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REPORT TO THE CONGRESS

Funds Appropriated For Roads And Trails Could Be Used More Effectively By The Forest Service

B-125053

Department of Agriculture

BY THE COMPTROLLER GENERAL
OF THE UNITED STATES

NOV. 20, 1970

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COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON D C 20548

B-125053

To the President of the Senate and the
Speaker of the House of Representatives

This is our report on how the funds appropriated for roads and trails could be used more effectively by the Forest Service, Department of Agriculture. Our review was made pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

Copies of this report are being sent to the Director, Office of Management and Budget, and to the Secretary of Agriculture

A handwritten signature in black ink that reads "James B. Stacks".

Comptroller General
of the United States

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ABBREVIATIONS

GAO General Accounting Office

OIG Office of the Inspector General, Department of
 Agriculture

D I G E S T

WHY THE REVIEW WAS MADE

The General Accounting Office (GAO) reviewed the Forest Service's procedures for allocating funds for the construction of roads and trails because of indications that priority was not being given to those projects offering the greatest benefits or fulfilling the greatest needs.

The Forest Service is responsible for about 187 million acres of land--a total area larger than the State of Texas--in 154 national forests and 19 national grasslands. For fiscal year 1969, the Congress appropriated about \$112 million for the construction and maintenance of roads and trails for the management of forest resources--recreation, range, timber, watershed, and fish and wildlife.

At June 30, 1969, the Forest Service had

--completed construction of about 199,000 miles of roads and about 100,000 miles of trails and

--planned for the construction of 179,000 miles of roads and 23,000 miles of trails and for the reconstruction of 148,000 miles of roads and 50,000 miles of trails at an estimated cost of \$10.4 billion. (See pp. 5 and 6.)

FINDINGS AND CONCLUSIONS

Forest Service procedures for allocating funds for the construction of roads and trails do not provide for adequate comparisons of the needs of the various national forests that would ensure that funding priorities are given to the most-needed projects. (See p. 7.)

The desirability of allocating roads and trails funds on the basis of the greatest need is recognized in the Federal-Aid Highway Act of 1958. The act provides that the funds be allocated according to the relative needs of the various national forests, taking into consideration the existing roads and trails, value of timber or other resources served, relative fire danger, and comparative difficulties of roads and trails construction. (See p. 8.)

The Forest Service headquarters office allocates roads and trails construction funds--exclusive of amounts needed for administration, maintenance, and special construction projects--to each of its nine regional offices in proportion to the projected volume of timber to be cut and the estimated number of recreation visits. (See pp. 8 and 9)

Decisions made by regional and individual forest officials to fund specific projects are limited by the funding levels established by the headquarters office and are based on their knowledge of the conditions existing in their local areas of operation. These decisions are not based on an overall perspective of servicewide conditions nor are they based on a servicewide priority system that would provide for considering the overall goals of the Forest Service for the management, protection, and utilization of all forest lands and resources. (See pp. 9 and 10)

GAO's review of the funding of construction projects proposed for fiscal year 1969 in six forests in one Forest Service region showed that funds were being used on projects that fulfilled limited needs while projects of greater need were deferred

For example

--In fiscal year 1969 Forest Service officials in the State of Washington committed funds to construct 1.4 miles of road--which was not immediately needed--to use up funds that originally were assigned to another project that was deleted from the forest development plans

--Although aware of the need for 9 years, Forest Service officials in Oregon have been unable to obtain funding for an access road to a large drainage area that has (1) about 236 million board feet of timber that could be cut, (2) about 3,000 acres of land with timber in need of thinning and pruning, (3) old growth timber that is dying out, (4) overly thick reproduction on burned-over areas, (5) white pine timber that has been almost completely killed off by mountain pine beetles, (6) high potential for recreational use, such as hunting, fishing, and sightseeing, and (7) potential for additional grazing.

These and other examples are discussed in detail on pages 11 to 21 of this report.

GAO is not questioning the need for any roads and trails construction projects. GAO believes, however, that an effective system for comparing the needs of all forests and for assigning priorities on the basis of their relative needs is essential to the effective use of available funds because

--some projects fulfill significantly greater needs than others,

--according to testimony by the Chief of the Forest Service during fiscal year 1970 appropriation hearings, funds appropriated each year for Forest Service activities, including construction of roads and trails, are sufficient to finance only about 60 percent of annual needs, and

- ^{eastern}
--the presence of roads and trails directly affects the ability of the Forest Service to manage forest resources.

RECOMMENDATIONS OR SUGGESTIONS

The Chief, Forest Service, should

- establish service-wide priorities on the basis of overall Forest Service objectives for the management, use, and protection of national forest resources,
- require regional foresters and forest supervisors to identify their roads and trails construction needs in accordance with the established priorities, and
- provide for a headquarters review to ensure that the needs identified and the projects funded are consistent with the established priorities.

AGENCY ACTIONS AND UNRESOLVED ISSUES

The Forest Service advised GAO that it agreed in principle with GAO's recommendation. (See app. I.) The Forest Service stated that a better system for programming and funding roads and trails projects is needed to

- support the development and management of forest resources,
- assist in internal planning, and
- provide the basis for the Congress to determine appropriate funding levels.

The Forest Service has informed GAO that it expects that a study being made by three California universities under cooperative agreements with the Forest Service will provide information needed to develop a more analytical and comprehensive planning system for selection of priorities. Forest Service officials have told GAO that

- an objective of the study is to furnish data for determining the quantity and quality of resources to be served by forest roads and trails and
- the results obtained from the study should provide a basis for improving the programming and funding of roads and trails construction projects, generally along the lines recommended by GAO.

Forest Service officials stated that, although the target date for completion of the study and implementation of the results is 1975, three

interim reports completed by the universities as of June 1970 contained certain resource data which may affect the allocation of fiscal year 1972 funds for roads and trails.

MATTERS FOR CONSIDERATION BY THE CONGRESS

GAO is issuing this report to inform the Congress of the need for improvements in the Forest Service's procedures for allocating the funds appropriated for roads and trails construction.

CHAPTER 1

INTRODUCTION

The General Accounting Office has reviewed how the Forest Service allocates funds for the construction of national forest development roads and trails. The review was directed toward ascertaining the adequacy of the Forest Service's procedures for ensuring that funds for roads and trails construction are allocated on the basis of the relative needs of the various national forests. Our review did not include an overall evaluation of the administration of the Forest Service's roads and trails program or of the technical quality of engineering work performed. The scope of our review is on page 25.

The Forest Service is responsible for managing, developing, and protecting 187 million acres of land in 154 national forests and 19 national grasslands. The Forest Service, which is headed by a chief, has nine regional offices, each directed by a regional forester who is responsible for the management of activities related to national forests and national grasslands within the region. The principal officials of the Department of Agriculture responsible for the activities discussed in this report are listed in appendix II.

The national forest program is administered under the Organic Act of June 4, 1897, as amended (16 U.S.C. 471), and the Multiple Use-Sustained Yield Act of June 12, 1960 (16 U.S.C. 528). The 1897 act provides for the administration of the forests for the purpose of improving and protecting the forests, securing favorable conditions of water flows, and furnishing a continuous supply of timber. The 1960 act authorizes and directs the Secretary of Agriculture to develop and administer the national forests for multiple use and sustained yield of forest resources--recreation, range, timber, watershed, and fish and wildlife.

In carrying out its responsibilities, the Forest Service has developed long-range plans for the construction or reconstruction of roads and trails in national forests.

These plans are updated annually to show completed and proposed construction or reconstruction. At June 30, 1969, the Forest Service had completed about 199,000 miles of roads and about 100,000 miles of trails. As of that date, the Forest Service had plans for constructing an additional 179,000 miles of roads and 23,000 miles of trails and for reconstructing 148,000 miles of roads and 50,000 miles of trails. The Forest Service estimated that the cost of the planned construction and reconstruction¹ of roads and trails would be \$10.4 billion.

The costs of construction and maintenance of roads and trails are financed by (1) appropriated funds, (2) credits against timber sale prices for roads constructed by timber purchasers, and (3) contributions from cooperators, including States, counties, individuals, and associations. For fiscal year 1969, funds of \$111.9 million were appropriated for the construction and maintenance of roads and trails; credits against timber sale prices for road construction and maintenance were estimated at \$78.6 million; and contributions on hand at the beginning of the year and collected during the year were about \$7.9 million.

Funds for the construction and maintenance of roads and trails are appropriated pursuant to the Federal-Aid Highway Act of 1958 (23 U.S.C. 201), and the act of March 4, 1913, as amended (16 U.S.C. 501). The 1913 act provides for a permanent appropriation of 10 percent of the receipts from the sale of timber and other forest products to be used for the construction and maintenance of roads and trails within the national forest in the State from which such receipts are derived. Of the \$111.9 million of appropriated funds available to the Forest Service for fiscal year 1969, about \$20.9 million represented funds appropriated pursuant to the 1913 act. To simplify programming and accounting for funds, however, the annual appropriation acts provide that these funds be merged with funds appropriated pursuant to the 1958 act.

¹ Hereinafter the term "construction" refers to both the construction of new roads and trails and the reconstruction of existing roads and trails.

CHAPTER 2

FUND ALLOCATION PROCEDURES DO NOT PROVIDE

ASSURANCE THAT GREATEST NEEDS ARE GIVEN PRIORITY

Forest Service procedures for allocating funds for the construction of roads and trails do not provide for adequate comparisons of the roads and trails needs of the various forests. Consequently the Forest Service does not have adequate assurance that funding priorities are given to proposed projects which would fulfill the greatest needs. Our examination into the funding of construction projects proposed for fiscal year 1969 in one region showed that projects which fulfilled limited needs were funded while projects with greater needs were being deferred.

The Forest Service headquarters office allocates roads and trails construction funds--exclusive of amounts needed for administration, maintenance, and special construction projects--to its regional offices on the basis of each region's projected volume of timber to be cut and the estimated number of recreational visits. In allocating the funds, the Forest Service generally does not take into account the relative needs of the various national forests--an objective of applicable legislation--giving consideration to existing roads and trails, the value of timber and other resources served, relative fire danger, and the difficulties of construction.

Decisions made by regional and individual forest officials to fund specific projects are limited by the funding levels established by the headquarters office and are based on their knowledge of the conditions existing in their local areas of operation. These decisions are not based on an overall perspective of servicewide conditions nor are they based on a servicewide priority system that would provide for considering the overall goals of the Forest Service for the management, protection, and utilization of all forest lands and resources.

We do not question the eventual need for roads and trails construction projects but believe that some projects

fulfill significantly greater needs than others. According to testimony by the Chief of the Forest Service during the fiscal year 1970 appropriation hearings before the House Subcommittee on the Department of the Interior and Related Agencies, Committee on Appropriations, the amounts appropriated each year for Forest Service activities, including construction of roads and trails, are sufficient to finance about 60 percent of the total annual needs. We believe that, under these circumstances, an effective system for comparing the needs of all of the forests and for assigning priorities on the basis of their relative needs is essential to the effective use of available funds.

Details concerning the matters discussed above are presented in the following sections.

ALLOCATION PROCEDURES NOT DESIGNED
TO IDENTIFY GREATEST NEED

The desirability of allocating funds for the construction and maintenance of roads and trails in national forests to the areas of greatest need is recognized in the Federal-Aid Highway Act of 1958 (23 U.S.C. 202(b)), which states, in part, that:

"Sums authorized to be appropriated for forest development roads and trails shall be allocated by the Secretary of Agriculture according to the relative needs of the various national forests taking into consideration the existing transportation facilities, value of timber or other resources served, relative fire danger, and comparative difficulties of road and trail construction." (Underscoring supplied.)

Representatives of the Forest Service's Washington headquarters office responsible for allocating roads and trails construction and maintenance funds informed us that, in allocating these funds, the headquarters office first determined the amount of funds it needed for program administration and the amounts needed by the regions for roads and trails maintenance and special construction projects. They stated that the remaining funds were then allocated

proportionately to the regions for roads and trails construction on the basis of (1) the projected volume of timber to be cut within each region and (2) the estimated number of recreation visits within each region. The pro rata funding level for a region can be adjusted if headquarters officials believe that the amount allocated would result in a construction program which the region could not handle.

Headquarters officials told us that the allocation of funds to regional offices on the basis of projected timber cut and estimated recreation visits does not consider the value of the timber or other resources served, relative fire danger, and the comparative difficulties of roads and trails construction within the various national forests. Consideration of these factors is provided for by the Federal-Aid Highway Act of 1958.

In commenting on a draft of this report, the Forest Service by letter dated May 27, 1970 (app. I), stated that funding levels for roads and trails construction were based on a 10-year (fiscal years 1963-72) national forest development plan which gave consideration, on a regional basis, to all forest resources, existing roads and trails, and construction difficulties in terms of estimated costs. The Forest Service stated, however, that, as the demand increased for timber and recreation, it became necessary to deviate from the 10-year plan and to fund regional road construction programs on the basis of recreation visits and timber sales, as described above.

We determined the fund allocation procedures followed by five of the nine Forest Service regions. In some regions, regional foresters were determining the need for roads and trails in their respective forests within the funding levels established by the headquarters office. In other regions, regional foresters were establishing funding levels for the individual forests and the forest supervisors were determining which projects would be funded within their areas of operation. Such determinations were made on the basis of the regional forester's or forest supervisor's knowledge of the conditions which existed within their areas of operation rather than on the basis of an overall perspective of the resource development opportunities that existed servicewide.

Regional officials have advised us that the current Forest Service system of funding roads and trails construction projects

- does not consider difficulties in roads and trails construction arising from differences in soil conditions and topography within a region and between regions,
- does not consider regional differences in the number of roads that can be constructed by timber purchasers or by cooperative financing with county, State, or other Federal agencies, and
- results in programming projects, on the basis of available funds, without necessarily giving priority to the projects that will fulfill the greatest needs of the individual forests.

To determine the effect of the funding procedures followed by the headquarters and regional offices, we reviewed the funding of roads and trails construction projects for six forests in Region 6, which includes the States of Oregon and Washington. The six forests received about \$7.6 million of the \$111.9 million of roads and trails funds appropriated to the Forest Service in fiscal year 1969. Our review revealed several instances where construction projects which fulfilled limited needs were funded while projects with greater needs were being deferred. A discussion of the types of roads and trails construction projects which were being deferred or funded follows.

NEEDED PROJECTS NOT FUNDED

Although the Forest Service has not established procedures that would provide assurance that projects which fulfill the greatest needs are given priority in the allocation of roads and trails funds, it has recognized that certain types of projects are extremely important to the effective management of forest resources. For example, during appropriation hearings for fiscal year 1969 before the House Subcommittee on the Department of the Interior and Related Agencies, Committee on Appropriations, the Forest Service made the following statement concerning the vital need for the construction of roads opening up inaccessible areas.

"An adequate system of forest development roads and trails is essential to insure the continued contributions and values of the national forest system. The presence or lack of access by road or trail has a direct or controlling influence on the proper management and beneficial use of national forest lands and resources. This factor largely determines the value of timber that can be marketed, the size, duration, and distribution of timber sales, and the level of salvage cuttings. It strongly influences the effectiveness of measures for protecting these lands from fire, insects, disease, and other destructive forces. It influences the level of use made of recreation, wildlife, and other resources of the national forests."

Our review of the funding of roads and trails construction projects for the six national forests showed that three of the forests had deferred construction of certain roads planned to provide access to inaccessible areas because their roads and trails funding levels were not sufficient to fund the projects.

Mt. Hood National Forest

Forest officials of the Mt. Hood National Forest in Oregon stated that there was one area of the forest--the White River drainage area--which was inaccessible by road and

which needed to be developed and managed. These officials stated also that, although they had been aware of the need to obtain access to this area for the last 9 years, they had been unable to construct access roads into the area because the forest's funding levels had been insufficient.

The forest officials planned to finance the construction of the main access roads in this area with appropriated funds and to finance construction of all other roads extending from the main access roads by credits against timber sale prices. The estimated cost of constructing the main access roads to be financed with appropriated funds was \$2.3 million.

Forest planning records for the White River drainage area show that

- there is about 236 million board feet of harvestable timber in the area,
- there are about 2,970 acres of land having timber that is 60 to 100 years old and in need of thinning and eventual quality pruning,
- old growth timber in the area is dying out,
- the reproduction on burned-over areas is very thick and at the point of stagnation in some areas, and
- the white pine species has been almost completely killed off by mountain pine beetles.

With respect to the need for access to the area, the regional office advised the Chief, Forest Service, in a memorandum dated August 11, 1969, that the volume of timber in this area had been included in the computation of the allowable timber cut and that the denial of road access to this timber each year had resulted in poor management by overcutting the timber in more accessible areas.

Forest Service photographs demonstrating some of the timber management problems in the White River drainage area, as described by timber management officials of the Mt. Hood National Forest, are presented on pages 13 and 14.



THE GROWTH RATE HAS REACHED A POINT OF STAGNATION AS A RESULT OF THIS YOUNG GROWTH TIMBER BEING OVERSTOCKED



THIS MATURE AND OVERMATURE TIMBER NEEDS TO BE HARVESTED AS THE TREES ARE BEGINNING TO DIE FROM OLD AGE AND SOME TREES ARE INFECTED WITH MISTLETOE



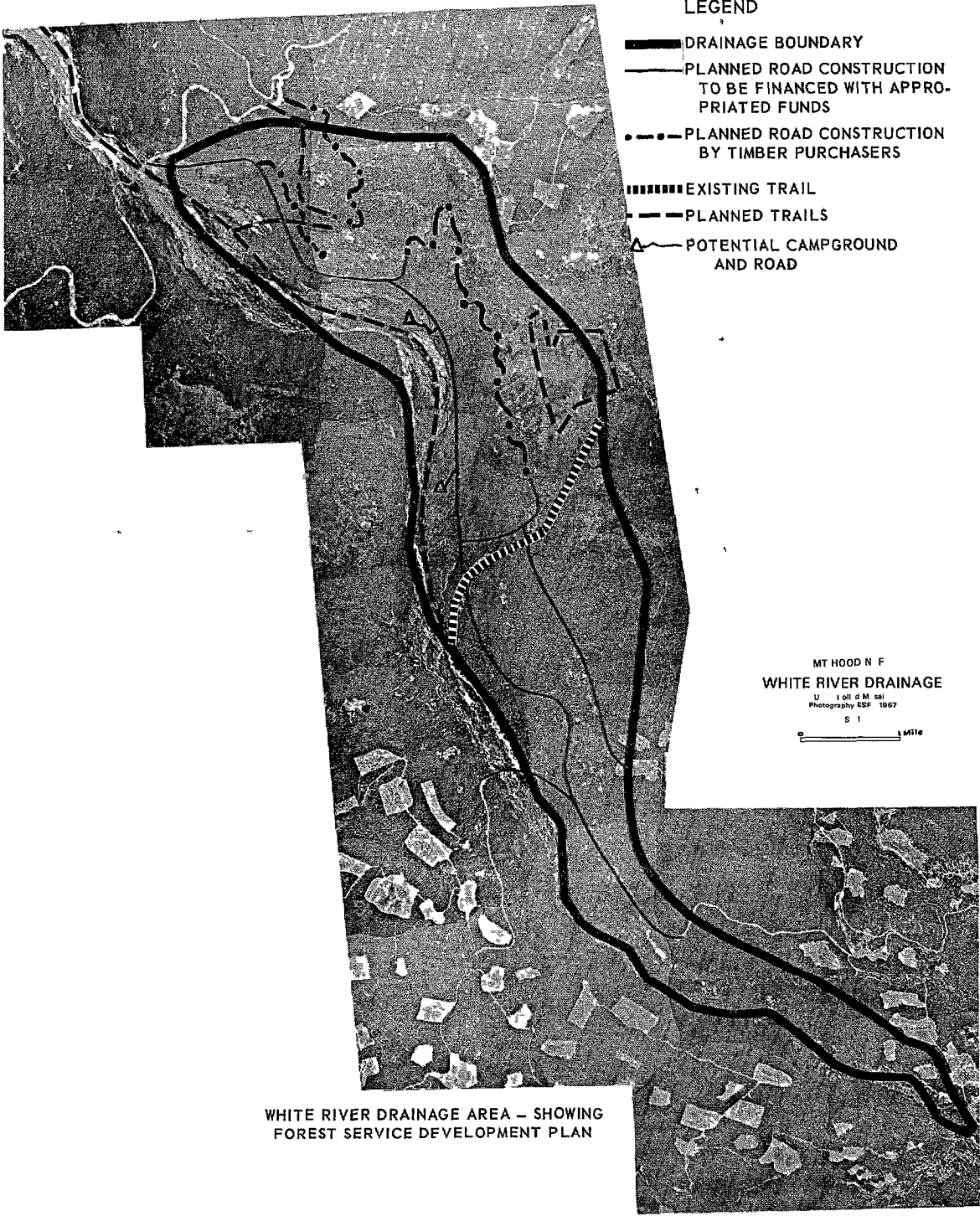
THE SCATTERED OLD GROWTH TIMBER NEEDS TO BE HARVESTED, SALVAGE CUTTINGS NEED TO BE PERFORMED ON DEAD OR DYING TREES, AND OVERPOPULATED YOUNG GROWTH TIMBER NEEDS TO BE THINNED



Forest officials advised us that the White River drainage area could have high recreation use because it has tremendous scenic values and is near the metropolitan area of Portland, Oregon. They also stated that providing access to the area would create new hunting and fishing opportunities because elk and deer pass through the area and native fish are in three streams.

Forest planning records for the White River drainage area show that there are several possible locations for campgrounds and trails and that the use of a river in the drainage area for boating purposes should increase if easier access and more recreation facilities, such as campgrounds and picnic grounds, are provided. The records show also that the allotment of forest land for grazing purposes could be enlarged and improved by seeding log landings, skid trails, and spur roads.

A Forest Service photograph showing the White River drainage area and the proposed locations of the roads and trails system and potential campgrounds for the area is presented on page 16.

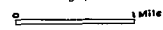


LEGEND

- DRAINAGE BOUNDARY
- PLANNED ROAD CONSTRUCTION TO BE FINANCED WITH APPROPRIATED FUNDS
- - - PLANNED ROAD CONSTRUCTION BY TIMBER PURCHASERS
- ▬ EXISTING TRAIL
- - - PLANNED TRAILS
- △ POTENTIAL CAMPGROUND AND ROAD

MT HOOD N F
 WHITE RIVER DRAINAGE

U S G E O L O G I C A L S U R V E Y
 PHOTOGRAPHY BRANCH
 1967



WHITE RIVER DRAINAGE AREA – SHOWING FOREST SERVICE DEVELOPMENT PLAN

Gifford Pinchot and
Willamette National Forests

Three bridge construction projects, estimated to cost \$153,000, were deleted from the Gifford Pinchot (Washington) and Willamette (Oregon) National Forests' roads and trails construction programs for fiscal year 1969. Officials of the forests advised us that these projects had been deleted from the construction program because the forests' roads and trails funding levels as established by the regional office were insufficient to permit construction of all projects considered to be needed by the forests in fiscal year 1969.

Officials of the two forests had planned to finance the construction of the three bridges with appropriated funds and to award timber sales contracts requiring the timber purchasers to construct the roads extending from the bridges into the inaccessible timber sale areas. At the Gifford Pinchot National Forest, a timber sale of 9.5 million board feet was planned to be made in fiscal year 1969. At the Willamette National Forest, a timber sale of 16 million board feet was planned to be made in fiscal year 1970.

As a result of the deletion of these bridge construction projects from the forests' fiscal year 1969 roads and trails programs, the timber sales were not made and the planned access to these areas was not provided.

An official of the Gifford Pinchot National Forest has advised us that the inaccessible area of the forest contains about 150 to 200 million board feet of timber. Forest Service records show that the area has potential for development for recreational purposes. Officials of the Willamette National Forest have advised us that the inaccessible area of the forest contains about 300 million board feet of timber and that it has potential for development of recreational activities, such as fishing, sightseeing, and camping.

FUNDS USED FOR PROJECTS WHICH
PROVIDED LIMITED CURRENT BENEFITS

During the same period that the projects discussed above were deferred, funds were provided to finance projects in two of the six forests included in our review which were not needed at that time. Also funds were provided for the construction of a road in another forest, which provided limited benefits compared with the benefits obtainable by providing access to inaccessible areas.

In addition officials of the six forests had committed a total of \$352,000 to 64 projects that were estimated to cost less than \$25,000 each--an average of \$5,500 a project. Although these small projects may have been beneficial, it appeared that the funds committed to the projects might have produced greater benefits had they been used on projects providing access to inaccessible areas. These matters are discussed below.

Snoqualmie National Forest

A change in the resource management plans for a particular area of the Snoqualmie National Forest in the State of Washington resulted in forest officials deleting a road construction project estimated to cost \$335,000 from the fiscal year 1969 construction program. A forest official advised us that the regional office had authorized the replacement of the deleted project with another project tentatively programmed for construction in fiscal year 1970.

A forest official advised us that the substitute project was originally planned to be included in the fiscal year 1970 construction program to provide access to timber that was planned to be sold in either late fiscal year 1972 or early 1973. This project, as programmed for fiscal year 1970, involved the construction of 2.9 miles of road at an estimated cost of \$186,300. When the project was added to the fiscal year 1969 construction program, the number of miles to be constructed was increased by 1.4 miles. Although the additional 1.4-mile section of road was not necessary for the planned timber sale, a forest official advised us that the project had been programmed to use up the

remainder of the \$335,000 originally allocated to the deleted project.

The Forest Engineer stated that the additional 1.4 miles of road would form a segment of a major access road. He stated also that there were no plans for use of the 1.4-mile section of road until other segments of the road were constructed.

Siuslaw National Forest

In fiscal year 1969 officials of the Siuslaw National Forest in Oregon initiated the construction of a 1.4-mile section of a major access road. This section, which included the construction of three bridges, was estimated to cost \$167,000.

In response to our inquiry regarding the timber resources that would be served by the construction of the 1.4-mile section of road, forest officials told us that no timber sales were planned for this particular area for at least 5 years. In addition the major access road cannot be constructed until the Forest Service resolves a right-of-way problem with a private land owner.

Deschutes National Forest

Fiscal year 1969 roads and trails funds were used to finance the construction of a road in the Deschutes National Forest in Oregon that offered limited benefits compared with the benefits that could be obtained by providing access to inaccessible areas.

In fiscal year 1969, construction of a 4-mile road estimated to cost \$105,000 was initiated. The road is to parallel an existing Forest Service two-lane paved road and join the existing road at points before and beyond a recreation area.

Forest officials stated that the additional road would eliminate a potential safety hazard resulting from conflicts between recreation traffic and timber traffic on the existing road and would enable logging trucks to haul timber over the most economical route during the entire hauling season.

Because of the high volume of recreation traffic from Memorial Day to Labor Day, logging trucks were required during that period to use another route which was 3 miles longer than the normal route and had a gravel surface.

Forest Service records related to the five active and two planned timber sales in the area showed that the additional road would be needed to reduce hauling costs on only 4.4 million of the 60.8 million board feet of timber covered by the active timber sales contracts. An official of the applicable forest ranger district told us that it was doubtful whether any of the estimated 28 million board feet of timber to be included in the two planned timber sales would be hauled over the additional road. Also the timber-recreation traffic conflict will be eliminated on only the segment of the existing two-lane road between the points where it is joined by the additional road.

Small project construction

At the six national forests included in our review, forest officials committed fiscal year 1969 roads and trails funds of \$352,000 for the construction of 64 small projects that were estimated to cost less than \$25,000 each--an average of \$5,500 a project. Of the remaining 23 construction projects funded in these forests, only six were estimated to cost \$100,000 or more.

With respect to the funding of numerous small projects, the Deputy Chief, National Forest System, and the Deputy Chief for Administration, Forest Service, made the following comments in a March 4, 1969, report to the Chief, Forest Service, concerning needed improvements in Forest Service engineering-related activities.

"Better management of road funds is also needed. Economic analysis of alternatives should be made. It is difficult to understand why there are so many small projects and so few large ones. The advantage of larger projects is obvious--it requires fewer people for design, contracting, and supervision of construction. Also, such large projects usually are aimed at opening up

new territory for management. During the last three years, about 900 contracted road projects were in the category of \$25,000 or less, whereas only 60 were in the category of \$100,000 or more."

The Forest Service, in commenting on a draft of this report, stated that there needed to be a balance between large and small projects and that:

"*** in the case of timber access roads, relatively small projects will produce accelerated volumes of timber and achieve immediate management objectives for certain areas equivalent to the same investment in a large project."

The 64 small projects included such work as the paving of an existing road segment, the renovation or realignment of campground roads, the seeding and mulching of road embankments, the construction of a parking lot, the center-striping of road segments, the relocation of trails, the pavement of a trail, and the construction of a temporary bridge. Although these projects may have been beneficial, the \$352,000 committed to them might have produced greater benefits if used on projects to provide access to inaccessible areas, such as the three bridge projects at the Gifford Pinchot and Willamette National Forests. (See p. 17.)

CHAPTER 3

CONCLUSION AND RECOMMENDATION

CONCLUSION

Forest Service procedures for allocating roads and trails construction funds do not provide adequate assurance that available funds will be used in the most effective manner. In allocating the funds, the Forest Service does not give adequate consideration to the relative needs of the various national forests, considering existing roads and trails, value of timber or other resources served, relative fire danger, and difficulties of construction.

We recognize that it is necessary for regional foresters and forest supervisors to identify the roads and trails construction needs of the forests under their management and that it may not be practicable for the Forest Service headquarters office to make detailed comparisons, on a project-by-project basis, of all roads and trails projects proposed by all 154 national forests. In view of the statement made by the Chief of the Forest Service, however, that funds appropriated each year for Forest Service activities, including the construction of roads and trails, are sufficient to finance about 60 percent of annual needs (see p. 8), and, since roads and trails affect all resource management objectives, there is a need for a servicewide priority system to ensure that available roads and trails funds are used in the most effective manner.

priority system for allocation of funds needed

RECOMMENDATION

We recommend that, to provide for the allocation of roads and trails funds to the projects which offer the greatest benefits or fill the greatest needs, the Chief of the Forest Service (1) establish servicewide priorities on the basis of overall Forest Service objectives for the management, use, and protection of national forest resources, (2) require regional foresters and forest supervisors to identify their roads and trails construction needs in accordance with the established priorities, and (3) provide for a headquarters review to ensure that the needs identified and the projects funded are consistent with the established priorities.

CHAPTER 4

AGENCY COMMENTS AND OUR EVALUATION

The Forest Service advised us by letter dated May 27, 1970 (app. I), that it agreed in principle with our recommendation. The Forest Service has stated that a better system for programming and funding roads and trails construction is needed to

- support the development and management of forest resources,
- assist in internal planning, and
- provide the basis for the Congress to determine appropriate funding levels.

The Forest Service commented on the problems involved in establishing priorities for roads and trails construction projects, such as (1) the large number of projects involved and (2) planning problems resulting from fluctuations in available funds. In our opinion such problems are indicative of the need for an effective priority system to provide assurance that available funds are used for those projects that offer the greatest benefits or fulfill the greatest needs.

The Forest Service also stated that it needed more facts before it could comment on the Region 6 projects cited as examples in this report (see pp. 11 to 21) to indicate the need for a better priority system. The Forest Service stated the view that

- some of its field personnel, when interviewed by us, probably had emphasized their evaluation of the priorities of their projects in relation to those of other Forest Service units,
- such an approach did not necessarily put the Region 6 projects in proper perspective, either regionally or servicewide, and

--the need for a better system for assigning priorities between individual national forests within Region 6 was identified during a 1968 inspection by Forest Service headquarters officials.

Information pertaining to Region 6 projects was obtained by us through an independent review of available records and discussions with forest officials having knowledge of details concerning the nature of the projects. The types of projects being funded at one forest were not discussed with officials of other forests. The views expressed concerning the relative merits of the projects are our views. In any event, we believe that, in the absence of a servicewide priority system that would provide assurance that regional funding levels are based on the relative needs of all national forests, neither we nor Forest Service officials are in a position to readily evaluate what priority, from a servicewide standpoint, should have been given to the specific projects discussed in this report.

The Forest Service advised us that it expected that a study being made by three universities in California under cooperative agreements with the Forest Service would provide information needed to develop a more analytical and comprehensive planning system for selection of priorities. During discussions, Forest Service officials have stated that an objective of the study is to furnish data for determining the quantity and quality of resources to be served by forest roads and trails and that the results of the study should provide a basis for improving the programming and funding of roads and trails construction along the lines recommended by us.

Forest Service officials stated further that, although the target date for completion of the study and implementation of the results is 1975, three interim reports completed by the universities as of June 9, 1970, contained certain resource data which may affect the allocation of roads and trails funds appropriated for fiscal year 1972.

CHAPTER 5

SCOPE OF REVIEW

Our review was concerned with the Forest Service's procedures for allocating roads and trails construction funds to the various national forests and included an examination of applicable laws, regulations, and procedures. Our review was made at the Forest Service headquarters office in Washington, D.C., and at its regional offices in Regions 1, 3, 5, 6, and 8 located at Missoula, Montana; Albuquerque, New Mexico; San Francisco, California; Portland, Oregon; and Atlanta, Georgia, respectively. Our review included an examination of pertinent documents, discussions with appropriate officials in each region, and visits to selected forest supervisors' offices in Region 6.

APPENDIXES

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
Washington, D.C. 20250

May 27 1970

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Mr Victor L. Lowe
Associate Director of Civil Division
U.S. General Accounting Office
Washington, D.C. 20548



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Dear Mr. Lowe

We appreciate the opportunity to review and comment on the draft report on allocation procedures for road and trail construction funds. Your reviewers are to be complimented for their grasp and straight-forward review of a very complex program activity and of the problems encountered

Your draft report's conclusion and recommendation (Chapter 4) relate primarily to establishing Service-wide priorities for road and trail construction, and to providing a method to ensure project funding in accordance with such priorities.

There are some problems in establishing priorities since about 4,000 road and trail projects are scheduled for construction annually. If we use a 3-year planning span, this means that close to 12,000 projects must be studied continually and meshed in with the objective of supporting management of National Forest resources. Considering the projects in preliminary planning stages, a 5-year span would be more realistic. This would then mean close to 20,000 individual projects to be studied at any given time.

There are also certain planning problems involved in trying to meet long-term program objectives when funds fluctuate during the year. For example, FY 1968 funds were reduced by \$15,000,000, halfway through the year. Similarly, acute resource-management problems are involved when actual funds available for construction are less than the initial funding levels established by Congress.

To gain perspective and to take an objective look at where we are now in programming Roads and Trails funds, we need to go back to the 10-year Development Program for the National Forests. This program gave equal emphasis to all the National Forest resources. It also carefully developed the roads and trails program levels required for adequate support, and considered by Regions, existing system, road and trail construction difficulties expressed by estimated costs, and all the Forest resources. It did not, however, recognize or anticipate such changes in management of areas as the establishment of National Recreation Areas, or the need to provide for recreational-use access around water development projects to be built by others on the National Forests.

A copy of a chart showing our progress relative to the 10-year program, updated to FY 1970, is enclosed. As we proceeded into the 10-year program, it became apparent that the funding for resource management, as well as for road and trail construction, was not keeping pace with the demands for using the National Forests. There were also significant changes in the rate at which the demands for Forest resources increased, so that initial resource estimates were lower than the actual use.

We have tried to achieve the necessary, immediate goals without having the corresponding road support funds. The pressure from increased recreation visits and from demands for timber, made it necessary to put aside plans to construct other important roads to meet other management goals, such as fire access roads. Regional Foresters were put in the difficult position of having to build more roads out of timber-sale contract allowances in order to meet timber sale use. While many of the roads did not meet total resource needs, they did permit meeting prudent operator standards for immediate timber sale use. (Part of this story is well illustrated by photos 5 and 6 in your draft report.)

[See GAO note]

As recreation and timber pressures mounted, short-range goals became dominant and overriding and we had to switch from the 10-year program for the National Forests road support objectives.

This was when it was necessary for us to begin funding regional road construction programs on the basis of recreation visits and timber sold, as noted in your report.

GAO note: Illustrations depicted in photos 5 and 6 of the draft report are in the photo on page 16 of the final report.

The Forest Service accepts the challenge of developing a better method for programming and funding road and trail construction. We believe whole-heartedly that this is needed for internal planning needs, as well as providing the basis for the Congress to determine support levels.

Material showing our progress in the Forest Service Transportation System Planning Study was sent to you with Acting Chief Schultz's August 27, 1969, letter. This study is being accomplished cooperatively with the University of California at Berkeley, and by San Jose State and Stanford Universities. As results become available they will be utilized in road and trail programming.

Your draft report cites a number of examples in Region 6 which might indicate there is not a very good or realistic system of setting priorities. Before we could comment on these particular projects we would have to have more facts in each case than are available in the report. We expect, however, that some of our field personnel, when interviewed, saw the occasion as an opportunity to emphasize their evaluation of their own priorities in relation to those of other units. This approach doesn't necessarily put these projects in proper perspective, either regionally or Service-wide.

The problem in Region 6 in selecting priorities of projects was also covered in the August/September 1968 Chief's Office General Integrating Inspection (GII) of the Region, as follows

"Recommendation No. 22. The Region should use a more adequate system of assigning priorities between Forests for the construction and improvement of transportation facilities, and should give high priority to revising its planned transportation system to reflect projected needs for protection and intensive management of resources.

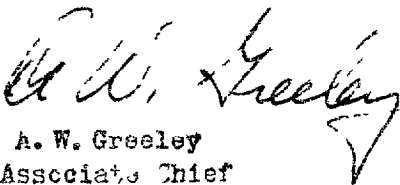
"Priorities for construction of roads which are coordinated with timber sale and other developmental plans are frequently altered by catastrophic events such as fire, floods, or insect infestations. Forests usually are allocated a portion of the Regional budget, but there is considerable variation in the priorities assigned each Forest. These differences appear to be more related to personal preference than to public needs. Similarly, priorities

for the construction and maintenance of trails have a wide range of variation. More intensive planning is needed to determine priorities between Forests. This could be a combination of PPBS type of evaluation supplemented by line judgment."

In addition to selection of priorities, your report also refers to large v. small projects. Actually there needs to be a balance between the two types of projects. Also, in the case of timber access roads, relatively small projects will produce accelerated volumes of timber and achieve immediate management objectives for certain areas equivalent to the same investment in a large project.

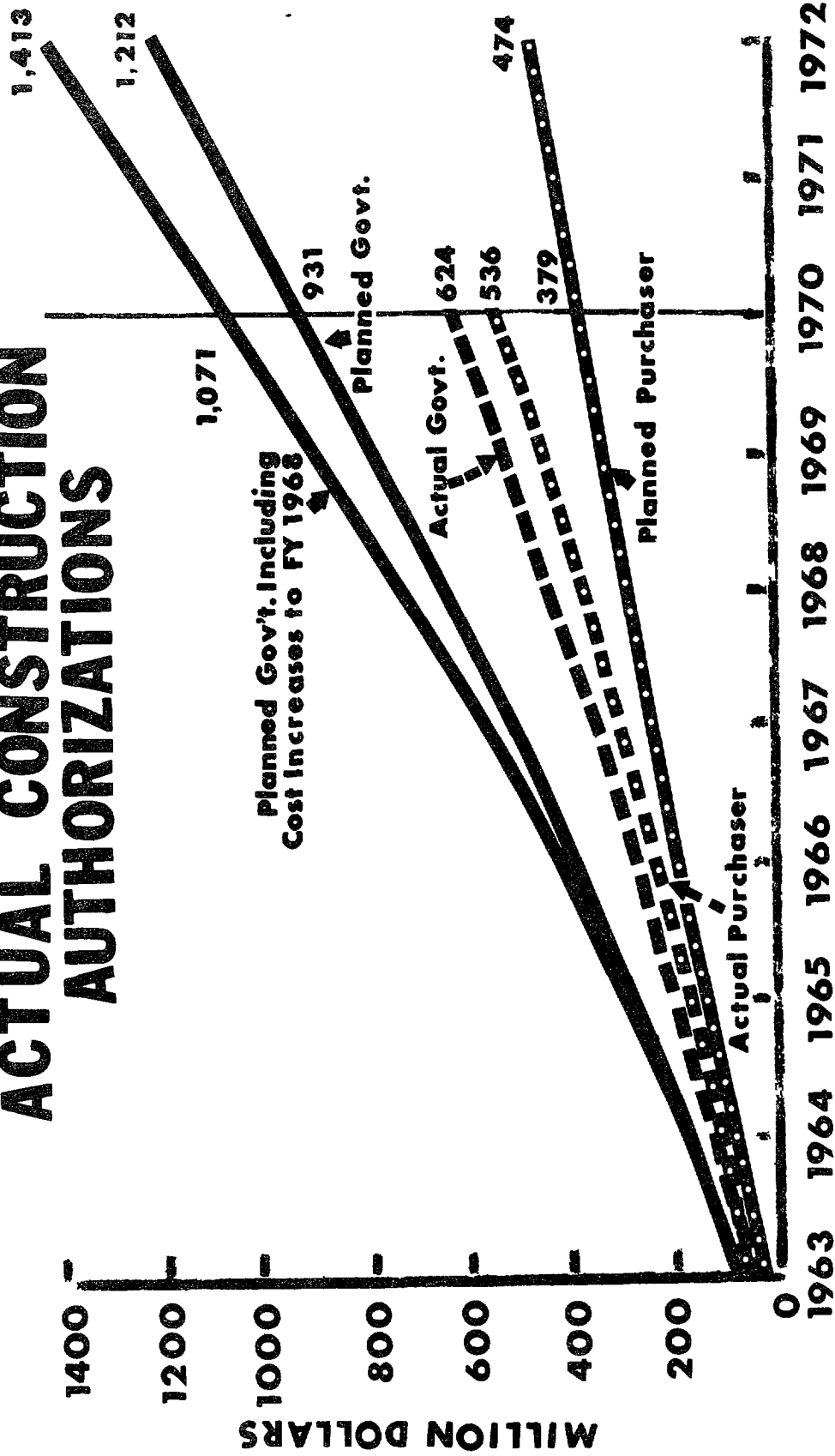
In summary, we agree in principle with the recommendations in Chapter 4 of your draft report. We recognize that a better transportation planning system for projects required to support development and management of the National Forest resources is needed. We are not and cannot be satisfied with existing methods, and believe we are improving them, despite the extreme pressures of short-range objectives and the large number of projects involved. This has been demonstrated by our investing in a study which will develop a more analytical and comprehensive system for selection of priorities

Sincerely,



A. W. Greeley
Associate Chief

COMPARISON OF 10 YR. PROGRAM AND ACTUAL CONSTRUCTION AUTHORIZATIONS



PRINCIPAL OFFICIALS OF
THE DEPARTMENT OF AGRICULTURE
RESPONSIBLE FOR ADMINISTRATION OF ACTIVITIES
DISCUSSED IN THIS REPORT

	<u>Tenure of office</u>	
	<u>From</u>	<u>To</u>
<u>DEPARTMENT OF AGRICULTURE</u>		
SECRETARY OF AGRICULTURE:		
Orville L. Freeman	Jan. 1961	Jan. 1969
Clifford M. Hardin	Jan. 1969	Present
ASSISTANT SECRETARY, RURAL DEVELOPMENT AND CONSERVATION:		
John A. Baker	Aug. 1962	Jan. 1969
Thomas K. Cowden	May 1969	Present
CHIEF, FOREST SERVICE:		
Edward P. Cliff	Mar. 1962	Present
DEPUTY CHIEF, NATIONAL FOREST SYSTEM:		
M. M. Nelson	May 1962	Present