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WASHINGTON, D.C. 20548

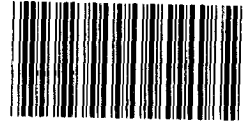
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ENERGY AND MINERALS  
DIVISION

B-125053

AUGUST 18, 1982

The Honorable John R. Block  
The Secretary of Agriculture



119246

Dear Mr. Secretary:

Subject: Problems and Progress During Current  
Forest Service Planning (GAO/EMD-82-99)

On December 12, 1978, we issued a report 1/ to the Congress critiquing 11 studies dealing with various aspects of a projected timber shortage in the Pacific Northwest and its effects on our national forests. The 11 studies generally concluded that the continued use of the non-declining even-flow 2/ timber harvesting policy would likely lead to a sizeable drop in available timber in the years just ahead, especially in the Pacific Northwest. Consequently, we recommended that your U.S. Forest Service (FS) evaluate alternative harvest and timber management policies in terms of potential for increasing timber production with respect to the projected shortage. In addition, we requested the FS to examine the effects alternative timber harvesting policies might have on enhancing the non-timber uses of the national forests, such as recreation, wilderness, and fish and wildlife.

The FS responded to our report in March 1979, agreeing that a reexamination was needed and initially identified 12 western forests in which to study the feasibility of timber harvesting alternatives. Since then the FS has broadened its

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1/"Projected Timber Scarcities in the Pacific Northwest: A Critique of 11 Studies," December 12, 1978, (EMD-79-5).

2/The policy of non-declining even-flow timber harvesting is required by P.L. 94-588 which limits the sale of timber from each national forest to an amount equal to or less than a quantity which can be removed annually in perpetuity on a sustained-yield basis. The policy permits the Secretary of Agriculture to establish an allowable sale quantity for any decade which departs from the projected long-term sale quantity. Any alternative timber harvesting policy that departs from the statutorily stated non-declining even-flow policy may require legislative action.

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reexamination effort, providing guidance to all regions and forests to evaluate alternative timber harvesting policies, including departures from the non-declining even-flow policy.

The FS response continued by stating that a comprehensive and detailed analysis of alternative policies will occur at each forest as land and resource management plans are updated. Included in each analysis, the FS will consider alternatives for increasing harvests on individual forests above non-declining even-flow levels. Currently, updated efforts in forest planning are scheduled for completion by the beginning of fiscal year 1985. To meet this date, the individual forests have targeted December 1983 as the date for their planning activity to be completed.

We recently concluded our review of actions taken by the FS on our recommendation to evaluate alternative timber harvesting policies. We found alternative timber harvesting policies are now part of the FS's Renewable Resources Program and Regional Plans for the Pacific Northwest National Forest Areas. In addition, alternative timber harvesting policies are also included in the FS's forthcoming Renewable Resources Program planning scheduled for implementation beginning in fiscal year 1985. However, the FS does not now plan to submit these analyses in a separate document to the Congress to assist it in determining if legislative action appears warranted. Presenting this evaluation in a separate document, we believed, would allow greater visibility and easier accessibility for the Congress. However, the FS believes that including such an evaluation in its current documents is sufficient. We believe that if the FS plans to maintain the present way of accomplishing an evaluation of alternative timber harvesting policies that it should at least prepare a special summary within presently planned reports which highlights the relevant data and its implications for possible policy change.

While we found that the FS has incorporated inter-forest evaluations of alternative timber harvesting policies in its current planning documents, we also found that the FS has encountered several forest planning problems, some of which have been overcome. Specifically, implementing difficult to interpret regulations and resolving problems encountered during development of new computer model capability delayed overall planning efforts. (See p. 8 of encl. I.) To date, the FS has proposed clearer and less complex regulations and has eliminated the computer programming problems. (See p. 10 of encl. I.) We commend the FS for its efforts, thus far, to overcome these obstacles to effective planning.

Although the problems in most planning activities have been overcome, pulling together regional FS personnel to participate in planning was difficult and may have adversely affected other FS functions. (See p. 11 of encl. I.) For example, some personnel assigned to the regional planning team were taken away from their

official career positions to work on the planning effort. According to some of the regional FS officials, although the exact degree of impact cannot be quantified, this shift in personnel had an adverse effect on some personnel's immediate career development plans and on other ongoing FS programs. In addition, regional officials did not keep accurate records of the costs of placing personnel on planning activities or any records of the effects on other programs. (See p. 11 of encl. I.)

The conditions we identified in Region 6 are believed by some regional and forest officials to be indicative of the progress and problems experienced throughout the FS. However, while other forest areas may have experienced similar conditions, the impact of these conditions may not have been identical to those experienced in Region 6.

Based on our review, we believe that management and fiscal controls are inadequate to determine the costs of FS planning, not just in Region 6, but at all of the regions. FS officials accepted this general conclusion. We also found that the Department should give planning the attention it needs without adversely affecting other programs, especially if planning takes funds or personnel away from other FS activities. However, assuring that sufficient planning resources are available cannot be done unless proper accounting of planning costs are maintained.

#### RECOMMENDATION

We recommend that you:

- Establish fiscal and management controls over planning by formalizing procedures for determining accurate costs and administrative steps necessary to allocate appropriate resources to the planning process.

#### AGENCY COMMENTS

A draft of this report was provided to the Department of Agriculture for official comments. We later discussed the issues identified in this report with responsible Agriculture officials. Their comments and our responses are included in enclosure I and are presented in the text of the report where appropriate.

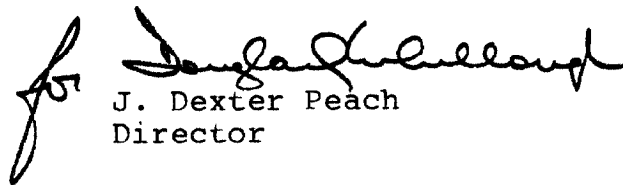
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As you know, section 236 of the Legislative Reorganization Act of 1970 requires the head of a Federal agency to submit a written statement on actions taken on our recommendations to the Senate Committee on Governmental Affairs and the House Committee

on Government Operations not later than 60 days after the date of the report and to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of the report.

Copies of this report are being sent to the Director, Office of Management and Budget; the House and Senate Committee on Appropriations; the House Committee on Government Operations; the Senate Committee on Government Affairs; and other House and Senate Committees and Subcommittees having interest or oversight responsibilities for matters discussed in this report.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "J. Dexter Peach". To the left of the signature is a large, stylized initial "J" or "D".

J. Dexter Peach  
Director

Enclosure

PROBLEMS AND PROGRESS DURING  
CURRENT FOREST SERVICE PLANNING

Over 3 years have elapsed since the FS agreed to reexamine alternative timber harvesting policies. Given this 3-year lapse and the upcoming targeted forest plan completion date of December 1983, we believed it appropriate to follow up on the FS's reexamination.

We recently concluded our review of actions taken by the FS on our recommendation to evaluate alternative timber harvesting policies. We found alternative timber harvesting policies are now part of the FS's Renewable Resources Program and Regional Plans for the Pacific Northwest National Forest Areas. In addition, alternative timber harvesting policies are also included in the FS's forthcoming Renewable Resources Program planning scheduled for implementation beginning in fiscal year 1985.

Currently, timber supplies on Pacific Northwest (Region 6) Federal lands are more than sufficient to meet any current demand for timber from these Federal lands. This condition is believed to be due to high interest rates and their effect on the housing market coupled with less expensive foreign imports that are reducing demand for domestic timber. While this condition exists today, it did not exist at the time of our 1978 critique of studies projecting a future timber scarcity. In addition, today's timber surplus condition may not continue long enough to greatly affect the demand for timber by the year 2030--the year the studies projected the timber scarcity to occur. In any event, we believe that the FS should be prepared to provide Federal timber to help meet current and future national needs.

During the course of this review, we became involved in the FS's current planning activities, specifically in the Region 6 area. We found that:

- The existing regulations have been difficult to interpret and carry out. Headquarters officials have generated periodic changes in procedural guidance, causing regional FS planners to backtrack over some planning functions that they considered complete. This backtracking ultimately caused the region and consequently some forests' planning completion dates to slip as much as 25 months. The FS has, however, proposed clearer regulations that it believes will facilitate implementation.
- Developing a computer model capable of allocating specific amounts of forest resources to meet planning projects was time consuming due to

programming problems. These computer model problems delayed some forests' planning processes from 5 to 8 months. However, this delay, for the most part, was concurrent with the delay associated with implementing the regulations. The FS has taken steps to assure that adequate computer planning model capability exists.

- Performing an inter-forest evaluation of alternative harvesting policies may allow FS officials to determine the maximum available timber production while reducing non-timber use conflicts within the national forest system. However, the FS does not now plan to submit this analysis in a separate document to the Congress to assist it in determining if legislative action appears warranted. The FS believes that including such an evaluation in its current documents is sufficient. We believe that if the FS plans to maintain the present way of providing an inter-forest evaluation of alternative timber harvesting policies that it should consider highlighting these data in the document summaries.
- Pulling together regional FS personnel to participate in planning was difficult and may have adversely affected other FS functions. For example, some personnel assigned to the regional planning team were taken away from their official career positions to work on the planning effort. According to some of the regional FS officials, although the exact degree of impact cannot be quantified, this shift in personnel had an adverse effect on some personnel's immediate career development plans and on other ongoing FS programs.

These conditions were identified in Region 6, but are believed by FS officials to be indicative of the progress and problems experienced throughout the FS. However, the impact of these conditions on other national forest areas may not be exactly identical to those experienced in Region 6.

#### OBJECTIVE, SCOPE, AND METHODOLOGY

We initiated this review to determine what actions the FS has taken on our recommendation to evaluate alternative timber harvesting policies, specifically in the FS's Region 6 area. As a result, we reviewed the ongoing planning process. Planning, for our purposes, means the activities undertaken to develop a long-range (5-year) program that projects the level of future outputs of forest resources with associated costs. FS planning has three levels--national, regional, and individual forest.

In undertaking these tasks, we conducted our work primarily at the Pacific Northwest Regional Office in Portland, Oregon, with limited work at the Department of Agriculture's headquarter's in Washington, D.C. We also visited 2, Mt. Hood and Deschutes, of the 19 National Forests in Region 6 currently involved in planning. During our effort, we interviewed FS officials at the three levels, reviewed pertinent records, and examined applicable laws, regulations, policies, and procedures pertaining to another prior report's 1/ recommendations that address FS planning on a national level, and to current FS planning efforts for the Region 6 area.

Our review was performed in accordance with GAO's current "Standards of Audit of Governmental Organizations, Programs, Activities, and Functions."

### BACKGROUND

The Forest and Rangeland Renewable Resources Planning Act of 1974 (P.L. 93-378), as amended by the National Forest Management Act of 1976 (P.L. 94-588), requires the Department of Agriculture to submit (1) an assessment of the forest and range renewable natural resource situation in the United States once every 10 years and (2) a long-range FS program plan based on the assessment once every 5 years. In addition, the statute provides direction for preparing land management plans by individual forest and requires an annual report to the Congress which evaluates the progress in implementing the program.

In June 1979, a Presidential directive instructed Agriculture to "use maximum speed in updating land management plans on selected National Forests with the objective of increasing the harvest of mature timber through departure from the current non-declining even-flow policy." This directive, coupled with regulations promulgated to implement P.L. 94-588, accelerated planning in the FS's Northern, Pacific Southwest, and Pacific Northwest regions and respective forests. Individual forests are to include in their planning an evaluation of the possibility of departing from current timber harvesting policy.

Region 6 planning began in 1979 and was to be completed in July 1980. Forests selected for accelerated planning had initial targeted completion dates set for or about December 30, 1980. All other individual forest areas are scheduled to have their plans completed by December 1983. From these plans, the FS will prepare its fiscal year 1985 Renewable Resources Program.

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1/U.S. General Accounting Office, "The National Forests--Better Planning Needed to Improve Resource Management," July 12, 1978, (CED-78-133).

REGULATIONS AND COMPUTER PROGRAMMING--  
PLANNING PROBLEMS THAT APPEAR TO HAVE  
BEEN OVERCOME

Region 6 regional and forests' planning efforts were delayed by difficult to interpret regulations and problems encountered during the development of new computer program model capability. Revised interpretations of the regulations by FS headquarter officials resulted in intermittent changes in procedural guidance, requiring regional FS planners to go back over functions they considered complete. At the same time, transferring the program from one computer system to another and operating under computer center capacity limitations contributed to the planning delay.

Although these problems were encountered, the FS has taken steps to overcome these difficulties by proposing clearer regulations and assuring that adequate computer planning model capability exists. These corrective efforts should allow future planning, beginning with the Renewable Resources Program for fiscal year 1990, to be completed in a more timely and efficient fashion.

Regulations

In September 1979, Agriculture issued regulations providing procedural guidance to implement the 1974 act, as amended. Region 6 officials found the regulations difficult to interpret and comply with. They informed us that revised interpretations of the regulations are considered to be the primary reason for major intermittent changes in planning direction and slippage in scheduled completion dates.

According to most FS personnel we talked to, current FS regulations (36 CFR 219) are too theoretical in nature, highly technical in the use of terms, and very broad in providing direction. This has created uncertainty regarding what is required and made it difficult to comply with the statutory mandates. According to Region 6 officials, the problem stems from the fact that the regulations were prepared by a committee of scientists from the academic community. However, while the scientific committee may have helped prepare the regulations, FS headquarters personnel were in full-charge of finalizing and issuing them.

Some FS regional officials experienced difficulty in deciding what the regulations required and how to best meet those requirements. In addition, headquarters officials intermittently provided the region and forests with major guidance documents to reflect reinterpretations of the regulations. Each interpretation represented a major shift in planning direction causing the region and forests to restructure their planning efforts by "backtracking" over previously completed work to incorporate new requirements and to set new target completion dates. For example, the region and forests received the following instructions:



- In July 1980, the region was directed to include planning alternatives within the draft documents and upper and lower limitations on each suggested planning alternative.
- In December 1980, the region was directed to provide a new format for the environmental impact statement and strike out the lower limitation for each planning alternative.
- In February 1981, the region was directed to drop the program planning alternatives altogether and focus instead on alternative standards and guidelines for planning.
- In October 1981, the forests were directed to further define the amount of resource capabilities and the range of alternatives required for the FS planning.

Consequential to each guidance change, regional and forest officials adjusted original target completion dates. For example, the Region 6 plan, originally scheduled for July 1980 was not submitted until July 1981, 12 months late. At the forest level, the Deschutes National Forest plan, originally scheduled for November 1980, is now scheduled for December 1982, a slippage of 25 months, while the Mt. Hood National Forest plan, originally scheduled for March 1980, slipped 21 months. In addition, over half of the other 17 forests in Region 6 are 9 or more months behind original planning completion dates. Regional and forest site officials we talked to attribute all these slippages to the changes in direction caused by reinterpretation of the regulations.

New regulations were proposed by the FS in February 1982, and are expected to be ready for final comments by September 1982. Most FS officials we talked to believe the new regulations will provide the necessary clarity and simplicity to make the statutory requirements easier to meet. They believe that the regulations (1) can be carried out on a practical basis, (2) will provide non-technical terms or adequate definitions for any technical terms used, and (3) will have sufficient detail of what is required so that headquarter's can provide explicit, accomplishable guidance.

#### Computer Modelling

To aid the forests' planning processes, the FS employed a complex, linear programming model. The model, known as FORPLAN, is an extension of an existing forest resource model with added capabilities to allocate forest resources to meet planned projections without adversely affecting other resources. In its early stages, FORPLAN experienced programming problems that

delayed planning 5 to 8 months. Specifically, FORPLAN was not sufficiently debugged, was without adequate user documentation and instructions, and was constrained by limited computer center capacity.

After its development and testing, FORPLAN was transferred from a Burroughs to a Univac computer system. The shift required extensive debugging to clear up problems in transferring the data and explanatory documentation and instructions to users. As a result, regional and forest site officials could not begin their planning activities until these problems were resolved.

Coupled with the FORPLAN problems, forest site officials had to deal with "stretched" computer center capacity. The Fort Collins Computer Center, where the Univac System containing FORPLAN is located, had extremely limited capacity. As a result, FS programmers experienced long turnaround times in receiving results from data fed into the model. Computer response is usually instantaneous, in that results are given when requested. However, the slow turnaround, at least a day for each response requested, was time-consuming when trying to debug and prepare user documentation. Since then, the Fort Collins Computer Center has increased its capacity which now permits adequate FORPLAN capability to exist.

INTER-FOREST EVALUATION TO  
IDENTIFY ALTERNATIVE TIMBER  
HARVESTING POLICIES SHOULD BE  
REPORTED SEPARATELY

In our 1978 report 1/, we stated that decisions on harvest policy should not be made separately from a broader analysis of the supply situation and environmental effects. Further, we recommended that the FS prepare a single, comprehensive study for the Congress, evaluating the effects of alternative harvest and timber management policies on the economy, environment, and non-timber uses of the national forests. By submitting this analysis in a separate comprehensive document to the Congress, the analysis will be highlighted rather than fragmented throughout a much larger document that addresses all major forest issues. However, instead of preparing the single comprehensive study, the FS has included this analysis in its current planning program for fiscal year 1985. The FS believes that including such an evaluation in its current documents is sufficient.

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1/"Projected Timber Scarcities in the Pacific Northwest: A Critique of 11 Studies," December 12, 1978, (EMD-79-5).

The FS is examining on an inter-forest basis possible harvesting alternatives that are included in the individual forest plans. This effort will allow FS officials to evaluate and identify alternative harvesting policies for the national forest system that could potentially increase timber production (when needed) while reducing non-timber use conflicts. This inter-forest evaluation is important and could be used by the Congress to determine if legislative actions appear warranted to implement alternative timber harvesting policies.

AD HOC PLANNING DID NOT  
CONSIDER PERSONNEL COSTS  
AND OTHER PROGRAM EFFECTS

Region 6 had difficulty pulling together trained and experienced personnel to participate in the planning. This necessitated taking personnel from their regularly assigned career positions. Regional officials did not, however, keep accurate records of the costs of placing personnel on planning activities or any records of the effects on other programs.

To staff the Region 6 planning effort, individuals from a variety of positions and jobs were pulled together to participate in the planning activity. Since comprehensive planning requirements of this kind had never before been undertaken by Region 6, some of those personnel assigned had no prior planning experience. According to an August 1981 memorandum from the regional planning Core Team Leader:

"The Regional Plan Core Team had no official organization. It was entirely an ad hoc group with positions and jobs to do in various Regional Office staff groups."

The Core Team Leader's memo continues:

"Some Core Team members had difficulty in doing two jobs. In some cases, Core Team members were denied career development training and experience in order to work on the Regional Plan."

As the Core Team Leader memo indicates, the planning could have adversely affected other FS functions. According to regional officials we talked with, since planning is a high priority effort, other program functions were adversely affected, yet they could not quantify the effect since no records were kept.

FS regional officials also did not keep accurate records on planning costs. Personnel working on the planning activities did not charge their time to a planning fund account; therefore,

no accurate costs are available. Accounting for the total costs of planning would provide FS officials better budgeting information, and more importantly, would indicate whether or not additional funds are needed for planning. Therefore, we believe that proper accounting of the impacts of planning, both in terms of costs and on personnel, are needed.

#### CONCLUSIONS

We initiated this review to determine what actions the FS has taken on our prior recommendation to evaluate alternative timber harvesting policies. While we found that the FS has incorporated such an evaluation in its current Renewable Resources Program and Regional Forest Plans, we also found that the FS has encountered several problems, some of which have been overcome. Specifically, implementing difficult to interpret regulations and resolving problems encountered during development of new computer model capability delayed overall planning efforts. To date, the FS has proposed clearer and less complex regulations and has eliminated the computer programming problems. We commend the FS for its efforts, thus far, to overcome these obstacles to effective planning.

Region 6 has included in its planning an inter-forest analysis to evaluate and identify alternative timber harvesting policies to determine maximum available timber production while reducing non-timber use conflicts. In order that this important evaluation be easily accessible and visible, it should be highlighted in the FS document summaries.

In Region 6, regional planning was done by an ad hoc group of personnel. According to regional FS officials, this staffing tactic (1) did not accurately account for planning program costs, (2) adversely affected individual career development, and (3) may have had an adverse effect on other FS programs.

The conditions we identified in Region 6 are believed by some regional and forest officials to be indicative of the progress and problems experienced throughout the FS. However, while other forest areas may have experienced similar conditions, the impact of these conditions may not have been identical to those experienced in Region 6.

Based on our review, we believe that management and fiscal controls are inadequate to determine the costs of FS planning, not just in Region 6, but at all of the regions. FS officials accepted this general conclusion. We also found that the Department should give planning the attention it needs without adversely affecting other programs, especially if planning takes funds or personnel away from other FS activities. However, assuring that sufficient planning resources are available cannot be done unless proper accounting of planning costs is maintained.

RECOMMENDATION

We recommend that you:

- Establish fiscal and management controls over planning by formalizing procedures for determining accurate costs and administrative steps necessary to allocate appropriate resources to the planning process.

AGENCY COMMENTS

A draft of this report was provided to the Department of Agriculture for official comments. We later discussed the issues identified in this report with responsible Agriculture officials. Since we did not receive written comments, FS officials' oral comments are paraphrased below along with our responses.

Regulations and computer program

The headquarters officials agreed that problems were encountered because of existing regulations and developing a computer program which ultimately delayed FS planning. More importantly, the officials acknowledged that revising the regulations and having the computer program operational were necessary measures taken to improve the FS's future planning efforts.

Personnel difficulties

FS headquarters officials affirmed regional personnel comments that obtaining personnel for planning created a problem. Specifically, headquarters officials agreed that having personnel taken away from regularly assigned functions may have caused some adverse effect on those functions. The headquarters officials also stated that the Department is currently considering ways to improve future forest planning activities, especially in Region 6.

Finally, the officials suggested that we identify the unit--region, forest, or headquarter--affected by the problem under discussion. We have addressed this latter concern throughout the text of this report where appropriate.