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General Accounting Office
Washington, D.C. 20548

Resources, Community, and
Economic Development Division

B-271631

April 16, 1996

The Honorable Ted Stevens
Chairman, Committee on
Governmental Affairs
United States Senate

Dear Mr. Chairman:

This report responds to your request for information on the Forest Service's use of appropriations to prepare timber sales and the projected and actual volumes of timber offered for sale on the Tongass National Forest in southeast Alaska. You expressed concern that the Forest Service has not offered sufficient volumes of timber to meet its targets, even though the Congress authorized the agency during fiscal years 1992-94 to use its timber salvage sale permanent appropriations (additional appropriations) in addition to its annual appropriations to ensure a steady timber supply for timber purchasers.

As agreed with your office, our review objectives were to (1) determine how the Forest Service spent its additional and annual appropriations for preparing timber sales for fiscal years 1992-94; (2) compare the target volumes with the actual volumes of timber offered in fiscal years 1990-95 and identify the reasons for the differences; and (3) compare the original with the current estimates of the volume of timber to be offered as a result of using the additional appropriations, identify the reasons for differences, and determine when the planned volumes are expected to be offered for sale.

RESULTS IN BRIEF

In fiscal years 1992-94, the Tongass National Forest spent about \$77.5 million to prepare timber sales—\$27.6 million in additional appropriations and \$49.9 million in annual appropriations. These expenditures covered the costs of contracting for environmental impact statements (EIS), preparing timber sales documentation, providing other resource support, and performing preconstruction engineering for timber roads.

GAO/RCED-96-122R Tongass National Forest Timber Volumes

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For fiscal years 1990-95, the Tongass National Forest planned to offer "targets" of about 2.2 billion board feet and actually offered about 1.9 billion board feet, or 88 percent of the original target. The Forest Service cited ongoing litigation, lower actual measured (cruised) volumes of timber offered for sale than were originally estimated, and planning for wildlife habitat conservation areas as the primary reasons for the shortfall.

The Tongass National Forest's February 27, 1996, estimate of the volume of timber to be offered through the use of the additional appropriations is 850 million board feet—about 155 million board feet, or about 15 percent, less than the original estimate of 1,004 million board feet. The Forest Service cited more refined timber volume estimates, the need to protect cave formations and goshawk sites, and actions required to comply with the Tongass Timber Reform Act as the primary reasons for the revised estimate. For fiscal years 1995-2001 the Forest Service estimates that it will offer a total of about 2,213 million board feet, or an average of about 316 million board feet per year.

BACKGROUND

The Forest Service, within the U.S. Department of Agriculture, manages the Tongass National Forest for multiple uses, such as timber production, outdoor recreation, and fish and wildlife. The agency's Alaska Region—headquartered in Juneau, Alaska—carries out these management responsibilities. The Tongass covers about 16.8 million acres in southeast Alaska and is the largest national forest in the United States, approximately equal in area to West Virginia. Because of its magnitude, the Tongass is divided into three administrative areas—Chatham, Stikine, and Ketchikan—each of which has an area office headed by a forest supervisor. Each area office has between two and four districts, headed by a district ranger, to carry out daily operations.

To ensure that sufficient timber would be available to the timber industry in southeast Alaska and to ensure that employment in the timber industry would not decline, section 705(a) of the Alaska National Interest Lands Conservation Act of 1980 (P.L. 96-487) directed that at least \$40 million be made available annually to support, among other things, a timber supply from the Tongass National Forest at a rate of 4.5 billion board feet per decade. This permanent appropriation—the Tongass Timber Supply Fund—was eliminated by section 101 of the Tongass Timber Reform Act of 1990 (P.L. 101-626). Since the supply fund was eliminated in fiscal year 1991, the Tongass timber program has been funded in the same way as the timber programs in the other national forests, through the annual appropriation process.

TIMBER SALE PREPARATION EXPENDITURES
FOR FISCAL YEARS 1992-94

In fiscal years 1992-94, the Tongass National Forest spent about \$77.5 million to prepare timber sales—\$27.6 million in additional appropriations and \$49.9 million in annual appropriations.

Use of Additional Appropriations

In fiscal years 1992-94, the Tongass National Forest received about \$28.2 million in addition to its annual appropriations to prepare timber sales. Of this amount, \$26 million was the result of the special authority contained in the Interior and Related Agencies Appropriation Acts for fiscal years 1992-94, which authorized the Forest Service to use its timber salvage sale permanent appropriation for preparing timber sales. The remaining \$2.2 million was received in fiscal year 1993—a special allocation from the Forest Service's national forest system appropriation. The primary purpose of these additional funds was to prepare additional sales to replenish the inventory of available sales. The specific uses of the additional funds are summarized below and are displayed in detail in enclosure I.

The majority of the \$28.2 million was used to prepare EISs or related documents required by the National Environmental Policy Act (NEPA). The Forest Service awarded contracts amounting to about \$20.8 million to prepare EISs on eight proposed timber projects and spent about \$1.4 million on two projects to perform in-house NEPA work. This work involved both precontract and postcontract award tasks connected with the EIS. Precontract award tasks included developing contract specifications, updating resource databases, developing cost estimates, and holding prebid meetings with prospective contractors. Postcontract award tasks included meeting with contractors to initiate projects and holding regular meetings between contractors and contract administration teams to check on projects' progress and compliance with contracts.

Of the remaining \$6.0 million, the Tongass National Forest spent about \$3.7 million on contracts to lay out harvest units in two project areas that had completed the NEPA process. Laying out harvest units is the third step of the timber sale preparation process and involves such actions as setting the boundaries for the cutting units, marking trees, and identifying the location of roads and log landing areas. Almost \$1 million was spent to amend various other contracts and repackage sales planned for the terminated Alaska Pulp

Corporation contract.¹ Repackaging sales involves writing supplements to the original EIS, validating boundaries, recalculating sales volumes, updating reforestation plans, writing the contract and prospectus, and advertising and awarding the sale. Finally, another \$750,000 was spent to conduct a timber suitability analysis of the Ketchikan area. The analysis included surveying about 90 percent of the Ketchikan area's suitable and available timber lands. The primary objective was to obtain a more accurate estimate of the volume that could be made available for harvest.

The Tongass National Forest carried forward the remaining \$628,000 to fiscal years 1995 and 1996. In 1995, \$490,000 was spent on a contract to redo the layouts for three harvest units of the Central Prince of Wales project in order to protect goshawk nesting sites. The work included the field layout of all harvest units and temporary roads. In addition, the units were traversed and cruised in order to estimate timber volumes and prepare a timber sale report and timber appraisal. The Tongass National Forest plans to use the remaining \$138,000 in 1996 to lay out harvest units for the Lab Bay project.

Use of Annual Appropriations

In fiscal years 1992-94, the Tongass National Forest recorded timber sale preparation expenditures of about \$52.1 million—\$36.1 million from its national forest system appropriation² and \$16.0 million from its construction appropriation. Because the Forest Service does not track timber sale expenditures on a sale-by-sale basis, we could not match the expenditures to individual sales. However, we identified from the Forest Service's accounting records the charges made to those accounts in each of the two appropriations that represent timber sale preparation activities. These expenditures are summarized below and displayed in detail in enclosure II.

Most of the expenditures for preparing timber sales were charged to three accounts—\$18.6 million to timber sale preparation, \$11.2 million to other

¹The Forest Service terminated the Alaska Pulp Corporation's long-term contract for breach of contract on Apr. 14, 1994, because the corporation shut down its pulp mill in Sept. 1993.

²This is the total amount expended and includes the \$2.2 million previously identified above as part of the additional appropriations. The Forest Service's records are not maintained on a sale-by-sale basis; therefore, we could not determine what portion of the \$2.2 million was charged to each of the timber sale preparation activities.

resource support, and \$16.0 million to timber roads-preconstruction engineering. The timber sale preparation account is charged for activities involved in preparing the actual timber sale including laying out the sale, preparing the contract and appraisal, opening the bid, and awarding the sale. The other resource support account is charged for the work done by resource specialists, such as wildlife biologists, who assist in the timber sale NEPA process. The timber roads-preconstruction engineering account is charged for activities such as locating, surveying, and designing forest timber roads.

According to the timber management officers at each of the area offices, charges made to the other resource support account reflect work done by the resource specialists to directly support timber sales. Following are examples of the types of support activities performed in conjunction with timber sales:

- Recreation—Generating models to show how the harvested area will look from a road, recreation site, or inhabited area. Harvesting can then be altered to minimize the impact on visual quality.
- Cultural—Preparing an inventory of the cultural resources at each EIS area. This inventory is then reviewed by the state's historic preservation office. If cultural sites are found, they are cataloged and protected.
- Wildlife—Identifying the wildlife species that exist in a project area and determining what must be done to minimize the potentially adverse effects of harvesting.
- Anadromous Fish—Inventorying and classifying populations of anadromous fish in the project area's streams, determining how far up the streams fish migrate, and establishing buffers to protect the streams.

TARGET AND ACTUAL TIMBER VOLUMES OFFERED IN FISCAL YEARS 1990-95

For fiscal years 1990-95, the Tongass National Forest estimated that it would offer about 2.2 billion board feet of timber for sale. The actual volume offered for sale was about 1.9 billion board feet, or 88 percent of the target volume.

The Tongass exceeded its targets in fiscal years 1992 and 1995, offering 102 and 106 percent, respectively. In the remaining years, it did not meet its targets, resulting in a shortfall of about 286 million board feet. The actual volumes offered ranged from 93 percent of the target in 1991 to 64 percent of the target

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in 1993. The Forest Service cited a variety of reasons for the shortfalls, including the following:

- Timber sales could not be offered as planned because of litigation, appeals, or the need to reevaluate the environmental impact of planned sales.
- The actual cruised timber volumes were less than the estimated timber volumes used to establish the targets.
- Offerings were deferred until proposed wildlife habitat conservation areas could be evaluated.

See enclosure III for a detailed presentation of these data.

**VOLUMES TO BE OFFERED AS A RESULT
OF THE ADDITIONAL APPROPRIATIONS**

As of February 27, 1996, the Forest Service estimates that the volume of Tongass timber that could eventually be offered for sale as a result of the additional appropriations is about 850 million board feet. This estimate is 155 million board feet, or about 15 percent, lower than the original estimate of about 1 billion board feet. The Tongass National Forest plans to offer the volume of 850 million board feet from 11 timber sale projects. When we compared the original estimate with the current estimate, we found that the volume increased on one project, remained unchanged on four projects, and decreased on six projects. The Forest Service said the primary reasons for decreasing the estimated volumes included protecting cave formations and goshawk nesting sites; complying with the proportionality requirements³ of the Tongass Timber Reform Act; planning for wildlife habitat conservation areas; and refining estimates of timber volumes on the basis of ground surveys of harvest areas. See enclosure IV for a detailed presentation of these data.

Because the process of planning for and offering timber sales to timber purchasers is labor-intensive and lengthy, the Forest Service has projected that it will not realize its current estimate of 850 million board feet until fiscal year 2001. The first portion of this volume—18 million board feet—was offered in fiscal year 1995. Enclosure V shows the estimated volume to be offered, by

³Section 301(c)(2) of the act required the Forest Service to modify the long-term timber contracts to eliminate the practice of harvesting a disproportionate amount of high-volume, old growth timber.

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fiscal year, from each of the 11 timber sale projects. To provide a complete picture of future timber volumes, we have also included the estimated volumes the Forest Service plans to offer from its annual appropriations for the same period. The combined estimated timber volume for fiscal years 1995 through 2001 is about 2.2 billion board feet, or an average of about 316 million board feet per year for the 7-year period.

AGENCY COMMENTS

We provided a draft of this report to the Forest Service for its review and comment. We met with Timber Management officials designated by the Chief of the Forest Service to obtain their comments on the draft. These officials agreed with the accuracy of the information contained in our report and said it is a fair presentation of the timber sale preparation situation on the Tongass.

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We conducted our review at the Forest Service's headquarters in Washington, D.C., and its Alaska Region in Juneau, Alaska. We reviewed and analyzed expenditures for preparing timber sales from the Tongass National Forest's additional and annual appropriations. Since the Forest Service's accounting records do not provide expenditures on a sale-by-sale basis, we could not directly compare expenditures to volumes offered. We also reviewed the Tongass National Forest's attainment reports of the target and actual volumes of timber offered to the timber industry. In addition, we reviewed the Tongass National Forest's estimates of the future timber volumes to be offered through fiscal year 2001.


We did not independently verify the reliability of the data provided or of the systems from which they came. However, we did interview each of the area office timber managers and relied on testimonial evidence to explain why target volumes were not achieved and why projected timber volumes have changed. We conducted our review from January 1996 through April 1996 in accordance with generally accepted government auditing standards.

As we arranged with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 7 days after the date of this letter. We will then send copies to the Secretary of Agriculture and the Chief of the Forest Service. We will make copies available to others on request.

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Major contributors to this report were Bob Arthur, Linda Harmon, Jill Lund, and John Murphy. If you have any questions about this report, please call me at (202) 512-3841.

Sincerely yours,



Victor S. Rezendes
Director, Energy, Resources,
and Science Issues

Enclosures - 5

TIMBER SALE PREPARATION EXPENDITURES FROM ADDITIONAL APPROPRIATIONS

Activity	Fiscal year					Total
	1992	1993	1994	1995 ^a	1996 ^b	
NEPA contracts/ projects						
Polk Inlet	\$2,515,357					\$2,515,357
Shamrock	1,234,333					1,234,333
Ushk Bay	2,104,949					2,104,949
Lab Bay	2,455,591					2,455,591
Lindenberg		\$1,793,783				1,793,783
8-Fathom		3,433,775				3,433,775
Control Lake		3,895,300				3,895,300
Port Houghton			\$3,329,561			3,329,561
Subtotal	8,310,230	9,122,858	3,329,561			20,762,649
Internal NEPA work/projects						
King George			1,000,000			1,000,000
8-Fathom			350,000			350,000
Subtotal			1,350,000			1,350,000
Lay out units/projects						
CPOW ^c			2,025,000			2,025,000
North Revilla			1,721,000			1,721,000
Lab Bay					\$138,000	138,000
Subtotal			3,746,000		138,000	3,884,000
Repackage and amend contracts						
Subtotal			963,500			963,500
Perform suitability analysis						
Subtotal			750,000			750,000
Redo CPOW units						
Subtotal				\$490,000		490,000
Total	\$8,310,230	\$9,122,858	\$10,139,061	\$490,000	\$138,000	\$28,200,149

^aFiscal year 1995 expenditures were made from carryover funds from prior years.

^bFiscal year 1996 expenditures will be made from carryover funds from prior years.

^cCentral Prince of Wales.

TIMBER SALE PREPARATION EXPENDITURES FROM ANNUAL APPROPRIATIONS

Appropriation/account	Fiscal year			Total
	1992	1993	1994	
National forest system				
Timber sale preparation	\$ 6,584,114	\$ 7,337,729	\$ 4,653,364	\$18,575,207
Other resource support				
Minerals	30,263	69,339	63,217	162,819
Recreation	348,650	546,605	418,865	1,314,120
Cultural resources	1,090,367	1,003,020	571,531	2,664,918
Wildlife	623,520	507,990	664,418	1,795,928
Inland fish	223,706	218,860	197,540	640,106
Anadromous fish	185,214	654,039	432,696	1,271,949
Threatened/endangered species	369,416	409,687	338,950	1,118,053
Soil and water	747,534	926,437	559,172	2,233,143
Subtotal (other resource support)	3,618,670	4,335,977	3,246,389	11,201,036
Silviculture exams	2,383,148	1,251,062	920,027	4,554,237
Timber resource planning	555,400	818,081	372,920	1,746,401
Subtotal	13,141,332	13,742,849	9,192,700	36,076,881^a
Construction				
Timber roads-preconstruction engineering	5,516,000	6,757,600	3,702,000	15,975,600
Subtotal	5,516,000	6,757,600	3,702,000	15,975,600
Total	\$18,657,332	\$20,500,449	\$12,894,700	\$52,052,481

^aIncludes the \$2.2 million additional allocation received in fiscal year 1993.

TARGET AND ACTUAL VOLUMES OFFERED, FISCAL YEARS 1990-95

Volume in thousands of board feet

Fiscal year	Target volume	Actual volume	Difference	Percentage of target offered	Forest Service's reasons for difference
1990	377,500	334,333	(43,167)	88.6	The offering of two timber sales was delayed. New NEPA guidance made it necessary to reevaluate the environmental impact of the sales and rewrite the environmental impact statements. In addition, a Ninth Circuit Court Order halted the Alaska Pulp Corporation's operations on a portion of one project, reducing the volume of timber available for harvest.
1991	376,000	348,992	(27,008)	92.8	The actual cruised timber volume fell short of the estimated timber volume used to determine the timber target. Litigation reduced the volume of timber that could be offered to the Alaska Pulp Corporation.
1992	411,700	420,262	8,562	102.1	The volume of salvage timber offered was greater than anticipated. Additional timber was offered to meet the Alaska Pulp Corporation's volume requirements.
1993	417,000	266,490	(150,510)	63.9	One sale was not offered as planned because of multiple appeals, which required the Forest Service to prepare a supplemental environmental impact statement and reduce the volume of timber offered for sale. The timber target for one area was based on an overly optimistic estimate of how much timber could be prepared and offered before the end of fiscal year 1993. The records of decision for two timber sales were not issued and implemented in fiscal year 1993 as scheduled; hence, these sales were not offered until fiscal year 1994.
1994	325,000	259,329	(65,671)	79.8	The timber volume originally scheduled for the Alaska Pulp Corporation was not released because the Forest Service terminated its long-term contract. The timber volume on another sale was not offered because an appeal questioned the construction of logging roads in a roadless area. Another timber sale was delayed to resolve the wildlife community's concerns about a proposed habitat conservation area.
1995	273,500	290,467	16,967	106.2	The actual cruised timber volume offered from one sale exceeded the estimated timber volume used to determine the timber target. A concerted effort was made to offer a significant volume of timber that had been blown down.
Total	2,180,700	1,919,873	(260,827)	88.0	

CHANGES TO ESTIMATES OF TIMBER VOLUMES TO BE OFFERED USING ADDITIONAL APPROPRIATIONS

Volume in millions of board feet

Project	Original estimate	Revised estimate ^a	Difference	Forest Service's reasons for difference
Polk Inlet	125.0	122.1	(2.9)	The original estimate was reduced by 2.9 million board feet after better information on the volume of available timber was obtained through field reconnaissance of the project area.
Shamrock	40.0	40.0	0	
Ushk Bay	89.0	67.4	(21.6)	The original estimate was decreased by 21.6 million board feet because a native allotment claim at the head of Deep Bay remained unresolved. The allotment claim affected a site that would have provided access by road to a proposed log transfer facility. It was not economical to haul timber from the Deep Bay watershed to another log transfer facility.
Lab Bay	85.0	40.0	(45.0)	The original estimate was reduced by 45 million board feet because of harvesting's potential effects on karst formations (e.g., caves and springs), emphasis on ecosystem management, and the proportional timber harvest requirements of the Tongass Timber Reform Act of 1990.
Lindenburg	55.0	52.0	(3.0)	The original estimate was decreased by 3 million board feet because of visual considerations stemming from the location of the proposed timber harvest units, the discovery of four active goshawk nests in close proximity to the proposed harvest units and road locations, and the need to conserve old growth stands for potential wildlife habitat conservation areas.
8-Fathom	150.0	105.0	(45.0)	The original estimate was decreased by 45 million board feet to plan for potential wildlife habitat conservation areas, protect goshawk nesting sites, and comply with native subsistence requirements.
Control Lake	187.0	140.0	(47.0)	The original estimate was reduced by 47 million board feet to prevent potential adverse effects on karst formations (e.g., caves and springs), comply with native subsistence requirements, and facilitate ecosystem management.

Project	Original estimate	Revised estimate ^a	Difference	Forest Service's reasons for difference
Port Houghton	123.0	133.0	10.0	The original estimate was increased by 10 million board feet in the 10-year timber sale plans prepared by the Stikine and Chatham areas after better information on timber volumes was obtained.
King George	24.0	24.0	0	
Central Prince of Wales	76.4	76.4	0	
North Revilla	49.7	49.7	0	
Total	1,004.1	849.6	(154.5)	

^aAs of Feb. 27, 1996.

ESTIMATED ANNUAL TIMBER VOLUME TO BE OFFERED USING ADDITIONAL AND ANNUAL APPROPRIATIONS, FISCAL YEARS 1995-2001

Volume in millions of board feet

Appropriations/ project	Fiscal year							Total timber volume to be offered
	1995 ^a	1996	1997	1998	1999	2000	2001	
Additional appropriations								
Polk Inlet	17.9	25.8	54.7	23.7				122.1
Shamrock		21.0				19.0		40.0
Ushk Bay		22.4		20.0		25.0		67.4
Lab Bay			40.0					40.0
Lindenburg			22.0	30.0				52.0
8-Fathom		30.0	15.0		20.0	25.0	15.0	105.0
Control Lake			60.0	55.0	25.0			140.0
Port Houghton				70.0	32.0	31.0		133.0
King George		20.0	2.0	2.0				24.0
Central Prince of Wales		76.4						76.4
North Revilla		49.7						49.7
Subtotal	17.9	245.3	193.7	200.7	77.0	100.0	15.0	849.6
Annual appropriations								
Subtotal	299.5	77.1	105.8	60.0	301.3	292.0	228.0	1,363.7
Total	317.4	322.4	299.5	260.7	378.3	392.0	243.0	2,213.3

^aVolume figures for fiscal year 1995 are actual.

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