United States General Accounting Office

GAO

Testimony

Before the Committee on Energy and Natural Resources, U. S. Senate

For Release on Delivery Expected at 10:00 a.m. EDT Tuesday April 29, 1997

TONGASS NATIONAL FOREST

Lack of Accountability for Time and Costs Has Delayed Forest Plan Revision

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GAO/T-RCED-97-153

Mr. Chairman and Members of the Committee:

We are pleased to be here today to discuss the decision-making process being used by the Department of Agriculture's Forest Service to revise the land management plan for the Tongass National Forest in southeastern Alaska.[1] As requested, we will compare the results of our work for you and Chairmen Stevens and Young on the agency's process for revising the Tongass forest plan with the findings in the report[2] we are issuing today to you and other requesters on the causes of inefficiency and ineffectiveness throughout the Forest Service's decision-making process.

Our work on the Forest Service's process for revising the Tongass forest plan showed the following:

- The Forest Service originally planned to spend 3 years revising the plan. At the end of 3 years, the agency had spent about $4 million. However, the Forest Service has spent another 7 years and $9 million[3] (1) studying and restudying issues without establishing a clear sequence or schedule for their timely resolution; (2) attempting to reconcile its older emphasis on producing timber with its more recent emphasis on sustaining wildlife and fish; and (3) attempting to reach agreement with federal regulatory agencies on an acceptable level of risk to individual natural resources, such as endangered and threatened species, water, and air. Our Forest Service-wide work identified that these factors have contributed to inefficiency in decision-making throughout the agency.
- In revising the Tongass forest plan, the Forest Service has incurred unexpected delays and high costs to better ensure that the new plan is legally defensible, scientifically credible, and able to sustain the forest's resources. Here, as elsewhere, developing a forest plan to avoid or prevail against legal challenges has become increasingly time-consuming and costly. On the Tongass, insufficient data and scientific uncertainty have hindered the development of a plan that can ensure the maintenance of viable populations of animals. As an option to further study and planning without resolution, the Forest Service may be able to move forward with a decision conditioned on an adequate monitoring component and modify the decision when new information is uncovered or when preexisting monitoring thresholds are crossed. However, as our report states, the

[1]The process used by the Forest Service to revise the Tongass land management plan is discussed in detail in app. I.

[2]Forest Service Decision-Making: A Framework for Improving Performance (GAO/RCED-97-71, Apr. 29, 1997).

[3]The Forest Service's costs to revise the Tongass plan are detailed in app. II.

Forest Service has historically failed to live up to its own monitoring requirements. As a result, federal regulatory agencies and other stakeholders continue to insist that the Forest Service prepare increasingly time-consuming and costly detailed environmental analyses and documentation before making a decision—effectively front-loading the process and perpetuating the cycle of inefficiency.

- While the agency is being held accountable for developing a plan that may be legally defensible, scientifically credible, and able to sustain the forest's resources, it is not being held accountable for making a timely, orderly, and cost-effective decision. Accountability fixes responsibility and implies a consequence for making—or, in the case of revising the Tongass plan, not making—a certain decision. However, the costs of the Forest Service's indecision in revising the Tongass plan are being borne, not by the decisionmakers, but rather by the American taxpayer and by the members of the public who are concerned about maintaining the forest's diverse species but are precluded from forming reasonable expectations about the forest's health over time and/or are economically dependent on the Tongass but are uncertain about the future availability of its uses.

Mr. Chairman, our report identifies a framework for breaking the cycle of inefficiency by improving the Forest Service's decision-making. In particular, we believe that the Government Performance and Results Act of 1993, if implemented successfully, will strengthen accountability for performance and results within the Forest Service and improve the efficiency and effectiveness of its decision-making.

Delays and Increased Costs in Revising the Tongass Plan Can Be Traced Primarily to Three Factors

Among its findings, our report notes that inefficiency in the Forest Service's decision-making process can result when (1) the agency identifies issues but then conducts continual and/or multiple studies to address them without establishing any clear sequence for their timely resolution; (2) stakeholders, both inside and outside the agency, cannot agree on how the Forest Service is to resolve conflicts among competing uses on its lands and needed improvements are delayed; and (3) the Forest Service and federal regulatory agencies cannot agree on an acceptable level of risk to endangered and threatened species, water, air, and other individual natural resources. The Forest Service's process for revising the Tongass forest plan illustrates how each of these factors affects the efficiency of the agency's decision-making.

Issues Have Been Identified but Not Resolved

On the Tongass, as elsewhere, the Forest Service tends to study and restudy issues without reaching closure. For example, a scoping process begun in 1987 identified wildlife and fish habitats as two issues needing special attention in revising the Tongass plan. The Forest Service team revising the plan established a committee—the "viable population" committee—to study the viability of various old-growth-dependent species. In 1992, this committee produced a draft strategy for preserving wildlife, which was reviewed twice—first by a wildlife ecologist from the Forest Service's Pacific Northwest Research Station (a research arm of the agency) and later in a report by the research station, which contained 18 individual scientific reviews and a legal review. Also in 1992, the Forest Service team revising the plan performed its own study of the viability of wildlife and fish. This study, which included an examination of the viable population committee's strategy, was also reviewed by the research station.

In 1994, a new regional forester expanded the team revising the plan by adding research scientists from the research station and tasked them with gathering information on five issues, including wildlife viability. The agency then convened six panels of experts and scientists to assess the risk each of the nine alternatives presented in a third draft of a revised Tongass plan could pose to particular species of wildlife. Three more panels were convened to assess the potential risks posed by these alternatives to terrestrial mammals, fish and riparian areas, and old-growth forests. In March 1997, the Forest Service reconvened the panels to assess (1) the alternatives, some of which had been modified since the third draft was released for public comment in April 1996, and (2) the potential risks to certain species of fish and wildlife posed by a new preferred alternative. Today, the issue of wildlife viability has still not been resolved.

Agreement on Which Uses to Emphasize Has Been Difficult to Reach

The Forest Service also has had difficulty reconciling its older emphasis on producing timber with its more recent emphasis on sustaining wildlife and fish under its broad multiple-use and sustained-yield mandate. Resolving disagreements over this issue within the agency delayed the Tongass forest plan's revision.

Our report shows that during the last 10 years, the Forest Service has increasingly shifted the emphasis under its broad multiple-use and sustained-yield mandate from consumption (primarily producing timber) to conservation (primarily sustaining wildlife and fish). This shift is taking place in reaction to requirements in planning and environmental laws and

their judicial interpretations—reflecting changing public values and concerns—together with social, ecological, and other factors. The increasing emphasis on sustaining wildlife and fish sometimes conflicts with the agency's older emphasis on producing timber and underlies the Forest Service's inability to achieve the goals and objectives for timber production in many of the first forest plans, including the 1979 Tongass plan.

When the Forest Service began to revise the Tongass plan in 1987, it was just beginning, as an agency, to shift its emphasis from producing timber to sustaining wildlife and fish. This shift has not been smooth and has contributed significantly to the delays and costs incurred in revising the plan.

For example, 3 years after the Forest Service began to revise the Tongass forest plan, the Congress enacted the Tongass Timber Reform Act of 1990. Among its provisions, the act (1) eliminated a special funding provision in a 1980 act (the Alaska National Interests Lands Conservation Act) intended to maintain the timber supply from the Tongass to the dependent industry; (2) directed the agency to maintain buffers of standing timber between designated streams and timber harvest areas to protect fish and wildlife habitat, such as spawning ground for salmon; (3) designated additional wilderness areas within the forest; and (4) designated 12 additional special management areas in which harvesting timber and building roads are generally prohibited. The 1990 act also unilaterally made nine modifications to long-term timber sale contracts held by two companies—the Alaska Pulp Corporation and the Ketchikan Pulp Company—that harvested large amounts of timber in the forest. Among other things, the act modified the contracts to eliminate disproportionately high harvests of old-growth timber.[4]

Other events reflecting the Forest Service's increasing emphasis on sustaining wildlife and fish also delayed the agency's revision of the Tongass forest plan. For example, in a 1988 decision on an appeal of the approved forest plan for the Flathead National Forest in northwestern Montana, the Associate Chief of the Forest Service directed the regional forester to leave 10 percent of certain watersheds in old-growth areas large enough to provide habitat for certain species until the regional forester completed additional analyses of these species' habitat requirements. In 1990, an interagency scientific committee—established to

[4]Tongass National Forest: Contractual Modification Requirements of the Tongass Timber Reform Act (GAO/RCED-91-133, Mar. 28, 1991) and Tongass Timber Reform Act: Implementation of the Act's Contract Modification Requirements (GAO/RCED-95-2, Jan. 31, 1995).

develop a strategy for conserving the northern spotted owl in the Pacific Northwest—also advocated the retention of large blocks of old-growth forests to ensure the viability of populations of old-growth-dependent species. Finally, in 1992, the Chief of the Forest Service announced plans to reduce the amount of timber harvested by clearcutting by as much as 70 percent from fiscal year 1988 levels. Forest Service officials revising the Tongass forest plan believed that this new information and these events could have a significant impact on managing a forest that, up until then, had relied primarily on even-age management (clearcutting). These officials therefore believed that the new information and events needed to be considered in finalizing the revised forest plan. By this time, the process to revise the Tongass forest plan had entered its fifth year.

The Forest Service's response to this new information and these events was slowed, however, by internal disagreements concerning which use—producing timber or sustaining wildlife and fish—should be emphasized and how the forest should resolve conflicts or make choices between these competing uses on its lands. For example, the Forest Service team revising the forest plan disagreed with the viable population committee's proposed strategy for preserving certain species of wildlife on the forest. The committee's proposed strategy would have given more emphasis to sustaining wildlife than the team's preferred alternative. In our view, this disagreement permeated other decision-making levels as well, extending to the forest supervisors and regional foresters. The friction on the Tongass over mission priorities is characteristic of an agency in transition and mirrors conflicts within the Forest Service as a whole—some Forest Service personnel support the agency's shift in emphasis while others continue to believe that timber should receive the same priority it did in the past.

Disagreements With Federal Regulatory Agencies Have Also Delayed the Approval of a Revised Tongass Forest Plan

Our report on the Forest Service's decision-making process states that interagency disagreements have delayed forest plans and projects. Disagreements between the Forest Service and federal regulatory agencies—including Interior's Fish and Wildlife Service, Commerce's National Marine Fisheries Service, and the Environmental Protection Agency (EPA)—over the best approaches to achieving environmental objectives and implementing laws and regulations often stem from the agencies' differing evaluations of environmental effects and risks, which in turn reflect the agencies' disparate missions and responsibilities. We found that such disagreements had delayed planning for the Tongass.

The Forest Service's April 1996 draft plan and preferred alternative represent the intermediate results of almost 9 years of planning. Not only the preferred alternative for managing the Tongass, selected by the forest's three supervisors, but also the majority of the other nine alternatives presented in the April 1996 draft plan would increase the forest's emphasis on sustaining wildlife and fish and decrease the annual timber-offering goal, compared with the current plan. According to the forest supervisors, the preferred alternative is consistent with the Forest Service's broad multiple-use and sustained-yield mandate.

However, according to the federal regulatory agencies that are charged with implementing and enforcing environmental laws and regulations—including those to conserve and protect individual natural resources, such as endangered and threatened species, water, and air—the preferred alternative poses a high level of risk to wildlife and their habitat. Even though the Forest Service established an interagency policy group in mid-1994, which included program managers from the three regulatory agencies, to advise the team revising the Tongass forest plan, all three regulatory agencies criticized the April 1996 preferred alternative and suggested changes to reduce the level of risk to wildlife and their habitat.

In particular, the Fish and Wildlife Service was concerned about the preferred alternative's guidelines for habitat management as they apply to old-growth-dependent species on the Tongass, including two species that have been proposed for listing under the Endangered Species Act (the Alexander Archipelago wolf and the Queen Charlotte goshawk). If these species are listed after a revised forest plan is approved, the Forest Service could be required to reinitiate formal consultations with the Fish and Wildlife Service to again amend or revise the plan. This interagency disagreement has further delayed the approval of a revised Tongass forest plan.

Underlying Issues Contribute to Inefficiency

In the end, the Forest Service hopes to approve a revised Tongass plan that is legally defensible, scientifically credible, and able to sustain the forest's resources. However, as its experience in revising the Tongass forest plan has shown, developing a forest plan to avoid or prevail against legal challenges has become increasingly costly and time-consuming. On the Tongass, insufficient data and scientific uncertainty have hampered the development of a plan that can ensure the maintenance of viable populations of wildlife. As an option to move beyond inclusive studies, the Forest Service may be able to move forward with a decision conditioned

on an adequate monitoring component. However, the Forest Service has historically failed to live up to its own monitoring requirements, and federal regulatory agencies and other stakeholders continue to insist that the Forest Service front-load the process. This preparation of increasingly time-consuming and costly detailed environmental analyses and documentation before making a decision has helped perpetuate the cycle of inefficiency.

Developing a Legally Defensible Plan Is Costly and Time-Consuming

In a March 10, 1997, letter to you, Mr. Chairman, the Secretary of Agriculture stated that the Forest Service is completing a final legal review of its most recent preferred alternative to revising the Tongass plan to ensure that it is legally defensible. In our report, we state that, according to the Forest Service, it spends more than $250 million a year conducting extensive, complex environmental analyses and preparing environmental documents in order to comply with the requirements of the National Environmental Policy Act and other environmental laws and to avoid or prevail against challenges to its compliance with these laws.

In 1995, the Forest Service reported that it prepared about 20,000 environmental documents annually—more than any other federal agency. In 1994 (the last year for which data are available) the agency issued almost 20 percent of all the final environmental impact statements prepared by federal agencies (50 out of a total of 253).

According to an internal Forest Service report, conducting environmental analyses and preparing environmental documents consumes about 18 percent of the funds available to manage the national forests and approximately 30 percent of the agency's field resources. Preparing timber sales on the basis of an approved forest plan usually takes another 3 to 8 years.

In March 1989, the Forest Service initiated a comprehensive review of its land management process and completed a critique in May 1990. On the basis of the critique, the agency proposed revisions to its planning regulations[5] in April 1995. These revisions were intended to, among other things, clarify the nature of forest plan decisions and define the appropriate scope of environmental analyses. After 2 years, the Forest Service has still not finalized these revisions.

[5]60 Fed. Reg. 18886 (Apr. 13, 1995).

The Forest Service's Viability Requirement May Not Be Met

In his March 10th letter to you, the Secretary of Agriculture also stated that the Forest Service is completing a final substantive review of its most recent preferred alternative to revising the Tongass plan to ensure that it is scientifically credible and will sustain the resources of the forest. Toward this end, the Forest Service has devoted substantial resources and time to ensure that the revised forest plan meets a requirement in its regulations relating to maintaining the diversity of animal communities. However, the Forest Service has asserted that this requirement, if interpreted literally, envisions an outcome that is sometimes impossible to be guaranteed by any agency, regardless of the analytical resources marshalled.

The Forest Service's biological diversity requirement for fish and wildlife habitat—found in its regulations implementing the National Forest Management Act of 1976—requires the agency to maintain well-distributed viable populations of existing native and desired non-native vertebrate species in the planning area. However, in the revisions proposed to its planning regulations in April 1995, the Forest Service states that the scientific expertise, data, and technology currently needed to conduct the required assessments of species' viability far exceed the resources envisioned by the agency when the planning rule was developed, as well as the resources available to any agency or scientific institution. Therefore, according to the Forest Service, the viable populations requirement no longer meets its expectations.

The proposed revisions include an option for sustaining diversity preferred by the Forest Service. This option would protect the habitats of most species and use the Endangered Species Act as a "fine filter" to catch and support the special needs of species that otherwise would go unmet. However, since the Forest Service has not finalized the proposed revisions to its planning regulations, the revised Tongass forest plan must satisfy a requirement that the agency asserts is sometimes impossible to meet.

The Forest Service Has Not Adequately Monitored the Effects of Its Decisions

An option to avoid the growing delays and increasing costs incurred in attempting to ensure that a decision is scientifically credible and legally defensible may be for the Forest Service to move forward with a decision using the best information available. According to an interagency task force chaired by the Council on Environmental Quality, an agency can condition a decision—the effects of which may be difficult to determine in advance because of uncertainty or costs—on the monitoring of uncertainties, indicate how the decision will be modified when new information is uncovered or when preexisting monitoring thresholds are

crossed, and reexamine the decision in light of its results or when a threshold is crossed.

However, the Forest Service (1) has historically given a low priority to monitoring, (2) continues to approve projects without an adequate monitoring component, and (3) has not generally monitored the implementation of forest plans as required by its current regulations. As a result, federal regulatory agencies and other stakeholders will likely continue to insist that the Forest Service prepare detailed environmental analyses and documentation—which have become increasingly costly and time-consuming—before making decisions rather than support what many Forest Service officials believe to be the more efficient and effective option of monitoring and evaluation.

Both the Fish and Wildlife Service and EPA have already expressed reservations about the adequacy of the monitoring component in the Forest Service's April 1996 draft Tongass plan. In commenting on the draft plan, the Fish and Wildlife Service stated that the proposed standards and guidelines are too vague and will not provide for the intended accountability because compliance will be difficult or impossible to measure. EPA commented that the plan did not provide sufficient information to clearly indicate how monitoring would be integrated into the management strategy.

The Forest Service Is Not Accountable for the Time and Costs of Its Decision-Making

Inefficiencies within the Forest Service's decision-making process on the Tongass and on other national forests lead to the inevitable question—why? Why does an agency study and restudy issues without reaching closure? Why does this same agency attempt to do what it says sometimes cannot be done regardless of the time and money invested? And why does it spend a significant portion of its limited resources on conducting environmental analyses and preparing environmental documents rather than on the apparently more efficient and effective option of monitoring the environmental effects of its decisions?

Although the Forest Service is held accountable for developing forest plans that may be scientifically credible and legally defensible, it is not held accountable for developing them in a timely, orderly, and cost-effective manner. The agency itself pays for the time and costs associated with legal challenges to the scientific credibility and legal defensibility of its decisions, but others bear the costs of its indecision and delays. The American taxpayer bears the financial costs, while the costs

associated with the uncertainty of not having an approved forest plan are borne by members of the public who are concerned about maintaining biological diversity but are precluded from forming reasonable expectations about the forest's health over time as well as those who are economically dependent on the Tongass but are precluded from forming reasonable expectations about the future availability of the forest's uses.

Although the Forest Service has been shifting its emphasis from consumption to conservation on the Tongass as well as nationwide, the Tongass continues to play an important role in the economy of southeastern Alaska, and the Forest Service retains a responsibility under its multiple-use and sustained-yield mandate to manage the Tongass for other uses, including timber. While one long-term contract was terminated and the remaining long-term contract was recently modified to terminate no later than October 2000, the agency has sold, and will continue to sell, timber from the forest to other companies.

Moreover, according to the Forest Service, many communities in southeastern Alaska also depend on the Tongass to provide natural resources for uses such as fishing, recreation, tourism, mining, and customary and traditional subsistence. However, without an approved revised plan, the communities and companies that are economically dependent on the Tongass for goods and services cannot form the reasonable expectations about the future availability of forest uses that they need to plan or to develop long-range investment strategies.

The Government Performance and Results Act Could Provide a Framework for Improving Performance

Mr. Chairman, the inefficiency that is occurring in the process to revise the Tongass plan is occurring at every decision-making level within the Forest Service. An internal Forest Service report estimates that inefficiencies within the agency's decision-making process cost up to $100 million a year at the project level alone. Delays in finalizing forest plans, coupled with delays in finalizing agencywide regulations and reaching individual project decisions, can total a decade or longer.

Our report identifies a framework for breaking the existing cycle of inefficiency by improving the Forest Service's decision-making. We identify the need to provide the agency with clearer guidance on (1) which uses it should emphasize under its broad multiple-use and sustained-yield mandate and how it is to resolve conflicts or make choices among competing uses on its lands and (2) how to resolve environmental issues that transcend its administrative boundaries and jurisdiction. Our report

also identifies the need for a systematic and comprehensive analysis of the laws affecting the Forest Service's decision-making to adequately address the differences in their requirements. We believe that the Government Performance and Results Act of 1993, if implemented successfully, provides a framework for addressing many of these issues and will strengthen accountability for performance and results within the Forest Service and improve the efficiency and effectiveness of its decision-making.

In addition, our report identifies the need to hold the Forest Service more accountable for its performance. In the near future, the Forest Service is required by the Government Performance and Results Act to consult with you and to consider your views in developing a strategic plan. According to the agency, one of the long-term strategic goals that it will discuss is ensuring organizational effectiveness. On the basis of our report and hearings held during the 104th and 105th Congresses, including the one held here today, we believe that you should expect to see (1) performance goals and measures based on improving the efficiency and effectiveness of the agency's decision-making process and (2) individual performance management, career development programs, and pay and promotion standards tied to this strategic goal.

When accountability for the efficiency and effectiveness of decision-making is fixed, performance and results should be improved. We believe that you should expect to see schedules for implementing improvements to the decision-making process, including one to finalize the proposed revisions to the agency's planning regulations, as well as a plan to closely monitor progress and periodically report on performance—both of which are needed to break the cycle of studying and restudying issues without timely resolution.

Forest Service managers should then seek out best practices that could enhance efficiency and effectiveness. In particular, they should begin to monitor the effects of their decisions, as they are currently required to do. Federal regulatory agencies may then be more willing to accept a higher level of risk to wildlife and their habitat in forest plans then they are willing to do now.

In summary, Mr. Chairman, forest planning is, by its very nature, a complex and difficult process involving a multitude of resources, statutory responsibilities, and stakeholders. Moreover, solutions to some issues that

affect the efficiency and effectiveness of the Forest Service's decision-making will require the involvement of other stakeholders, including the Congress and other federal agencies. However, we have observed a cascading series of factors and issues resulting in inefficiencies within the Forest Service's decision-making process that can be traced back to a lack of accountability for time and costs. Without being held accountable for the efficiency of its decision-making process, the Forest Service has allowed complexities and difficulties to become excuses for delays and increased costs rather than challenges that must be overcome in making timely decisions. One result has been that the agency has taken a reactive, rather than a proactive, approach to addressing these challenges.

As the Forest Service's efforts to revise the Tongass plan and its planning regulations have shown, the most likely outcomes of the Forest Service's current decision-making process are indecision and delay. We believe that successful implementation of the Government Performance and Results Act should strengthen accountability for performance and results within the Forest Service and improve the efficiency and effectiveness of its decision-making. However, as evidenced by the agency's efforts to revise the Tongass forest plan, sustained management attention within the Forest Service and sustained oversight by the Congress will be required to ensure the full and effective implementation of the act's legislative mandates.

Mr. Chairman, this concludes my prepared statement. We will be pleased to answer any questions that you or Members of the Committee may have.

Process Used to Revise the Tongass Forest Plan

The U.S. Department of Agriculture's (USDA) Forest Service has spent almost 10 years revising a land management plan, commonly called a forest plan, for the Tongass National Forest. During this time, the Alaska Region released three drafts of the plan for public comment—a June 1990 draft, a September 1991 supplement to the draft, and an April 1996 revision to the supplement. As of April 1997, the Forest Service had not approved a revised forest plan for the Tongass. Figure I.1 summarizes the major events in developing a revision to the Tongass forest plan.

Figure I.1: Timeline of Major Events in Tongass Forest Plan's Revision

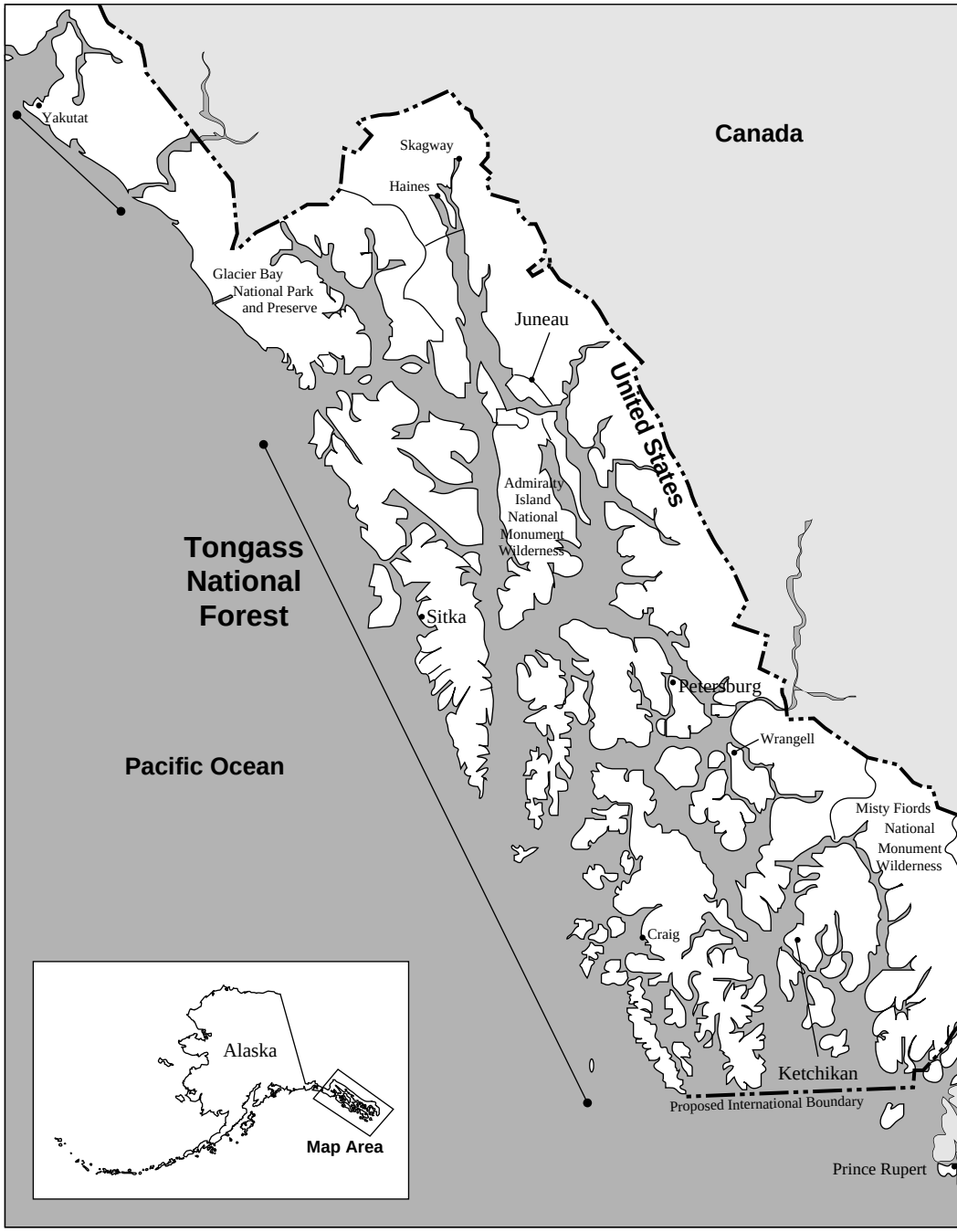
1987	July	- Forest plan revision begins
1990	June	- Draft forest plan released for public comment
	November	- Tongass Timber Reform Act enacted
1991	February	- First draft of viable population (VPOP) report sent to Forest Service
	September	- Supplement to draft forest plan released for public comment
1992	April	- Draft VPOP report published for public review
1993	December	- Fish and Wildlife Service receives petition to list wolf as threatened
1994	March	- Pacific Northwest Research Station peer review of VPOP report published
	April	- Alaska Pulp Corporation contract terminated
	May	- Phil Janik becomes Alaska Region's regional forester
		- Tongass land management plan team reorganized
		- Fish and Wildlife Service receives petition to list goshawk as endangered
	September	- Environmental assessment on interim guidelines issued for public comment
	December	- Memorandum of understanding signed by Forest Service, Fish and Wildlife Service, and State of Alaska to prevent listings of species
1995	July	- Congress passes rider prohibiting implementation of environmental assessment's guidelines
1996	April	- Revised supplement to draft forest plan released for public comment
	September	- Court remands Fish and Wildlife Service decision not to list goshawk
	October	- Court remands Fish and Wildlife Service decision not to list wolf
1997	February	- Agreement reached between administration and Ketchikan Pulp Company on closure of pulp mill and termination of contract
	May	- Fish and Wildlife Service must decide by May 31 whether to list subspecies

Background

At 16.8 million acres, the Tongass is the largest forest in the United States, roughly equal in size to West Virginia (see fig. I.2). The Forest Service manages the Tongass to sustain various multiple uses, including timber,

outdoor recreation, and fish and wildlife. The Forest Service's Alaska Region, headquartered in Juneau, Alaska, is responsible for managing the forest. The Tongass is the only national forest with more than one forest supervisor. Because of its size, the Tongass is divided into three administrative areas—Chatham, Stikine, and Ketchikan—each of which has an area office headed by a forest supervisor.

Figure I.2: Tongass National Forest



Source: Forest Service's Alaska Region.

Also unique to the Tongass has been its use of timber contracts valid for up to 50 years. In the 1950s, the Forest Service awarded three such long-term contracts to timber companies to harvest timber in the Tongass. A fourth contract was awarded in the l960s but was cancelled before operations began. When initiated, the contracts required that each of the companies construct and operate pulp mills to provide steady employment in southeastern Alaska. The companies also used timber supplied under contracts to operate sawmills in the region. In return, the companies were to receive a guaranteed supply of timber. Federal law now generally limits the duration of timber sale contracts to 10 years or less.

One of the three contracts awarded in the 1950s was completed in 1982. In April 1994, the Forest Service terminated one of the long-term timber sale contracts, asserting that the contract holder—the Alaska Pulp Corporation—had breached the contract by closing its pulp mill in Sitka. The contract holder in turn filed an action for breach of contract and unconstitutional taking of property against the Forest Service. Litigation is still pending.

In February 1997, the Clinton administration reached an agreement with the company holding the remaining long-term timber sale contract to terminate the contract on December 31, 1999, with a possible extension to October 31, 2000. This agreement requires the company—the Ketchikan Pulp Company—to continue operating two sawmills in southeastern Alaska, and to clean up specified environmental damage resulting from its operations in southeastern Alaska. In exchange, the administration will supply enough timber to operate the sawmills for 3 years and will make certain cash payments to the company. Each side agreed to release existing or potential contract claims against the other arising out of the long-term contract. In addition, the company agreed to release existing or potential claims against the United States for the unconstitutional taking of property related to the long-term contract.

Federal Laws and Regulations Provide a Framework for Developing Forest Plans

The National Forest Management Act of 1976 (NFMA) requires the Forest Service to (1) develop a land and resource management plan for each national forest in coordination with the land and resource management planning processes of other federal agencies, states, and localities and (2) revise the plan at least every 15 years. A forest plan must sustain multiple uses on the forest and maintain diverse plant and animal communities (biological diversity). NFMA's regulations, issued in 1979 and revised in 1982, require the Forest Service to estimate the physical,

biological, social, and economic effects of each forest management alternative that the agency considers in detail in developing, amending, or revising a forest plan. Economic effects include the impact on total receipts to the federal government, direct benefits to forest users, and employment in affected areas.

In accordance with the National Environmental Policy Act (NEPA), the Forest Service must prepare an environmental impact statement to accompany a forest plan. In preparing the statement, the agency is to seek and consider public comments on the potential environmental and other effects of the proposed forest plan. NEPA's regulations require the agency to discuss the direct and indirect effects of the proposed plan's various alternatives in the statement, including economic and social effects. NFMA requires the Forest Service to make draft plans available to the public for comment for at least 3 months prior to the plan's adoption.

NFMA's regulations also specify roles and responsibilities for developing forest plans. The regulations state that the regional forester shall establish regional policy for forest planning and approve all forest plans in the region. The forest supervisor has overall responsibility for, among other things, preparing the forest plan. The forest supervisor also appoints and supervises an interdisciplinary team that is charged with developing the forest plan and its accompanying environmental impact statement. The team may consist of whatever combination of Forest Service staff and other federal personnel is necessary to integrate knowledge of the physical, biological, economic, and social sciences, as well as the environment, in the planning process.

The First Tongass Plan Was Approved in 1979

The Tongass was the first national forest to have an approved forest plan under NFMA. The Tongass's 1979 forest plan designated certain areas of the forest off-limits to timber harvesting and scheduled about 1.7 million of the forest's 5.7 million acres of commercial forest land as harvestable. This land was to support an average annual allowable sale quantity of 450 million board feet.[6]

In 1980, the Congress passed the Alaska National Interests Lands Conservation Act (ANILCA), which created 14 wilderness areas in the Tongass and designated Admiralty Island and the Misty Fiords as national monuments. Following ANILCA's enactment, the Tongass's commercial

[6]The allowable sale quantity is the maximum quantity of timber that may be sold from an area of suitable land covered by a forest plan over a decade. The quantity is usually expressed on an annual basis as the "average annual allowable sale quantity".

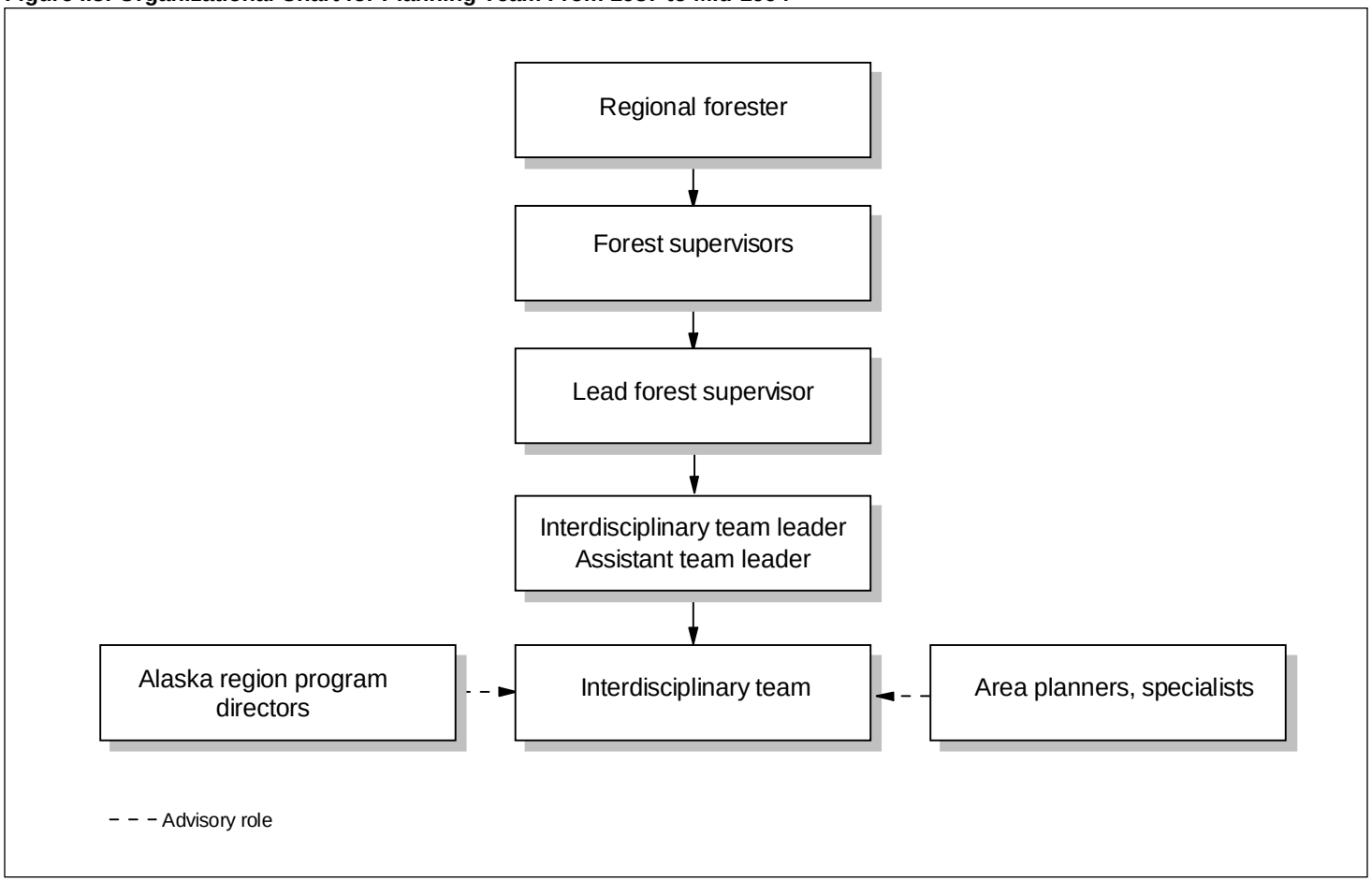
forest land was further reduced by about 1.7 million acres, from 5.7 million acres to about 4 million acres. ANILCA directed that at least $40 million derived from timber and other receipts be made available to the Forest Service to maintain the timber supply from the Tongass to the dependent forest products industry at a rate of 4.5 billion board feet per decade. The Forest Service amended its 1979 Tongass forest plan in 1986 to reflect ANILCA's provisions.

The Forest Service Began to Revise the Existing Forest Plan in 1987

In 1987, the Forest Service began to revise the forest plan for the Tongass. The agency started by involving the public in a scoping process to identify issues that would need special attention by the interdisciplinary team developing the new forest plan. The team also started developing a computer database of information about the resources on the Tongass, such as the location of streams and timber stands, to provide information on the potential effects of a revised plan.

Although the Forest Service's planning regulations specifically authorize the agency to develop one plan for the entire Tongass, they do not discuss the planning process in the context of a forest that is under the jurisdiction of multiple supervisors. The organizational structure for the planning effort from 1987 to August 1994 is identified in figure I.3.

Figure I.3: Organizational Chart for Planning Team From 1987 to Mid-1994



The organizational structure for planning consisted of a core interdisciplinary team headed by a team leader and an assistant team leader. Team members included a wildlife biologist, a lands specialist, a recreation planner, and a timber resource specialist, among others. The team leader reported directly to the Chatham Forest Supervisor, who represented all three forest supervisors and exercised day-to-day responsibilities for the plan's development. The Alaska Region's Director of Ecosystem Planning and Budget offered planning advice to the interdisciplinary team leader. In addition, two groups advised the team. The first group included the Forest Service's regional directors for timber, wildlife and fish, recreation, engineering, lands, minerals, and fish and watersheds. The second group consisted of the area planners from each of

the forest's three administrative areas. This organizational structure provided the interdisciplinary team with input from each of the three administrative areas of the forest as well as from the regional directors who are considered to be the technical experts within the Forest Service's regional office.

In June 1990, the Forest Service issued a draft forest plan for public comment.[7] The draft's analysis centered around 11 issues identified during scoping: scenic quality, recreation, fish habitat, wildlife habitat, subsistence, timber harvest, roads, minerals, roadless areas, local economy, and wild and scenic rivers. The draft presented seven alternatives that the Forest Service could adopt to manage the Tongass but did not include a preferred alternative.

A Viable Population Committee Was Established to Examine Wildlife Species on the Tongass

The wildlife strategy contained in the 1990 draft of the forest plan was questioned. For example, some Forest Service staff from the three Tongass administrative areas considered the approach too difficult to implement and not scientifically supportable. Moreover, the Forest Service's approach to maintaining diverse wildlife populations was changing during this time. For example, in a 1988 decision on the appeal of the approved forest plan for the Flathead National Forest in northwestern Montana, the Associate Chief of the Forest Service directed the regional forester to leave 10 percent of certain watersheds in old-growth areas large enough to provide habitat for certain species until its regional forester completed additional analyses of species' habitat requirements. In addition, in 1990 an interagency scientific committee released a conservation strategy for the northern spotted owl in the Pacific Northwest that advocated retaining large blocks of old-growth forests as a way of ensuring population viability.[8]

In response to concerns regarding the viability of certain old-growth dependent species on the Tongass, in October 1990 the interdisciplinary team revising the Tongass's forest plan established a committee to study the viability of populations of various old-growth species—the "viable population" committee. This committee's principal mission was to identify species whose viability might be impaired by some forest management

[7]Tongass Land Management Plan Revision: Draft Environmental Impact Statement and Tongass Land Management Revision: Draft Environmental Impact Statement, Proposed Revised Forest Plan, USDA, Forest Service, (June 1990).

[8]Thomas, et al., A Conservation Strategy for the Northern Spotted Owl: Report of the Interagency Scientific Committee to Address the Conservation of the Northern Spotted Owl (1990).

activities and to develop recommendations to maintain viable populations for each such species. The committee was not part of the interdisciplinary team.

Shortly after the committee was established and during the 6-month period for commenting on the draft Tongass forest plan, the Congress passed the Tongass Timber Reform Act of 1990. Among other things, this act eliminated ANILCA's special funding provision for maintaining the timber supply from the Tongass, limited timber harvesting near certain streams, designated additional wilderness areas within the Tongass, and designated 12 additional special management areas in which harvesting timber and building roads is generally prohibited. The act also made nine modifications to the long-term timber sale contracts, including adding provisions to the contracts to prohibit the disproportionate harvest of old-growth timber. The Forest Service amended its 1979 Tongass forest plan in February 1991 to reflect the act's requirements.

The Forest Service Decided to Prepare a Supplement to the Draft Plan

To respond to the Tongass Timber Reform Act and comments received on the 1990 draft forest plan, which included questions raised about the adequacy of the wildlife viability analysis in the 1990 draft forest plan, the Forest Service decided to prepare a supplement to the draft plan. In February 1991, the viable population committee submitted a report to the leader of the interdisciplinary team containing a proposed strategy for conserving old-growth forest and specific standards for 13 species dependent on old-growth forest as habitat. As foreshadowed by the strategy of the interagency scientific committee for the Pacific Northwest, the report recommended the use of large tracts of old-growth reserves close enough together so that local wildlife populations could interact with each other. According to the report, such a system would promote the interchange of genetic material between populations and maximize the opportunity for recolonization should one of the populations suffer local extinction. The report asserted that this strategy would affect a smaller proportion of the suitable timber base than was affected by the interagency scientific committee's strategy or even by the standards appearing in the 1990 draft forest plan. The report further indicated that the recommended standards would only "barely assure perpetuation" of certain species on the Tongass.

As the interdisciplinary team prepared the supplement to the draft, it rejected the strategy recommended by the viability population committee. The supplement indicated that the interdisciplinary team rejected the

committee's habitat protection recommendations because the team considered the evidence supporting the recommendations to be insufficient. The draft plan accompanying the supplement provided (1) for timber sales to be managed so as to maintain large blocks of old-growth reserves and corridors between the blocks, where compatible with other resource objectives, and (2) for standards and guidelines to protect any species that had been identified by the Fish and Wildlife Service, the National Marine Fisheries Service, or the Forest Service as threatened, endangered, sensitive, or a candidate for any of these categories.

The supplement,[9] issued in September 1991 for public comment, presented five alternatives, including a preferred alternative. The preferred alternative was designed, in the Forest Service's words, to "enhance the balanced use of resources of the forest and provide a public timber supply to maintain the Southeast Alaska timber industry." The alternative proposed an average annual allowable sale quantity of 418 million board feet—down from the allowable sale quantity in the 1979 plan of 450 million board feet. During 1991 and the spring of 1992, the viable population committee continued to work on refining and developing its proposed strategy for conserving wildlife in its February 1991 report and produced a draft report for review in April 1992.[10] At the request of an Alaska Region official, a wildlife ecologist from the Pacific Northwest Research Station—a Portland, Oregon, research arm of the Forest Service—reviewed the draft report and concluded in July 1992 that the report's wildlife conservation strategy was sound. The ecologist urged closer cooperation between the interdisciplinary team and the viable population committee and recommended further peer review of the committee's draft report.

In December 1992, an Anchorage newspaper published an article accusing the Forest Service of covering up the information contained in the viable population committee's draft report and of disregarding the report's conclusions. Forest Service officials denied the accusations and asserted that the viable population committee's report was only a draft, not yet ready for public distribution, and that not enough information was available to finalize the report. In January 1993, the Chairman of the House

[9]Tongass Land Management Plan Revision: Supplement to the Draft Environmental Impact Statement and Tongass Land Management Plan Revision: Supplement to the Draft Environmental Impact Statement, Proposed Revised Forest Plan, USDA, Forest Service (Aug. 1991).

[10]Suring, et al., A Strategy for Maintaining Well-Distributed, Viable Populations of Wildlife Associated with Old-Growth Forests in Southeast Alaska, review draft (Apr. 1992).

Committee on Natural Resources asked the Secretary of Agriculture to investigate this matter.

After the 1991 supplement to the draft forest plan was released for public comment but before a preferred alternative was selected, the interdisciplinary team carried out another study of fish and wildlife viability. This study was to be included as an appendix—known as "appendix M"—to the final forest plan. Appendix M described three additional risk assessments of wildlife viability performed by the interdisciplinary team, one of which was based on the viable population committee's strategy. The interdisciplinary team stated in appendix M that these risk assessments amounted only to hypotheses and required additional data and testing. In February 1993, the interdisciplinary team presented a draft of a final revised forest plan—including a record of decision with a preferred alternative selected by the forest supervisors—for the regional forester to sign. The regional forester did not sign the record of decision.

Twenty-three conservation biologists and resource scientists sent a letter to the Vice President in March 1993, condemning the Forest Service's treatment of its scientists and their work on the Tongass and the Clearwater National Forest in Idaho. In June 1993, the House Committee on Appropriations issued a report to accompany the Forest Service's fiscal year 1994 appropriations bill directing the Alaska Region to (1) assist the viable population committee in completing its report and (2) seek peer review of both the completed report and appendix M. The committee completed a draft of its report in May 1993. By August 1993, the Alaska Region's regional forester officially requested the Forest Service's Pacific Northwest Research Station to conduct an independent peer review of these documents.

The Strategies for Protecting Wildlife Were Peer Reviewed

In March 1994, the Pacific Northwest Research Station released its report, containing 18 individual scientific reviews, a legal review, and a summary of the reviews and recommendations.[11] The peer review gave the viable population committee's draft report generally "high marks," while concluding that the strategy contained in appendix M was "not as thorough or well motivated." The peer review indicated that appendix M needed to go further to meet the requirements of the relevant legislation.

[11]Kiester, et al., Review of Wildlife Management and Conservation Biology on the Tongass National Forest: A Synthesis with Recommendations (1994).

The legal review concluded that while the viable population committee's strategy represented "an earnest, if highly cautious" attempt to properly implement the Forest Service's regulations for ensuring wildlife viability and diversity, the proposed appendix's strategy did "not appear to implement either the spirit or the letter of these principles." The legal review also expressed doubt about the consistency of the Forest Service's proposed alternative with the Tongass Timber Reform Act's restriction on the disproportionate harvesting of old-growth timber under the long-term contracts. One of the scientific reviewers also raised doubts about the legal validity of the timber harvest plans outlined in the draft revised forest plan, because the plans appeared to be incompatible with the agency's own proposed wildlife strategy.

A New Regional Forester Redefined the Direction of the Forest Plan Revision

At the end of April 1994, the Alaska Region's regional forester retired. In May 1994, the Chief of the Forest Service appointed a new regional forester to the Alaska Region. The new regional forester requested that the 1991 supplement to the draft forest plan be revised to take into account new scientific knowledge about wildlife viability and new initiatives within the Forest Service, among other things.

The regional forester identified five issues on which the revised supplement would focus:

- wildlife viability because of new information available from the viable population committee and other sources;
- caves and karst[12] because of the recent discovery of world-class karst in the Ketchikan area;
- fish and riparian management because of new information arising from an—at that time, ongoing—anadromous fish habitat study[13] required by the Congress and because of the importance of the fishing industry to southeastern Alaska;
- alternatives to clearcutting because of the Chief's June 1992 policy to reduce clearcutting in national forests by as much as 70 percent in order to manage forests in a more environmentally sensitive manner; and
- socioeconomic effects because of concern about how changes in managing the Tongass could affect the timber and other industries,

[12]Karst consists of areas underlain by soluble rocks, primarily limestone. Dissolution of the subsurface strata results in areas of well-developed surface drainage that are sinkholes, collapsed channels, or caves.

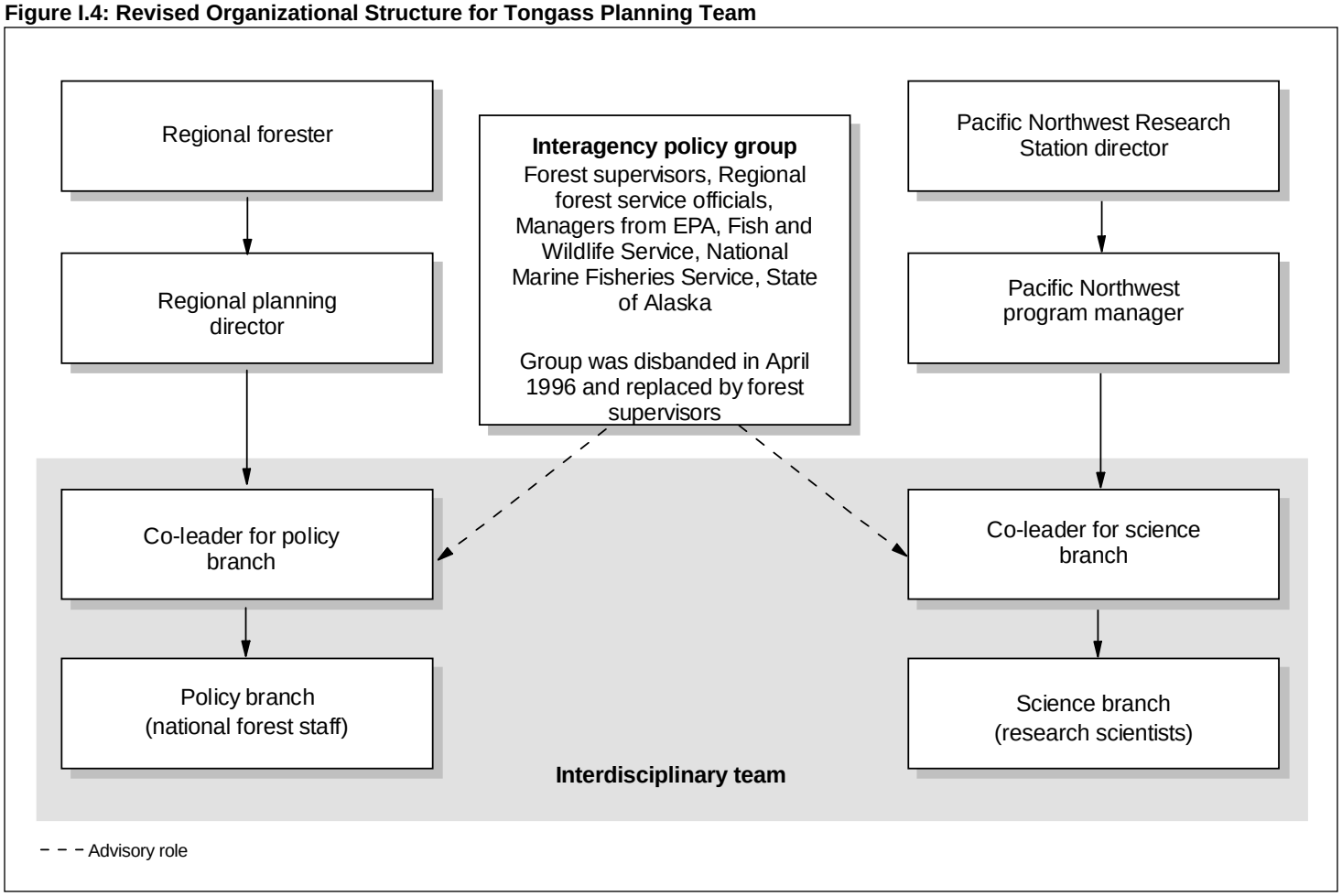
[13]Report to Congress: Anadromous Fish Habitat Assessment, USDA, Forest Service Pacific Northwest Research Station, Alaska Region (Jan. 1995).

especially in light of the then-recent shutdown of one of the region's two pulp mills.

The New Regional Forester Established a New Planning Team Structure

In mid-1994, the newly appointed regional forester established a new planning team structure to revise the 1991 supplement to the draft Tongass forest plan. The restructured planning team consisted of two groups—an interagency policy group and an interdisciplinary team. Figure I.4 identifies the revised organizational structure.

Figure I.4: Revised Organizational Structure for Tongass Planning Team



The Interagency Policy Group Advised the Interdisciplinary Team

The interagency policy group was composed of Alaska Region officials, including the three forest supervisors; program managers from the U.S. Environmental Protection Agency, the Department of the Interior's Fish and Wildlife Service, and the Department of Commerce's National Marine Fisheries Service; and personnel from the State of Alaska. The group's role was to advise the interdisciplinary team on the development of the revised supplement to the draft forest plan and to provide interagency coordination with other federal and State of Alaska agencies. The policy group was disbanded in April 1996 when the revised forest plan was issued for public comment.

The Interdisciplinary Team Was Divided Into Two Branches

The interdisciplinary team is divided into two branches: a policy (also called management) branch and a science branch. The regional forester assigned two co-leaders to the interdisciplinary team—a deputy forest supervisor to head the team's policy branch and a research scientist to head the science branch. The policy and science branches coordinated their efforts to develop alternatives for managing the Tongass.

The Science Branch Advised the Policy Branch

Under the reorganized planning team structure, research scientists were appointed to the interdisciplinary team's science branch between the fall of 1994 and early 1995 by the Director of the Pacific Northwest Research Station with the concurrence of the regional forester. They included scientists with backgrounds in forest ecology, wildlife biology, social science, hydrology, geology, forestry, and statistics. According to Forest Service officials, scientists were appointed because of concerns about the scientific credibility of the wildlife strategy in the 1991 supplement to the draft forest plan.

The research scientists gathered information primarily on the five focus issues identified by the regional forester. They (1) gathered existing scientific data pertaining to the Tongass, (2) reviewed various assumptions and strategies used in the plan, and (3) developed estimates of risks to resources that might result from various proposed management activities that were eventually included in the revised supplement to the draft environmental impact statement. In addition, they are developing a "reconciliation" report which examines the extent to which science was considered in developing the Forest Service's new preferred alternative. In most instances, the scientists did not have the time to develop new data but, rather, relied on information already in existence.

The regional forester and science branch scientists with whom we spoke told us that although the research scientists were part of the interdisciplinary team, they did not participate in developing the alternatives or selecting the preferred alternative in the revised supplement to the draft forest plan. Rather, the research scientists in the science branch were responsible for (1) gathering information on the five focus issues and forwarding it to the policy branch and (2) providing comments and views on related scientific studies and indicating the risks involved in adopting various management options.

After the policy branch had developed the alternatives to be included in the revised supplement to the draft forest plan, the science branch convened 11 scientific assessment panels of experts and specialists to evaluate the risk each alternative could pose to the Tongass National Forest's biological systems, communities, and wildlife. Each panel examined the potential effects of the nine alternatives on one of the following issues: the Alexander Archipelago wolf, the northern goshawk, the Sitka black-tailed deer, the marbled murrelet, the American marten, the brown bear, terrestrial mammals, fish/riparian areas, old-growth forests, subsistence, and socioeconomics. These panels were reconvened in 1997 to assess the alternatives, some of which had been modified since the revised supplement had been released for public comment in April 1996.

The Policy Branch Developed Alternatives

Many of the policy branch's members were from the prior interdisciplinary team. The policy branch included national forest personnel with backgrounds in fish and wildlife biology, economics, recreation planning, resource information, wildlife ecology, and timber planning.

The policy branch was responsible for developing the alternatives in the revised supplement of the draft forest plan, managing the resource database, coordinating public involvement, maintaining documentation of the planning process, and calculating the impact of alternatives on the amount of timber available for harvest. In developing the alternatives, members of the policy branch considered the scientific information gathered by the science group as well as the scientists' comments and views on the risks involved in adopting various management options. The two branches also worked together to summarize the findings of the 11 scientific assessment panels convened by the science branch and present the summary to the forest supervisors to aid them in selecting a preferred alternative for managing the forest. Alaska Region officials told us that members of the policy branch chose the various management options,

such as the size of the beach fringe and extent of wild and scenic rivers, presented in each alternative.

Forest Supervisors Played New Role in the Restructured Team

Under the planning team structure in effect from 1987 to August 1994, the Chatham forest supervisor exercised day-to-day responsibility for developing the revised Tongass forest plan and directly supervised the interdisciplinary team. However, under the new regional forester's new planning team structure, the three forest supervisors became members of the interagency policy group whose role was to advise, rather than supervise, the interdisciplinary team in developing the revised supplement to the draft forest plan. This new role of the forest supervisors was controversial both inside and outside the Forest Service.

The forest supervisors stated that they were not involved in the decision to restructure the planning team or in appointing its new members, including the research scientists. According to the supervisors, between August 1994 and September 1995, this new management structure prevented them from exercising their decision-making responsibilities under NFMA with respect to appointing and supervising the interdisciplinary team.

For example, one forest supervisor told us that the supervisors did not participate in developing the alternatives or establishing the scientific assessment panels. He said that if he had been responsible for supervising the interdisciplinary team, he would not have convened the panels because of their anticipated high costs, the lack of data on which to make informed decisions, and the inadequacy of similar past efforts.

According to the deputy forest supervisor assigned by the regional forester to head the interdisciplinary team's policy branch, he tried to keep the forest supervisors informed about the interdisciplinary team's work but generally did not ask them for direction. In addition, he told us that the deputy regional manager, rather than the forest supervisors, had been assigned responsibility for hiring, firing, and promoting Tongass planning staff between August 1994 and September 1995.

The forest supervisors also believe that they were not invited to participate in some key meetings held by the interagency policy group. Other Forest Service officials note that the interagency policy group was a large, unwieldy body that made few, if any, decisions.

According to the regional forester, the forest supervisors informed him of their concerns in the fall of 1995. He concluded that the communication link between the deputy forest supervisor and the forest supervisors was not working. He told us that from that point forward, the supervisors became "reengaged" in the planning process. At about this time, the supervisors began to participate in meetings held by other Forest Service members of the interagency policy group. Subsequently, the forest supervisors crafted the preferred alternative included in the April 1996 revised supplement to the draft forest plan.

The Revised Supplement to the Draft Plan Was Released for Public Comment

In April 1996, the Forest Service released the revised supplement to the draft plan for public comment.[14] The revised supplement differed substantively from the two previous versions of the draft plan that had been issued for public comment. The revised supplement presented nine alternatives and a preferred alternative. Each alternative consisted of variations of ten components: system and number of old-growth reserves, rotation age for timber, old growth and watershed retention, method of timber harvesting, extent of preservation of karst and caves, extent of riparian protection, size of beach fringe, estuary protection, timber harvest in watersheds, and deer winter range.

The three forest supervisors considered the initial nine alternatives in the revised supplement before selecting a combination of components from the alternatives to create their preferred alternative. The preferred alternative was published separately from the bound draft plan, but it was presented in the summary of the revised supplement along with the other nine alternatives and was distributed with the rest of the draft plan for comment.

The preferred alternative incorporated old-growth reserves, an average 100-year rotation age for timber, a combination of harvesting methods, a two-aged timber harvest system, a combination of riparian protection options, and an annual average allowable sale quantity of 357 million board feet per year. Compared to the 1979 forest plan, the preferred alternative and the majority of the other alternatives considered increased the protection of wildlife habitat and decreased the amount of timber available for harvesting.

[14]Tongass Land Management Plan Revision: Revised Supplement to the Draft Environmental Impact Statement and Tongass Land Management Plan Revision: Revised Supplement to the Draft Environmental Impact Statement, Proposed Revised Forest Plan. Forest Service, Alaska Region (Mar. 1996).

Socioeconomic Effects Were Addressed

The April 1996 revised forest plan and environmental impact statement for the Tongass placed heavy emphasis on regional socioeconomic effects. They did not, however, attempt to quantify the economic effects on local communities.

For example, the revised supplement examined the effects of reduced timber harvesting on the timber, recreation, and fishing industries, both for the region and for the nation, and expressed these effects in terms of jobs and income created or lost. However, for individual communities, the revised supplement described socioeconomic effects much more generally than it did for the region as a whole. The revised supplement profiled each of southeastern Alaska's 32 communities separately and discussed the composition of each community's economy. However, the revised supplement did not quantify the economic impact but simply stated whether a proposed alternative would have a negative, positive, or indifferent effect on the timber, fishing, and recreation sectors of the community's economy.

Forest Service economists told us that community-level effects were not forecast as specifically as were regional economic effects because not enough information was available about the communities and about the location of future timber sales. For example, Forest Service officials told us that without knowing where a timber sale will take place and how the timber will be processed, the Forest Service cannot determine which communities will be affected by timber sales. The 1990 draft environmental impact statement and the 1991 supplement to the draft environmental impact statement also did not attempt to forecast specific effects on individual communities.

Content Analysis on Public Comments Was Done by an In-House Contractor

In the fall of 1995, the interdisciplinary team revising the Tongass plan realized that, because of the significant media attention and public response to Tongass planning issues, the public comments received on the revised supplement to the draft forest plan would likely be too numerous for them to process effectively. After considering a few outside contractors who had experience in content analysis, the interdisciplinary team hired an in-Service "enterprise team"[15] consisting of agency employees working outside of the Alaska Region and specializing in content analysis. The interdisciplinary team estimated that the enterprise team would be more costly to hire than an outside contractor—$160,000

[15]The Forest Service recently instituted an "enterprise team" concept that brings together people with certain skills and experiences in certain areas, such as audio/visual presentation, science assessment, or content analysis, that can be used throughout the National Forest System.

for the in-Service team compared with $80,000 to $150,000 for an outside team. However, the interdisciplinary team believed that the advantages of hiring the in-Service team outweighed the higher cost. These advantages included (1) a much faster start-up time with less demand on the interdisciplinary team's time; (2) a more thorough knowledge of national forest issues; and (3) a familiarity with forest plans, terms, and concepts.

After the revised supplement to the draft plan was released for public comment, the Forest Service held open houses and hearings in southeastern Alaska's 32 communities, met with interested groups, and discussed the proposed revised plan on local media. The revised supplement to the draft also generated public meetings and demonstrations as well as congressional hearings. In July 1996, the regional forester granted a 30-day extension (through late Aug. 1996) to the 90-day comment period after considering the public comments received to date and the interest shown by the public in extending the comment period.

About 21,000 respondents submitted comments. In comparison, for the 1990 and 1991 drafts released for public comment, the Forest Service received comments from about 3,700 and 7,300 respondents, respectively.

Between June 1996 and October 1996, the in-Service team analyzed the public comments. Substantive issues, concerns, and questions raised by commenters were identified by the in-Service team and given to the interdisciplinary team for consideration in developing the revision to the final plan. The in-Service team, working primarily on the Flathead National Forest, consisted of about 40 people, including a project coordinator, 2 team leaders, computer support staff, writers/coders, data entry staff, and editors. In addition, Alaska regional staff assisted the in-Service team. Prior to working on the Tongass plan, the project coordinator had performed content analyses for several projects, including NFMA regulations, national forest plans, and environmental impact statements and environmental assessments. Most of the coding staff were planners or resource specialists with the National Forest System. The project coordinator told us that because the team was not from the Tongass National Forest, the team provided an objective, third-party view of the public comments.

In early October 1996, the in-Service team prepared the final draft content analysis summary displaying demographic information and specific issue-by-issue analysis in a summary of public comments. According to the

content analysis done by the in-Service team, (1) the majority of the public comments concerned the level of timber harvesting that the preferred alternative allowed, (2) over half the comments supported lowering the amount of timber available for harvesting and suggested terminating or not extending the Tongass's remaining long-term timber-harvesting contract, and (3) many of the respondents, especially southeastern Alaskans, were worried about the social and economic effects on their communities if the preferred alternative was selected.

The Tongass official responsible for overseeing the work done by the in-Service content analysis team considered the team's work to be accurate and timely, given the large database that the team had to work with and the time constraints placed on the team. The total cost for the in-Service contract was $185,000.

The New Regional Forester Acted to Involve Regulatory Agencies in Revising Plan

As discussed earlier, in mid-1994 the newly appointed regional forester established a new planning team structure to revise the 1991 supplement to the draft Tongass forest plan. Under the new structure, the regulatory agencies were members of the interagency policy group established to advise the interdisciplinary team and to improve interagency coordination.

Interagency coordination became increasingly important in December 1993 when the Fish and Wildlife Service received a petition to list the Alexander Archipelago wolf as threatened under the Endangered Species Act. In addition, in May 1994 the Fish and Wildlife Service received a petition to list the Queen Charlotte goshawk as endangered under the act. Both subspecies occur on the Tongass and are dependent on old-growth forest as habitat. The revised Tongass forest plan, when issued, would impact how these subspecies' habitat is managed and so could be a determinant in the viability of the species.

Besides involving the Fish and Wildlife Service in the interagency policy group, in December 1994 the Forest Service signed a memorandum of understanding with the Fish and Wildlife Service and the Alaska Department of Fish and Game to prevent the listing of species on the Tongass as endangered or threatened. The memorandum provided that the agencies should assess wildlife habitat, share information about species they manage, and meet regularly to discuss the status of species to reduce the need to list them under federal or state endangered species acts.

In addition, the Forest Service's Alaska Region also acted independently to prevent the listing of the wolf, the goshawk, and other species:

- In June 1994, the regional forester deferred timber harvesting in old-growth reserves that had been identified by the viable population committee as needed to maintain viable populations of old-growth-dependent species.

- In September 1994, the Forest Service issued for comment an environmental assessment intended to protect the wildlife habitat of such species as the goshawk and the wolf while maintaining a supply of timber for local industry. The proposed action in the environmental assessment was to provide interim management guidelines to protect the species until the revised supplement to the draft forest plan was approved. If implemented, the guidelines were intended to protect those areas identified by the viable population committee as needed to maintain viable populations of old-growth-dependent species. This action was predicted to "likely result in measurably lower timber sale offerings to independent mills," as well as defer some timber sale offerings for the Tongass's remaining long-term contract. In July 1995, the Congress passed an act[16] containing a rider effectively prohibiting the Forest Service from implementing the management guidelines. Accordingly, the regional forester did not sign the environmental assessment or implement the guidelines.

In 1995, the Fish and Wildlife Service found that listing the wolf and the goshawk under the Endangered Species Act was not warranted. Environmental plaintiffs challenged these decisions. In September 1996, as the Forest Service was reviewing public comments on the revised supplement to the draft plan and formulating an alternative intended to become the final Tongass forest plan, a federal district court remanded the Fish and Wildlife Service's decision on the goshawk to the agency. In October 1996, the same court reached the same decision with respect to the wolf. In each case, the court ruled that the Fish and Wildlife Service's basis for not listing the subspecies—that the revised Tongass forest plan would provide adequate protection for the species' habitats—was not valid, since the plan had not yet been formally approved by the Forest Service. Instead, the court held that the Fish and Wildlife Service must base its decision on the current (1979, as amended) plan and the current status of the subspecies and its habitat.

[16]Emergency Supplemental Appropriations for Additional Disaster Assistance, for Anti-Terrorism Initiatives, for Assistance in the Recovery From the Tragedy That Occurred at Oklahoma City, and Rescissions Act, 1995, P.L.-104-19.

As a result of these court decisions, the Fish and Wildlife Service began negotiations with the Forest Service in an attempt to ensure that the final forest plan would prevent the need to list the goshawk or the wolf as endangered. The Fish and Wildlife Service has until May 31, 1997, to reach a decision on the status of these species.

Despite the involvement of federal regulatory and state agencies in developing the revised supplement to the draft forest plan, the Environmental Protection Agency, the Fish and Wildlife Service, and the National Marine Fisheries Service submitted comments on the draft that criticized the preferred alternative as posing a high level of risk to wildlife and habitat. The Fish and Wildlife Service was concerned that harvesting timber on a 100-year rotation, as proposed in the preferred alternative, would prevent forests from recovering old-growth stand characteristics, resulting in the loss of viable populations of species that depend on old-growth forests for habitat. The Environmental Protection Agency and the National Marine Fisheries Service favored more expansive riparian protection than the preferred alternative provided to protect fish habitat and water quality.

Estimated Cost of the Tongass Planning Process

During the 10 years from fiscal year 1987 through fiscal year 1996, the Forest Service's Alaska Region spent slightly over $13 million to develop the revised Tongass land management plan and environmental impact statement. Tables II.1 and II.2 show the sources of the funds used and the cost elements charged to develop the forest plan. The tables' totals for budgeting and spending may not match because of rounding.

Table II.1: Budget Line Item Categories for Funding the Development of the Tongass Forest Plan for Fiscal Years 1987-96

Dollars in thousands

	Fiscal year										
Expanded budget line item	**1987**	**1988**	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**Total**
Ecosystem management	$0	$0	$0	$0	$0	$0	$0	$0	$2,056	$1,986	$4,042
Minerals	44	0	30	46	59	32	35	24	0	0	270
Timber management	29	0	47	93	89	796	790	603	0	135	2,581
Forest vegetation management	0	0	0	0	0	0	0	0	0	20	20
Recreation	44	0	80	140	118	99	123	90	0	0	694
Wildlife and fish	29	0	47	78	103	59	55	38	0	0	409
Soil, water, and air	23	0	78	141	162	105	96	67	0	0	672
Road construction	21	0	24	47	30	35	58	41	113	90	459
Tongass timber supply[a]	102	982	761	1,008	915	0	0	0	0	0	3,769
Anadromous fish habitat assessment	0	0	0	0	0	0	0	100	0	54	154
Total	**$292**	**$982**	**$1,067**	**$1,553**	**$1,476**	**$1,126**	**$1,157**	**$963**	**$2,169**	**$2,285**	**$13,070**

Note: Totals may not add because of rounding.

[a]The Alaska National Interests Lands Conservation Act (ANILCA) of 1980 directed that at least $40 million be made available annually to support, among other things, a timber supply from the Tongass National Forest. This money went into the Tongass timber supply fund. The Tongass Timber Reform Act of 1990 repealed this ANILCA provision, and the fund ceased to exist at the end of fiscal year 1991.

Source: Forest Service's Alaska Region.

As table II.1 shows, during fiscal years 1987-96, $13 million was funded from numerous Forest Service accounts to develop the plan, including ecosystem management; minerals; timber management; recreation; wildlife and fish; soil, water, and air; road construction; and Tongass timber supply. Forest Service officials were unable to provide us with information on their rationale for using the various funding accounts for fiscal years 1987-94. For fiscal years 1995 and 1996, the Forest Service began budgeting most of the funding for the plan from the ecosystem management account. An Alaska Region budget officer told us that the

ecosystem management account was established to finance large-scale planning efforts such as the Tongass plan.

Table II.2: Cost Category for the Development of the Tongass Forest Plan for Fiscal Years 1987-96

Dollars in thousands

	Fiscal year										
Cost element	**1987**	**1988**	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**Total**
Salary	$216	$383	$554	$808	$761	$690	$716	$615	$852	$960	$6,555
Vehicle and equipment rental	1	1	0	0	1	0	0	1	0	0	4
Materials and supplies	5	25	29	16	14	9	31	32	23	21	205
Construction and services	0	495	60	166	186	98	61	39	184	264	1,553
Travel and training	24	50	84	82	104	66	63	25	132	116	746
Commercial rents/utilities	1	7	20	77	70	82	73	73	82	83	568
Automated data processing	0	6	208	298	295	135	21	19	195	184	1,361
Transfer of station	2	0	0	0	0	0	0	0	0	62	64
Other	44	15	114	103	45	45	191	161	702[a]	594[a]	2,014
Total	**$293**	**$982**	**$1,069**	**$1,550**	**$1,476**	**$1,125**	**$1,156**	**$965**	**$2,170**	**$2,284**	**$13,070**

Note: Totals may not add because of rounding.

[a]Includes Pacific Northwest Research Station services of $463,000 in 1995 and $570,000 in 1996. About $515,000 of these costs are for personnel salaries.

Source: GAO's analysis of data provided by the Forest Service.

As table II.2 shows, slightly more than $13 million was spent for salaries, travel, training, space leasing/utilities, printing/publishing, computer workstation leases/computer support services, and other equipment and supplies. Over $7 million, or 54 percent of the $13 million, was spent for staff salaries. An Alaska Region budget officer told us that some Tongass planning costs incurred by the regional forester, forest supervisors, some regional office administrative personnel, and Forest Service headquarters personnel are not included in these planning costs and are not readily available.

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