known to Congress. Forest Service reliance on others to produce timber which " * * * would allow resource production on Federal land to be reduced," has several obvious holes.

SUMMARY

There are many aspects to the proposed RPA Program other than timber. The recommended RPA Program has been summarized in different ways. Luke Popovich, Editor of Dean Sherman's Forest Industry Affairs letter reflected his view of the proposed timber harvest level by noting: "A hungry nation demands steak and the administration serves it Egg McMuffin." The Redding Record Searchlight Editorial headline, May 23, 1979 stated, "A Screwball Timber Plan" and further elaborated by comparing the Program to the Mad Hatter's tea party.

A thorough review of the proposals leads us to only one conclusion: The RPA process is totally out of control. Congress must act swiftly and decisively to bring the process back in line with the original intent. If this means having the Forest Service do it again, then so be it. The integrity of the process should take precedence over the agency's unwillingness to comply.

STATEMENT OF THOMAS L. KIMBALL, EXECUTIVE VICE PRESIDENT, NATIONAL
WILDLIFE FEDERATION

The National Wildlife Federation, the nation's largest private conservation/education organization with over 4.6 million members and supporters, appreciates this opportunity to comment on the Program and Statement of Policy submitted under the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA). Included in this testimony are comments on the draft "White Paper" prepared by this Subcommittee.

Our comments cover three areas: First, we believe the goals submitted in the Administration's RPA Program present an excessive range in their choice of high and low bounds. Second, with some exceptions in the area of fish and wildlife management, we endorse a Congressionally revised Statement of Policy which adopts the high bound for each element of the RPA. Finally, to the extent that Congress is not able to provide funds to meet all RPA goals, there should be across-the-board cuts in all RPA programs, rather than funding particular areas within RPA at different levels.

THE RANGE IN THE PROGRAM'S GOALS IS EXCESSIVE

We share the concern expressed in this Subcommittee's White Paper that the Administration avoids recommending a preferred program as required by the RPA. We concur with the Subcommittee that the purpose of RPA is to provide the land managers' best judgment as to what is necessary and achievable on the nation's lands. Once the Forest Service has proffered its suggested targets, it is up to the Congress and the Administration to fund the Program at the recommended level, or to justify shortfalls on the basis of competing national priorities.

The Administration's Program presents such a tremendous range of options that the American people will be unable to assess whether the Congress and Administration are even attempting to achieve goals recommended by professional land managers. Such a large range of goals nullifies one of RPA's most important features: the ability to judge whether Congress and the Administration are supporting a balanced program of resource development and protection.

Furthermore, offering such disparate options shows what a low priority nonmarket program elements have in lean budget years. For example, in 1982, the difference between the low and high bounds for timber production is 0.9 billion board feet, or a difference of 7.6 percent. However, for the same year the difference between wildlife and fisheries habitat improvement in the low and high bound is 1706 million acre equivalents, or a difference of 58.9 percent. When the bounds for timber production vary only 7.6 percent but wildlife and fisheries vary by 58.9 percent, how can there be any certainty that the nation is meeting or will ever meet its needs for wildlife? With such an excessive variation between program elements, how can citizens ever know that one RPA program element is not being sacrificed to another?

Some flexibility in the 1980 Program goals is necessary and desirable. But we believe that the ranges proposed by the Administration are so excessive as to deprive the RPA of much of its usefulness and disfavor nonmarket resources in times of tight budgets.

RPA SHOULD BE FUNDED AT HIGH BOUND LEVEL

The National Wildlife Federation recommends that, with a slight revision, the high bound program proposed by the Administration be adopted in a Congressionally revised statement of policy.

In the area of Fish and Wildlife Management, however, we urge that the Congressional Statement of Policy increase funding beyond the high bound to provide greater habitat improvement and endangered species protection on public lands by means of appropriations under the Sikes Act. Under the Administration's high bound, the Act is funded to only 65 percent of the cost of cooperative plans the Forest Service has developed with state fish and wildlife agencies. We urge that the RPA Wildlife Management budget be increased to fund a greater percentage of cooperative agreements under the Sikes Act.

We also urge the Subcommittee to recommend a Congressional Statement of Policy which expressly adopts the National Forest System Wildlife and Fish Resource goals set out at page 47 of the Program. These goals would, among other things, manage anadromous fish habitat at 90 percent or more of its potential, and resident fish habitat at 80 percent or more of potential.

In regard to this Subcommittee's White Paper, we endorse its recommendation that the proposed high bound be generally adopted, with three exceptions. First, as just pointed out, we urge increased funding under the Fish and Wildlife Management Program in order to satisfy a greater proportion of the demand for habitat improvement under the Sikes Act, and support an explicit endorsement of the Program's NFS wildlife and fish resource goals.

Second, we cannot endorse the Subcommittee's White Paper proposal to increase timber productivity to 90 percent of the land's potential by 2030 without some assurance that such an increase would not have unacceptable impacts on other multiple use values, especially fish and wildlife habitat.¹ Although existing regulations promulgated under the National Forest Management Act have the potential to mitigate much of the environmental harm which extensive timbering threatens, these regulations have just become effective. We do not yet know if they will be adequately implemented. Moreover, to the extent increased timber harvest occurs on private land, there are virtually no means by which the public can protect wildlife and fisheries habitat from private forestry abuses.

Finally, we cannot endorse the goal that 85 percent of the potential range should be in improved condition by 2000 without similar assurances that these increases and the accompanying livestock growth will not be detrimental to fish and wildlife.

In short, without more detail we must disagree with the Statement in the second-to-last paragraph of the Subcommittee's White Paper that if the land is being managed and treated to grow plants at near optimum levels, water, soil, wildlife, fish, recreational, wilderness, and aesthetic values will be substantially improved.

CONSISTENT FUNDING OF PROGRAM ELEMENTS

Implicit in our endorsement of the high bound recommendation is the requirement that market elements of the program, such as timber and range, not be favored over nonmarket elements, such as fish and wildlife, in lean budget years when complete high bound funding cannot be achieved.

The RPA program is intended as a professional assessment to balance competing resource demands. The Congress' opportunity to influence that assessment is during its review of the Administration's Program and in its option to promulgate a revised statement of policy. Thereafter, Congress should not favor one resource over another under the excuse that there are insufficient funds to fully support all program elements.

Rather, when budgetary restrictions preclude full funding of RPA programs, funding cutbacks should be uniform across all programs. For example, if only 80 percent of money needed to support all RPA programs is available, then each program should be cut back by 20 percent.

We will be happy to provide any additional information or comment which this Subcommittee might desire. We request that this statement be made part of the record for the hearings held September 16, 1980 by the Senate Subcommittee on Environment, Soil Conservation, and Forestry on the Program and Statement of Policy under the RPA.

¹ Satisfactory assurances could be similar to those in the proposed Lolo National Forest Plan, which requires comprehensive environmental monitoring and provides that the Plan may be altered if certain environmental standards are exceeded.

STATEMENT OF THE NATIONAL ASSOCIATION OF COUNTIES

The National Association of Counties (NACo)* is pleased to present our views on the Program and Statement of Policy submitted by the Administration in accordance with the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA), and the Subcommittee's White Paper.

The RPA was intended to provide a framework for comprehensive, long-range, and continuous resources planning in the management of the national forests.

This rational and systematic approach to the management of the forest resources was welcomed by the counties. For example, in Oregon, where the national forests are the backbone of the state's economy, 31 out of 36 counties are directly dependent upon forest resources. Thus, it was critical to the counties that forest resource needs be systematically and comprehensively identified, along with adequate funds to budget for financial investments in meeting those needs. The incremental and annualized forest management addressed by the RPA had adversely impacted the counties. Further, productive areas were being reduced through the addition of wilderness, and it was essential to compensate for that result on non-wilderness areas of the forests, particularly as reduced productivity was generating less forest receipts, to the detriment of the affected counties.

After reviewing the President's Statement of Policy and RPA Program, we agree with the conclusions reached by the Subcommittee in its White Paper. We strongly commend the Subcommittee for its fine work. The Public Lands Steering Committee of the Association of Oregon Counties endorsed the White Paper early in September.

We are deeply disappointed that the Administration avoided a commitment to necessary budget decisions and guidance in sending the Congress a range of options rather than a preferred program of work. We agree with the White Paper in that the "bounds" approach does not accurately define the expected outcome for each resource in the five years ahead, nor the impact on the future in terms of targets. We are also greatly concerned, as is the Subcommittee, that if investments in the national forest system are reduced, as found in the lower bound program, there will be a corresponding decrease in national forest receipts. Counties with substantial forest lands would experience serious economic consequences from these reductions. Further, counties are concerned that under the low bound there is potential to reduce other forest service programs. So, with less forest land in productivity, receipt reductions, and other program cuts, counties would be facing major problems, a result surely not intended by the RPA.

The "bounds" approach leaves the Administration free to seek funding at any option, and to disregard its mandate to responsibly guide the RPA planning process. We affirm the Subcommittee in adopting the "High Bounds" program as the preferred program of work, and hope that the Subcommittee will so amend the Statement of Policy.

We also endorse the other recommendations of the White Paper, and support their inclusion into the Statement.

STATEMENT OF THE NATURAL RESOURCES DEFENSE COUNCIL, INC.

FEDERAL GOVERNMENT LOSING MILLIONS OF DOLLARS ON TIMBER SALES

The Carter Administration is scheduling the eventual logging of over 12.9 million acres of National Forest woodlands despite the fact that records show the government has been losing tens of millions of dollars on timber sales in these forests.

The Natural Resources Defense Council today released a study of timber sales in the 154 National Forests which shows that, for the years 1974 through 1978, the federal government lost over \$280 million dollars on timber sales in 73 of the 118 National Forest management units where timber sales are being made. A more conservative NRDC assessment allocating 50 percent of logging road costs to support of other forest uses shows losses during this period of \$158 million in 66 of the 118 units.

The NRDC study, titled "Giving Away the National Forests," also shows that over one billion board feet (12 percent of sales) of the healthy non-salvage timber sold by the Forest Service in 1978 was transacted at prices under \$20 per thousand board feet, or for less than 2 cents per board foot. In 1978, a year of high lumber prices in retail markets, 40 percent of the 11 billion board feet of timber sold from public forests was transacted at prices under \$80 per thousand board feet or 8 cents per board foot.

* The National Association of Counties (NACo) was founded in 1935 as the National spokesman for counties, to serve as a liaison between county governments and other levels of government, and to improve the public understanding of the role of counties in the federal system.

According to Tom Barlow, NRDC's senior forest analyst, "The Forest Service waste of taxpayer dollars in subsidizing sales to the timber industry encourages timber companies to ignore the private woodlands of the nation for the trees they want and denies private tree farmers the income they need to finance planting and raising trees."

NRDC advocates a major reduction of below cost Forest Service timber sales in the National Forests in order to (1) make better use of taxpayer money in more productive forest areas (2) encourages better private timberland management, and (3) safeguard wilderness.

"In selling timber at less than the cost of managing a forest, the Forest Service is hurting the private tree farmer who must recover costs if sustained yield forest management is to be continued on his woodlot. These Forest Service below cost timber sales dump large volumes of timber into woodfibre markets and the low prices tug down price indexes which lowers private tree farmer income," said Tom Barlow.

Timber sales in the National Forests System average 11 billion board feet per year, about 20 percent of the nation's timber supply. Overall, the Forest Service's timber sale program was profitable during this five-year period due to sales in the rich old growth forests of the Pacific Northwest. But according to NRDC's Barlow, the Forest Service's timber sale program would have been more profitable and potential wilderness would not have been destroyed if these below cost sales had not been made.

There are approximately 12,000 board feet in new single unit dwelling. At the \$80 price level of value of the timber increment is 1½ percent (\$960) of the cost of the average new \$60,000 house. At the \$20 price level the value of the timber increment in the cost of the average dwelling would be \$240.

The 370 million acres of privately owned woodlands across the nation contain *one half* of America's standing timber inventory of softwoods, the wood most utilized in the construction industry and paper products. The timber industry controls 70 million of these woodland acres. There are 32,000 individual nonindustry forest ownership units with over 2000 acres apiece.

In addition to wiser economic management of the National Forests, NRDC's Barlow urged the Forest Service to help lower building costs by supporting timber production from forests closer to markets and encouraging technology for full tree utilization. "Let's not waste a third of a tree's fibre as is the norm in many forests today," said Barlow.

The Study "Giving Away the National Forests" is available from NRDC. The Natural Resources Defense Council (NRDC) is a non-profit organization dedicated to the wise management of natural resources. NRDC has more than 45,000 members and offices in New York, San Francisco and Washington, D.C. NRDC has a staff of over 35 lawyers, scientists and other professionals.

SUPPLEMENTAL STATEMENT OF THE NATURAL RESOURCES DEFENSE COUNCIL, INC.;
BACKGROUND PAPER

GIVING AWAY THE NATIONAL FORESTS

An economic analysis of U.S. forest service timber sales below cost

On June 3, 1980, the Natural Resources Defense Council (NRDC) released a major study of federal timber sales in America's National Forests. The study shows that for the years 1974 through 1978, timber sale expenses paid by U.S. taxpayers exceeded sale income in over half the 154 National Forests.

In making sales below cost the Forest Service: (1) loses taxpayers dollars on the excess of timber sale expenses over timber sale receipts (2) endangers potential wilderness additions from roadless areas in the National Forests, most of which will cost more to manage for timber production than to leave alone (3) unfairly attracts timber companies to the 90 million timbered acres in the 180 million acre National Forests System and away from the 370 million acres of privately owned timberland across America.

The Forest Service has recently completed an analysis of the wilderness potential of 62 million roadless acres in America's 154 National Forests (Roadless Area Review and Evaluation II: RARE II).¹ The timber industry is exerting intense pressure on the federal government to log the trees on most of the 26.8 million

¹ In January 1979, the National Forests completed its second Roadless Area Review and Evaluation (RARE II), a process aimed at determining for each of the nearly 3000 remaining roadless areas in the National Forests System, whether it should be preserved as wilderness or opened to development. RARE I was completed in the early 1970's but was challenged as not being a complete review of all roadless areas.

forested acres in this 62 million acre roadless zone. The Carter Administration is recommending that only 6 million of the forested roadless acres in the National Forests be added to the National Wilderness System. In the RARE II analysis the Forest Service did not assess the economics of timber management in National Forests roadless areas.

In computing timber sale costs, NRDC used two methods of analysis (1) applying 100 percent of logging road construction costs to timber sales because a private tree farmer would have to bear the full expense (2) applying 50 percent of road costs to sales because some of the roads can support other forest uses.

*Using 50 percent of roads costs, 66 out of 118 administrative units did not recover costs over the five years; 44 of those *never* had a year where receipts equalled costs. Using 100 percent of roads costs, 73 units failed to recover costs and 49 did not recover costs in any year.

*By the more conservative method using only 50 percent of roads costs, in 39 administrative units, the total costs for the five-year period were *at least twice as large* as the total receipts. In 17 units, total costs were *at least four times as great* as total receipts.

*Of the Forest Service's nine regions, by the 50 percent methodology at least six sold more than 10 percent of their timber below cost in 1978; at least four regions sold more than 40 percent of their timber below cost. The Alaska region sold at least 77 percent of its timber below cost.²

NRDC's comparison of timber sale costs and income in individual National Forests for the years 1974-1978 shows where sales below cost are occurring in individual National Forests. By the conservative 50 percent approach:

*The Green Mountain National Forest in Vermont has almost 56,000 acres of roadless areas, all designated by the Carter Administration for logging as a result of RARE II. However, the Green Mountain National Forest returned only 41 cents for every dollar spent on timber sales, a loss over the five years of at least \$1.6 million.

*In the Cherokee National Forest in Tennessee, with about 132,000 roadless acres, $\frac{2}{3}$ of its roadless acreage has been recommended for "multiple use" logging by the Carter Administration. Yet the Cherokee National Forest returns only 53¢ for every dollar spent on timber sales.

*All the 54,400 roadless acres in Minnesota's Superior National Forest are designated for eventual timber cutting by the Administration despite a return for every dollar spent of only 23 cents. The Superior National Forest lost an average of \$1.7 million per year on its timber sales.

*More than 60 percent of the 1.5 million acres of roadless areas in Colorado's Grand Mesa-Uncompahgre-Gunnison National Forests will be open for development, although current timber receipts average only 35 percent of costs.

*Although all but 45,000 of the 523,000 roadless acres in the Caribou National Forest in Idaho have been designated for "multiple use" management, this forest has only returned 24 cents for every dollar spent on timber sales over the past five years.

*Two-thirds of Utah's Ashley National Forest's 560,000 roadless acres are open for development, despite a receipts-to-costs ratio of 34¢ for every dollar spent.

*Seventy percent of the roadless acreage in West Virginia's Monongahela National Forest was allocated to non-wilderness uses, despite receipts of only 18¢ for every dollar spent on timber sales.

*Every National Forest in Colorado lost money on its timber sales between 1974 and 1978, with receipts-to-costs ratios varying from a high of 71¢ to a low of 23¢ for every dollar spent on sales. Nevertheless, more than two-thirds of the roadless areas in that state are now scheduled for development.

*Even though Montana's Beaverhead National Forest never had a year when it recovered costs between 1974 and 1978, with an average loss of 53¢ per dollar invested, almost half its 707,000 roadless acres were designated non-wilderness following RARE II.

America has some 700 million acres of forestland, 500 million of which have the capability of naturally growing at least 20 cu. ft. per acre of wood fibre per year. These 500 million acres are classified as "commercial forestland" by foresters regardless of the costs of managing these acreages for timber or where they are located in relation to markets.

The 500 million acres of potentially harvestable forest in the United States fall into four general ownership categories: some 100 million acres in federal ownership, 20 million owned by the states, 70 million owned by timber companies and 300 million on farm and private nonindustrial lands. Ninety million of the 100 million federal acres are in the 187 million-acre National Forest System. The remaining 97

² For a list of regions and the states they cover see page 4 of the Report.

million acres in the 154 National Forests are rangeland, high mountain country where the timber is sparse or nonexistent, and already designated wilderness.

The Forest Service projects a doubling of demand for the nation's timber from present levels by the year 2030. NRDC points out that investment in America's forests must be made *now* to provide the timber needed decades hence or wood shortages will occur and lumber prices will rise.

"If the Forest Service continues to market below cost federal timber, it will discourage private forest owners from making the needed timberland investments in tree planting, thinning and brush control," asserted NRDC's Tom Barlow. "These owners will not have assurance that the Forest Service will not continue to unfairly undercut them in timber markets in future years nor will they receive sufficient current demand for their timber from wood products companies to encourage them to invest in sustained yield forestry on their woodlands."

In a letter to the Wilderness Society, the Department of Agriculture stated that 22 percent (approximately 2 billion bd. ft.) of National Forest timber sold in 1978 was transacted at below-cost prices. This was approximately 5 percent of all the timber sold in the United States that year. The Forest Service has not made public the National Forests in which these below-cost sales took place.

Below cost sales are a consequence of the residual pricing process that the Forest Service uses in pricing its timber. This pricing process does not take into account the cost of managing the growing forests in sustained yield tree growth. Residual pricing is a relic of the days of cut-and-run logging when no thought whatever was given to the costs of the growing forest. In preparing a sale by the residual process, the appraiser estimates what the value of the timber will be after it is milled. From this estimate, logging and milling costs are subtracted. These costs include logging roads, felling of timber, transportation from site to mill, and milling. An allowance is even made to guarantee the logger a profit, usually 15 percent of the milled value of the timber. The net result is the appraised "stumpage". This appraisal value becomes the base price at which the timber is put up for bid.

The timber industry asserts that they pay "fair market value" for the National Forest timber that they buy, but hundreds of sales are transacted at prices below the costs of managing the forests for timber.

FORESTS THAT LOST MONEY 1974 THROUGH 1978

State	Forest	Total acreage	Re- ceipts/ costs ¹	Total loss over 5 yr	Roadless acreage
Alabama	National Forest Service in Alabama	642,760	0.95	\$559,600	67,082
Alaska	Tongass	16,043,479	.93	4,269,700	12,682,585
	Chugach	4,733,907	.38	2,889,100	3,286,700
Arizona	Coronado	1,782,109	.30	261,400	579,968
	Prescott	1,236,964	.13	832,100	221,700
	Tonto	2,874,706	.41	1,205,500	443,020
Arkansas	Ozark-St. Francis	1,135,087	.64	4,754,700	129,533
California	Angeles	652,898	.06	917,900	192,500
	Cleveland	418,106	.10	480,000	44,600
	Inyo	1,859,713	.97	42,100	972,080
	Los Padres	1,750,689	.08	271,900	1,085,400
	San Bernardino	631,222	.86	325,800	273,735
Colorado	Grand Mesa-Uncompahgre-Gunnison	2,953,276	.35	2,434,200	1,551,270
	Rio Grande	1,852,083	.51	3,429,300	839,980
	Arapahoe-Roosevelt	1,793,004	.46	1,800,200	793,270
	Routt	1,125,260	.45	3,304,000	540,680
	Pike-San Isabel	2,216,341	.23	1,442,000	1,065,220
	San Juan	1,867,757	.71	2,947,100	831,790
	White River	1,941,380	.23	2,752,500	948,340
Georgia	Chattahoochee-Ocenee	847,516	.91	1,111,900	219,000
Idaho	Caribou	987,644	.24	1,565,700	534,960
	Challis	2,463,374	.41	946,300	1,653,919
	Salmon	1,771,003	.92	472,400	567,209
	Sawtooth	1,799,759	.26	2,945,400	651,105
	Targhee	1,642,455	.65	3,775,700	910,595
Illinois	Shawnee	249,975	.22	1,999,100	43,744
Indiana/Ohio	Wayne-Hoosier	351,755	.47	1,417,500	16,909
Kentucky	Daniel Boone	522,544	.26	7,145,600	20,503
Michigan	Huron-Manistee	921,628	.33	1,541,500	7,273

FORESTS THAT LOST MONEY 1974 THROUGH 1978—Continued

State	Forest	Total acreage	Re- ceipts/ costs ¹	Total loss over 5 yr	Roadless acreage
Hiawatha		865,564	.40	3,376,800	47,829
	Ottawa	923,997	.51	3,162,500	46,798
Minnesota	Chippewa	660,062	.39	4,674,900	77
	Superior	2,044,840	.23	8,745,400	65,002
Missouri	National Forest Service in Missouri (Mark Twain)	1,443,071	.52	4,612,100	23,367
Montana	Beaverhead	2,119,537	.47	2,539,600	706,758
	Bitterroot	1,577,375	.65	3,301,500	387,900
	Custer	1,185,627	.09	637,300	140,440
	Deer Lodge	1,195,687	.85	808,600	420,175
	Gallatin	1,734,919	.35	2,934,000	742,700
	Helena	972,408	0.25	\$3,286,500	465,700
	Lewis and Clark	1,835,264	.38	2,075,100	1,035,132
Nebraska	Nebraska	257,021	.03	15,100	66,288
Nevada	Humboldt	2,528,111	.61	37,000	1,546,370
New Hampshire	White Mountain	720,405	.76	953,600	268,057
New Mexico	Cibola	1,635,407	.60	1,202,800	331,415
	Gila	2,705,933	.59	2,141,600	855,276
	Lincoln	1,103,145	.61	1,245,900	238,100
North Carolina	National Forest Service in North Carolina	1,154,469	.47	6,593,100	207,117
Puerto Rico	Caribbean	27,846	.01	679,200	9,730
South Dakota	Black Hills	1,233,232	.71	3,452,700	28,120
Tennessee	Cherokee	620,704	.53	4,001,600	135,779
Utah	Ashley	1,383,939	.35	2,003,900	560,128
	Dixie	1,884,004	.44	2,508,800	344,285
	Fishlake	1,424,021	.75	189,900	617,700
	Manti-La Sal	1,265,255	.47	639,200	576,494
	Uinta	812,790	.95	34,300	446,015
	Washatch-Cache	1,566,417	.58	1,192,000	455,893
Vermont	Green Mountain	265,513	.41	1,634,400	55,720
Virginia	George Washington	1,041,074	.24	4,359,100	140,153
	Jefferson	683,062	.15	4,501,500	83,008
West Virginia	Monongahela	838,473	.18	3,852,400	265,139
Wisconsin	Chequamegon	841,587	.35	4,022,900	58,463
	Nicolet	653,334	.66	1,735,400	42,889
Wyoming	Bighorn-Shoshone	3,539,582	.30	3,937,900	1,404,801
	Medicine Bow	1,093,403	.51	3,580,900	452,720
	Bridger-Teton	3,400,267	.67	1,884,400	1,687,406

¹ Using 50 percent of roads cost assessed against timber: 0.95 means 95¢ returned on every dollar spent.

STATEMENT OF VERNIE R. GLASSON, DIRECTOR, NATIONAL AFFAIRS DIVISION,
AMERICAN FARM BUREAU FEDERATION

Thank you for inviting Farm Bureau to submit its views on the 1980 Forest Service Report to Congress on the Nation's Renewable Resources (RPA) and the Subcommittee's draft "White Paper" in response to this report.

Farm Bureau is the nation's largest farm organization, representing farm and ranch member families in 49 states and Puerto Rico. Farm Bureau members are both users of National Forest System lands and consumers of resources from these lands. Private lands of many of our members are often contiguous to National Forest System lands. For these reasons the program directions and levels undertaken by the federal government are of great concern to Farm Bureau.

Farm Bureau policy regarding national Forests is as follows:

"The preliminary U.S. Forest Service area planning guides for the West and Great Plains geographic areas as now drafted place a greater emphasis on recreation than on making a livelihood and a higher priority on amenities than on production of necessities such as food, fiber, minerals and building products.

"We urge the Forest Service to revise its guides by adopting livestock grazing as a primary key value, with wildlife and recreation as secondary key values, to the end that year-round residents' economic opportunities will be expanded with adequate recreational opportunities provided at the same time. Any further decrease in

grazing on the public lands would multiply by many times the detrimental economic effect on the hundreds of communities largely dependent on this industry.

"We recommend that federal agencies relax existing timber sales restrictions or that legislation be enacted so that these agencies can identify and sell marketable saw timber.

"We support clear-cutting as a forestry management practice where this practice is consistent with sound silvicultural practices.

"We request that the Forest Service stop any right-of-way acquisitions until:

(1) Complete studies have been made of environmental impact, the effect on the private land area and ranching operations involved, and the effect on people living in the area; and

(2) The Forest Service has negotiated with each individual landowner where right-of-way acquisitions is desired to determine what requirements the landowner wishes and has satisfied these requirements in a just and equitable manner."

On related subjects, Farm Bureau policy on federal lands, in general, states in pertinent part as follows:

"... we believe in both the protection and enrichment of all federal land resources as a sound management goal. However, the proliferation of agency regulations has proved to be cumbersome, counterproductive, and extremely expensive. We, therefore, support a general policy that would minimize agency regulations and maximize management accountability for all users of public lands.

"We support the multiple use concept of federal lands. The management of federal lands should be by the private sector and should recognize that definable land areas have dominant use capability which should be recognized within the concept of multiple use."

Farm Bureau policy on wilderness areas provides:

"Experience has shown that the 'no management' concept applied to certain areas under the Wilderness Act of 1964 has resulted in the serious degradation of the resource. A preponderance of evidence has demonstrated that the removal of all man-made facilities has resulted in sanitation and health problems that threaten the values the Act was designed to preserve.

"Established wilderness criteria further threaten such areas by prohibiting the employment of power tools and vehicles in watershed management, trail maintenance, soil treatment, noxious weed control, waste management, and fire protection.

"For these reasons, and the fact that wilderness management is inconsistent with sound multiple-use principles, we oppose further expansions and urge reevaluations of all existing wilderness areas under the Wilderness Act. However, a state Farm Bureau has the option to support federal legislation to minimize wilderness designations within that state. Any future wilderness proposals should be subject to environmental, social and economic impact analysis in addition to heavily weighted considerations of the views and land use plans of the residents in the affected locality and state.

"We recommend that any designated wilderness area (including roads and trails) which has been closed be reopened to the public and to multiple-use on the petition of a majority of local citizens and/or any local, county, or state government.

"We support legislation to immediately:

"(1) Release nonwilderness national forest lands for multiple uses, other than wilderness;

"(2) Require the Forest Service to manage nonwilderness national forest lands for multiple uses, other than wilderness; and

"(3) Require the Congress to determine the final designation of national forest lands as wilderness, within time limits, under the RARE II recommendations."

Finally, Farm Bureau policy on the matter of private forestry is:

"Our forests constitute one of our most valuable renewable resources.

"We favor a privately-owned, sustained-yield forest industry assisted by essential public services such as research, fire protection and pest control. We urge the cooperation of all government agencies in efforts to improve the management of private forests.

"We recommend the continuation of federal funds for state-private cooperative forestry programs.

"We support government authority to provide for the development and management of forested lands in small business ownerships."

Farm Bureau's comments to the Forest Service on the draft RPA in June, 1979, favored a moderate level approach to resource management. Today, however, our position generally concurs with the Subcommittee's acceptance of a "High Bounds" program, with exceptions and recommendations as specified in the White Paper.

We favor the "High Bounds" program for the development of "market" type resources, particularly range grazing and timber. We are concerned, however, with

the aspects of the program for the concurrent high level development of the "non-market" resources.

Many conflicts exist in the development of "market" and "nonmarket" resources on public lands. The trend has been to resolve these conflicts in favor of "nonmarket" resource development on public lands, and to shift "market" resource development more and more to private lands.

Vast areas of our public lands have been designated, or are proposed for designation, as wilderness which precludes "market" resource development of any kind. The wilderness review process appears to be a never-ending consideration under the RPA and, as a result, the public lands available for production uses within the National Forest System continue to decline.

Farm Bureau does not view "wilderness" as a "multiple use" management consideration, but rather as a withdrawal from management and use. We believe that wilderness considerations for the public lands within the National Forest System are going well beyond the bounds of the 1964 Wilderness Act, which Farm Bureau supported for the preservation of the truly pristine areas that were untrammeled by man.

We supported enactment of the wilderness law to expedite the review of public lands and to resolve which areas were in need of preservation and which lands were available for use. Instead of problems being resolved, they have increased—since "wilderness" is now equated with "preservation" generally, and a "fair share" of public land is to be allocated for wilderness preservation in virtually every management undertaking.

In the case of fish and wildlife, the "High Bounds" promotion of species, numbers and habitat is creating excessive competition for forage with domestic livestock grazing. There are also increasing problems with wildlife spilling into private lands, and the lack of effective predator controls is seriously affecting domestic livestock production, both on public and private lands.

Recreation should be an incidental function of the Forest Service. Recreation development should always be compatible with productive uses, particularly food and fiber production.

The tendency of the "High Bounds" program to move productive uses off of the public lands and onto private lands creates particular problems for the so-called "public lands" states of the West. There is little private land available to replace the productive capacity lost on public lands, and such private lands are usually so integrated into the public land system that they can only be effectively used for productive purposes in conjunction with public lands. This shifting of production to private lands also has a tendency to overburden the productive capacity of private lands, or it may even result in the shifting of production from one region of the country to another in order to find sufficient private land capacity.

We believe the Subcommittee has taken a step in the right direction in its White Paper by recommending the inclusion of specific goals in the 1980 RPA program for timber and grazing. We recommend that further exceptions and recommendations be adopted by the Subcommittee as follows:

1. Further wilderness reviews and recommendations for the National Forest System be excluded from the RPA Program.
2. The development of recreation should be an incidental function of the Forest Service and should be compatible with productive uses of the National Forest System, particularly food and fiber production.
3. Fish and wildlife activities should be compatible with productive uses, particularly domestic livestock grazing.
4. Development of grazing resources should be tailored to regional needs.
5. Specific development levels should be established for all resources and for both public lands and private lands, and such goals should maximize the development of "market" resources of both public lands and private lands.

We appreciate this opportunity to express our views on this important matter.

STATEMENT OF ROCKY MOUNTAIN OIL AND GAS ASSOCIATION

The Rocky Mountain Oil and Gas Association (RMOGA) is a trade association of approximately 750 members who are active in oil and gas exploration, production, and distribution in the Rocky Mountain West. We appreciate this opportunity to submit testimony regarding the Forest Service's Resources Planning Act policy, and the White Paper on this subject written by the Subcommittee on Environment, Soil Conservation, and Forestry.

RMOGA has always been deeply concerned about the Forest and Rangeland Renewable Resources Planning Act (RPA) signed into law in August of 1974. The Act directs the Secretary of Agriculture to regularly assess the status of national

forest and rangelands, and to recommend a program for the management and use of the renewable resources contained on them. This program was designed to retain a fair balance of appropriate uses and to reflect the concerns of multiple use management. While this policy would suggest that the Forest Service planning process would assess *all* potential multiple uses of this land, little attention is given to mineral or mining uses, needs, or concerns. In addition, the establishment of a Program which is designed to reflect national goals and concerns for the future, is clearly deficient if it does not address our nation's energy and mineral needs, our balance of trade, and the interrelationships between inflation, unemployment, and our energy crisis.

The 1979 RPA Assessment, in attempting to achieve the full potential from our forests and rangelands, provided that "the basic mission of the Forest Service in managing the National Forest System is to maintain high levels of sustained and balanced yields of the products and services obtainable from the forest, range, and other natural resources on these Federal lands." Yet despite the establishment of "minerals area management", it appears that only the most superficial attention is paid to assessing the mineral potential, or the minerals option, for purposes of establishing the RPA Program.

Renewable resources and Forest Service responsibilities toward surface values do not exist in a vacuum devoid of other laws, resources, national interests, or technological capabilities and limitations. Clearly, any decision on surface renewable resources will inevitably affect access rights and permits for mineral exploration and development.

There is a very real danger that mineral issues will continue to receive less than adequate consideration in Forest Service land and resource management plans, unless minerals are treated in the same detail that the RPA Program and Assessment currently give to renewable resource issues, despite the Act's direct mandate over solely renewable resources.

National laws and policies require that fuel and nonfuel resources, and economic issues related to these resources, be fully evaluated in every Forest Service planning effort. It may be that Congress—because the Agriculture Committee did not want to "tread on the turf" of the Interior Committee—failed to address mineral issues in the Renewable Resources Planning Act and National Forest Management Act. However, Congress *has* considered mineral and economic issues in relation to our public lands in many other acts, none of which has been repealed either explicitly or implicitly. Congress most certainly did not intend that these other acts and issues be ignored or treated so summarily.

The 1970 Mining and Minerals Policy Act declares that " * * * it is the continuing policy of the Federal Government * * * to foster and encourage private enterprise in (1) the development of economically sound and stable domestic mining, minerals, metal and mineral reclamation industries; (2) the orderly and economic development of domestic mineral resources * * * to help assure satisfaction of industrial, security and environmental needs; * * *"

The National Environmental Policy Act of 1969 (NEPA) was designed to "ensure that presently unquantified environmental amenities and values may be given *appropriate consideration* in decision-making *along with economical and technical considerations*." (NEPA, Section 102, emphasis supplied.) The act requires that environmental analyses be conducted to identify potential environmental impacts, and "unresolved conflicts concerning alternative uses of available resources." All components of the "human environment" are to be carefully considered in planning efforts—that is, social, environmental and economic values are to be considered together with technological capabilities and limitations and given approximately equal weight. Congress' intent was to ensure that environmental values would be considered *along with* social, economic and other values; it was not to emphasize environmental amenities to the exclusion or minimization of these other important concerns.

Finally, the 1964 Wilderness Act included a section specifically designed to ensure that mineral exploration and development would continue in designated wilderness areas for a period long enough to allow private industry to find and develop those resources. Both the act and its legislative history indicate that Congress was very concerned about the potential loss of mineral resources and was willing to accept temporary impairment of the environment, even in designated wilderness areas, in order to address other important national concerns. Congress was aware of the difficulties inherent in finding minerals, and of the limited role of the Geological Survey and Bureau of Mines in actually locating mineral deposits. (Wilderness Act, Section 4(d)(3); Congressional Record, April 9, 1963, Vol. 109, Part 5, pages 5923-26.)

There are many practical reasons, too, for broadening the scope of this program to include provisions addressing important mineral, economic social and technological issues.

The United States is importing oil and other minerals at a steadily increasing rate. Prior to the oil embargo in 1973, the United States was importing 36 percent of its oil; in 1979, it imported 48 percent. A primary reason for this increase is that positive effects of conservation measures have been more than offset by decreases in domestic production and proven reserves. Further complicating the energy situation is the fact that, according to the Department of the Interior, mineral access is prohibited or severely restricted on 60-75 percent of America's public lands. Many areas administered by the Forest Service have been or are being withdrawn from mineral entry before their mineral values and the economic consequences of prohibiting exploration and development have been adequately assessed.

In addition, many areas are off-limits for energy development due to overburdened some regulation, constituting a *de facto* withdrawal.

Recent geologic work indicates that many significant deposits of oil, gas and other important minerals remain to be found on the public lands. The deposits are simply more difficult to find and cost more to produce than ever before. However, the cost to the American consumer of finding and developing these resources will still be far less than the costs of importing substitutes. Mineral imports are still the primary cause of America's balance of trade deficits and the inflation, unemployment and dollar devaluation problems those deficits create.

The Forest Service must do its part in addressing these problems, by helping to increase domestic exploration and production on National Forest System lands. The land management programs, therefore, must fully address the mineral issues inherent in every planning effort.

Mineral development may be the best use of the land, depending on the type and amount of mineral resources involved. However, no one will ever know if this use if in fact the highest and best use, if exploration is prohibited or severely restricted, or if minerals are not given equitable consideration when land allocation decisions are being made.

The 1979 Assessment states that "the goal of the National Forest System is to administer laws and regulations pertaining to mineral operations so as to permit uninterrupted production of minerals and energy materials while assuring adequate protection of surface resources and environmental values." Yet, in both the Assessment and Program, minerals are treated only in the most cursory manner.

The Program sets forth a plan to increase the issuance of "mining permits" by about 65 percent (by 1985) at the High Bound, and 35 percent under the Low Bound. We are unable to ascertain how these figures were selected, as there seems to be no basis in the Assessment for estimating demand, availability, and so on. In addition, we are concerned about specifically what activity these permits will allow. Our experience with areas of environmental sensitivity in particular would indicate that despite the issuance of a permit, access for development is not implicit, thereby making the mere *issuance* of the permit inconsequential in terms of mineral development.

The Forest Service RPA Program includes a Wilderness System of 41 million acres on National Forests. The planning process is expected to incorporate studies of other areas for possible inclusion into wilderness systems. We believe that failing to adequately address the minerals question in connection with wilderness allocation squarely misses one of the most fundamental and critical aspects of such a decision.

Mineral issues constituted a major portion of the debate on the 1964 Wilderness Act, a significant portion of the Act itself (Section 4(d)(3)), and a large part of the ongoing discussions regarding the future of the various RARE II roadless areas. On numerous occasions RMOGA has stressed the strong need for full evaluation of mineral values, before any final decisions are made on the future of our public lands.

RARE II was designed to help determine the suitability or unsuitability of individual areas for designation as wilderness. One of the primary reasons an area might not be suitable for immediate designation as wilderness is that mineral values and economic impacts may be too high to warrant or permit wilderness designation. We believe that a determination to recommend an area as wilderness *must* include an analysis of its mineral potential, as well as the potential of its renewable resources.

Most importantly, the Program established for the management of Forest Service lands should remain flexible enough to provide for access to areas of high energy potential within the time-frame, and in the manner required for prudent energy development. Since access decisions are governed by surface resources, we believe

that the programs controlling and managing this land must take into account the possibility of energy development and must provide for it.

In conclusion, RMOGA recognizes that oil and gas exploration and production will have certain unavoidable impacts on the land. However, America is no longer in a position where it can ignore its domestic mineral potential. Mineral-related impacts will affect very few acres for only short periods of time, and the land will be reclaimed afterward.

Congress has never given the Forest Service authority to prohibit or unreasonably restrict mineral exploration and production activities in either wilderness or nonwilderness areas, even though those areas might have important wildlife and scenic values. Rather, it has repeatedly affirmed its intent that domestic mineral deposits be found and developed, that social and economic issues be assessed in every planning effort, and that our concern for the environment be tempered with a similar concern for other important national interests; the RPA Program and Assessment do little to further these objectives.

RMOGA believes that the Forest Service has too often avoided the full range of its responsibilities by focusing on parochial land use plans, rather than developing a dynamic approach to forest management. Decisions are frequently made on the basis of surface resource considerations alone. Only minimal consideration is given to mineral resources, national mineral and economic policies, and to the Forest Service's role in addressing these critical issues.

The Forest Service should be exerting every effort to balance sometimes conflicting interests and educate the public about the necessity of allowing mineral operations in many natural areas. Designating goals and management plans for areas according to their recreation, timber, wilderness and wildlife needs alone, skirts a fundamental issue in the land management process, and avoids completely the increasingly important national concerns about our energy future.

Wildlife and scenic values can be protected in mineral-rich areas by means other than unnecessarily restrictive regulations, or formal and de facto withdrawals of public lands. Yet minerals must first be given equitable consideration in the land management process.

It is vital that the Forest Service begin now to balance its planning effort with changing national needs and changing demands on the National Forest System.

We believe that the Statement of Policy, which reflect national goals for the future, should be amended to more adequately provide for mineral management. National requirements for this resource should be incorporated into a more flexible land management process so that areas determined to have potential can be made available for mineral activity.

The Rocky Mountain Oil and Gas Association appreciates this opportunity to submit these comments. We continue in our willingness to assist the Forest Service and the Congress in developing solutions which will balance the demands of various user groups with the needs of the general public which RMOGA and the Forest Service represent.

