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UNITED STATES GENERAL ACCOUNTING OFFICE

WASHINGTON, D C 20548

RESOURCES AND ECONOMIC
DEVELOPMENT DIVISION

MAR 15 1973

Mr. John R McGuire
Chief, Forest Service
Department of Agriculture

Dear Mr. McGuire.

We have surveyed the Forest Service's policies, procedures, and practices for determining allowable timber harvest levels (allowable harvest) on national forest land. The survey covered selected field offices in the Intermountain and Pacific Northwest Regions and included discussions with Forest Service field and headquarters personnel.

At the time of our survey, the field offices were determining new allowable harvests in accordance with new manual instructions. These instructions require that all timber management plans be updated by July 1, 1973. In addition, headquarters personnel were in the process of implementing several of the actions listed in the "National Forest in a Quality Environment Action Plan" for improving the accuracy of allowable harvest computations. Because of the actions being taken, we do not plan to continue our survey at this time.

During our survey we noted certain ways in which we believe the Forest Service could improve its planning for allowable harvests. These include (1) using more precise timber resource data in computing allowable harvest, (2) comparing planned timber management assumptions with past accomplishments, and (3) providing more specific criteria for classifying commercial forest land. These improvements, which are discussed in more detail below, would provide land managers with a better basis for determining and appropriately adjusting sustainable harvest levels.

Need to use more precise timber resource
data in computing allowable harvests

In computing allowable harvests, Forest Service field personnel generally use forest inventory data, such as the forest's physical characteristics, condition, capacity, and volume, developed from a statistical sampling process. The data is used in estimating the timber resources on commercial forest land within the area sampled, and to determine and regulate the allowable harvest. In some instances, more

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precise inventory data than that developed statistically was available but resource managers had not used it when determining the allowable harvest. According to field officials, Forest Service policy is to rely primarily on the inventory data developed from the statistical sampling process although more precise data may be available from other sources.

At one national forest with 874,000 acres of commercial forest land, for example, statistical sampling data indicated that the forest's road network occupied about 44,000 acres while the forest's road inventory records showed that the road network occupied only about 12,000 acres. According to a forest official, 44,000 acres--the statistical estimate--were excluded from the commercial forest land base that was used to compute the forest's tentative annual timber harvest volume.

A forest official agreed that the inventory record figure--12,000 acres--was more precise but told us that no adjustment had been made in the commercial forest land base because it was Forest Service policy not to combine statistical sampling data with inventory record data. As a result, the computed allowable harvest volume will be lower than it might have been because it is based on about 32,000 acres less than is actually available for commercial timber production.

Need to compare timber management assumptions with past accomplishments

The Forest Service needs to strengthen its procedures to require that timber management assumptions used in calculating the allowable harvest be compared with past field accomplishments. Such comparisons would assist field officials in evaluating the reasonableness and soundness of the assumptions and also provide a better basis to calculate and subsequently adjust allowable harvest estimates.

In the Pacific Northwest Region, for example, the computed allowable harvests for most forests during the past 15 years had been based, in part, on the assumption that a 5-year period was needed to successfully establish new timber stands on cutover areas. At one national forest in the region, however, an analysis made for a purpose not directly related to allowable harvest computations showed that it took significantly longer than 5 years to establish new timber stands on cutover areas and that, if delays in establishing new timber stands were reflected in the computations, the forest's allowable harvest would have been reduced by more than 5 million board feet annually.

Officials of two forests in the region told us that the assumption had not been compared with actual accomplishments to determine its accuracy and regional officials told us that the region did not have procedures requiring such comparisons.

Need for more specific criteria for
classifying commercial forest land

The Forest Service Manual (FSM 2412 15) was amended in May 1972 to require that the commercial forest land used in determining the allowable harvest be classified in the following components

Standard Land areas on which crops of wood can be grown and harvested with adequate protection of the other forest resources

Special Land areas that are recognized in multiple use plans as needing specially designed treatment of the timber resources to achieve landscape or other key resource objectives

Marginal Land areas not qualifying as standard or special components primarily because of excessive development costs, low product values, or resource protection constraints

Unregulated Land areas that will not be organized for timber production under sustained yield principles

We noted significant differences in the interpretation of these manual provisions by field personnel. For example, officials of one national forest estimated in a tentative timber management plan that about 135,000 acres of commercial forest land in that forest should be placed in the marginal category because of fragile or adverse soil conditions. The tentative plan showed that present logging techniques could not be used to harvest these areas without excessively damaging the forest resources.

Officials of another national forest had not classified any land in their tentative timber management plan as marginal to reflect soil problems, although available information showed that about 70,000 acres of commercial forest land in that forest could not be harvested with present logging equipment without damaging forest resources. A forest official told us that the 70,000 acres were classified as standard because officials there considered special logging systems, such as balloons and helicopters, to be present logging techniques. At the time of our survey, balloon or helicopter logging systems, although planned, had not been used on this forest.

Forest and regional officials agreed that the guidelines had been interpreted differently and indicated that more specific instructions would help to insure consistent interpretation between regions and forests and assist them in classifying commercial forest land into the standard and marginal timber harvest categories.

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Officials of the Division of Timber Management with whom we discussed these matters agreed that more precise timber resource data, if available, should be used in timber management planning. They stated that the Forest Service was developing revised criteria to improve timber inventory sampling techniques, timber stand mapping, accuracy standards, unit planning, and other factors which affect the timber management planning process. They stated that manual instructions incorporating these revisions should be in draft form in January 1973, with field use anticipated later in the year.

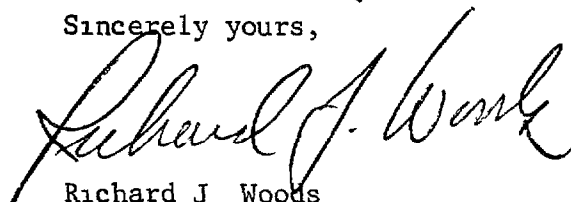
The officials also agreed that the Forest Service needed to strengthen its procedures for comparing plans with past field accomplishments to evaluate the reasonableness and soundness of timber management assumptions. According to the officials, such procedures were being considered for use in the timber subsystem of the Forest Service's Information for Management (INFORM) project. The first stage of this subsystem is scheduled to be implemented during fiscal year 1974.

The officials stated that additional field experience was needed with the new manual provisions to determine the significance of the problem of classifying commercial forest land into the various harvest categories. They said that they would contact regional offices to obtain any supplemental criteria developed on the matter and would distribute it to field locations which do not have supplemental criteria for classifying commercial forest land.

We wish to acknowledge the cooperation given to us by Forest Service personnel during our survey. We would appreciate your written comments on the matters discussed in this letter and the actions taken or planned by the Forest Service thereon.

Copies of this letter are being sent to the Regional Foresters, Pacific Northwest and Intermountain Regions, and to the Inspector General, Department of Agriculture.

Sincerely yours,



Richard J. Woods
Assistant Director