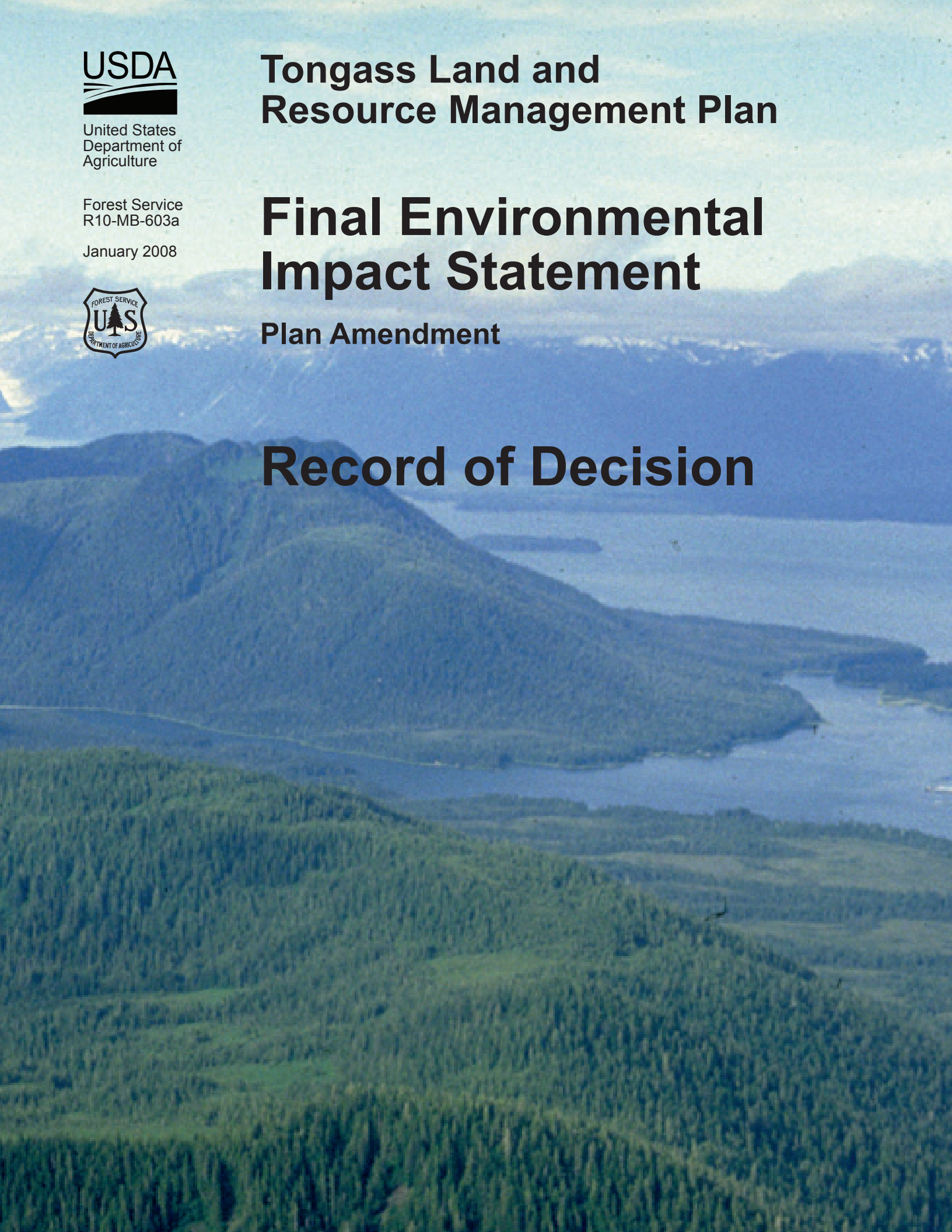

USDA

United States
Department of
Agriculture

Forest Service
R10-MB-603a

January 2008

Tongass Land and Resource Management Plan

Final Environmental Impact Statement

Plan Amendment

Record of Decision

A Shared Vision
For the Tongass National Forest

For untold millennia, people in Southeast Alaska have been tied to the land and the seas, and lived within their embrace. Still today, 73,000 people live in intimate contact with this marvelous environment. Hundreds of thousands more visit every year, hoping to sense in some small way what Alaskans experience daily. Much of what local residents experience - and what visitors sense - comes directly from that wondrous treasure, the Tongass National Forest.

The Record of Decision you have before you is a complex legal document, filled with technical details and references to the laws, policies, regulations, and court cases that make up the fabric of modern resource management. That's pretty obvious. What is not so obvious is the new partnership between the State of Alaska and the U.S. Forest Service that is foundational to this decision. The previous Chief of the Forest Service and State of Alaska administration opened a new door to collaborative relations almost two years ago, which has expanded to include many vital, dynamic, and diverse interests as this decision was formed. We are working together in productive ways that were literally unthinkable just a few years ago. Today, we renew our commitment to work together and support a new collaborative model of management.

It is vital that you see this shared vision for this Forest, and that you understand the thinking and hope that this decision can bring more stability to its management. Above all, we want to see sustainability, of the Tongass and of Southeast Alaska's communities, in perpetuity. The Tongass National Forest is one of the few places left where people still live connected to the land and make their living surrounded by unparalleled abundance and wildness. We want to see it stay that way.

We believe that the Tongass National Forest is a unique public treasure entrusted to our care. Through this decision, we are conserving its intrinsic value for future generations. The Tongass will continue to be a rich, healthy forest of wild places with abundant wildlife and fish. Most of the Forest will be protected as Wilderness and as remote backcountry, and will remain one of the world's most important intact ecosystems.

The lands of the Forest must also provide the foundation of the economic well-being of the communities embedded within it. A healthy commercial fishing industry depends on the Forest's abundant fish habitat. Mining and timber have long provided jobs for the people of Southeast, and through responsible resource management they can continue to do so. And

the remote and isolated communities within the Forest must have opportunities to connect to each other, for both transportation and energy.

We also want to help stabilize the economic and social viability of communities in Southeast Alaska. Without sufficient timber resources, a crucial element of these communities is in danger of disappearing. Because people in this country, as well as the rest of the world, require a lot of timber products, the wood product industry offers one of the best ways to retain that viability. Helping businesses succeed is important to both the health of the forest and its people. We are committed to them, because the people who live in Southeast Alaska are crucial to the health of the landscape in which they live.

At the same time, the Tongass is part of a global community, influenced by the effects of international markets and trends. Preserving special places requires engaging local people and responding to their interests and values. Alaska's forests are increasingly valued for the global environmental services they provide, such as plentiful clean air and water, abundant fish and wildlife, carbon sequestration, biodiversity, and opportunities to enjoy outdoor recreation.

The new State-Federal cooperation is key to the successful implementation of the Plan. We must strengthen our coordination of wildlife conservation monitoring and timber sale operations, while recognizing that full implementation will require adequate funding. With this decision, we also renew our commitment to work together to ensure subsistence protections guaranteed under the Alaska National Interest Lands Conservation Act. We hope, and believe, that our efforts to work together will strike a chord with your own interest in the Tongass National Forest and Southeast Alaska.

Our vision of the future says this new plan will meet the needs of the people of Southeast Alaska while protecting the wild places we all love. The framework is here, and with our newfound sense of State-Federal cooperation, and the addition of an adaptive management strategy, we believe we can also work together on how best to make the plan work for all of us.

That is our vision – we hope you will join with us in making it a reality.

Sarah Palin
Governor, State of Alaska

Abigail R. Kimbell
Chief, Forest Service

Tongass National Forest
Land and Resource Management Plan
Amendment

2008 Environmental Impact Statement

Record of Decision

United States Department of Agriculture
Forest Service–Alaska Region

January 2008

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ABBREVIATIONS

ADOT&PF	Alaska Department of Transportation and Public Facilities
AFA	Alaska Forest Association
AFHA	Anadromous Fish Habitat Assessment
ANILCA	Alaska National Interest Lands Conservation Act
ASQ	Allowable Sale Quantity
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CZMA	Coastal Zone Management Act
EIS	Environmental Impact Statement
FWS	Fish and Wildlife Service
KIC	Ketchikan Indian Community
LUD	Land Use Designation
MDF	Medium Density Fiberboard
MMBF	Million Board Feet
MOU	Memorandum of Understanding
NEPA	National Environmental Policy Act
NFMA	National Forest Management Act
NFS	National Forest System
NIC	Non-Interchangeable Component
P.L.	Public Law
ROD	Record of Decision
ROS	Recreation Opportunity Spectrum
RPA	Forest and Rangeland Renewable Resources Planning Act
TTRA	Tongass Timber Reform Act
TUS	Transportation and Utility System
U.S.C.	United States Code
USDA	United States Department of Agriculture
VCU	Value Comparison Unit

Record of Decision

Introduction

This document is a public Record of Decision (ROD) that documents my decision to approve the 2008 Amendment to the Tongass Land and Resource Management Plan (Forest Plan), and the rationale for making that decision. The amended Forest Plan is contained in the document titled *Land and Resource Management Plan – Tongass National Forest*, dated January 2008, and is based on Alternative 6 in the *Tongass Land and Resource Management Plan Amendment Final Environmental Impact Statement* (Final EIS), with four modifications as described in this document. The map of record for the amended Forest Plan is labeled "Tongass National Forest, Land Use Designations, January 2008."

Under the National Forest Management Act (NFMA), the Secretary of Agriculture is required to "develop, maintain, and, as appropriate, revise land and resource management plans [forest plans] for units of the National Forest System." 16 U.S.C. § 1604(a). Forest plans are expected to be reviewed every 5 years, and revised every 15 years. 16 U.S.C. § 1604(f)(5)(A); 36 CFR § 219.10(g). Pursuant to 16 U.S.C. § 1604(g), the Secretary of Agriculture promulgated regulations at 36 CFR Part 219[1] establishing procedures for the development, amendment, and revision of forest plans. Because this amendment essentially completes the process of revising the Tongass Forest Plan that was initiated in 1987, the Forest Plan will not need to be revised again for 10 to 15 years, unless changed conditions require it sooner.

Forest planning on the Tongass National Forest has long been a complex and contentious undertaking. This history is described in detail in Chapter 1 of the Final EIS, so I will offer only a brief summary of it here. In 1979, the Tongass National Forest was the first to complete a forest plan under NFMA. As required by NFMA's implementing regulations, the Forest Service completed a 5-year review of the Forest Plan in 1984, which led to an amendment of the Forest Plan that was completed in 1986. The agency began work to revise the Forest Plan in 1987. The Tongass Timber Reform Act became law in November 1990, which resulted in a second amendment to the Plan in 1991. The Revised Forest Plan was approved in 1997, and was appealed by several parties. The Under Secretary of Agriculture affirmed the 1997 decision, but also issued a new ROD that modified the 1997 Plan, mainly to prohibit timber harvest and road construction in 18 "areas of special interest." As a result of subsequent litigation, the 1999 ROD was vacated, and the Forest Service was directed to prepare a Supplemental EIS to determine whether additional wilderness areas should be recommended. That Supplemental EIS was completed in 2003; based on that analysis, I recommended no additional wilderness.

The validity of the 1997 Forest Plan was challenged, and that litigation eventually resulted in a decision by the U.S. Court of Appeals for the Ninth Circuit in *Natural Resources Defense Council vs. U.S. Forest Service* (421 F.3d 797) in August 2005. The Forest Service had erroneously nearly doubled the market demand for timber from the Tongass that was projected by Forest Service economists. The court found that this error influenced the selection of Alternative 11 in the 1997 ROD. The court also found inadequacies in the 1997 EIS, including the following:

- The EIS did not provide decision makers and the public with an accurate assessment of information relevant to evaluating the Tongass Plan; had the accurate market demand forecast and related potential employment and earnings information been used, an alternative may have been selected with less environmental impact and in less environmentally sensitive areas.

[1] The Forest Service promulgated new planning regulations in 2000, and again in 2005. In accordance with the transition provisions of the 2005 regulations, the 2008 Tongass Forest Plan Amendment was prepared pursuant to the pre-2000 regulations. All citations in this ROD to regulations in Part 219 refer to the pre-2000 regulations.

- The Forest Service had not considered alternatives that set the Allowable Sale Quantity (the maximum amount of timber allowed to be cut) equal to the correct demand scenarios.
- Each of the alternatives considered allocated some currently roadless areas to the Land Use Designations (LUDs) that allow development; the EIS omitted an alternative that allocated less undeveloped land to the development LUDs.
- The EIS did not fully consider the cumulative effects of disproportionate high-volume logging on non-federal land because the EIS did not include: (1) a catalog of past projects; (2) a discussion of how those projects (and differences between the projects) have harmed the environment; (3) a discussion of the connection between individual non-federal high-volume harvests and the prior environmental harm from those harvests; and (4) an assessment of the potential impacts of reasonably foreseeable continued "highgrading" in the future.
- A cumulative effects analysis in a programmatic EIS is necessary for the Forest Service and the public to make a rational evaluation of the proposed action balancing the competing goals of timber harvest, environmental preservation, and recreational use in the Tongass.

The 2008 Tongass Forest Plan Amendment and the associated EIS have been prepared in response to the Ninth Circuit court's decision. The Amendment also responds to the 5-Year Review of the Plan completed in early 2005, which recommended several updates to the Plan.

Forest plans are programmatic in nature; they do not, by themselves, authorize activities such as timber harvest or road construction that affect the environment. Rather, when an individual project (such as a timber sale) is proposed, the Forest Service undertakes a site-specific analysis of its likely environmental effects and renders a formal decision regarding it. *See Inland Empire Public Lands Council v. U.S. Forest Service*, 88 F.3d 754 (9th Cir. 1996); *Sierra Club v. Robertson*, 28 F.3d 753, 758 (8th Cir. 1994). Thus, forest plans do not have environmental effects. *Ohio Forestry Ass'n v. Sierra Club,* 523 U.S. 726, 729 (1998). However, the planning regulations governing the 2008 Tongass Forest Plan Amendment require the preparation of Environmental Impact Statements for forest plans. 36 CFR § 219.10(b).

My objectives for the 2008 Forest Plan Amendment and the associated EIS have consistently been to correct the deficiencies identified by the Ninth Circuit and bring the Plan up to date, while balancing the competing goals cited by the court. My overall intent has always been to ensure that the Tongass National Forest continues to be managed in a sustainable manner. NFMA requires forest plans to "provide for multiple use and sustained yield of the products and services" obtained from the National Forest System. 16 U.S.C. § 1604(e)(1). Sustained yield of products and services is defined as "the achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the national forests without impairment of the productivity of the land." 16 U.S.C. § 531(b). I also recognize the State of Alaska's authority and responsibility to ensure sustainable management of fish and wildlife on all lands in Alaska. Multiple use management is a deceptively simple term that describes the enormously complicated task of striking a balance among the many competing uses to which land can be put, including outdoor recreation, range, timber, watershed, wildlife, fish, and wilderness. The additional goal of sustained yield requires the Forest Service to control consumptive uses of natural resources of the National Forest System to ensure a high level of valuable uses in the future.

For reasons that will be explained throughout this ROD, I conclude the amended Forest Plan meets all of these very challenging requirements.

The Decision

The decision I am making today is to approve the amended Forest Plan, which is based on Alternative 6 as described in the Final EIS, with the four modifications that are described in this ROD. The components of this decision are listed below. These decision components are fully supported by the environmental analysis documented in the Final EIS, as required by law and regulation. The details of these decision components may be found in the Forest Plan chapters or appendices noted.

I have made my decision after careful consideration of the public comments on the Draft EIS for the 2008 Tongass Land and Resource Management Plan Amendment, which was prepared pursuant to the National Environmental Policy Act (NEPA). I have also reviewed the Final EIS and the amended Forest Plan. All site-specific projects will be subject to additional environmental analysis, which will tier to the Final EIS for the amended Forest Plan.

The amendment I am approving modifies four of the six components of the Forest Plan that are required by law and regulations governing forest planning. In addition to the required components, I am also approving a Timber Sale Program Adaptive Management Strategy, which is an additional step in implementing adaptive management and correcting the deficiencies identified by the Ninth Circuit court. As part of this decision, I also direct the Forest Supervisor to strengthen the cooperative efforts with the State of Alaska on implementation and monitoring, including efforts to improve timber sale economics, by developing cost-sharing and other agreements with the State of Alaska. This direction is described in detail in the section of this ROD dealing with implementation.

Decision Components Required by NFMA

Goals and Objectives

Multiple-use goals and objectives for the Tongass are described in Chapter 2 of the Plan. These goals and objectives guide the overall management for the Forest, establish the desired conditions for implementing the Plan, and satisfy the requirements of 36 CFR 219.11(b). Achievement of these goals and objectives will ensure the sustainability of the Tongass National Forest, and the ecological, social, and economic values derived from the Forest. These goals and objectives describe the mosaic of land and resource conditions desired for the forest in the future. Full attainment of these goals and objectives can be influenced by a number of factors, such as congressional budget allocations, changed circumstances or new information relative to land management.

The amended Plan includes several changes to the goals and objectives adopted in 1997. A new goal has been added to maintain viable plant communities and populations and a mixture of habitats capable of supporting the full range of naturally occurring flora. It also includes a new goal to consult with Tribes to protect and maintain sacred sites across the Forest. New objectives are included for each of these goals. A new objective was added to reduce the introduction, spread, and impact of invasive species. Two new objectives related to timber management were also added. One addresses “economic timber” in the timber sale program; the other deals with flexibility and stability in the sale program. In addition to the new goals and objectives, several others were modified. More emphasis was given to ecosystem services values. The goal for karst was re-written to focus on maintaining natural processes and productivity while allowing other land uses as appropriate. Several goals and objectives were updated to clarify management intent.

Management Prescriptions

Chapters 3 and 4 of the amended Plan set forth the management prescriptions and forest-wide standards and guidelines that describe how land managers will operate on the Tongass. These chapters provide the expectations and limits on how and where activities will be conducted. The management prescriptions in Chapter 3 include 16 Land Use Designations, each with its own goals and objectives, and specific standards and guidelines designed to ensure achievement of them. Management prescriptions for the Wilderness and National Monument Wilderness LUDs have been combined to reduce duplication, while retaining separate goals and objectives for National Monument Wilderness. Several other management prescriptions have been changed slightly to update and clarify them. Many of the forest-wide standards and guidelines (Chapter 4) were also edited to update their terminology, clarify them, and improve the consistency of application. New standards and guidelines were developed to address invasive species and plants. Another new standard was added that requires old-growth forest structure (i.e., live trees, dead trees, and clumps of trees) to be retained after timber harvest in areas that have had considerable past harvest, as a replacement for standards in the 1997 Forest Plan related to goshawk foraging and marten habitat.

The 19 LUDs are commonly organized into four groups with similar management direction and environmental effects. The first two groups are commonly referred to as "non-development LUDs, and the latter two groups as "development LUDs." The main changes from the 1997 Forest Plan in the allocation of land on the Tongass to the various LUDs include:

1. Updated acreage figures for all LUDs as a result of refinements to the geographic information system and better inventory information regarding scenery.
2. The addition of approximately 90,000 acres[2] to the network of small Old-Growth Habitat reserves, as discussed in the section of this ROD dealing with protecting wildlife habitat and biodiversity. Some of these additional acres were previously allocated to development LUDs, others to non-development LUDs.
3. Expansion of Geologic Special Interest Areas to protect nearly 47,000 acres of newly identified karst lands that are most vulnerable to disturbance from development.
4. Reallocation of about 97,000 acres on the Juneau Icefield from Remote Recreation to Semi-remote Recreation, which would allow minor enclaves to be established above the snow accumulation zone.
5. Reallocation of about 43,000 acres on Chichagof Island at the head of Tenakee Inlet from Timber Production, Modified Landscape, and Old-Growth Habitat to Semi-remote Recreation to address the high sensitivity of this area to development and timber economics.
6. Reallocation of about 18,000 acres on Kupreanof Island east of Kake from Timber Production to Semi-remote Recreation to address public concerns and timber economics.
7. Reallocation of development LUDs near Bostwick Inlet on Gravina Island to Semi-remote Recreation in response to public concerns, as described in greater detail in the section of this ROD dealing with minimizing effects on roadless areas. These are changes that I am making through this decision to Alternative 6 as displayed in the Final EIS.
8. Allocations among the development LUDs were adjusted to reflect improved inventory data regarding scenery. These are changes that I am making through this decision to Alternative 6 as displayed in the Final EIS.
9. An expansion of the Minerals LUD overlay by approximately 80,000 acres (from 170,514 to 249,570 acres) to include portions of the Hyder area and areas on Prince of Wales Island associated with the Niblack, Ruby Tuesday, and Khayyam minerals prospects.

The amended Forest Plan's allocation of all National Forest System lands on the Tongass to the various LUDs is shown in Table 1 below.

Activities consistent with management prescriptions are guided by the application of standards and guidelines, which govern resource management activities and are key to successful implementation of the Forest Plan. Some of these standards and guidelines apply to all lands, others to specific management prescriptions. These standards and guidelines take precedence over annual targets or projected outputs; no project or program will be funded for which the applicable standards and guidelines cannot be carried out.

The primary LUDs that allow timber management, Timber Production, Modified Landscape, and Scenic Viewshed, total approximately 3.4 million acres, or 20 percent of the Tongass National Forest. Three of these LUDs, Timber Production, Modified Landscape, and Scenic Viewshed, account for all of the scheduled timber harvest under the Forest Plan. Scenic and Recreational River LUDs also allow timber management if the adjacent LUD allows timber harvest and the scenery guidelines are met; however, very little harvest has occurred in these LUDs over the last 10 years. Accordingly, I expect little if any timber harvest in these LUDs over the next 10 to 15 years.

[2] This includes approximately 50,000 acres added by previous amendments to the 1997 Forest Plan.

Table 1
Land Use Designations for the Amended Forest Plan

Land Use Designation	Total Acres Allocated to Each LUD[1]	Total Acres Allocated to Each LUD without Overlays[2]
Wilderness LUD Group		
Wilderness	2,637,292	2,637,292
Wilderness National Monument	3,111,792	3,111,792
Nonwilderness National Monument	166,942	166,942
Total for Wilderness LUD Group		**5,916,026**
Natural Setting LUD Group		
LUD II	721,002	721,002
Remote Recreation	2,033,665	2,033,665
Semi-Remote Recreation[3]	3,023,152	3,023,152
Old-Growth Habitat	1,221,173	1,221,173
Enacted Municipal Watershed	45,226	45,226
Research Natural Area	58,788	26,093
Special Interest Area	342,137	221,176
Wild River	192,463	62,799
Scenic River	27,133	27,133
Recreational River	27,387	27,387
Total for Natural Setting LUD Group		**7,408,806**
Development LUD Group		
Experimental Forest[4]	31,405	31,405
Scenic Viewshed	307,402	307,402
Modified Landscape	728,679	728,679
Timber Production	2,381,486	2,381,486
Total for Development LUD Group		**3,448,972**
Overlay LUD Group[5]		
Minerals	249,570	0
Transportation and Utility Systems	--	0
TOTAL NATIONAL FOREST SYSTEM LAND		**16,773,804**

[1] This column includes the total acreage allocated to each LUD. However, in some cases, more than one LUD can be applied to the same area (such as a Special Interest Area within Wilderness); therefore, totaling the acres of this column will exceed the total National Forest acreage.

[2] This column counts each acre of the Tongass only once. It includes the total areas allocated to each LUD, except for five LUDs that sometimes overlay other LUDs. The Research Natural Area, Special Interest Area, and Wild River LUDs sometimes overlay Wilderness, Wilderness National Monument, or LUD II; when this occurs the acreage is included under these other LUDs (so as not to double count). Also, the Minerals and Transportation and Utility System LUDs always function as overlays and do not have acreage in this column.

[3] The acreage figure for this LUD includes 6,544 acres currently allocated to Experimental Forest, but proposed to be converted to Semi-Remote Recreation.

[4] The acreage figure for this LUD includes 20,853 acres currently allocated to Scenic Viewshed, but proposed to be converted to Experimental Forest.

[5] The two LUDs in this group are always overlay LUDs. Areas allocated to these LUDs are managed according to the underlying LUD until such time that mineral or transportation/utility development is approved, if at all. The Minerals overlay LUD has an area (249,570 acres) associated with it; no acreages are calculated for the Transportation and Utility System LUD because it is defined as a series of corridors of undefined width and imprecise locations.

Land Suitable for Timber Production

The amended Forest Plan also updates the classification of lands suitable for timber production and determines where on those lands timber harvesting could be allowed, in accordance with NFMA regulations, 36 CFR 219.14(a), and Section 102 of the Tongass Timber Reform Act (TTRA). Appendix A of the Forest Plan details the criteria and process used to determine the forest lands suitable for timber production. These are the lands capable of producing commercial volumes of timber on a sustained-yield basis, and are not in areas legislatively withdrawn from timber harvest. They are the only lands where regularly scheduled timber harvest may occur.

This process uses a computer model that takes into consideration a number of characteristics of land across the entire Tongass National Forest. Changes were made to reflect updated geographic information system data; the results of a new logging systems and transportation analysis; and a new, lower estimate of the Model Implementation Reduction Factor.[3] As a result of these updates, the total estimated suitable land area decreased from 781,000 acres under the 1997 Forest Plan (as amended) to 773,000 under the 2008 Amendment. In addition, new modeling was conducted to identify the maximum acreage of lands from the suitable land base that would need to be scheduled for harvest over the next 100 years or so, in order to produce timber each decade at the maximum level permitted under the Allowable Sale Quantity. As a result of these updates, the total amount of scheduled suitable land decreased from 687,000 acres under the 1997 Forest Plan (as amended) to 663,000 acres under the 2008 Amendment.

Commercial timber sales can occur on lands that are not identified as suitable for timber production, but only if needed to accomplish other management objectives. Examples include commercial thinning of dense young-growth forest stands to improve wildlife habitat, and salvage sales of trees damaged or killed by insects or disease, or blown down by wind storms. Such sales are infrequent on the Tongass, are not part of the scheduled timber program, and thus do not count toward the Allowable Sale Quantity.

Allowable Sale Quantity

The Allowable Sale Quantity (ASQ) is the maximum amount of timber that can be sold in the first decade following this decision. It has not been changed; the ASQ for timber for the amended Forest Plan is established at 2.67 billion board feet per decade, which is equivalent to an annual average of 267 million board feet (MMBF). This is an upper decadal limit on the amount of timber that may be offered for sale from suitable timberland on the Tongass National Forest as part of the regularly scheduled timber sale program. As mentioned above, the ASQ is unchanged from that established for the 1997 Forest Plan. However, the timber program will be implemented in three phases under the Timber Sale Program Adaptive Management Strategy, as explained in detail later in this section and in other sections of this ROD.

Annual offering levels depend on several factors. For the Tongass National Forest to offer timber sales at levels near the maximum allowed under the amended Plan, Congress would need to consistently appropriate sufficient funding, the Forest Service would need to increase the number of timber sales prepared and offered, and the timber industry would need to take advantage of additional marketing opportunities, make new capital investments, purchase sales offered, and harvest timber at rates higher than current levels.

As was true under the 1997 Plan, the ASQ consists of two separate Non-Interchangeable Components (NICs) called NIC I, which is 2.38 billion board feet of timber per decade, and NIC II, which is 0.29 billion board feet per decade. The NIC I component includes land that can be harvested with normal logging systems and is typically more economic to harvest. The NIC II component includes land that has high logging costs due to isolation or special equipment

[3] The Model Implementation Reduction Factor reduces the amount of land identified by the model as suitable for timber production to account for unforeseen factors that arise during implementation of the Plan. The Factor was reduced from approximately 32 percent in the 1997 Forest Plan to approximately 23 percent in the amended Forest Plan, as a result of updates to the geographic information system and other data.

requirements. These NIC components are estimates that do not reflect all of the factors that may influence actual sale levels. They are designed to prevent the disproportionate harvest of the most economical portions of the Forest over the long term. Thus, the separate limits on each component are binding on a decadal basis. The components are non-interchangeable because lower sale levels in one component may not be compensated for by higher sale levels in the other. About 89 percent of the ASQ comes from NIC I land and about 11 percent comes from NIC II.

Monitoring and Evaluation

The monitoring plan, required by NFMA regulations, 36 CFR section 219.12 (k), is contained in Chapter 6 of the amended Forest Plan. It represents an essential quality control mechanism and facilitates learning from Plan implementation. The monitoring plan provides for three types of monitoring: (1) implementation monitoring to determine if the standards and guidelines are being followed; (2) effectiveness monitoring to determine if standards and guidelines are achieving the desired results; and (3) validation monitoring to determine if the underlying assumptions are valid.

Monitoring and evaluation play a central role in adaptive management. Some monitoring and evaluation activities are conducted to ensure appropriate implementation of standards and guidelines. Other activities are conducted to deal with uncertainties regarding effects of land management activities. This includes gathering additional information to reduce these uncertainties by determining whether the effects of various standards and guidelines are consistent with predictions, and also to validate key assumptions underlying various standards and guidelines and projected outcomes of management. Information gained through monitoring and evaluation will be used to adjust management direction in the future where warranted. Accordingly, monitoring and evaluation will be a high priority under the amended Forest Plan. The monitoring plan contained in the amended Forest Plan specifies the questions to be answered through monitoring. Several modifications were made to refine the critical monitoring questions, including more emphasis relative to emerging climate change issues. Information on sampling methods and other detailed information about how the questions might be answered has been removed, because these provisions tend to be frequently updated to respond to new science and information. Details of the monitoring program such as data gathering protocols will continue to be developed in consultation with the State of Alaska and other interested Federal agencies.

The Forest Service will conduct an evaluation of the Forest Plan in 5 years, as provided by the NFMA planning regulations (36 CFR 219.10(g)). That review will include an evaluation of the Plan's old-growth conservation strategy, which is designed to conserve biodiversity and prevent the need to list species under the Endangered Species Act. The evaluation will be conducted in collaboration with appropriate Federal and State agencies. Any needed changes in the Plan's direction will be incorporated through the amendment or revision process, just as this amendment was prepared, in part, in response to information obtained under the monitoring and evaluation program established under the 1997 Forest Plan.

Recommendations on Special Management Areas

As described in Chapter 1 of the Final EIS, the purpose and need of the 2008 Forest Plan Amendment is to respond to the 2005 decision by the U.S. Court of Appeals for the Ninth Circuit, and to update the Plan in response to the 5-year evaluation completed in 2005. Accordingly, changes to wilderness areas, wild and scenic rivers, and research natural areas are outside the scope of the Amendment. During this amendment process, however, I reviewed the decision I made in 2003 not to recommend that any new wilderness areas be designated, or any changes to existing wilderness areas be made. I made that decision because I found no compelling need for additional wilderness on the Tongass at that time. I believe the 2003 decision should remain in effect. Consequently, this decision does not include any additional wilderness recommendations. Potential wilderness recommendations can be considered again as part of the next revision.

Similarly, I am making no changes to the recommendations made by the Regional Forester in 1997 that segments of over 30 rivers be included in the National Wild and Scenic Rivers System.[4] These recommendations require action by the Chief of the Forest Service and the Secretary of Agriculture before being considered by the President for transmittal to Congress. No changes are being made to the network of research natural areas currently designated on the Tongass.

Although the scope of this Amendment did not include proposals to add new wilderness areas, wild and scenic rivers, or research natural areas, or to expand existing units of these systems, there is one change to a special management area that I am recommending. In response to a request from the Pacific Northwest Research Station, I join the Director of the Station in recommending to the Chief of the Forest Service that the designation of Young Bay on Admiralty Island as an experimental forest be terminated and that a new experimental forest in the Cowee Creek and Davies Creek watersheds on the mainland north of Juneau be established. Admiralty Island is not accessible by road, which is needed to fully achieve the objectives of an experimental forest. The proposed new experimental forest is accessible from the Juneau road system. Unless and until the Chief approves these recommendations, Young Bay will be managed as an experimental forest, and the Cowee Creek-Davies Creek area will be managed under the Scenic Viewshed and Old-Growth Habitat LUDs. Upon approval by the Chief and execution of any necessary public land orders, Young Bay will be managed under the Semi-Remote Recreation LUD, which includes the termination of the existing mineral withdrawal, and the Cowee Creek-Davies Creek area will be managed as an experimental forest. While only the Chief can make the decision on these recommendations, the potential environmental effects of that decision—other than issues related to mineral withdrawals--are described in the Final EIS for this Forest Plan Amendment. Upon approval by the Chief, we would make a technical correction to the Plan to reflect that approval.[5]

Changes Adopted in this ROD to Alternative 6

As mentioned briefly above, I have decided to make four changes to Alternative 6 as displayed in the Final EIS. The following changes have been incorporated into the amended Forest Plan:

- Development LUDs in the vicinity of Bostwick Inlet on Gravina Island have been changed to Semi-remote Recreation.
- Allocations of development LUDs have been changed (e.g., from Scenic Viewshed to Modified Landscape) to reflect updated scenery inventory information.
- The standard and guideline included in Alternative 6 that would allow timber harvest within goshawk nest buffers if nests are unoccupied for two years has been changed. The amended Forest Plan will continue to protect all known nests; only buffers around “probable nests” may be subject to timber harvest, and only if two years of monitoring indicates no evidence that goshawks are present or actually nesting. This change is explained further in the section of this ROD dealing with protecting fish and wildlife habitat and biodiversity.
- The standard and guideline in Alternative 6 that requires project-level analysis of ways to reduce excessive human-caused wolf mortality has been changed to require such analyses to evaluate the effects of human access to the project area via all roads, not just roads open to vehicular traffic as included in Alternative 6. This change is explained further in the section of this ROD dealing with protecting fish and wildlife habitat and biodiversity.

[4] The 1997 ROD recommended that portions of 32 rivers, lakes, and streams be added to the National Wild and Scenic Rivers System. In 1998, the Acting Forest Supervisor determined that the 1997 recommendation for Niblack Lakes and Streams was based on incorrect information related to the area’s productivity of anadromous fish, and adopted a non-significant amendment rescinding the recommendation that the Niblack Lakes and Streams system be designated as a component of the National Wild and Scenic Rivers System. I conclude the remaining 31 recommendations should remain in effect.

[5] If the Forest Service chooses to pursue withdrawing the new Experimental Forest from the mining and mineral leasing laws, additional NEPA analysis and public involvement will occur before making that decision.

Timber Sale Program Adaptive Management Strategy

I am keenly aware that my decision to approve an amendment that retains the same ASQ as in the 1997 Forest Plan will be controversial. Some people requested a higher ASQ be adopted, to ensure an opportunity for the timber sector to expand into a fully integrated and competitive industry.[6] Others asked for a lower level, to prevent unnecessary development of roadless areas perceived by some as most environmentally sensitive. Multiple use management requires that such competing demands be balanced in a sustainable manner. I believe my decision accomplishes this difficult task. A detailed explanation for my decision, including why I believe it responds to these concerns and how it remedies the inadequacies identified by the court, is provided below in the "Rationale for the Decision" section of this ROD. To further balance the competing demands and respond to requests for additional protection of roadless areas, I am also approving the Timber Sale Program Adaptive Management Strategy. As mentioned above, the decision to approve this Strategy is in addition to the decision components that are required by NFMA and its implementing regulations.

Under the Timber Sale Program Adaptive Management Strategy, actual operation of the timber sale program will be implemented in three phases, as determined by actual timber harvest levels. In Phase 1, the timber program will be restricted to a portion of the suitable land base that excludes moderate and higher value roadless areas[7]. The map of the Strategy is included on the CD of the Final EIS, and is also available on the internet at *www.fs.fed.us/r10/tongass/*. This Phase 1 portion includes approximately 537,000 suitable acres, or 69 percent of the total suitable land base. Should the actual level of timber harvest reach 100 MMBF for two consecutive fiscal years, the Tongass could then plan for timber projects in the Phase 2 portion of the approved suitable land base, resulting in a program that operates on 680,000 acres of suitable lands, including some moderate value roadless areas. Should timber harvest reach 150 MMBF for two consecutive fiscal years, the Tongass could then plan for timber projects in Phase 3, which includes the entire suitable land base. A more detailed explanation of the Timber Sale Program Adaptive Management Strategy and my reasons for adopting it are provided in the Implementation section of this ROD.

As mentioned previously, the Timber Sale Program Adaptive Management Strategy is an additional step being taken in response to concerns that an overestimate of timber demand will lead to timber harvest in areas perceived by many as more environmentally sensitive--such as higher value roadless areas--that would not have to be developed if the Plan were based on a lower estimate of timber demand. It is very difficult to estimate long-term timber demand with a high degree of precision and confidence when local, regional, and global market conditions are constantly changing. Therefore, the Timber Sale Program Adaptive Management Strategy—in conjunction with the amended Forest Plan--addresses the Ninth Circuit court's finding that, if the 1997 Tongass Forest Plan Revision EIS had provided decision makers and the public with the correct market demand forecast, an alternative may have been selected with less environmental impact and in less environmentally sensitive areas.

The Forest Service has a statutory obligation to seek to meet market demand for timber from the Tongass National Forest, both the annual demand and demand for each planning cycle of 10-15 years, subject to other applicable law and to the extent consistent with providing for the multiple use and sustained yield of all renewable forest resources.[8] I am confident that the amended Forest Plan continues to meet these other resource goals, including recreation and the maintenance of biological diversity, as described in the Rationale for the Decision section of this ROD. I am also concerned that the current timber industry in Southeast Alaska is not sustainable at the current harvest levels, or with uncertain future timber harvest levels. Accordingly, it is prudent to keep options open so that

[6] For the purposes of this ROD, an integrated timber industry is one with local milling and processing facilities for each kind of log that comes from harvest operations on the Tongass National Forest. Competition is created between processors for similar supply needs.

[7] The term "roadless area" is a generic term that is sometimes used to refer to all areas without roads. For the purpose of this ROD, it is used to refer to inventoried roadless areas, as discussed in detail in the section of this ROD titled "Rationale for the Decision."

[8] See the market demand portion of the Rationale for the Decision section for a detailed discussion of this issue.

the timber industry in Southeast Alaska can evolve in response to long-term market developments, including a significant expansion if demand for timber rises substantially in the future. As long as other competing demands are being met, it is important to avoid constraining the lands available for timber harvest so much that it is impossible for the timber industry to expand in response to future market developments. At the same time, however, it is not necessary to schedule timber harvest in higher value roadless areas, unless timber harvest levels rise sufficiently to warrant such an expansion into these sensitive areas.

Adaptive management principles suggest we respond to uncertainty by adopting a flexible management system that balances the short- and long-term social, economic, and environmental risks and adjusts promptly if conditions change. The Timber Sale Program Adaptive Management Strategy, along with all the other conservation measures in the amended Forest Plan, is just such a system. Together, the amended Forest Plan and Adaptive Management Strategy do not guarantee an expansion of the timber industry; nor do they prohibit development in all roadless areas. Rather, they keep options open for expansion of the industry (within the ASQ approved in this Plan), while protecting areas that are perceived as more environmentally sensitive as much as possible for as long as possible. My confidence in this Strategy is further strengthened by the expected increase in young-growth[9] management over the next few planning cycles; and the increasing public interest in this conversion, which will ultimately reduce the need for old-growth timber resources and the associated need for development in roadless areas.

This is discussed in greater detail in the section of this ROD describing the rationale for the decision.

Alternatives Considered

Numerous EISs have been published as part of the development of the 1997 Forest Plan; together these EISs have considered dozens of alternatives. A Draft EIS was published in 1990, a Supplement to the Draft EIS in 1991, a Revised Supplement to the Draft EIS in 1996, a Final EIS in 1997, a Draft Supplemental EIS (addressing only whether additional wilderness should be proposed) in 2002, and a Final Supplemental EIS regarding additional wilderness in 2003. As displayed in Table 2 below, these EISs considered in detail 39 different alternatives, many of which appeared in more than one EIS. Further information on the evolution of the alternatives considered is provided below in the discussion of alternatives not analyzed in detail. In addition, Chapter 2 of the Final EIS for this Amendment provides a detailed description of the evolution of the alternatives considered.

[9] The term “young growth” refers to areas where trees have been removed by timber harvest, fire, insects, disease, or windstorms, and then grown back.

Table 2
Statistics for 39 Tongass Forest Plan Alternatives Considered in Detail; 1990 – 2003

Alternative No. and Source	ASQ [1] (MMBF annual)	Suitable lands (Acres X 1,000)	Non-Development LUDs (Acres X 1,000)	Development LUDs (Acres X 1,000)
1 1997	0	0	16,700	200
1 1996	0	74	16,700	200
6 2003	92	344	15,700	1,200
8 2003	96	351	15,700	1,200
5 1997	122	786	12,100	4,800
4 1997	130	845	11,700	5,200
5 1996	139	1,400	12,100	4,800
4 1996	145	1,507	11,700	5,200
7 2003	174	521	14,300	2,600
5 2003	209	589	13,800	3,100
A 1990	217	536	13,600	3,300
3 2003	236	620	13,500	3,400
3 1997	256	795	12,700	4,200
1 2003	259	664	13,200	3,700
2 2003	259	664	13,200	3,700
4 2003	259	664	13,200	3,700
11 1997	267	676	13,200	3,700
3 1996	278	1,188	12,600	4,300
10 1997	300	924	12,700	4,200
6 1997	309	1,024	12,100	4,800
E 1990	336	717	11,600	5,300
A 1991	355	1,173	13,700	3,200
6 1996	362	1,400	12,100	4,800
8 1996	364	1,389	10,500	6,400
B 1991	413	1,360	13,000	3,900
B 1990	425	1,101	12,900	4,000
2 1997	463	1,180	11,700	5,200
F 1990	467	1,111	11,000	5,900
G 1990	468	1,112	11,000	5,900
2 1996	489	1,526	11,700	5,200
P 1991	502	1,649	11,700	5,200
9 1996	513	1,869	10,800	6,100
C 1990	540	1,200	10,500	6,400
C 1991	541	1,732	11,200	5,700
9 1997	549	1,390	10,800	6,100
D 1991	568	1,818	11,400	5,500
7 1997	640	1,575	9,100	7,800
D 1990	660	1,575	9,100	7,800
7 1996	689	2,044	9,100	7,800

Notes:
Sources: 1990 Draft EIS, 1991 Supplement to the Draft EIS, 1996 Revised Supplement to the Draft EIS, 1997 Final EIS, and 2003 Supplemental EIS)
[1] All ASQ figures in this table are shown as total volume, including net sawlog plus utility. The 1990 Draft EIS and the 1991 Supplement to the Draft EIS display ASQ figures as net sawlog only. Therefore, figures in this table for alternatives displayed in those documents do not match the figures originally published.

Development of Alternatives Included in the Draft EIS

As noted in the Final EIS, one of the fundamental objectives that guided the development of alternatives for the Draft EIS on the 2008 Forest Plan Amendment was to exclude roadless areas from the development LUDs (the Land Use Designations that allow timber harvest and road construction) as much as possible in each alternative. Because the Tongass has so little developed

land, this is possible only at very low levels of timber harvest. Therefore, planners assessed each inventoried roadless area using the Wilderness Attribute Rating System, the only nationally established methodology for evaluating the quality of roadless areas, as well as their fish and wildlife values, recreation and subsistence values, and other multiple use values. They also gave extra consideration to 18 areas of special interest identified by the Under Secretary of Agriculture in the ROD he issued in 1999, and to 23 areas that would have been designated as wilderness under a bill passed by the House of Representatives in 1989. The development of alternatives was guided by these considerations and, at each stage, as an alternative with a higher level of timber harvest was being developed, the minimum amount of roadless acres were added to the development LUDs, starting with lower value roadless areas. In this way, at each level of timber harvest associated with each of the alternatives, development is allowed in roadless areas only to the extent necessary to achieve the multiple use objectives of the alternative, including timber production; each alternative excludes the higher value roadless areas from the development LUDs as much as possible. Alternatives were modified in response to public comments received on the Draft EIS, as explained in the section of this document dealing with minimizing effects on roadless areas.

In deciding which of the previously evaluated alternatives to analyze in this EIS, consideration was also given to alternatives that had been reviewed by the wildlife risk assessment panels that were formed during the development of the 1997 Forest Plan. This objective was accomplished for four of the seven alternatives. Given that the risk assessment panels showed a high correlation between development acres and the risk they assigned to an alternative, coupled with the fact that the harvest levels of all alternatives considered in detail in the 2008 Final EIS were bracketed by alternatives evaluated by the risk assessment panels, viability risk levels could be readily assigned to all alternatives. See Appendix D of the Final EIS for details on the application of the risk assessment panels to the alternatives considered in the 2008 Final EIS.

Alternatives Considered in Detail, Including the No-Action Alternative

Alternative 1

Compared to the 1997 Forest Plan, Alternative 1 would give much greater emphasis to maintaining roadless areas, associated fish and wildlife values, and recreation, tourism, and subsistence opportunities in undeveloped areas. In response to public comments on the Draft EIS, this alternative was modified to preclude timber harvest in all roadless areas. Development LUDs on Kuiu Island, Baranof Island, much of Chichagof Island, the Yakutat area, and essentially all of the mainland also were changed to non-development LUDs in response to comments on the Draft EIS. Consequently, no scheduled timber harvest or road construction would be allowed on these areas under Alternative 1. The standards and guidelines of the 1997 Forest Plan dealing with foraging habitat for the northern goshawk and with high value habitat for the American marten would be replaced with a new legacy standard and guideline. A total of 839,000 acres of the Tongass would be in development LUDs, 15.9 million acres would be in non-development LUDs, and 144,000 acres, including 86,000 acres of old growth, would be in the suitable land base. This alternative would have an average annual ASQ of 49 MMBF.

Alternative 2

Compared to the 1997 Forest Plan, Alternative 2 would give additional emphasis to maintaining roadless areas, associated fish and wildlife values, and recreation, tourism, and subsistence opportunities in undeveloped areas, but not as much as Alternative 1. Timber harvest would be allowed in areas where roads have already been constructed, and in roadless areas with lower wilderness attribute ratings (primarily those adjacent to developed areas). The vast majority of current roadless areas would remain in a natural condition. The goshawk foraging habitat and high value marten habitat standards and guidelines of the 1997 Forest Plan would be replaced with a new legacy standard and guideline. A total of 1.9 million acres of the Tongass would be in development

LUDs, 14.8 million acres would be in non-development LUDs, and 394,000 acres, including 215,000 acres of old growth, would be in the suitable land base. This alternative would have an average annual ASQ of 151 MMBF, and closely matches the recommendations provided by The Nature Conservancy for the protection of intact watersheds.

Alternative 3

Compared to the 1997 Forest Plan, Alternative 3 would give some additional emphasis to maintaining roadless areas, associated fish and wildlife values, and recreation, tourism, and subsistence opportunities in undeveloped areas. Timber harvest would be allowed in areas where roads have already been constructed, and in many roadless areas within the suitable land base, which excludes higher value roadless areas identified in previous planning or congressional wilderness proposals. The vast majority of current roadless areas Forest wide would remain in a natural condition. The goshawk foraging habitat and high value marten habitat standards and guidelines of the 1997 Forest Plan would be replaced with a new legacy standard and guideline. A total of 2.8 million acres of the Tongass would be in development LUDs, 14 million acres would be in non-development LUDs, and 514,000 acres, including 313,000 acres of old growth, would be in the suitable land base. This alternative would have an average annual ASQ of 204 MMBF.

Alternative 4

Compared to the 1997 Forest Plan, Alternative 4 would give greater emphasis to timber production and associated economic stability of Southeast Alaska communities. Timber harvest would be allowed in a more extensive area than under the 1997 Forest Plan. While the majority of current roadless areas would remain in a natural condition, roadless areas outside of wilderness that contain substantial productive old growth would be subject to timber harvest and road construction. Alternative 4 would use a conservation strategy with a smaller number of reserves than the 1997 Forest Plan strategy; the old-growth reserve system would be applied within four biogeographic provinces (North Central Prince of Wales Island, Kupreanof/Mitkof Islands, Dall Island, and Northeast Chichagof Island) plus several individual reserves outside of these provinces. In addition, a minimum of 33 percent of productive forest land would be retained in an old-growth condition in each Value Comparison Unit.[10] The goshawk foraging habitat, high value marten habitat standard and guideline and the proposed legacy standard and guideline would not be included in the Forest Plan under Alternative 4. The goshawk nesting standard and guideline would also not be included. A total of 4.7 million acres of the Tongass would be in development LUDs, 12.0 million acres would be in non-development LUDs, and 892,000 acres, including 656,000 acres of old growth, would be in the suitable land base. This alternative would have an average annual ASQ of 312 MMBF in the first decade (and 360 MMBF in subsequent decades).

Alternative 5

This is the No Action alternative. It represents a continuation of the 1997 Forest Plan, as previously amended, and would result in a mix of National Forest uses and activities. Timber harvest would be allowed in an area more extensive than under Alternative 3, but less extensive than under Alternative 4. The vast majority of current roadless areas Forest wide would remain in a natural condition. A total of 3.6 million acres of the Tongass would be in development LUDs, 13.2 million acres would be in non-development LUDs, and 687,000[11] acres, including 463,000 acres of old growth, would be in the suitable land base. This alternative would have an average annual ASQ of 267 MMBF.

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[10] Value Comparison Units are approximately 950 distinct geographic areas delineated on the Tongass to provide a common set of areas for resource inventories and analysis. They generally follow watershed boundaries.

[11] This figure does not match that provided in the 1997 Final EIS due to updated inventory information, land adjustments, and previous Forest Plan amendments.

Alternative 6

This is the alternative identified as the Proposed Action in the Draft EIS. It is very similar to Alternative 5 (No Action) in terms of LUD allocations; however, it includes refinements to the boundaries of small old-growth reserves, new Geologic Special Interest Areas, a new Experimental Forest proposal, the conversion of a large area of Remote Recreation LUD north of Juneau to Semi-Remote Recreation, the conversion of development LUD areas on Chichagof and Kupreanof Islands to Semi-remote Recreation, and other minor LUD refinements. Timber harvest would be allowed in an area more extensive than under Alternative 3, but slightly less extensive than under Alternative 5. The vast majority of current roadless areas Forest wide would remain in a natural condition. The goshawk foraging habitat and high value marten habitat standards and guidelines of the 1997 Forest Plan would be replaced with a new legacy standard and guideline. A total of 3.5 million acres of the Tongass would be in development LUDs, 13.3 million acres would be in non-development LUDs, and 663,000 acres, including 445,000 acres of old growth, would be in the suitable land base. This alternative would have an average annual ASQ of 267 MMBF.

Alternative 7

Compared to the 1997 Forest Plan, Alternative 7 would give much greater emphasis to timber management. Timber harvest would be allowed in a more extensive area than under the 1997 Forest Plan. While the majority of current roadless areas would remain in a natural condition, most roadless areas outside of wilderness that contain substantial productive old growth would be subject to timber harvest and road construction. The Beach and Estuary Fringe buffer would be reduced from 1,000 to 500 feet and buffers on Class III streams would not be required. The Old-Growth Habitat LUD and its management prescription would not be used. The standards and guidelines for goshawk foraging habitat, high value marten habitat, and legacy would not be included in the Forest Plan under Alternative 7. The goshawk nesting standard and guideline would also not be included. A total of 5.0 million acres of the Tongass would be in development LUDs, 11.7 million acres would be in non-development LUDs, and 1,070,000 acres, including 807,000 acres of old growth, would be in the suitable land base. This alternative would have an average annual ASQ of 421 MMBF. Alternative 7 was incorporated in the NEPA analysis at the request of the Southeast Conference.

Alternatives Considered but not Analyzed in Detail

As mentioned above, the Forest Plan revision process started in 1987 and resulted in the development of numerous environmental documents, which cumulatively described dozens of alternatives. Each of these alternatives was considered for detailed study and comparison in the Draft EIS for the 2008 Forest Plan Amendment, in their original form or in a modified form. Altogether, 49 alternatives were considered for detailed study prior to the selection of the EIS alternatives; 39 based on past alternatives (which formed the basis for Alternatives 1, 3, 4, 5, and 7), and 10 new ones (which formed the basis for Alternatives 2 and 6). These alternatives were considered in light of the key issues and the purpose and need. They ranged in ASQ, the maximum amount of timber that can be sold on an average annual basis, from 0 to almost 700 MMBF per year. Development LUD acres in these alternatives ranged from a few hundred acres to almost 8 million acres, and suitable forest lands ranged from 0 to over 2 million acres. Chapter 2 of the Final EIS contains a more thorough discussion of the alternatives not analyzed in detail.

The Environmentally Preferable Alternative

The Council on Environmental Quality (CEQ) regulations for implementing NEPA require that the Record of Decision specify “the alternative or alternatives which were considered to be environmentally preferable” (40 CFR 1505.2(b)). This alternative has generally been interpreted to be the alternative that will promote the national environmental policy as expressed in NEPA’s Section 101 (CEQ’s “Forty Most-Asked Questions”, 46 *Federal Register*, 18026, March 23, 1981). Ordinarily, this means the alternative that causes the least adverse effect to the biological and physical environment. Alternative 1 of the Final EIS is the environmentally preferable alternative.

Rationale for the Decision

Summary

I reached my decision to select Alternative 6 with the modifications described in this ROD, and to approve the Tongass Timber Sale Program Adaptive Management Strategy, after a comprehensive review and careful consideration of the relevant ecological, economic, and social potential effects of the Final EIS alternatives. During my consideration of the Final EIS and in reaching my decision, I have been guided by a wide variety of factors. Among the most important of these are how best to respond to problems identified by the Ninth Circuit Court of Appeals in their 2005 decision, many of which were identified as key issues in the EIS, and other considerations including those related to national policy.

The following explanation of why I selected Alternative 6 from among the seven alternatives analyzed in the Final EIS addresses each of these factors in great detail. Another key factor in my decision is compliance of the Forest Plan with applicable laws, regulations, and executive orders, as described in detail in a separate section of this ROD. Here, I want to provide a short summary of my thinking.

When I contemplate all of the information about legal requirements, effects analyses, risk assessments, and all the other factors relevant to this decision, it still comes down to sustainability of the multiple uses and resources of the Forest: How can we best balance the competing demands on the Tongass National Forest, when there is uncertainty about those demands and the effects of trying to meet them? Specifically, how can we best balance:

- Potential risks to fish and wildlife from building roads and harvesting timber with the risks of local mills shutting down if their need for that timber cannot be met?
- Potential adverse effects on recreational use of the Tongass with the level of timber harvest allowed?
- The advantages of an integrated timber industry with the potential resource effects of allowing a sufficient level of timber harvest to enable new processing facilities to be built?

Finally, how do we ensure that higher value roadless areas perceived as most environmentally sensitive are being protected from development as much as possible at whatever rate timber is harvested and roads are constructed?

The most logical approach to me is to deal with fish and wildlife issues first, then with recreation issues, timber demand, issues related to an integrated industry, and protecting roadless areas in that order. This does not reflect any relative value of the issues or the resources, only what I see as the logical order of dealing with them.

Fish and Wildlife Habitat and Biodiversity. The management of habitat to maintain the long-term viability of all Tongass fish and wildlife species as well as to sustain subsistence, recreational, and commercial uses of these resources is a key factor in my decision. This decision relies heavily on the sound scientific foundation developed in the 1997 Tongass Forest Plan, especially the fish and riparian standards and guidelines and the comprehensive wildlife conservation strategy prepared through an interagency collaborative process. All key components of this conservation strategy have been incorporated in the amended Forest Plan. The conservation strategy ensures the maintenance of viable populations of all vertebrate species on the Tongass by means of a comprehensive approach based on principles of conservation biology. Implementation of this strategy also recognizes the State of Alaska's responsibility to provide for sustainable fish and wildlife resources and the human uses of these resources. The old-growth habitat strategy included in the amended Forest Plan is fully responsive to our obligations to manage habitat to maintain viable populations within a multiple-use context. This strategy has been developed through careful analysis and integration of the best scientific information available on this subject, and will minimize fragmentation of old-growth habitat on the Forest.

The strategy includes two major components. First is the system of large, medium and small old-growth reserves well distributed throughout the Tongass. This system of reserves is made up of areas allocated to the Old-Growth Habitat LUD, plus lands in all the rest of the non-development LUDs, which essentially maintain the integrity of the old-growth system. This component provides adequate habitat for old-growth dependent or associated species, and provide for connectivity between reserves in order to prevent genetic isolation of populations. The reserve system protects 72 percent of the existing productive old-growth habitat on the Tongass. The second major element of the wildlife conservation strategy is a series of standards and guidelines applicable to those portions of the Tongass open to consideration for potential timber harvest. The standards and guidelines regulate how development will occur on those areas open to potential development. Standards and guidelines incorporate a species-by-species approach that addresses issues that are more localized or not accounted for in the broader, ecosystem context approach that was incorporated into the old-growth reserve system. These standards and guidelines protect an additional 19 percent of the existing productive old-growth habitat on the Tongass. Between the reserve system and the standards and guidelines that apply to the development LUDs, the amended Forest Plan will protect 91 percent of the existing productive old-growth habitat on the Tongass.

The purpose of both components of the strategy is to ensure the viability of old-growth dependent or associated species. The 1997 ROD concluded that the strategy provided assurance, subject to an acceptable level of risk inherent in projecting management effects, that even if timber were harvested and roads were constructed consistently for a period of 100 years at the Plan's maximum allowable levels, viable populations of all vertebrate species on the Tongass would remain at the end of that period. Largely because of scientific uncertainty, the conservation strategy (and any other conservation strategy) involves some degree of risk. Therefore, the 1997 Plan did not represent a "no risk" conservation strategy. It represented a balance of wildlife conservation measures that considered the best available scientific information and reflected an acceptable level of risk for continued species viability, based on conservative assumptions.

In the spring of 2006, experts in the field of conservation biology and Tongass-related species came together with agency representatives in a workshop to assess new information from conservation science and species research; discuss the implications of that new information for the underlying assumptions of the conservation strategy; and determine whether there was a need to modify or replace the existing strategy. On the basis of the information presented at the workshop, the Forest Service concluded that the conservation strategy remains valid and appropriate for the long-term management of the Tongass National Forest. Many ideas were discussed at the workshop. The Forest Service considered all of these ideas, and incorporated some of them into the analysis associated with this Forest Plan Amendment. The status and outcome of all topics considered during the workshop can be found in the document titled: Interagency Conservation Strategy Review: An Assessment of New Information Since 1997.

As described in greater detail in a later section of this ROD, the Final EIS describes the potential effects of the Forest Plan on the probability of sustaining viable populations of wildlife species on the Tongass. As I review that information, I am struck by several key points. First, there are no terrestrial species on the Tongass listed as threatened or endangered under the Endangered Species Act. Second, the analysis in the Final EIS indicates no species will trend toward listing with implementation of the Forest Plan. The conclusion of that analysis is that the amended Forest Plan will provide an amount and distribution of habitat adequate to maintain viable populations of vertebrate species in the planning area and will maintain the diversity of plant and animal communities. In addition, the amended Forest Plan has a high likelihood of sustaining populations Forest-wide for the continued subsistence, recreational, and commercial uses of fish and wildlife species.

Recreation and Tourism. As discussed in detail in the section below on this subject, the analysis in the Final EIS suggests that relatively minor changes in the mix of recreational opportunity settings may occur over the next 150 years under the amended Forest Plan. Changes to settings are related to projected levels of future development. The magnitude and rate of these changes will be influenced by the level at which timber harvest and associated road construction occurs. Even if such development occurs at the maximum level allowed under the amended Forest Plan, some of

these changes—an increase in opportunities for road-based recreation—will be desirable to some people, and undesirable to others. This may result in users being displaced to other areas where the setting and use patterns are more in line with their expectations and needs. The Tongass National Forest is overwhelmingly pristine and unroaded, and will remain that way under the amended Forest Plan. Therefore, I conclude there will be no significant reduction in recreation and tourism opportunities as a result from implementation of the Forest Plan over the next 10 to 15 years, and some opportunities may be enhanced.

Timber Demand. Based on my confidence in the assurance of maintaining fish and wildlife viability and recreational opportunities, the next question is how to deal with uncertainty related to timber demand. Once again, I recognize that I am making a decision for 10 to 15 years, while considering potential effects over a longer time horizon. In this case, however, if the decision is inadequate to meet the needs of the timber industry over the next 10-15 years, the industry simply will not be around for corrections to be made during the next Plan revision. State and private forest lands in Southeast Alaska are not able to provide an adequate supply to meet the minimum level needed for current mills to remain in operation. There are also questions about whether the industry will expand in the future if a supply of timber is available. Such an expansion would allow the industry to become more efficient and enhance its competitive position, improving its sustainability. While approving a Plan with an ASQ high enough to allow such an expansion will not make it happen; adopting an ASQ that meets only current needs will certainly prohibit it. Therefore, once viability concerns are met, it makes sense to approve a Plan with an ASQ high enough to allow current mills to increase their production to efficient operating levels and provide some room for new processing facilities, which will help maintain a vibrant and diverse economy in Southeast Alaska. As explained in detail in the section of this ROD dealing with market demand, the amended Forest Plan accomplishes that result.

Need for an Integrated Forest Products Industry in Southeast Alaska. Beyond the question of what the market demand for timber is likely to be over the next 10 to 15 years, I also considered what supply would be needed to provide an opportunity to reestablish an integrated forest products industry in Southeast Alaska. As explained in detail in the section of this ROD on this subject, the existing timber industry in the region has been at a competitive disadvantage in world markets since the closure of the pulp mills in the 1990s. Reestablishing an integrated industry, including processing facilities for all types of material harvested on the Tongass, would require a reliable supply of economic timber from the Forest. Providing an opportunity for additional processing facilities to be established is an important step to ensuring the economic sustainability of the industry. An integrated industry would make commercial thinning more economically feasible, allowing more restoration work in watersheds where past practices have led to degraded ecological conditions. If local processing facilities can be established for utility[12] logs, they would no longer be left in the woods. Accordingly, establishment of an integrated industry would further the goals of ecological, as well as economic, sustainability. I selected Alternative 6, which has an ASQ substantially above recent harvest levels, in part to provide such opportunities—and to ensure they are not foreclosed.

Minimizing Effects on Roadless Areas. Having met requirements dealing with viability, recreation, and timber demand, and having provided opportunities for the development of an integrated timber industry, we turn finally to minimizing effects on roadless areas. Paramount among these concerns is how to ensure that development occurs first on the lower value roadless areas, since the ASQ of the Forest Plan is considerably above recent harvest levels, while protecting the higher value roadless areas and those perceived as more environmentally sensitive as much as possible. The amended Forest Plan and Adaptive Management Strategy limit timber harvest to lower value roadless areas unless harvest levels rise sufficiently to warrant allowing timber harvest in moderate value and higher value roadless areas.

[12] Utility logs are those with so much rot or otherwise of such poor quality that they cannot be sawn into lumber. They are relatively common in old-growth forests, comprising approximately 15 percent of the volume of timber cut on the Tongass. For safety and logistical reasons, such trees within a timber harvest unit must be purchased and cut down, even though the purchaser may have no use for them. In recent years, they have often been cut down and left in the woods.

Conclusion. For the reasons described above, I conclude that my decision to approve the amended Forest Plan and the Timber Sale Program Adaptive Management Strategy meets all legal requirements, and best balances the many competing demands on the Tongass National Forest. The conservation strategy included in the amended Forest Plan ensures that healthy populations of wildlife will remain across the Tongass; the Adaptive Management Strategy protects higher value roadless areas; the LUD allocations and standards and guidelines minimize effects on recreation and tourism; and the ASQ associated with the LUD allocations and management direction provides opportunities for the timber industry to expand sufficiently to become more integrated and competitive in world markets. In short, my decision ensures the sustainability of the multiple uses of the Tongass and of the outstanding natural resources of the Forest that we all treasure.

I recognize that there is enormous value in maintaining the Tongass for the suite of ecosystem services it provides to the world. More detail on the difficulty of monetizing these values is discussed below, yet there is no doubt they exist, and I have given them full consideration. People come to Alaska to catch salmon; to see bears; to see bears catching salmon; to enjoy the tranquility of an old-growth forest – forests with and without roads. People come here to boat on pristine coastal waters; to see whales and other marine mammals. Hunters come here to pursue deer and bears on these mountainous islands; some of them by car, and others preferring a more rugged and isolated experience in our many roadless areas. I believe all of these visitors, like many Alaska residents, treasure the abundant populations of fish and wildlife species dependent on the Tongass and its old-growth forests. This nature-based tourism is a valuable industry for Southeast Alaska. These rainforests are also critical to another important Southeast Alaska industry, commercial fishing. Well protected streams and their clean, cool waters are critical for large and lucrative salmon runs, on which both humans and animals thrive year after year. Trees are another valuable, renewable resource the Tongass has to offer. Trees are valuable in many forms--standing on the ground; downed, dead and decomposing on the forest floor; and sitting on a log truck headed for a local saw mill. The latter is a form that can provide for an important and sustainable industry that contributes to a diverse economy, without detracting from the other values I recognize as important to the public. Simply put, on a forest as vast as the Tongass, which is blessed with an abundance of these renewable resources, I believe it is important to maintain opportunities for all uses to occur, and at a scale which is both beneficial to local communities and respectful of broader national interests. Managed in a sustainable and environmentally sensitive manner, I believe the Forest Service can provide the raw materials of the Tongass to support a healthy wood products industry, a growing tourism industry, and a robust fishing industry in perpetuity. I am confident that the amended Forest Plan I am approving today can achieve that result.

The remaining portions of this section explain in detail the rationale for my decision, starting with an elaboration of the considerations described above, including how they relate to problems identified by the Ninth Circuit Court of Appeals in its 2005 opinion, and to the key issues identified in the Final EIS.

Protecting Fish and Wildlife Habitat and Biodiversity

Background

NFMA requires the Secretary of Agriculture to specify “guidelines for land management plans developed to achieve the goals of the Program which … provide for diversity of plant and animal communities based on the suitability and capability of the specific land area in order to meet overall multiple-use objectives…” (16 U.S.C. 1604(g)(3)(B)). In accord with this diversity provision, the Secretary promulgated a regulation that provides in part: “Fish and wildlife habitat shall be managed to maintain viable populations of existing native and desired non-native vertebrate species in the planning area. For planning purposes, a viable population shall be regarded as one which has the estimated numbers and distribution of reproductive individuals to insure its continued existence is well distributed in the planning area.” (36 CFR 219.19.)

The scientific community and courts recognize that NFMA does not create a concrete, precise standard for diversity. The Committee of Scientists that provided scientific advice to the Forest Service on the drafting of NFMA regulations stated that “it is impossible to write specific regulations

to 'provide for' diversity" and "there remains a great deal of room for honest debate on the translation of policy into management planning requirements and into management programs" (44 Fed. Reg. 26,600-01 & 26,608).

In this planning context, absolute certainty is not possible. This has led to a planning process which involves risk projections regarding the distribution of species over the next 100 years. Numerous factors, which vary according to the characteristics of the ecosystem examined, are considered in evaluating risk. Some common factors include the life history of the species, the current amount and distribution of habitat, the amount and distribution of species' ranges within the planning area, and other reasonably foreseeable protective measures. In as biologically diverse and expansive an area as the Tongass, much of this type of information is evolving. Moreover, even absent any human-induced effects, the likelihood that habitat will continue to support species' persistence can vary among species. For example, the continued persistence of local rare endemic species whose entire range may comprise only a few acres is intrinsically insecure. Thus, compliance with the regulation is a matter of assessing risk, which is not subject to precise numerical interpretation and cannot be fixed at any one single threshold. Because long-term risk varies among species, even when using the best scientific projections available, it is also necessary to follow-up with rigorous monitoring of select key species and their habitats to ensure that populations remain healthy, particularly in areas of the Forest with higher levels of timber harvest. These monitoring expectations and commitments are described in Chapter 6 of the Forest Plan, titled "Monitoring and Evaluation."

In determining compliance with the NFMA fish and wildlife resource regulation, I have considered existing and reasonably foreseeable conservation measures. In addition to the Plan's land allocations (which protect 78 percent of the Forest in non-development LUDs) and standards and guidelines, other possible measures include activities undertaken pursuant to internal policy directives (e.g., the Forest Service's sensitive species program) and steps taken during project planning. The one issue that remains uncertain and could, in the future, alter assumptions made in the Final EIS is the effects of climate change. Consequently, it is important for the Tongass to stay abreast of the evolving scientific information related to the effects of climate change and how this may affect fish and wildlife populations. However, the state of current knowledge and the uncertainty about the specific effects of climate change leads me to conclude that the best course of action today is continued management of the Tongass for resiliency in the face of uncertain but anticipated change. This will be done primarily through the maintenance of the conservation strategy, coupled with a robust monitoring plan that will allow for management intervention if and when effects of climate change are more certain. I have determined that the combination of providing for an amount and distribution of habitat adequate to maintain viable populations of vertebrate species in the planning area and increased emphasis on monitoring climate-related changes is a reasonable solution.

Summary

The Final EIS describes the potential effects of the Forest Plan on the probability of sustaining viable populations of wildlife species on the Tongass. The conclusion of that analysis is that the Forest Plan will provide an amount and distribution of habitat adequate to maintain viable populations of vertebrate species in the planning area and will maintain the diversity of plant and animal communities. That conclusion is based in large part on viability risk assessments prepared by panels of experts for the 1997 Plan. Based on these assessments and all the other analyses, the 1997 Forest Plan EIS estimated that there was a moderate to very high probability of maintaining sufficient habitat to maintain viable populations of wildlife species on the Tongass under the 1997 Plan. The risks associated with the 1997 Plan were related to the scientific uncertainty of projecting long-term effects of management actions. I believe those probability estimates are very conservative for the following reasons:

- The viability risk assessments assumed continuous timber harvest at the maximum level allowed under the Plan (the ASQ level of 267 MMBF annually) for 100 consecutive years, with no change in applicable standards and guidelines during that entire period. In essence,

they did not assess the risks associated with a 10- to 15-year decision, but with a 100-year decision.

- Risks that viable populations would not be maintained are generally low, would only arise several decades into the future, and then only if timber were continuously harvested at or near the maximum ASQ level.
- Timber has not been harvested on the Tongass at or near the maximum ASQ level throughout a single planning cycle, let alone several. The first Tongass Forest Plan was adopted in 1979, and was in effect through May of 1997. It had an annual average ASQ of 549 MMBF of total volume.[13] Total volume harvested from 1980 through 1996 averaged 327 MMBF annually, only 60 percent of the ASQ. Since adoption of the 1997 Forest Plan, total volume harvested has averaged 84 MMBF annually, only 32 percent of the annual average ASQ of 267 MMBF. I do not expect timber to be harvested at a continuous rate of 267 MMBF over the next planning cycle of 15 years, let alone 100 years.
- If timber harvest rises to 267 MMBF annually over the next 10-15 years, or even beyond that level in the future, the planning process ensures that any issues that may emerge regarding sustaining viable populations of wildlife species on the Tongass will be addressed. Plans must be revisited through a public process every 10-15 years. Each time, the latest scientific information is examined to determine what changes may be needed. The Forest Service and other State and Federal agencies will continue to monitor implementation of the Forest Plan and its results. If a viability-related problem were to develop, it would not go unnoticed—it would be addressed.
- Standards currently in effect are far more protective than those of 20 or 40 years ago. It is highly likely that standards will continue to become more effective over the next several decades through adaptive management as the scientific understanding of how to minimize the adverse environmental effects of human activities continues to improve.

I want to be clear that I believe the analysis displayed in the Final EIS of potential effects on wildlife is valid. Land management decisions must consider very long-term potential effects to ensure they are sustainable. To estimate such potential effects, assumptions must be made about what management direction will apply in the future. It would be impossible to predict what changes in policy might be made over the next 100 years. Yet I am not making a 100-year decision today; I am making a 10- to 15-year decision. Experience tells us that standards do become more effective over time, and timber is not harvested at maximum allowable levels for long, if ever. While the members of the viability assessment panels may have concluded there is no scientific basis upon which to make different assumptions, the ones made are very unlikely to occur, and render the viability analyses something close to a “worst case scenario.” Consequently, while I am mindful of the fact that there are some long-term viability risks associated with implementing the Forest Plan over the next 10 to 15 years, I believe those risks are very small. For example, Chapter 3 of the Final EIS indicates that 92 percent of the productive old-growth forest that ever existed on the Tongass remains today. Over the next 15 years, even if timber is harvested at the maximum rate allowed under the amended Forest Plan over that entire period, less than 3 additional percent would be harvested and 89 percent of the original productive old-growth forest (97 percent of the existing productive old growth forest) would remain. I believe the risks associated with this level of activity are completely acceptable. Moreover, I am confident that any problems that may surface in the future will be addressed through the public planning process. Accordingly, I am as certain as I can be that this decision ensures the maintenance of viable wildlife populations as required by NFMA. A more detailed discussion of issues related to viability is provided below.

The Old-Growth Habitat Reserves

The amended Forest Plan strengthens the protection of old-growth habitat in two ways. First, it improves the network of small old-growth reserves through work completed by an interagency team.

[13] The ASQ of the 1979 Plan was expressed as 450 MMBF, which counted sawlog only. The 549 MMBF figure includes utility volume as well, as displayed in the 1997 Final EIS for the Tongass Forest Plan Revision.

Biologists from the State of Alaska, U.S. Fish and Wildlife Service (FWS), and the Forest Service reviewed nearly 300 small old-growth reserves identified in the 1997 Forest Plan and recommended reconfigurations for many of them. My decision acts on those recommendations. The amended Forest Plan includes an updated set of old-growth reserves that is approximately 90,000 acres larger than the old-growth reserve system contained in the 1997 Plan. Some 13 old-growth reserves require more analysis at the project level before any changes are made, as described in Appendix K of the Forest Plan. My decision enhances the network of small old-growth reserves by incorporating habitat protections identified through the interagency review; for example, the need to protect narrow habitat corridors known as “pinch points” that connect larger patches of habitat. At the same time, the changes in the small old-growth reserves will reduce operational conflicts, such as problems encountered when gaining access to suitable timber lands.

The second enhancement in old-growth protection is a substantial increase in the amount of land allocated to other non-development LUDs. By increasing these allocations by 69,000 acres, the amended Forest Plan is expected to be more beneficial with respect to wildlife habitat than the 1997 Plan.

The Tongass now has an estimated 4,951,000 acres of productive old-growth forest. Changes in this amendment will increase the portion of productive old growth in non-development LUDs from 71 percent under the 1997 Forest Plan to 72 percent. Another 19 percent of productive old-growth forest will be protected by the standards and guidelines that apply to the development LUDs. Overall, the amended Forest Plan protects 91 percent of the existing productive old growth on the Tongass National Forest. Not all of that is of equal value in terms of wildlife habitat quality. Many believe that high-volume old growth is higher quality habitat. An even smaller subset of the old-growth forest—the large-tree old growth--is also often perceived as higher quality wildlife habitat. The large-tree category is characterized by stands that have a coarse canopy texture and typically contain the largest trees and the highest timber volumes. The amended Forest Plan protects over 90 percent of the existing high-volume old growth on the Tongass National Forest, and 89 percent of the existing large-tree old growth. Appendix D of the Final EIS discusses these considerations in more detail, as does the Biodiversity section of Chapter 3 of the Final EIS. Based on my review of these analyses, I am confident that the amended Forest Plan ensures that high quality wildlife habitat will remain abundant on the Tongass National Forest.

Standards and Guidelines That Apply in Development LUDs

Another component of the old-growth conservation strategy, management standards and guidelines, applies to lands not contained within the system of old-growth reserves. Rather, these standards and guidelines apply to those lands with LUD allocations that provide for the scheduled harvest of timber—the development LUDs. While these LUDs comprise 21 percent of the Forest, only about 4 percent of the Forest would actually be scheduled for potential harvest over the next 100+ years. Within the development LUDs, some standards and guidelines aim to ensure protection of important old-growth habitats and connectivity. Key examples are the 1,000-foot buffers along beaches and estuaries and the streamside buffers protecting riparian zones. Other standards and guidelines preclude or significantly limit logging in areas with high-hazard soils, steep slopes, karst terrain, visually sensitive travel routes and use areas, and timber stands technically not feasible to harvest. All of these key standards and guidelines are maintained in this decision because they protect important resources and serve vital connectivity functions within the network of old-growth reserves.

Some changes to wildlife standards and guidelines are being adopted in this decision. The purpose is to maintain the high level of protections afforded in the 1997 Plan, while also allowing additional flexibility during on-the-ground implementation. The minor changes serve to clarify standards and guidelines that were being either misinterpreted or inconsistently applied. The adoption of a Forest-wide legacy standard and guideline as a replacement of the 1997 goshawk foraging and marten habitat standards and guidelines is a major change. The new standard and guideline applies in watersheds where the level of past or anticipated timber harvest is high. By requiring the retention of forest structural components such as patches of large trees, down logs, and snags (dead trees) after timber harvest in more biogeographic provinces, the legacy standard and guideline will provide

beneficial effects to more species in more areas across the Tongass than the standards and guidelines of the 1997 Forest Plan.

The Queen Charlotte Goshawk

Conservation organizations petitioned the FWS to list the Queen Charlotte goshawk subspecies of the northern goshawk (*Accipiter gentilis laingi)* as endangered in May 1994. The FWS has repeatedly determined that listing is not warranted, largely on the basis of protections provided by the conservation strategy in the 1997 Tongass Forest Plan. The most recent status update and finding was published in November 2007. The FWS found that the best available information does not support the listing of the Alaska population segment as threatened or endangered at this time. However, the FWS also concluded that Vancouver Island is a significant portion of the Queen Charlotte goshawk's range and that listing the subspecies in British Columbia is warranted.

I am mindful that the FWS made its non-warranted determination for Alaska goshawks largely on the basis of protections in the 1997 Forest Plan. This is reflected in my decision to maintain the key components of the conservation strategy in the amended Forest Plan, so as to continue providing a high level of protection for the goshawk. However, the decision does include three changes that affect goshawk habitat. These are: 1) adjustments to the network of small old-growth reserves and increases in other non-development LUDs, as described in the preceding section; 2) changes to the goshawk nest buffer standard and guideline; and (3) adoption of a new Forest-wide legacy standard and guideline that replaces the goshawk foraging standard and guideline contained in the 1997 Plan.

The 1997 Tongass Forest Plan EIS estimated that Alternative 11, as displayed in that EIS, had a high likelihood of maintaining viable populations of goshawks well-distributed across the Tongass, even if timber were harvested and roads constructed for 100 years at the maximum levels allowed by Alternative 11. This estimate did not take into account several goshawk-specific measures that were added in the final decision after the assessment was conducted. These measures were added to Alternative 11--the Selected Alternative--to further reduce risk to the goshawk, in recognition that the species had been considered for listing under the Endangered Species Act. One such measure was prescribed for goshawk habitat on Prince of Wales Island, where productive old-growth has been fragmented by past management actions such at timber harvest and road construction. This goshawk foraging standard and guideline, applicable within the most-fragmented watersheds on Prince of Wales Island, sought to retain habitat structure for goshawk nesting, foraging, and dispersal between old-growth reserves.

The Final EIS for the 2008 Forest Plan Amendment considered the cumulative changes in the conservation strategy in describing the potential effects on goshawks. Changes that enhance the old-growth reserve system, as described in the previous section, figure importantly in this analysis. These enhancements include a net addition of acres to the old-growth reserve network; improvements in the configuration of small reserves recommended by the interagency team; and the additions to other non-development LUDs that are part of this decision. The enhanced reserve network in the amended Forest Plan, coupled with the 1,000-foot wide beach buffers and other features that provide habitat connectivity, should provide a similar if not stronger foundation for maintaining goshawk populations across the Tongass. Overall, at least 91 percent of the existing productive old growth (83 percent of all old growth that ever existed on the Tongass) would remain on the Tongass, even if timber were harvested at the maximum level allowed by the Forest Plan for 100 consecutive years. In addition, over this same time period, a significant acreage of young growth that is protected from future harvest (equal to about 5 percent of the original amount of old growth) will be reaching mature forest stages and will also have value as goshawk habitat. For these reasons, I conclude that an abundant supply of habitat suitable for goshawk nesting and foraging will persist across the Tongass.

Because the protection of known goshawk nests is paramount, I am modifying Alternative 6 as displayed in the Final EIS to ensure that confirmed nests will continue to be protected by a 100-acre buffer of old-growth habitat, as required by the 1997 Forest Plan. The amended Forest Plan does, however, make a change to the 1997 Plan to allow some management flexibility in stands where goshawks have been observed but no direct or indirect evidence of a confirmed nest is documented.

Such stands are defined as "probable nest stands." Under the amended Forest Plan, activities may be allowed within the 100 acres surrounding probable nest stands, but only if—after 2 years of monitoring—there is no additional evidence of goshawk use. A requirement to survey for goshawks prior to timber harvest remains in effect, as does a commitment to monitoring. Therefore, I anticipate that management situations enabled by this change would be rare, and that goshawk populations would not be affected.

As another change relating to goshawks, I am adopting a Forest-wide legacy standard and guideline in lieu of the goshawk foraging standard and guideline contained in the 1997 Plan. This change stems from the desire for a more comprehensive (versus single-species) approach to retaining old-growth structural components in areas of timber harvest, and for more consistency in application across the Forest. The legacy standard and guideline applies to higher risk VCUs across the Forest, whereas the 1997 Plan's goshawk foraging standard applied just to higher risk VCUs on Prince of Wales Island. Therefore, the beneficial effects of retaining old-growth structure, for example in retaining connectivity and habitat conditions for prey, will apply to goshawks throughout their range on the Tongass National Forest. My decision to adopt this change also responds to operational and economic considerations associated with timber harvest, which is another important objective in this plan. This standard and guideline will be monitored to ensure it functions as expected.

The benefits to wildlife of leaving large trees, snags, and downed logs after timber harvest is well documented in the scientific literature, including studies on goshawk and their primary prey species. However, there is no scientific basis to guide managers as to how much structural material should be retained, and in what configurations, to specifically benefit goshawks and their prey in southeast Alaska. I am basing my decision on research that suggests that retaining clumps of trees is more beneficial than retaining single trees. Clumps receive more use by wildlife and are more windfirm than scattered residual trees. Applying the legacy standard and guideline in required VCUs is expected to achieve the beneficial effects of residual habitat structure that were intended by goshawk standards and guidelines in the 1997 Plan. Additionally, clumped configurations provide an increased measure of operability from a timber harvest standpoint.

An additional feature of the legacy standard and guideline is that it is scaled to take into account the cumulative effects from past and planned forest harvesting. The legacy standard and guideline need not apply in low and moderate risk watersheds, where cumulative effects are low, because protection is afforded by other measures such as non-development LUDs, old-growth reserves, and standards and guidelines designed primarily to address other resource concerns. In high-risk watersheds, where cumulative effects are greater, the legacy standard and guideline provides additional protections, above those other measures. As was intended by the original goshawk standards, the new approach will retain important forest structure where it is most needed, in the higher-risk VCUs. The legacy standard and guideline applies to 49 VCUs across the Forest, including 31 on Prince of Wales Island. This compares to 22 VCUs under the 1997 Plan, under which the goshawk foraging standard applied only to that Island.

I believe that the potential effects to goshawks described in the Final EIS for the 2008 Tongass Forest Plan Amendment are fully consistent with the November 2007 status finding by the FWS. I also believe that the amended Forest Plan provides as much protection for goshawks as was provided by the 1997 Plan. That Plan was estimated to provide a high likelihood of maintaining viable populations of goshawks, even before the goshawk foraging standard and guideline was added to further reduce risk. Moreover, in my view the estimate of viability risk is based on extremely conservative assumptions. This level of risk to goshawk viability would result from this Plan only under the following conditions: timber is harvested annually for 100 years at levels near the maximum allowed, and any needed corrections identified through monitoring and evaluation are not acted on. I believe that such conditions are highly unlikely. During the time the 1979 Forest Plan was in effect, annual harvest levels averaged 60 percent of the maximum level allowed. Since the 1997 Plan was implemented, annual harvest levels have been about one-third of the maximum allowed, and young-growth stands have developed suitable habitat conditions for goshawks faster than predicted. Under the amended Forest Plan, timber may continue to be harvested at rates less than the maximum allowed. A more detailed explanation of the potential effects of the amended Forest Plan is provided in Chapter 3 and Appendix D of the Final EIS.

Alexander Archipelago Wolf

In this decision the Forest Service maintains its commitment to the conservation of the Alexander Archipelago wolf. We will continue to work closely with the Alaska Department of Fish and Game and the FWS on issues related to wolf conservation in Southeast Alaska. Details on how the amended Forest Plan will provide a high likelihood of maintaining viable wolf populations in Southeast Alaska are provided in Appendix D and Chapter 3 of the Final EIS.

This decision does adopt some minor changes to wolf standards and guidelines to improve their effectiveness with respect to near-term and long-term wolf viability concerns described in the 1997 Forest Plan EIS. These changes relate to density thresholds of deer, a primary prey species of wolves; and to potentially unsustainable human-induced mortality.

Long-term maintenance of a deer herd, capable of providing sustainable wolf populations, is an important management objective in the Tongass Forest Plan. The 1997 Plan included a standard and guideline setting a deer population objective, where possible, sufficient to maintain sustainable wolf populations. The amended Forest Plan updates this standard and guideline to reflect new information from wolf research in Southeast Alaska. Additional information is provided in Chapter 3 and Appendix D of the Final EIS.

Another concern in some areas is the potentially unsustainable level of hunting and trapping of wolves, when both legal and illegal harvest is considered. The 1997 Forest Plan EIS acknowledged that open road access contributes to excessive mortality by facilitating access for hunters and trappers. Landscapes with open-road densities of 0.7 to 1.0 mile of road per square mile were identified as places where human-induced mortality may pose risks to wolf conservation. The amended Forest Plan requires participation in cooperative interagency monitoring and analysis to identify areas where wolf mortality is excessive, determine whether the mortality is unsustainable, and identify the probable causes of the excessive mortality.

More recent information indicates that wolf mortality is related not only to roads open to motorized access, but to all roads, because hunters and trappers use all roads to access wolf habitat, by vehicle or on foot. Consequently, this decision amends the pertinent standard and guideline contained in Alternative 6 as displayed in the Final EIS in areas where road access and associated human caused mortality has been determined to be the significant contributing factor to unsustainable wolf mortality. The standard and guideline has been modified to ensure that a range of options to reduce mortality risk will be considered in these areas, and to specify that total road densities of 0.7 to 1.0 mile per square mile or less may be necessary. The wolf standard also requires that both access management on National Forest System lands, and harvest regulations for hunting and trapping, be considered in relation to wolf management objectives.

Chapter 3 and Appendix D of the Final EIS contain details on these plan components relating to wolf viability. I am confident that these measures will ensure adequate protection to sustain viable populations of the Alexander Archipelago wolf. The Forest Service will continue to work closely with the State of Alaska to gather and apply new information to help resolve any future concerns about wolf management.

Endemic Mammals

This decision continues to give special management consideration to animal taxa that are known or suspected of being endemic to Southeast Alaska. Efforts have increased since 1997 to document the distribution of endemic mammals on the Tongass. Forest Service partnerships with other agencies and universities have significantly increased our knowledge of many species. However, gaps remain in the knowledge base, and there is continued concern about risks to species that may be endemic to islands within the Alexander Archipelago.

This decision brings forward from the 1997 Plan the conservation measures for habitat connectivity (described in previous sections), as well as the standards and guidelines for landscape connectivity and endemic terrestrial mammals. This decision also adopts minor changes to these standards and guidelines. For example, it clarifies that the original intent of the landscape connectivity standard was

to provide connectivity between large and medium old-growth reserves. As described in an earlier section, enhancements in the network of small old-growth reserves provide protections to important habitat "pinch points," and give additional consideration to connectivity at the watershed scale. The endemic terrestrial mammal standard was modified to allow the use of existing inventory data on endemic mammal distribution when analyzing effects of proposed management projects. Surveys would still be necessary where existing information is not adequate to assess project-level effects.

American Marten

The 1997 Forest Plan EIS estimated that Alternative 11 as displayed in that EIS had a moderate likelihood of maintaining viable populations of American marten across the Tongass for 100 years, even if timber were harvested and roads constructed at the maximum levels allowed by Alternative 11 for that entire period. This moderate likelihood estimate did not take account of additional conservation measures that were added in the subsequent ROD. Alternative 11 was selected in the 1997 ROD, and modified to further reduce risk to marten viability. Several protective measures for marten habitat were added, including a standard and guideline relating to timber harvest practices. The intent of the 1997 marten standard and guideline was to reduce risk in five biogeographic provinces. Marten were judged to be vulnerable in these provinces because large areas of young conifer growth lack the residual old-growth forest structure that is known to be an important marten habitat feature. The standard and guideline aimed to avoid the creation of additional, significant gaps in marten habitat that would limit marten movement and population interactions. It required the retention of downed logs, snags, and green trees to reduce adverse effects of timber harvest on marten habitat, based on research findings that show higher marten use in partially logged areas than in clearcut areas that lack large-wood structure.

Healthy marten populations persist on the Tongass. Recent information suggests that marten populations are stable or increasing across most of the Tongass. Areas on the Tongass with the highest levels of prior timber harvest continue to have stable or increasing marten populations; for example, on Chichagof Island and Prince of Wales Island. Trapping regulations have not changed significantly on the Tongass, indicating the marten supply remains stable. In an earlier section I expressed my view that the viability panel assessments were highly conservative, reflecting a "worst-case scenario." While I am mindful that there are some long-term viability risks associated with the amended Forest Plan, I believe those risks are very small and would only occur if timber were harvested at or near the maximum rate allowed under the Plan throughout the 100-year time horizon.

Recent marten studies in Southeast Alaska confirm the scientific basis for the finding in 1997 that an old-growth reserve system represents a model of marten conservation, especially when supplemented by additional measures to protect habitat in areas where timber harvest is allowed. Studies show that marten home ranges include some areas where timber harvest and roads have reduced the old-growth cover. These and other studies indicate that the quality and quantity of available prey are very important factors influencing marten abundance and distribution.

Reflecting these findings, the amended Forest Plan incorporates three changes that affect marten habitat. First, it adopts the enhancements to the network of small old-growth reserves and the increases in other non-development LUDs that I have already described. Second, it incorporates the Forest-wide legacy standard and guideline as a replacement for the marten standard and guideline. And third, it clarifies when to consider road density management for marten.

As previously mentioned, research supports the network of old-growth reserves as the critical foundation for marten conservation on the Tongass National Forest. Enhancements in the network of small reserves, coupled with the 1,000-foot wide beach buffers and other measures for habitat connectivity, also favor the outlook for marten conservation.

I have already described the change to the legacy standard and guideline in the section on the Queen Charlotte goshawk. Adoption of the legacy standard and guideline will retain important forest structure where it is most needed, in the higher-risk VCUs throughout the Forest. The residual structure is expected to serve as suitable foraging and dispersal habitat for marten in the short term, reducing adverse effects of timber harvest on marten habitat.

Marten encounter a mosaic of habitat conditions in Tongass landscapes, including natural patterns of fragmentation associated with muskegs, windthrown stands, and other openings. While marten spend most of their time in mature and old-growth forests, studies have documented marten movements through a variety of habitats including non-commercial forest and clearcuts with established conifer cover. When applied in a typical timber sale layout, the legacy standard and guideline should produce a mix of openings and clumped residual trees. When the riparian buffers and various other standards and guidelines are factored in, most timber sale units will show a significant presence of residual-tree patches. I anticipate that the patchy character of harvest units, embedded within managed watersheds in which old growth is retained for a variety of reasons including operational constraints and beach and riparian buffers, will provide habitat conditions adequate to sustain marten prey populations. Forest Plan monitoring will check to ensure that old-growth structure is retained within units as directed by the legacy standard and guideline. Adjustments can be made through adaptive management if monitoring determines that habitat objectives are not being met.

The 1997 Plan contained a Forest-wide marten standard and guideline relating to road density. This standard is clarified in the amended Forest Plan, as follows. Road access is to be considered as an issue for marten management only when there is evidence that mortality is exceeding sustainable levels and that human access on roads is the most significant factor causing this trend. The intent of the standard does not change; rather, the change makes it clearer as to when the standard should be implemented. Other minor edits do not change the intent of the standard, but offer clarifications to support more consistent implementation. The Forest Service will continue to work closely with the State of Alaska to gather new information about marten mortality so that future concerns may be addressed in a timely and collaborative manner.

The mosaic of marten habitat that will be protected under the amended Forest Plan is similar to the marten habitat protection analyzed by the 1997 risk assessment panels, except that the network of old-growth reserves has been enlarged. Connectivity between reserves will be provided by riparian and beach fringe buffers, based on studies that report preferential marten use of riparian zones. The development LUDs will retain significant old-growth habitat. An average of 68 percent of the existing productive old growth (54 percent of what existed before commercial timber harvest began) will remain unharvested in the development LUDs, even if timber is harvested annually at the maximum allowable level for 100 years. Forest wide, 91 percent of existing productive old growth would remain after a century of maximum-rate harvest (83 percent of what existed before commercial timber harvest began). The percent of old growth remaining will vary by biogeographic province; however, VCUs within the highest-risk provinces will have additional protections afforded by the legacy standard and guideline. In addition to these habitat measures, road access will be managed to reduce marten mortality where this factor constitutes a significant risk. Collectively, the various elements of the Tongass marten strategy are expected to increase the likelihood of maintaining viable marten populations throughout the Forest. While habitat gaps may occur, the likelihood that these would cause significant isolation among marten populations is low. The anticipated transition to second-growth harvest, combined with thinning conducted for wildlife in young-growth stands, should improve the conservation picture for marten and their prey in future decades.

I believe that the potential effects to marten described in the Final EIS for the 2008 Tongass Forest Plan Amendment are well within the range of effects predicted in 1997. The 1997 Tongass Forest Plan EIS estimated there would be a moderate likelihood that marten populations would remain viable throughout the Tongass, before marten and landscape connectivity standards and guidelines were added in the 1997 ROD to further reduce risk. The amended Forest Plan also reduces risks to marten viability through increased protective measures for marten above and beyond what the viability panels assessed. These additional measures include increased old growth acres retained in both old growth reserves and other non-developments LUDs; retention of the marten road density and landscape connectivity standards and guidelines; and the addition of the legacy standard and guideline. Furthermore, the level of risk to marten viability described in the 1997 EIS would be realized only under a certain set of conditions, as follows. Timber harvest occurs at or near the maximum limits every year for the next 100 years, and any needed corrections identified through monitoring and evaluation are not acted upon. I believe these are extremely conservative assumptions. Annual timber harvest levels under the 1979 Forest Plan averaged 60 percent of the

maximum level allowed. Under the 1997 Plan, annual harvest levels have fallen to 32 percent of the maximum allowed. Timber may continue to be harvested at levels below the maximum allowed under the amended Forest Plan.

For all these reasons, I am confident that the direction implemented by this decision will provide for viable populations of marten across the Tongass.

Management Indicator Species

Both the 1997 Forest Plan and the 2008 Tongass Forest Plan Amendment were prepared under the 1982 NFMA planning regulations, which required the identification of management indicator species in forest plans. This requirement was based on an assumption that the responses of selected species to land management activities could indicate the likely responses of other species with similar habitat requirements. The 1997 Tongass Plan identified 13 terrestrial and 4 aquatic management indicator species. All the terrestrial management indicator species are associated with the coastal spruce and hemlock forests that represent 98 percent of total productive old-growth on the Tongass. The 1997 Plan also specified what monitoring information should be gathered annually and evaluated after 5 years to see whether population trends could be detected, and how those trends might relate to management of the Tongass National Forest. The requirements for monitoring population trends and management relationships are contained in the applicable NFMA planning regulations. The amended Forest Plan retains all 17 management indicator species.

Fish Habitat

The Tongass National Forest contains outstanding fish habitat and aquatic resources. These resources support major subsistence, recreational, and commercial fisheries, as well as traditional and cultural values. Abundant rainfall, streams with glacial origins, and watersheds with high stream densities provide an unusual number and diversity of freshwater fish habitats. These abundant aquatic systems of the Tongass provide spawning and rearing habitats for the majority of fish produced in Southeast Alaska. Maintenance of this habitat, and associated high-quality water, is of great interest to several State and Federal natural resource agencies, as well as user groups, Native organizations, and individuals.

Many of the standards and guidelines in the 1997 Forest Plan were based, to a large extent, on the recommendations of the Anadromous Fisheries Habitat Assessment (AFHA). AFHA is considered the most comprehensive scientific review available for the Tongass. The 1997 ROD noted that the standards and guidelines and other direction included in the 1997 Forest Plan meet or exceed all of the recommendations by AFHA.

In general, the effects of implementing the amended Forest Plan on fish resources are expected to be at or below those predicted for the selected alternative in the 1997 Tongass Forest Plan Final EIS. I believe that the 1997 Forest Plan's direction regarding protection of fish habitat will continue to maintain high-quality fish resources on the Tongass; therefore, no changes were made.

Conclusion

Our understanding of the biological diversity of the complex old-growth ecosystem of the Tongass National Forest, including its composition, function and structure, is continually growing. Given the complexities involved, management decisions necessarily will involve some degree of uncertainty. This uncertainty can be mitigated to a large degree by developing an adaptive management approach based on a strong partnership with the State of Alaska and other Federal agencies to actively monitor ecosystem functions, fish and wildlife habitat, and populations. Based on my review of the record, including the Final EIS and Appendix D, I find that the old-growth strategy and specific species management prescriptions represent a balance of fish and wildlife habitat conservation measures which consider the best available scientific information. Accordingly, I find that the amended Forest Plan will provide fish and wildlife habitat to maintain viable populations of vertebrate species in the planning area and maintain the diversity of plants and animals, within an acceptable

level of risk inherent in projecting management effects. Furthermore, the amended Forest Plan has a high likelihood of sustaining populations Forest-wide for the continued subsistence, recreational, and commercial uses of fish and wildlife species.

Recreation and Tourism

The potential effects of the proposed Forest Plan alternatives on recreation and tourism are evaluated in the Recreation and Tourism section of the Draft and Final EIS documents. As stated in a number of locations in that section, recreation and tourism in Southeast Alaska and on the Tongass are influenced by a number of factors that are largely independent of forest management decisions. While it is difficult to predict future recreation and tourism demand with precision, the number of visitors to Southeast Alaska, particularly cruise ship visitors, is generally expected to remain at current levels or continue to increase. Southeast Alaska residents also place a high value on the quality and availability of outdoor recreation opportunities on the Tongass. Although there is limited information that quantifies resident and non-resident recreation use, I know that residents and visitors alike seek a wide spectrum of recreation activities – some people enjoy activities requiring vast and remote areas in a natural setting, while others prefer developed facilities, utilities, and easy access. From a management perspective, the requirements of these activities are often at odds with one another and sometimes with other Forest management activities, including timber harvest and associated road construction and road management.

The potential effects on the supply of recreation opportunity settings are easier to predict, because they are affected by land management decisions to the extent that different LUD classifications influence potential recreation opportunity spectrum (ROS) classes and, therefore, different types of recreation. As indicated in the Final EIS, the general trend across all alternatives is toward an increase in developed and/or motorized opportunities and a corresponding decrease in primitive recreation opportunities. In regard to the Selected Alternative, approximately 79 percent of the Forest would fall within the Primitive or Semi-Primitive ROS classes, compared with approximately 89 percent at present. Approximately 18 percent of the Forest would fall within the Roaded Modified ROS class, compared to 10 percent at present. These changes would occur gradually over the next 150 years, and would be lower in magnitude if future development does not occur at the maximum levels allowed by the Forest Plan.

It is important to note that recreational opportunities do not cease to exist as a result of management activities such as timber harvest and road construction. Rather, changes in the supply of recreation opportunities could result in changes in recreation demand and use patterns. Southeast Alaska residents and visitors seeking solitude and isolation in a natural setting may be displaced to other areas of the Forest where the setting and use patterns are more in line with their expectations. This effect is a result not only of projected timber harvest and road development, but also due to the increases in resident population and tourism that are expected to occur under all of the alternatives. Nearly three quarters of the Forest will remain untouched by development activities, even if such activities are conducted at the maximum rates allowed under the Plan for 100 years. As described in detail in Chapter 3 of the Final EIS and in the section of this ROD dealing with the protection of roadless areas, only one-quarter of the land in inventoried roadless areas is allocated to development LUDs, and only 3 percent is included in the suitable land base. Finally, development in higher value roadless areas will be deferred under the Timber Sale Program Adaptive Management Strategy unless the level of timber harvest rises to the point where such development is warranted. In this fashion, the amended Forest Plan, in conjunction with the Adaptive Management Strategy, protects the areas most commonly identified as most valuable for primitive recreation.

Those seeking more developed areas and easier access may find increased recreational opportunities as forest management activities in development LUDs increase road access and facilitate more developed recreation opportunities. Forest-wide standards and guidelines for recreation and tourism remain substantially unchanged under the amended Forest Plan, and will guide the development of new recreation facilities. The amended Forest Plan also protects the scenic quality of heavily traveled cruise ship corridors and recreation and tourism use areas.

The amended Forest Plan is consistent with national travel management policy by requiring each Ranger District to identify and designate those roads, trails and areas that are open to motor vehicle use. This will require extensive public involvement and coordination. Working with forest users, government officials, and tribal entities at the local level is the most effective way to make route designation decisions. The Forest Service will continue to work with the State of Alaska regarding access and travel management planning and implementation.

In summary, my decision provides for a mix of recreation opportunities, with a wide range of recreation settings and experiences available throughout the Forest. It balances the competing demands of providing sufficient timber for a sustainable forest products industry while also meeting the various and wide-ranging recreation demands and user needs of Southeast Alaska residents and visitors and the recreation and tourism industry.

Market Demand

Introduction: This was key issue 2 in the EIS for the 2008 Tongass Forest Plan Amendment. This section reviews the extensive work done to respond to the findings of the Ninth Circuit court regarding the error made in 1997 in interpreting projections of market demand for timber from the Tongass National Forest. It also describes how I considered other factors related to market demand.

I understand that estimating long-term market demand is inherently uncertain. This is the primary reason I am adopting the Tongass Timber Sale Program Adaptive Management Strategy, which restricts timber harvest and associated road construction activities to the lower quality roadless areas of the Tongass unless the level of timber harvested warrants allowing such activities to take place in higher quality roadless areas that are perceived by many as more environmentally sensitive.[14] Thus, the Strategy addresses the inherent uncertainty in estimating the long-term future demand for timber. By no means does this render the substantial work done to correct the errors found by the court unimportant. It does, however, minimize the harm from any potential errors in forecasting timber demand. I believe the Final EIS fully remedies the problems identified by the Ninth Circuit regarding the treatment of market demand in the 1997 Tongass Forest Plan EIS. I recognize, however, that there are differences of opinion on long-term forecasts of market demand. The Tongass Timber Sale Program Adaptive Management Strategy is the most reasonable way to address such differences of opinion and provide the flexibility required in the face of such uncertainty. In doing so, the Strategy makes the differences of opinion regarding market demand less relevant to the decision to adopt Alternative 6.

Background—Tongass Timber Reform Act: The debate concerning the market demand for timber from the Tongass National Forest, and how the timber program relates to market demand, has been ongoing for decades. Forest Service economists with the Pacific Northwest Research Station completed their first study of the issue in 1990. Later that year, Congress enacted TTRA, which in Section 101 amended Section 705(a) of the Alaska National Interest Lands Conservation Act to read as follows:

> Subject to appropriations, other applicable law, and the requirements of the National Forest Management Act of 1976 (Public Law 94-558), except as provided in subsection (d) of this section, the Secretary shall, to the extent consistent with providing for the multiple use and sustained yield of all renewable forest resources, seek to provide a supply of timber from the Tongass National Forest which (1) meets the annual market demand for timber from such forest and (2) meets the market demand from such forest for each planning cycle. 16 U.S.C. 539(d)(a).

Questions about how to interpret and apply this direction slowed the development of procedures to comply with it. In the ROD for the 1997 Forest Plan, the Regional Forester directed that procedures be developed “to ensure that annual timber sale offerings are consistent with market demand.”

[14] See the section of this ROD on minimizing effects on roadless areas for a discussion of the terms “higher value” and “lower value” roadless areas.

Those procedures were completed in 2000, and have become known as the "Morse methodology" after their author. These procedures are based on the premise that:

- Forest product markets are volatile, especially in the short run.
- Timber purchasers in Southeast Alaska have few alternative suppliers of timber if they cannot obtain it from the Tongass National Forest. Oversupplying this market has relatively few adverse economic effects; undersupplying it can have much greater negative economic consequences.
- It takes years to prepare National Forest timber for sale, including completion of environmental impact statements.
- It is difficult to estimate demand for timber from the Tongass, even a year or two in advance.
- Industry must be able to respond to rapidly changing market conditions in order to remain competitive.

Accordingly, the Morse methodology establishes a system that seeks to build and maintain sufficient volume of timber under contract[15] to allow the industry to react promptly to market fluctuations. Industry actions such as annual harvest levels are monitored and timber program targets are developed by estimating the amount of timber needed to replace volume harvested from year to year. The Morse methodology is adaptive, because if harvest levels drop below expectations and other factors remain constant, future timber sale offerings would also be reduced to levels needed to maintain the target level of volume under contract. Conversely, if harvest levels rise unexpectedly, future timber sale targets would also increase sufficiently to ensure that the inventory of volume under contract is not exhausted. By dealing with uncertainty in a flexible, science-based fashion, the Morse methodology is an example of adaptive management. The Forest Service adopted the Morse methodology as the means by which the agency complies year-by-year with the annual demand portion of the TTRA "seek to meet" requirement. Similarly, the agency intended to comply with the requirement to seek to meet demand "for each planning cycle" through a series of annual applications of the Morse methodology.[16]

In its 2005 decision, the U.S. Court of Appeals for the Ninth Circuit opined on the interpretation of TTRA. The court determined TTRA "imposed additional planning requirements for the Tongass." Among the requirements, according to the appellate court, "Congress imposed a unique duty on the Forest Service to consider the 'market demand' for timber" in Section 101 of TTRA." Further, the court stated that the duty to consider, or assess, market demand "can be seen as a refinement of the general requirement under NFMA that the Forest Service consider timber harvest as one of the goals to be balanced with environmental preservation and recreational use."

The court also found that reason and logic support a linkage between the ASQ of the Forest Plan and market demand. According to the court, "[A] ceiling too low to satisfy demand could compromise one of NFMA's multiple-use goals (timber harvest) without justification in this record." However, the court specifically noted: "[W]e do not suggest that an ASQ can never be too low to satisfy market demand, or that the Forest Service must in fact *meet* demand (as opposed to *seek* to meet market demand)." Likewise, the court stated, "a ceiling higher than needed to satisfy demand, could compromise another of NFMA's multiple-use goals (environmental preservation) without justification in this record." However, the court expressly left open the possibility that the Forest Service could adopt an ASQ greater than even the highest market demand scenario in order to allow flexibility to respond to changes in market demand, so long as the record shows "how much greater the ASQ would need to be, or to what extent other alternatives might have been considered in detail, in relation to the actual market demand."

[15] Volume under contract is timber purchased but not yet harvested, the primary indicator of timber inventory available to the industry.

[16] Adoption of the Forest Plan Amendment and the Timber Sale Program Adaptive Management Strategy do not require any changes in the Morse methodology for estimating annual timber sale offer levels. In particular, the Strategy limits the land area within which the Tongass timber program may operate, not the level of volume to be planned or offered for sale. The Morse methodology was updated, however, to incorporate new derived demand projections from a study described later in this section (Brackley et al).

The Role of the Forest Service's Pacific Northwest Research Station in Estimating Demand: As mentioned above, the first Pacific Northwest Research Station study of demand for timber from the Tongass was completed in 1990. As explained in Chapter 3 of the Final EIS for the 2008 Forest Plan Amendment, a second report with updated projections was issued in 1994, after one of Southeast Alaska's two pulp mills closed in 1993. When the last remaining pulp mill closed in 1997, the projections were updated again in the spring of 1997. It was these draft projections that were erroneously interpreted in the 1997 Final EIS and ROD for the Revised Tongass Forest Plan.

The Ninth Circuit court found that, because of the error in interpreting the 1997 market demand projections, the 1997 Final EIS failed to provide decision makers and the public with an accurate assessment of information relevant to evaluate the Tongass Plan. The court further found that, had the accurate market demand forecast and related potential employment and earnings information been used, an alternative may have been selected with less environmental impact and in less environmentally sensitive areas.

The Pacific Northwest Research Station prepared a new forecast of market demand for timber from the Tongass National Forest, *Timber Products Output and Timber Harvests in Alaska: Projections for 2005-25,* Allen M. Brackley, Thomas D. Rojas, and Richard W. Haynes, 2006 (Brackley et al.). This study projects the demand for timber from the Tongass,[17] derived from the demand in Pacific Rim markets for the end products manufactured from that timber. The Brackley et al. study revises projections made in the three previous reports, and reflects changes in Pacific Rim markets and the Alaska forest products sector over the last 10 years.

The study analyzes trends over a historical period of 40 years to forecast trends over 20 years in three key parameters:

1. The level of forest products imports in Pacific Rim nations. Based on other research regarding these markets, the Brackley et al. study projects that Pacific Rim imports of sawn wood products will increase over the next 20 years.
2. The share of those markets that will be supplied by North American forest products producers, which the study projects will remain constant.
3. The share of North American exports to the Pacific Rim that will come from Alaska. The analysis examines four alternative assumptions regarding future trends of the Alaskan share of North American exports to the Pacific Rim.

Each of these parameters influences demand for timber from Alaska. An increase in any one of them will increase demand in Alaska, if other influences remain constant. Likewise, a decrease in any of these parameters will decrease demand in Alaska, other things equal. Estimated trends in these three parameters result in projected demand for forest products from Southeast Alaska over two decades; other assumptions had to be made to convert these estimates into demand for timber from the Tongass National Forest. All of these assumptions are described in the study. Based on these assumptions, the study projects the market demand for timber from the Tongass National Forest under four different scenarios for the future of the Alaska wood products industry. As explained in Chapter 3 of the Final EIS, these scenarios are as follows:

Scenario 1—Limited Lumber Production. The goal of this scenario is to depict the situation the industry has faced over the last several years. It assumes no change in the Alaskan share of North American exports to the Pacific Rim, and no change in the North American share of Pacific Rim imports. Thus, the only increase in demand is a gradual rise resulting from growth over two decades in Pacific Rim imports, which are assumed to return to the levels of Japanese imports in 1997. It assumes there will continue to be very little market for two decades for low-grade sawlogs harvested from the Tongass, and no market for utility logs. The lack of a market for low-quality material (low-grade sawlogs and utility volume) raises the operating costs of Alaskan sawmills per unit of product,

[17] The report projects demand for timber from Alaskan national forests. Because the Chugach National Forest, the only other national forest in Alaska, has no commercial timber program, demand for national forest timber in Alaska equates to demand for timber from the Tongass.

making it more difficult for them to compete in global markets with their counterparts in the Pacific Northwest and Canada.

Scenario 2—Expanded Lumber Production. In this scenario, some form of demand stimulus is assumed, such that Alaskan producers' market share of North American exports to the Pacific Rim rises somewhat, returning to a level experienced in the last decade. Such a demand stimulus could come from an industry marketing program, capital investment to make existing sawmills in Alaska more efficient, a change in policy, or some other event that enhances the competitive position of Alaskan producers relative to their competitors in the continental United States, or a combination of such developments. Other assumptions under this scenario are the same as under Scenario 1.

Scenario 3—Medium Integrated Industry. In this scenario, events are assumed to occur that stimulate demand and develop a market for low-quality material, such that Alaskan producers' market share of North American exports to the Pacific Rim rises more quickly than under Scenario 2. Development of a market for low-quality material is referred to as an integrated industry, because all of the material resulting from timber harvest would be processed into marketable products. This is displayed as the construction of a medium-density fiberboard (MDF) plant, but the authors make it clear that an MDF plant is only one way a use for low-quality material could develop.

Scenario 4—High Integrated Industry. This scenario also assumes demand-stimulating events resulting in the development of a market for low-quality material. It also assumes that the Alaskan market share of North American exports to the Pacific Rim rise steadily over two decades.

The Brackley et al. study displays the alternative projections of derived demand for timber from the Tongass National Forest in Table 3 of the report. For the first two scenarios, which assume no market for low grade sawlogs and utility volume, the figures in that table includes sawtimber only. For the two integrated industry scenarios, the projections include total volume, including both sawlogs and utility. Utility volume must be cut down along with higher-quality timber even if there is no demand for it. It is the total volume of timber cut on the Tongass that is of most interest, in part because environmental effects result from total volume cut. In addition, any comparison of scenarios must be based on comparable figures. Accordingly, the table below (from Chapter 3 of the Final EIS) shows Brackley et al. projections for all four scenarios in terms of total volume:

Recent Developments: The Brackley et al. study was published in July 2006. In March 2007, I approved a new policy under which timber purchasers may ship to the lower 48 states unprocessed certain small-diameter and low-quality logs harvested from the Tongass, up to 50 percent of the volume harvested on each sale. This interstate shipments policy places purchasers of Tongass National Forest timber sales on a more level playing field with their counterparts in the Lower 48, where there is no restriction on interstate shipments of any timber harvested from National Forest System lands. This policy creates a market opportunity for low-quality material that the Brackley et al. study assumed would not be utilized under scenarios 1 and 2. While it is still early in the implementation of the new policy, we expect that full implementation of it over the next few years will make Alaska forest products producers more competitive with their counterparts in the Lower 48 States, because it creates a market for low grade and small diameter sawtimber and possibly for utility volume. That may allow Alaska producers to increase their share of domestic forest products markets, which would stimulate demand for timber from the Tongass without the construction of new processing facilities in Southeast Alaska, until adequate volume is available to do so.

Table 3
Volume of Tongass National Forest Timber that Must be Cut to Supply Derived Demand Reported in Brackley et al. (Million Board Feet)

	Projected National Forest Timber Harvest—Alaska (MMBF; includes Sawlog, Utility, and Shipments from Alaska)[1]			
Year	Scenario 1. Limited Lumber	Scenario 2. Expanded Lumber	Scenario 3. Medium Integrated	Scenario 4. High Integrated
2007	49.8	61.9	67	67
2008	49.8	66.4	139	139
2009	51.3	72.4	151	151
2010	52.8	78.5	166	166
2011	52.8	84.5	184	184
2012	54.3	90.5	204	286
2013	55.8	98.1	204	291
2014	57.3	105.6	204	295
2015	58.9	113.2	204	299
2016	58.9	122.2	204	303
2017	60.4	131.3	204	308
2018	61.9	140.3	204	313
2019	63.4	150.1	204	317
2020	64.9	163.0	204	325
2021	66.4	175.0	204	333
2022	67.9	187.1	204	342
2023	69.4	200.7	204	351
2024	70.9	215.8	204	360
2025	72.4	230.9	204	370

Notes:
[1] These figures include total volume that would need to be cut to meet the demand projected by Brackley et al.

The Pacific Northwest Research Station recently completed an addendum to the Brackley et al. study,[18] which responds to public comments on the 2006 study, and events since that study was completed. The conclusion of the Addendum states that:

> Given the Region 10 shipment policy, the restarting of the veneer mill, and the success of Alaska producers in niche or specially markets, our current appraisal is that demand for national forest timber in Alaska is on a trajectory more similar to the scenario 2 (expanded lumber production). The down side of this development is, however, that part of the harvest is moving to mills outside southeast Alaska that have the technology to produce high volumes from small material. In our projections we assumed that the new technology would move to southeast Alaska. Regardless, the changes have the potential to create higher returns to the mills in southeast Alaska. Challenges still remain with the utilization of utility logs due to a limited fiber market. Until such markets evolve, it is difficult to see the evolution of an integrated industry characteristic of scenarios 3 and 4.

Other Studies: As described in Chapter 3 of the Final EIS, the Forest Service has considered other reports and analyses related to demand. These include a study of installed mill capacity completed by the McDowell Group et al for the Southeast Conference in 2004; recent sales and harvest figures; and estimates of the minimum timber volume required by various processing facilities made by the Juneau Economic Development Council and a subcommittee of the Tongass Futures Roundtable. These indicators offer a wide range of estimates of market demand for timber from the Tongass National Forest. While I considered all of these indicators, I relied most heavily on the Brackley et al.

[18] Brackley, Allen M. and Haynes, Richard W. 2007. Timber Products Output and Timber Harvests in Alaska: An Addendum. Res. Note PNW-RN-XXX. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. XX p.

study, and the Addendum to that study, because they are the only peer-reviewed scientific analyses of market demand for Tongass timber, and because they are the only studies that estimate demand derived from demand for end products. As described in the section of this ROD on the need for an integrated forest products industry in Southeast Alaska, the studies by the McDowell Group and the Juneau Economic Development Council are most helpful in considering what the supply needs for such an industry would be.

Public Input. We received numerous comments from the public regarding timber supply and seeking to meet market demand. Some reviewers expressed the view that market demand for timber from the Tongass National Forest is 360 MMBF of economic timber volume, that recent harvest levels reflect solely supply constraints, and that selecting any alternative with an ASQ below 360 MMBF would unnecessarily constrain the growth of the timber industry, resulting in significant adverse consequences for the economy of Southeast Alaska.

I believe the most likely demand scenario to develop over the next 15 years is for annual market demand to reach 187 MMBF by 2022. The Brackley et al. study describes significant challenges for the industry in reaching Scenario 4, under which market demand is projected to reach 360 MMBF in 2024 and 370 MMBF in 2025. The Addendum to that study reiterates the challenges that make scenarios 3 and 4 unlikely to occur. Among these are a resolution of the supply constraints related to appeals and litigation, and an investment climate perceived as favorable. Other reviewers point out that timber operators in Alaska have considerably higher labor and transportation costs and face other competitive disadvantages relative to their counterparts in the Lower 48 States, which negatively affects the investment climate in the Alaska forest products sector. In addition, the studies most often cited to support the assertion that market demand for Tongass timber is 360 MMBF were based almost exclusively on mill capacity rather than derived demand for manufactured products. The Brackley et al. study is the only derived demand study. Accordingly, I view the other studies more as analyses of timber supply needed to operate current and potential future mills, rather than projections of market demand.

For all these reasons, I believe that the ASQ of the selected alternative will provide an opportunity for the growth of an integrated and competitive timber industry over the next 10 to 15 years. Moreover, if the timber industry grows more rapidly than anticipated in the next few years, such that demand exceeds the average annual ASQ of 267 MMBF, existing procedures are flexible enough to respond to this possibility. ASQ is a ceiling on the amount of timber that may be sold over a ten-year period. While it is most often expressed as an average annual figure, the ASQ of the amended Forest Plan is 2.67 billion board feet for the next decade. Thus, if less than the average annual figure of 267 MMBF is sold in the next five years, the difference could be added to the sale quantity for the remainder of the decade, up to the 10-year limit of 2.67 billion board feet.

If the demand for timber has been substantially underestimated, the forest planning process includes procedures for analyzing what is known as departure from the established ASQ ceiling, to determine whether harvesting above the ASQ level would better meet multiple-use objectives (see Forest Service Manual 1926.15 and Handbook 2409.13). These procedures include several criteria or conditions in which evaluation of departure from the ASQ would be warranted. Such consideration would be done through the normal forest planning process, which includes public involvement. One of the conditions listed is when implementation of the ASQ could have a substantial adverse impact in the economic area in which the forest is located. For example, if the level of timber harvest were to increase to the point where the cumulative amount of timber sold approached the ASQ, there may be insufficient additional sale volume to support an expansion of the industry, should an expansion such as a new processing facility be proposed. If this were regarded as too disruptive to the local economy, the Handbook allows for consideration through the forest planning and public involvement process of an alternative that departs from non-declining flow requirements. Preliminary analysis performed as part of this Amendment process has shown that a departure volume of at least 310 MMBF per year (3.1 billion board feet for 10 years) in the second decade is achievable without compromising sustained yield principles in future decades.

I am also aware of concerns that timber demand has been overestimated, and that adopting an alternative with an ASQ substantially higher than recent harvest levels could allow timber harvest

and road construction in roadless areas perceived as more environmentally sensitive and therefore worthy of protection. The Timber Sale Program Adaptive Management Strategy is designed to address that concern by limiting harvest in Phase 1 to the lower quality roadless areas and deferring development activities in the higher quality roadless areas until such time as the actual harvest levels indicate a need to allow development in these areas. A more detailed description of how higher value roadless areas are protected at each phase of the Strategy is included in the next section of this ROD. The main point, however, is this: by adopting the Timber Sale Program Adaptive Management Strategy we have eliminated the potential harm to more environmentally sensitive areas from overestimating long-term market demand for timber. I am convinced that it is impossible to estimate the long-term market demand for Tongass timber with complete precision and accuracy. I am equally convinced that by adopting the Strategy, those difficulties no longer matter very much in choosing among alternatives. I feel secure in selecting Alternative 6, with an ASQ well above recent timber harvest levels, because the Timber Sale Program Adaptive Management Strategy will ensure that, at whatever level timber is harvested over the next 10-15 years, such harvest will be limited to the lowest value roadless areas possible.

Conclusion

In 1997, the Regional Forester concluded his analysis of demand issues as follows:

> Market demand is volatile; the projections done by the [Pacific Northwest Research] Station scientists have changed considerably each time they have been updated. Different economists will often make different projections of future demand because they often make different assumptions about the future (see Brooks and Haynes, June 1994, Timber Products Output and Timber Harvests in Alaska: Projections for 1992-1010, General Technical Report, PNW-GTR-334). Demand also will be influenced by whether or not businesses choose to invest in new wood-processing industries in Southeast Alaska over the next decade. Such decisions will be determined in part by investors' subjective evaluations of the certainty with which they can rely upon the Tongass as a reliable source of timber. 1997 ROD, page 25.

These statements are still applicable today.

As I review Table 3, I see annual market demand estimates that range from 50 to 139 MMBF in 2008; and from 68 to 342 MMBF in 2022. As discussed above, the Pacific Northwest Research Station economists who developed the demand projections believe the most likely outcome is Scenario 2. That suggests it is most reasonable to expect an annual demand of approximately 187 MMBF in 2022 unless the industry becomes fully integrated in the interim. It is this last figure that I found most instructive and useful for guiding my decision. As described in other sections of this ROD, I believe the selected alternative avoids conflicts with other goals, such as environmental preservation (especially wildlife viability) or recreation. The ability of the selected alternative to meet these other goals gives me the assurance I need to select Alternative 6, which allows the projected level of long-term demand to be met.

Need for an Integrated Industry

An integrated forest products industry is one that includes processing facilities and markets for all types of logs from timber harvest operations conducted in the area, and for byproducts such as chips that result from processing those logs into lumber or other products. Such integration substantially enhances the economic efficiency of a regional industry as a whole, and the competitive position of all producers relative to their counterparts in other areas. Southeast Alaska has not had an integrated industry since the closure of the region's pulp mills in the 1990s. Those mills processed utility logs, for which little or no local market has existed since those mills closed. Utility volume must still be cut down, primarily for safety reasons. The lack of a local facility to process utility volume means timber purchasers are required to cut and handle logs that they must often leave in the woods. Thus, some of the material harvested is not utilized; producers' operating costs are increased per unit of material they do process; and the industry's competitive position is diminished.

Consequently, the lack of an integrated industry increases the economic incentive to harvest high-volume timber stands disproportionately in order to make timber sales economic.

The lack of facilities in Southeast Alaska to process low-grade and small-diameter material also makes it more difficult to conduct commercial thinning of young-growth timber stands. Because funding for pre-commercial thinning projects has historically been insufficient to meet the need, commercial thinning is the most feasible way to improve wildlife habitat quality and restore other ecological values in areas previously harvested. Some of these areas have significant restoration needs because they were harvested decades ago under standards considerably less protective than they are today. The absence of processing facilities in Southeast Alaska for the small-diameter material from these stands makes such restoration more difficult to accomplish.

Further, an integrated industry could enhance the quality of life in Southeast Alaska by providing for a sector of sustainable, year-round, family-wage jobs in rural, resource-dependent communities. When added to existing industries such as recreation and nature tourism, commercial and recreational fishing, and government employment, an integrated wood products industry could contribute to a more stable social infrastructure. This includes schools, hospitals, libraries and various service industry amenities like hotels and restaurants that support a greater quality of life for Alaska residents.

Consequently, re-developing an integrated industry is an important part of the ecological, economic and social components of sustainability. Timber production has been one of the missions of the National Forests since enactment of the Organic Administration Act in 1897. If we are to sustain this industry in Southeast Alaska, we must provide opportunities for local processors to expand and integrate enough to compete more effectively in world markets. Integration would also enhance ecological sustainability by reducing the amount of material now left in the woods and facilitating the transition to an industry based more on young-growth stands. For all these reasons, I believe it is important to provide opportunities for the re-establishment of an integrated forest products industry in Southeast Alaska, capable of processing all types of timber products available from the Tongass.

Having determined that it is important to provide an opportunity for the timber industry to become more integrated, the question arises as to what supply from the Tongass National Forest would be needed to accomplish that objective. There are many sources of information on this subject, and I considered them all. The Brackley et al. study indicates that a partially integrated industry would generate a market demand for timber from the Tongass of 204 MMBF in 2022, and a fully integrated industry would demand 342 MMBF.

As mentioned in the market demand section of this ROD, a recent analysis prepared for the Southeast Conference—“Timber Markets Update and Analysis of an Integrated Southeast Alaska Forest Products Industry” (McDowell Group et al. 2004)—also studied the supply needed to support an integrated timber industry in Southeast Alaska. That study considered installed capacity of Southeast mills, projected a harvest volume that would allow the mills to operate at an efficient level assuming the existence of an integrated industry, and concluded that a minimum of 200 MMBF total harvest would be required annually from the Tongass National Forest. However, the most efficient use of timber from the Tongass would most likely include other processing facilities, such as a veneer mill. The industry would be most efficient with at least two of each type of manufacturing facility because this would foster competitive bidding for materials and labor. Depending upon the types of facilities, this could require an annual harvest of 350 MMBF or more from all sources of wood. On December 30, 2006, the McDowell Group responded to a request by Southeast Conference to clarify and update key findings from the 2004 report. They concluded the study done in 2004 was still valid, including the estimate that 350 MMBF or more would be required to support an integrated and competitive industry.

The report prepared by Juneau Economic Development Council and an effort by a Tongass Futures Roundtable Subcommittee also estimate the minimum timber volume required by various processing facilities based on their potential capacity. The estimated sawmill volume is approximately 66 percent of existing mill capacity (138 MMBF annually), based on the four largest existing sawmills in Southeast Alaska, with some allowance for smaller mills. The minimum estimated annual volume necessary to supply a veneer plant is 30 MMBF of sawlogs, with 80 to 100 MMBF of No. 3 sawlogs

and utility logs required to support an MDF or bioenergy facility. Using these projections, a total of 248 MMBF to 268 MMBF is the minimum annual supply necessary to support an integrated industry.

The State of Alaska has also provided information related to the supply of timber needed from the Tongass to support the reestablishment of an integrated industry. In the comments provided by the State on the Draft EIS, the Governor recommends the Tongass provide a minimum of 168 MMBF of economic sawlog timber to support reestablishment of an integrated industry.[19] When the utility volume associated with this harvest level is accounted for, this equates to an economic (or NIC I) annual harvest of approximately 200 MMBF from the Tongass. The NIC I portion of the ASQ of the amended Forest Plan is 238 MMBF annually, which is sufficient to meet the needs identified by the State.

As I consider all of this information regarding the supply needs of an integrated industry, I conclude that the amended Forest Plan will provide an opportunity for such an industry to be reestablished in Southeast Alaska. Alternatives 1 and 2 of the Final EIS would foreclose that option; Alternative 3 could meet it only during periods of strong markets, when the NIC II volume becomes economically viable. However, potential investors in additional processing facilities must make their decisions based on long-term projections that include entire market cycles. Therefore, a reliable annual supply of at least 200 MMBF of economic timber would be needed from the Tongass to meet the objective of providing an opportunity for the reestablishment of an integrated industry. None of the alternatives with an ASQ lower than the amended Forest Plan's meet that criterion.

Minimizing Effects on Roadless Areas

This issue was described in the EIS for the 2008 Forest Plan Amendment as key issue 1. As with many other issues regarding management of the Tongass National Forest, protecting roadless areas is a topic with a long history and many complexities. Consequently, we begin this discussion with terminology, then the history, before describing how the Final EIS, the selected alternative, and the Timber Sale Program Adaptive Management Strategy respond to this issue.

Terminology. The following terms are used in this ROD in discussing roadless issues:

Roadless Area: The term "roadless area" is a generic term that is sometimes used to refer to all areas without roads. (The Final EIS uses the term this way, to include all such areas.) For the purpose of this ROD, however, it is used to refer only to inventoried roadless areas to simplify the discussion.

Inventoried Roadless Area: An undeveloped area typically exceeding 5,000 acres that meets the minimum criteria for wilderness consideration under the Wilderness Act.

History. The Wilderness Act of 1964 required the Secretary of Agriculture to inventory all roadless areas within the National Forest System to determine which of them should be designated as Wilderness. Generally speaking, roadless areas must be at least 5,000 acres, or adjacent to existing wilderness, to be eligible for such designation. The Forest Service has long recognized that not all roadless areas are of equal ecological, scenic, or recreational value. Accordingly, the agency developed the Wilderness Attribute Rating System as the process to rate roadless areas according to their natural integrity, scenic quality, opportunities for solitude, and primitive recreation opportunities. The NFMA implementing regulations later incorporated the inventory requirements into the forest planning process. Lands identified through these procedures are referred to as Inventoried Roadless Areas.

A comprehensive inventory of roadless areas on the Tongass that meet the Wilderness Act's minimum criteria was completed in 1996 as part of the development of the 1997 Forest Plan. This inventory identified about 9.4 million acres of roadless land on the Tongass in 110 inventoried

[19] "Economic timber" is defined as: A fair market value sale of timber wherein the average purchaser can meet all contractual obligations, harvest and transport the timber to the purchaser's site, and have a reasonable certainty of realizing a profit from the sale.

roadless areas. No inventory is completely accurate for long, however, for a variety of reasons. National Forest System lands are sometimes conveyed to non-federal parties, such as conveyances to Alaska Native corporations under the Alaska Native Claims Settlement Act. Non-federal lands within National Forest boundaries are sometimes acquired by the Forest Service, most often through exchange for other Federal lands. Roadless areas also become developed, primarily through timber harvest and road construction allowed under the Forest Plan. Finally, geographic information system data are updated periodically. Consequently, inventories conducted only a few years apart can yield different results.

Inventories of roadless areas on the Tongass illustrate these points. The Forest Service updated the 1996 inventory in 2000 as part of the development of the Roadless Area Conservation Rule (Roadless Rule), published in 2001. The 2000 inventory identified about 9.3 million acres. The inventory was updated again in 2003 as part of the development of the Supplemental EIS regarding potential wilderness recommendation; this inventory identified about 9.6 million acres of the Tongass as roadless areas. The Final EIS for the 2008 Forest Plan Amendment updates the 2003 inventory, and identifies 9,514,185 acres in 109 inventoried roadless areas on the Tongass. A map of these roadless areas is available on the CD containing the Final EIS, and on the internet through the Forest's website at *www.fs.fed.us/r10/tongass/*.

Treatment of the Roadless Issue in the Final EIS, Forest Plan, and Timber Sale Program Adaptive Management Strategy. As discussed in the section of this ROD on the alternatives considered, the protection of higher value roadless areas was a paramount consideration in the development of the alternatives analyzed in detail in the Draft EIS. The Forest Service rated each of the 109 inventoried roadless areas on the Tongass using the Wilderness Attribute Rating System. Special consideration was also given to areas proposed for wilderness during congressional consideration of TTRA, and to areas allocated to non-development LUDS by the Under Secretary of Agriculture in the 1999 ROD that was later vacated by the court. The results of that evaluation were used to exclude higher value roadless areas from development LUDs of each alternative as much as possible, so that timber harvest and road construction activities allowed under each alternative would avoid higher value roadless areas to the extent practical, given the balance of multiple use objectives of each alternative.

Refinement of the Alternatives: During the public comment period on the Draft EIS, many reviewers recommended that timber harvest and road construction be confined to the portions of the forest where roads have already been constructed, so that all currently roadless areas would remain undeveloped. Many respondents recommended specific roadless areas be protected from development. Some conservation organizations, such as The Nature Conservancy, developed their own rankings of watersheds on the Tongass and offered lists of areas that they recommend for protection from development. Nearly all of these are within roadless areas.

Following the public comment period on the Draft EIS, the Forest Service reviewed six different ranking systems and lists of areas recommended for protection that represent a wide variety of approaches to identifying higher value areas. These include:

1. The list of High Value Community Use Areas developed by the Alaska Department of Fish and Game.
2. The 18 Areas of Special Interest identified by the Under Secretary of Agriculture in the 1999 ROD.
3. Roadless areas identified by the U. S. Fish and Wildlife Service as having outstanding or important fish and wildlife values.
4. Watersheds identified by the Southeast Alaska Conservation Council as Tier 1 or Tier 2 watersheds.
5. A list of Conservation Priority Watersheds identified by The Nature Conservancy and the Audubon Society and provided in comments on the Draft EIS.
6. Roadless areas and their relative ranking based on the Wilderness Attribute Rating System.

While there is considerable commonality among these lists, there also are some significant differences. These differences demonstrate that there is no single definitive process or criterion by which to judge the value of individual roadless areas. Accordingly, the Forest Service took all of these rating systems and lists into account in developing the Final EIS and the Timber Sale Program Adaptive Management Strategy. The Forest Service also considered logistical considerations, such as the proximity of roadless areas to developed lands, to account for social and economic values as well as biological values in the consideration of roadless values. During this analysis, the Forest Service identified three general categories of roadless areas, based largely on how frequently they are included in the above ranking systems:

- *Lower Value Roadless:* These lands are relatively small areas, and usually located within or near developed landscapes. They often lack the resource features and values found in larger and more isolated roadless areas. Because of their smaller size and proximity to developed landscapes, they often are less manageable as a roadless area by themselves, and can often be accessed by logical extensions of existing road systems. These areas usually appear on no more than 1 or 2 of the ranking lists described above. For example, the 16,000-acre East Zarembo Roadless Area on Zarembo Island is long and irregular in shape, is substantially affected by surrounding developments, and does not have high ecological or social values when compared to larger and more isolated roadless areas.
- *Moderate Value Roadless:* These areas are generally larger and often include portions with higher ecological or social values. Examples include high value watersheds, high scenic resources, or high recreational values. These areas usually appear on 3 or 4 of the ranking lists described above. The southern end of the South Kupreanof Roadless Area is a good example, in which the southwestern corner associated with Rocky Pass has very high scenic values while most of the remainder has lower values.
- *Higher Value Roadless:* These areas are often larger and usually have very high ecological and social values. These areas usually appear on 5 or 6 of the ranking lists described above. The 190,000 acre Cleveland Roadless Area is a good example.

As described in Chapters 2 and 3 of the Final EIS, the alternatives respond to public concerns regarding protection of roadless areas in a progressive fashion. Alternative 1 would allow no scheduled timber harvest or road construction in any roadless area. As alternatives progress to higher levels of allowable timber harvest and road construction, more roadless areas are allocated to the development LUDs, starting with lower and some moderate value roadless areas in Alternative 2, then incorporating mostly lower and moderate value roadless areas in Alternative 3, and more higher value roadless areas in alternatives 4 through 7.

Further Protection of Higher Value Inventoried Roadless Areas through the Timber Sale Program Adaptive Management Strategy: Based on my review of this information and the analyses presented in the Final EIS, I believe the selected alternative minimizes the adverse environmental effects on roadless areas while still seeking to meet market demand for timber from the Tongass. Just over 3 quarters of inventoried roadless acres are included in the 13.3 million acres of non-development LUDs. The Forest Plan allocates 24 percent of the inventoried roadless acres to development LUDs. Due to the additional protection offered by the standards and guidelines that apply to these LUDs, only 3 percent of the land in inventoried roadless areas would be included in the suitable land base. Finally, even if timber were harvested and roads constructed at the maximum rates allowed under the Forest Plan for 100 years, at least 80 percent of the Tongass would still remain in an undeveloped condition without roads.

I know some will still be concerned, however, that since the ASQ of the Forest Plan is considerably higher than recent harvest levels, some higher value roadless areas may still be unnecessarily harmed by including them in the development LUDs before the projected increase in long-term demand actually materializes. The Timber Sale Program Adaptive Management Strategy that I am adopting today was designed specifically to remedy these concerns. A discussion of how the Strategy was developed follows below.

After the public comment period on the Draft EIS, the Forest Service reviewed each of the roadless Value Comparison Units (VCUs, areas of land delineated for planning purposes) in the development LUDs of Alternative 6. Each of these VCUs that contains suitable lands was compared to each of the six lists of higher value roadless areas described above, to develop a comprehensive sense of the ecological, recreational, and social value of each of these VCUs. As previously mentioned, logistical challenges related to timber economics were also considered. Through this process, each VCU was assigned to one of the three phases of the Timber Sale Program Adaptive Management Strategy. Phase 1 of the Strategy is similar to Alternative 2, in that the scheduled timber sale program would be confined to areas already developed and to lower value roadless areas. Phase 2 of the Strategy, which would be implemented only if the level of timber harvest reached 100 MMBF annually for two consecutive years, is similar to Alternative 3, in that the scheduled timber sale program would be allowed to operate in some moderate value roadless areas. Phases 1 and 2 are also comparable to Alternatives 2 and 3, respectively, regarding the maximum sustainable level of timber harvest that could be supported from the amount of suitable land they include.

Only in Phase 3, which would only be implemented if timber harvest levels reach 150 MMBF for two consecutive years, would the scheduled timber harvest program be allowed to operate in higher value roadless areas. In this fashion, the Timber Sale Program Adaptive Management Strategy offers an extra level of protection for higher value roadless areas, and a more robust response to concerns related to allowing such areas to be affected by development activities prematurely.

I want to reiterate that there is no single definitive process or criterion by which to judge the value of individual roadless areas. That is why the Forest Service took into consideration the ratings of other organizations to help us design a strategy that seeks to avoid areas most often listed as high value.

Treatment of Areas of Special Interest to the Public under the Forest Plan and Adaptive Management Strategy: As described above, several conservation organizations and numerous individuals have provided input recommending protection for specific areas. The areas mentioned most frequently are listed below, with a description of how each area is treated under the selected alternative and the Adaptive Management Strategy. The map of the areas included in each phase of the Timber Sale Program Adaptive Management Strategy can be found on the on the compact disc of the Final EIS and is also available on the internet at *www.fs.fed.us/r10/tongass/*.

Port Houghton – Public comments on this area requested protection for the southern portion of the Windham - Port Houghton Roadless Area, all of the Fanshaw Roadless Area, and the western tip of the Spires Roadless Area in the South Arm of Faragut Bay, especially Port Houghton, the salt chuck at the head of the North Arm of Port Houghton, Sanborn Canal, and Faragut Bay. The majority of these areas remain in non-development LUDs under the amended Forest Plan. While some areas within the Windham – Port Houghton and the Fanshaw Roadless Areas are allocated to development LUDs, they are included in the Phases 2 and 3 of the Timber Sale Program Adaptive Management Strategy, with VCUs 790 and 840 in Phase 3. This means that until the actual level of timber harvest on the Tongass reaches 100 MMBF for two consecutive fiscal years in Phase 1, then 150 MMBF for two consecutive years in Phase 2, no timber sales could be planned for these areas.

Thomas Bay part of Spires Roadless Area –The development LUDs in the southern tip of the Spires Roadless Area and other lands near the southern portion of Thomas Bay are mostly roaded and are included in Phase 1 of the Strategy. The development LUDs (VCUs 4830 and 4840) near the northern part of Thomas Bay are mostly undeveloped and are included in Phase 2.

Kake Community Use Area and Kuiu Island – Kuiu Island and the surrounding smaller islands are important to the residents of Kake, especially the coastal areas near Kake. Areas most often associated with higher values include the Keku Islands, Kadake Bay and Creek, Port Camden, Rocky Pass, and the East Kuiu Roadless Area on the south and east side of Kuiu Island.

The Keku Islands and the lands adjacent and near Kadake Bay are in non-development LUDs. Lands adjacent to the Keku Islands in VCU 3990 have been placed in Phase 2 of the implementation strategy. This means that until the actual level of timber harvest on the Tongass reaches at least 100 MMBF for two consecutive fiscal years, no timber sales could be planned for these areas.

The adjustments to small old-growth reserves in this area also resulted in a continuous block of non-development LUDs from Kadake Bay to Saginaw Bay. Additionally, about 23 miles of Kadake Creek and other major tributary streams that flow into Kadake Bay were recommended in 1997 for designation as a Recreational River, and that recommendation is not being changed. Recreational River LUDs generally provide recreation opportunities in a pleasing, though modified, free-flowing river setting, while allowing timber harvest, transportation and other developments.

Port Camden has development LUDs on both sides of the bay, with the west side having past timber management activities and the east side mostly undeveloped. In response to public comments, the west side of Port Camden in VCU 4200 is in Phase 2 of the implementation strategy. The east side of Port Camden in VCU 4200 is placed in Phase 3, so no timber sale could be planned for this area unless timber harvest levels reach 150 MMBF for two consecutive fiscal years in the future.

Rocky Pass is nearly entirely in non-development LUDs, including the east side of the peninsula between Rocky Pass and Port Camden. The East Kuiu Roadless Area located to the south of the developed areas on the east side of the Island is placed in Phase 3.

The remaining development LUDs on northern Kuiu Island are included in Phase 1 of the Strategy, primarily because the area is mostly developed with good infrastructure and timber volumes, all of which are important for the current timber industry. I believe the overall mix of land use designations for Kuiu Island, when combined with the deferral of many parts of the development LUDs on Kuiu to Phases 2 and 3 of the Adaptive Management Strategy, provides a good balance of the commodity and noncommodity values and uses for Kuiu Island.

Upper Tenakee Inlet – In the 1997 Forest Plan, the non-development LUDs along the shoreline areas, including several inlets and bays, often resulted in blocked access or significantly increased costs of access to the development LUDs in the uplands. In reviewing the small old-growth reserves in upper Tenakee Inlet, biologists, logging engineers and managers took a hard look at this area to see if a better balance of protecting the high scenic and habitat values associated with the area while also addressing the high development costs could be made. In response, VCUs 2240 and 2250 in the upper end of the Inlet were converted to the Semi Remote Recreation LUD to address the scenic values and to strengthen the biodiversity connection, or pinch-point, with the northeastern lobe of Chichagof Island as well as the Neka Bay area. Both development and non-development LUDs along the west side of the Inlet were consolidated and the development LUDs in VCUs 2260, 2290, and 2320 are scheduled for Phase 3 of the Strategy. VCU 2310 is scheduled for Phase 2 because it is easily accessible by extending the current road system from VCU 2300.

Ushk Bay/Poison Cove – This area of very high public interest is located in the Hoonah Sound Roadless Area. Issues in this area relate to Native Allotment claims, subsistence, timber sale economics, the proximity of the area to Sitka, high cultural and traditional use values, scenic, and other uses. If development projects are proposed in the area, the amended Plan provides reasonable options and flexibility to address the high values and potentially competing uses of the area. In recognition of this area's complexity and high values, it is included in the Phase 3 of the Strategy, which means that no timber sale can be planned until actual harvest levels on the Tongass reach 150 MMBF for two consecutive fiscal years.

West Duncan Canal – The lands all along the west side of Duncan Canal are in non-development LUDs in recognition of the high recreation and scenic resources associated with the area. This width of non-development LUDs ranges from about 1 mile in width to several miles inland, such as up the Castle River drainage. The inland portions of the northern part of the area where development is allowed are included in Phase 1 of the Strategy because they are easily accessible from currently roaded areas in the interior of the island by extending existing road systems. Development LUDs associated with the southern part of the Canal in VCU 4350 are deferred until Phase 3. Most of the remaining land in development LUDs on the southern portion of the Island is in Phase 2, because these areas would be easily accessible by extending the existing road system in the interior of the Island to the north. The amended Forest Plan provides a well-balanced mix of LUDs that fully recognize the many values associated with the lands along the west side of Duncan Canal while allowing some timber harvest if and when it is needed.

Honker Divide – Honker Divide is a key part of the old-growth conservation strategy for the northern half of Prince of Wales Island, with over 200,000 acres in non-development LUDs. The strategy includes connections of old-growth habitat in non-development LUDs from the Karta Wilderness through Honker Divide and the Sarkar Lakes area and through the Calder Holbrook LUD II area to the northern tip of Prince of Wales Island. To further support the protection of this connective area, I am including the eastern portions of VCU 5750 and 5780 in Phase 2 of the implementation strategy. VCU 5740 is also deferred to Phase 2, which means no timber harvest may be planned until the actual harvest levels on the Tongass reach 100 MMBF for two consecutive fiscal years.

Gravina and Bostwick Inlet – Bostwick Inlet is located on the south and east end of Gravina Island near Ketchikan. Many residents of the nearby communities of Ketchikan, Saxman, and Metlakatla use this area for recreation and subsistence purposes. Much of the land in the area surrounding Bostwick Inlet were previously allocated to development LUDs and no changes were proposed in the 2007 draft amended Forest Plan.

Many reviewers of the Draft EIS recommended no timber harvest be allowed on Gravina Island. In their comments on the Draft EIS, the Ketchikan Indian Community (KIC) expressed serious concerns with timber harvest activities previously proposed on Gravina Island, and referred to ongoing collaborative efforts to resolve those concerns. KIC recommended changing the LUDs in the Bostwick area from development to non-development. Consequently, I am modifying Alternative 6 as displayed in the Final EIS to change the LUD allocations in the Bostwick Inlet area to a combination of non-development LUDs. I am also deferring timber harvest in the development LUD to the west and south of Bostwick inlet to Phase 3 of the Timber Sale Program Adaptive Management Strategy. Only if the timber industry expands to levels of harvest sufficient to implement this last phase could timber sale planning be done for this area.

Cleveland Peninsula – The Cleveland Roadless Area has been the center of land use debates for some years. Recreation use of Cleveland Peninsula is high, especially on the eastern side of the peninsula north of Ketchikan. Some mineral exploration is ongoing on the northern side of the peninsula. The Forest Plan allocates the entire southwestern portion, roughly one-half of the area, to non-development LUDs. The remainder of the peninsula is allocated to a mix of development and non-development LUDs that recognize the old-growth habitat, scenic, and timber values of the area. I believe the mix of LUDs and associated standards and guidelines in place with the Forest Plan are appropriate to address the high values associated with Cleveland Peninsula. It is not the appropriate time to change the mix of LUDs here, primarily because of the amount of suitable and available timber included in the development LUDs. However, virtually all of the development LUD areas on Cleveland Peninsula are included in Phase 3 of the Strategy, except for VCU 7210 where the Emerald Bay project was previously proposed, which will be in Phase 2. No further timber sale planning in this area may be done until the actual harvest levels on the Tongass reach 100 MMBF for two consecutive fiscal years.

Salmon Bay Lake – Most of the Salmon Bay Lake area on northern Prince of Wales Island is in a congressionally designated LUD II area. Relatively small portions of the watershed outside of the LUD II area are in development LUDs, especially in VCUs 5340 and 5341. These portions are included in Phase 2 of the Strategy, which means that no timber harvest may be planned until the actual harvest level on the Tongass reaches 100 MMBF for two consecutive fiscal years.

Basket Bay and Kook Lake – This area was identified by The Nature Conservancy, the U.S. Fish and Wildlife Service, and others as having very high fish and wildlife values. The area to the north of Kook Lake in VCU 2390 is developed while the area to the south in the remainder of VCUs 2390 and 2400 is not. The development LUD portion of the southern area is included in Phase 2 of the Strategy.

Sitka Community Use Area – The development LUDs in the immediate area surrounding Sitka have been heavily developed during past timber management activities. Many residents of Sitka have expressed a desire for a greatly reduced level of future timber harvest or none at all. Therefore the majority of the development LUDs have been placed in Phase 2 of the Strategy, which means

that no timber harvest may be planned until the actual harvest level on the Tongass reaches 100 MMBF for two consecutive years.

Kruzof Island – The developed portion of northern Kruzof Island has become popular for recreation users from Sitka, especially taking advantage of the roaded access of the area. The Nature Conservancy and Audubon Alaska assessment efforts also recognized this area for its multiple use values and recommended the area have an integrated management emphasis. All of the Timber Production LUD in this area has been changed to Modified Landscape, which better reflects the recreation and scenic values of the area while also providing opportunities for smaller timber sales in the future. The area is also included in Phase 1 of the Strategy.

Problems Identified by the Ninth Circuit Court of Appeals

As described on page one of this ROD, the Ninth Circuit Court of Appeals identified several inadequacies with the 1997 ROD and Final EIS for the Forest Plan. Remedying those problems is the primary purpose and need for the 2008 Amendment. The section of this ROD regarding market demand explains how the Forest Service has corrected the errors made in 1997 by developing new projections of market demand. Having corrected those previous errors related to market demand, the court's supposition about choosing an alternative with less environmental effects and in less sensitive areas does not apply to this decision. Nonetheless, the discussions above on roadless areas and the Timber Sale Program Adaptive Management Strategy explain how the Forest Service has taken extra steps to ensure that potential adverse effects on areas perceived as environmentally sensitive have been minimized. The discussion below explains why I believe that Alternative 6, coupled with the Tongass Timber Sale Program Adaptive Management Strategy, best responds to the remaining problems identified by the court, those dealing with the range of alternatives considered in the Final EIS, and the cumulative effects of disproportionate harvest of high-volume timber on non-federal land.

Range of Alternatives

The Court of Appeals for the Ninth Circuit found two deficiencies related to the alternatives considered in the 1997 Final EIS for the Revised Tongass Forest Plan. The Forest Service had not considered alternatives that set the ASQ equal to the correct demand scenarios. In addition, each of the 10 alternatives considered in the EIS allocated some roadless areas to LUDs that allow development; the EIS omitted an alternative that allocated less undeveloped land to the development LUDs.

Setting ASQ of the Alternatives Equal to Projected Demand of the Scenarios. In the 1997 Final EIS, one alternative had no scheduled timber program, so the ASQ for that alternative was zero. With that exception, the ASQ of all alternatives considered in 1997 exceeded demand projections under the low and middle market scenarios of the 1997 demand study. For the 2008 Forest Plan Amendment, I considered all the demand projections of the Brackley et al. study, as displayed in Table 3, which I consider to be the best available science related to market demand projections. As previously discussed in the market demand section of this ROD, I found the projections for 2022 most helpful in guiding my decision to approve the amended Forest Plan, since that is the end of the NFMA planning cycle of 10-15 years, and three of the four demand scenarios estimate that demand will grow every year throughout the 20-year period of the study. Table 4 below compares the demand projections for 2022 with the ASQ for the second decade of each alternative considered in detail in the Final EIS.

Table 4
Projected Demand[1] in 2022 Under each Brackley et al. Scenario Compared to Second-decade Average Annual ASQ for each Final EIS Alternative

Projected 2022 demand[a] (MMBF).	Second-decade ASQ for each alternative (MMBF).
Scenario 1 – 68	Alternative 1 – 49
Scenario 2 – 187	Alternative 2 – 152
Scenario 3 – 204	Alternative 3 – 203
Scenario 4 -- 342	Alternative 4 – 360
	Alternative 5 – 267
	Alternative 6 – 267
	Alternative 7 – 421

Note:
[1] These figures include total volume (sawlog and utility) that would need to be harvested to meet the demand projected by Brackley et al.

Alternatives 1-4 were designed to correspond with scenarios 1-4, respectively. Alternative 1 was designed to reflect scenario 1, with modifications to better match recent annual harvest levels (approximately 50 MMBF) and to avoid harvesting in roadless areas and areas on Kuiu Island. Because of these modifications, the Alternative 1 ASQ is actually 19 MMBF (28 percent) below the projected demand of Scenario 1. The ASQ of Alternative 2 is 25 MMBF (19 percent) below the projected demand of Scenario 2. The purpose of Alternative 2 is to display an alternative that restricts development activities to lower value roadless areas. Alternative 3 differs from Scenario 3 by only 1 MMBF. The ASQ of Alternative 4 is 18 MMBF (5 percent) above the projected demand of Scenario 4. These figures do not match exactly, partly because the second decade ASQ extends 20 years from the decision, while the projected demand represents an annual figure 15 years out.

Alternatives Allocating all Roadless Areas to Non-Development LUDs. As mentioned at the beginning of this section, the Ninth Circuit found the 1997 Tongass Forest Plan Revision Final EIS deficient because all of the alternatives considered in detail allocated some roadless areas to LUDs that allow development; the 1997 Final EIS did not include an alternative that allocated less undeveloped land to the development LUDs.

To remedy this deficiency, the Final EIS for the 2008 Tongass Forest Plan Amendment considers Alternative 1, which allocates no roadless areas to the LUDs that allow development, as shown in Chapter 2 of the EIS. In the interest of clarity, I point out that some activities that might be considered “development” may sometimes be allowed in many of the non-development LUDs. The most significant of these is the construction of a State highway or utility system connection between communities in Southeast Alaska, or between the region and the continental road system and power grid. Such development could be allowed in many “non-development” LUDs, including areas that are currently roadless. Such development is expected to be quite rare, and would require additional project-level NEPA analysis and decision-making before actual construction could begin.

The Forest Service received several comments from the public concerning the range of alternatives considered in the Draft EIS. The most frequent concern expressed was that the Draft EIS did not include an alternative with an ASQ lower than 50 MMBF. Several reviewers recommended such an alternative be included in the Final EIS, because they believe that timber harvest levels are likely to fall below that level.

As discussed in the section of this ROD on alternatives considered, and in Chapter 2 of the Final EIS, all alternatives displayed in all the EISs developed for the 1997 Forest Plan were reviewed for consideration in detail in the Draft and Final EIS for the 2008 Tongass Forest Plan Amendment. As displayed in Table 2 of this ROD, Alternative 1 of the 1996 Revised Supplement to the Draft EIS for the Revised Tongass Forest Plan was analyzed in detail in that EIS, and had an ASQ of zero. This

alternative was also considered in detail in the 1997 Final EIS. This alternative was not considered in detail in the Draft or Final EIS for the 2008 Forest Plan Amendment for several reasons:

- The previous consideration in the 1996 and 1997 EISs was deemed adequate.
- The concern being addressed by alternatives with a low ASQ—avoiding development in roadless areas—is addressed by Alternative 1 of the 2008 Final EIS, because this alternative avoids timber harvest in roadless areas.
- Information from a variety of sources (e.g., mill capacity utilization reports and communications from operators) gave rise to concerns that the current timber industry in Southeast Alaska could not survive if an alternative were selected with an ASQ equal to or lower than current harvest levels.

Cumulative Effects of Disproportionate High-Volume Logging

The Court of Appeals for the Ninth Circuit found several deficiencies in the 1997 Final EIS for the Tongass Plan related to the cumulative effects of disproportionate high-volume logging (a practice sometimes called "highgrading") on non-federal land.[20] Specifically, the court found that the 1997 EIS failed adequately to consider such cumulative effects because the EIS did not include: (1) a catalog of past projects; (2) a discussion of how those projects (and differences between the projects) have harmed the environment; (3) a discussion of the connection between individual non-federal high-volume harvests and the prior environmental harm from those harvests; and (4) an assessment of the potential impacts of reasonably foreseeable continued highgrading in the future.

The court also found that a cumulative effects analysis in a new programmatic EIS is necessary for the Forest Service and the public to make a rational evaluation of the proposed action balancing the competing goals of timber harvest, environmental preservation, and recreational use in the Tongass.

Catalog of Past Projects on Non-Federal land. Because information about specific projects on non-federal land was unavailable in 1997, the cumulative effects analyses in the 1997 EIS assumed that all non-national forest land within the boundaries of the Tongass National Forest had no habitat value and therefore would not contribute to wildlife viability on the Tongass. In other words, non-federal land was analyzed as if it contained no vegetation whatsoever. In response to the court's concern regarding the lack of a catalog, the Forest Service worked with the State of Alaska and Sealaska Corporation, the regional Native corporation for Southeast Alaska, to develop a comprehensive catalog of each timber harvest project conducted on State land and Alaska Native corporation lands.

Appendix E of the Final EIS provides a catalog of past harvest by breaking down all past harvest in Southeast Alaska according to landowner category within each of 23 biogeographic provinces and identifying the acreage and decade(s) of harvest for each. In addition, the appendix summarizes the data provided by the State of Alaska regarding past harvest activities in Southeast Alaska permitted under the Alaska Forest Resources and Practices Act.

While Appendix E of the Final EIS complies with the court's direction to develop a catalog of past projects on non-federal land, this is only a small part of the analysis contained in the Final EIS of the potential cumulative effects of the disproportionate harvest of high-volume timber on non-federal land. For example, better mapping of current stand conditions on all land ownerships in Southeast Alaska has improved the analysis of effects of past timber harvest throughout the region. In addition, because complete information on stand types associated with early harvests was not documented or available, a method of estimating the proportion of different types in past harvests was developed and applied to all past harvest areas. The methodologies used to quantify the amounts and types of past harvest and project future harvests on both federal and non-federal lands are described in Appendix B of the Final EIS.

[20] While this ROD uses the term "highgrading" as it is used in the Ninth Circuit Court's opinion, it is a silvicultural term correctly defined as selective removal of the biggest and highest value trees from a stand. Over time, this can reduce the overall genetic quality of the stand.

The Biodiversity section of the Final EIS uses the Appendix E information along with geographic information system analyses and other information to describe in detail the total amount of past old-growth harvest on National Forest System (NFS) lands and non-NFS lands, and the amount within each of 23 biogeographic provinces that make up Southeast Alaska. In addition to the total amount of productive old-growth harvest, the amount of high-volume and large-tree old-growth harvest, the amount of harvest on karst terrain, and other descriptors are provided and discussed. In addition, projections are made in order to quantify future harvest levels for each of these categories and the effects of cumulative harvests are evaluated.

These analyses show that 92 percent of the original old growth still exists on NFS lands. When non-NFS lands are also considered, this percentage drops to 87 percent for all of Southeast Alaska. Similarly, 87 percent of the original high-volume old growth and 80 percent of the original large-tree old growth still exists on NFS lands, but 70 and 68 percent of these categories exist for all of Southeast Alaska, respectively.

Even if timber were harvested for 100 years at the maximum rate allowed under the amended Forest Plan, 83 percent of the original productive old growth, 79 percent of the original high-volume old growth, and 72 percent of the original large-tree old growth on NFS lands would still remain. If non-NFS lands are also considered, these percentages would decline to 76 percent, 70 percent, and 57 percent.

High-volume productive old growth currently makes up approximately 41 percent and large-tree old growth makes up 11 percent of the productive old growth on the Tongass. These two categories make up the same percentages within the reserves of the conservation strategy. Overall, and once standards and guidelines such as riparian and beach protection are applied, about 90 percent of the existing high-volume old-growth and 89 percent of the existing large-tree old growth would be protected under the amended Plan. This is a conservative estimate, based on the assumption that maximum harvest levels allowed under the ASQ are implemented over many decades.

As discussed in previous sections of this ROD, however, the duration of this decision is 10 to 15 years, not 100 years. The analyses described above also show that, if timber were harvested at the maximum level allowed by the amended Forest Plan for 15 years, 89 percent of the original productive old-growth forest would remain on the Tongass (97 percent of the existing old growth); as would 84 percent of the original high-volume old growth (97 percent of the existing high-volume old growth) and 77 percent of the original large-tree old growth (96 percent of the existing large-tree old growth).

This high level of protection for high-volume old growth is in part a direct result of the design criteria for the makeup of the reserves, which is just one way in which the 1997 Forest Plan was responsive to the disproportionate harvest levels of the past, including harvests on non-NFS lands. For example, Appendix K to the Forest Plan (1997 and 2008 Amendment), which establishes criteria for old-growth reserves, has specific target levels for high-volume old growth. Additionally, the adjustments to the small old-growth reserves and the expansion of other non-development LUDs included in this decision add about 149,000 acres to the reserve system relative to the 1997 Forest Plan, as amended. These acreages include 45,000 additional acres of productive old growth, 27,000 acres of which are high-volume old growth (59 percent), and 11,000 acres of which are large-tree old growth (25 percent).

Therefore, past timber harvest, including past disproportionate harvest of high-volume stands, has been considered in the design of old-growth reserves and in the development of the conservation strategy. Effects analyses for all resources were based on the environmentally conservative assumption that all scheduled suitable lands would be harvested at some point over the next 100-150 years. Because most of the Tongass lands suitable for timber harvest are undeveloped, it is reasonable to schedule higher-volume stands, higher in proportion to their existence, for the purpose of offsetting high infrastructure development costs. Once the infrastructure is in place, lesser volume stands can be accessed at a higher rate because the cost of access is less. Doing otherwise creates deficit timber sale projects needing supplemental funding to offset infrastructure costs. Appropriation legislation for the last several years has not allowed the offering of deficit timber sale projects nor provided funding levels necessary to offset initial entry costs.

Comparison of Alternatives

Wildlife Viability

Long-term viability for wildlife species has been extensively studied and analyzed, and is discussed in detail in the Final EIS (Chapter 3, Biodiversity and Wildlife sections and Appendix D). Panels of experts were formed to assess viability risks to key species that could result from each alternative considered in the 1997 Forest Plan Revision EIS. These ratings were transferred to the alternatives in the 2007 Draft EIS, based on the four alternatives that are similar between the two documents and similarities in the amount of timber harvest allowed. Based on this analysis, the alternatives fall roughly into three groups.

Compared to the other alternatives considered in detail, Alternatives 1, 2 and 3 provide the highest degree of assurance that the habitat needed for viable, well-distributed wildlife populations would be maintained, and that subsistence, recreational, and commercial uses of wildlife resources would be sustained. This is due largely to more non-development LUDs and refinements to small old-growth reserve boundaries that protect more high quality old-growth habitat, as compared to Alternative 5 (the 1997 Forest Plan).

Alternatives 4 and 7 provide the least assurance that the habitat needed for long-term viability of all wildlife species would be maintained because more acres are in development LUDs and there would be poorer distribution of high quality old-growth reserves in Alternative 4, and none in Alternative 7. The U.S. Fish and Wildlife Service, in their comments on the Draft EIS, expressed concerns that these alternatives would fail to ensure viable, well-distributed populations and recommended these alternatives be eliminated from further consideration.

Alternatives 5 and 6 provide a moderate to very high degree of assurance that, even if development occurs at maximum allowable levels for 100 years, there would still be sufficient habitat to support long-term viability of wildlife species because there would be a good to very good distribution of high quality old-growth reserves over the long term. Alternative 6 includes improvements to the small old-growth reserve system that Alternative 5 does not have, and includes more total acreage in reserves than Alternative 5. Alternative 6 as displayed in the Final EIS would apply the revised version of the goshawk nest standards and guidelines and the new forest-wide legacy standard and guideline. I want a Forest Plan that, in conjunction with all the other multiple-use goals and objectives, has a relatively low level of risk—or conversely, gives me good assurance that the habitat needed to sustain viable populations of wildlife would be maintained over the long term. As explained in greater detail in the section of this ROD regarding wildlife habitat and biodiversity, Alternative 6—with the changes specified in this ROD--provides this assurance and retains the major components of the original conservation strategy. Alternatives 4 and 7 may not provide adequate assurance of meeting viability requirements.

Socioeconomic Considerations

As was true in 1997, maintaining options for a variety of social and economic uses of the Tongass is another key factor in my decision. These social and economic uses range from continuing a timber harvest program that provides a sustainable supply of timber and other timber products to providing for subsistence opportunities and unspoiled settings for recreation and tourism. It is partly a matter of finding a balance, within a multiple-use context, of the many public uses and demands on forest resources, and partly not foreclosing options for the future to respond to changes in public needs, economic conditions, or new technologies as such changes develop.

Alternatives 1 and 2 would not allow sufficient timber volume to meet the projected market demand under the scenario considered most likely to occur over the next 15 years, nor would they allow the development of an integrated timber industry. (See the market demand section of this ROD for a discussion of the scenarios depicted in the most recent study of demand for timber from the Tongass.)

Only Alternatives 4 and 7 could provide sufficient timber volume to meet the high integrated industry scenario, but with more trade-offs for wildlife habitat (described above), recreation opportunities and scenic quality, due to allocating 28 percent and 30 percent of the Tongass to moderate and intensive development LUDs, respectively.

Alternatives 3, 4, 5, 6, and 7 could all provide sufficient timber volume to meet the medium integrated scenario, although Alternative 3 could not provide sufficient economic volume. While Alternative 3 allocates 18 percent of the Tongass to moderate and intensive development LUDs, less than the 22 percent in Alternative 5 and 21 percent in Alternative 6, it does not provide enough opportunity for growth of an integrated timber industry over the next 10 to 15 years, which limits the potential socioeconomic development of many rural communities within the Tongass National Forest. Recreation opportunities and scenic quality are very similar between Alternatives 5 and 6. Alternative 6 changes the wildlife habitat standards and guidelines to reduce their economic impact, which leads me to conclude Alternative 6 best balances competing values and uses of the Tongass National Forest.

Present net value calculated for each alternative represents one efficiency measure for those costs and benefits that can be assigned monetary values, in this case timber, recreation and tourism and program management costs. Alternative 1 is estimated to have the highest present net value and Alternatives 4 and 7 the lowest, largely due to the high costs of operating timber programs in Alaska. The estimate of present net value for Alternative 6 is in the middle of the range of all the present net values for the seven alternatives considered. Given the failure of present net value to consider qualitative factors critical to accurately predicting net public benefits, and the ability of Alternative 6 to balance many competing values and uses of the Tongass National Forest, I find that Alternative 6 currently provides the best strategy for maximizing net public benefits.

Roadless Areas

Alternative 1 does not allocate any inventoried roadless acres to development LUDs, and has the fewest acres suitable for timber harvest. Alternatives 4 and 7 are at the other end of the spectrum, with the greatest amounts of the existing roadless areas allocated to moderate and intensive development LUDs and suitable for timber harvest.

Alternatives 2, 3, 6, and 5 show gradual increases in the acreage of existing roadless areas allocated to moderate and intensive development LUDs, with Alternative 6 slightly less than Alternative 5. With the Timber Sale Program Adaptive Management Strategy, I am confident that the highest value roadless areas within the suitable land base will be protected until needed to meet demonstrated growth and integration in the timber industry. Alternative 6 best provides the flexibility and balance to meet the competing demands for growth and for the protection of roadless character, recreation, and other socioeconomic values associated with roadless areas.

Other Resources

Alternatives 1, 2, 3, 5 and 6 are better than alternatives 4 and 7 in maintaining scenic quality and undisturbed settings, factors important to the continued expansion of the recreation and tourism industries, and to most Southeast Alaska communities.

The abundance and distribution of the majority of subsistence resources (fish and marine invertebrates) would not be affected by any alternative. The analysis continues to suggest that deer habitat capabilities in the areas of the Tongass with heavier timber harvest may not be adequate to sustain current and future deer harvest levels under any alternative, and that increased competition for deer harvest may cause a significant possibility of a significant restriction in the future.

This possibility of future restrictions resulting from changes in abundance and distribution of deer and increased competition would be lower for Alternatives 1, 2 and 3 and higher for Alternatives 4 and 7 compared with Alternative 5 (the 1997 Forest Plan, as amended). Alternative 6 is the same as Alternative 5 because similar amounts of acres are proposed for timber harvest.

Compared to Alternative 5, all other alternatives expand the Mineral LUD overlay by approximately 80,000 acres. None of the alternatives includes any changes to the management of mineral activities. No land ownership adjustments are proposed under any alternative and all alternatives, except Alternative 5, include recommending the Experimental Forest at Young Bay be replaced by a larger, more accessible Experimental Forest at Cowee and Davies Creek and that the Geologic Special Interest Areas be expanded by about 47,000 acres.

Alternative 1, the "environmentally preferable" alternative, would result in the least adverse effects to the physical and biological environment. With timber harvest scheduled only along the existing road system and no development in roadless areas, it has the least effects of the alternatives considered. Accordingly, in comparison with other alternatives, it tends always to rate highest when levels of resource protection are a consideration. Conversely, when considering timber-related employment and community dependence on such employment; infrastructure development and new road access; or rural development in a multiple-use context, Alternative 1 generally ranks lowest. Therefore, I conclude that it does not provide an acceptable balance between the competing multiple use demands for environmental protection and human uses of the natural resources of the Tongass National Forest. For the same reasons, it also does not meet the objectives of ecological, economic, and social sustainability.

Conclusion

Given the many social and economic trade-offs inherent in national forest management, I find that Alternative 6 best balances the many interrelated environmental, social, and economic issues that arise when managing for multiple uses.

Other Considerations

In addition to responding to the decision by the Ninth Circuit Court of Appeals and the key issues described above, my decision is based on consideration of several other topics, including invasive species, management of young-growth forest stands, climate change, ecosystem services, transportation and utility corridors, cooperation with the State of Alaska, public input, areas of special interest, and the use of the best available science.

Invasive Species

The 1997 Forest Plan did not include the term *invasive species*. Nationally and regionally, the Forest Service is giving high priority to eliminating or preventing adverse impacts caused by invasive species. The amended Forest Plan includes new objectives and standards and guidelines that will enable the Tongass National Forest to carry out these relatively new national and regional priorities on the Tongass. As is true in other program areas, the extent to which these objectives can be met is dependent in large part on factors out of the control of the Forest Service, such as congressional funding allocations.

Management of Young-Growth Forest Stands

The management of young-growth forest stands is becoming more important as young trees located in previously harvested areas mature, and as interest grows in transitioning the timber industry in Southeast Alaska from one based on the harvest of old-growth forest stands to one based on the harvest of young growth. Young-growth forest stands are those that grow after the trees in an area have been removed by timber harvest activities or a natural disturbance event such as a landslide or windstorm. A substantial amount of new information has become available regarding the management of young-growth forests since the 1997 Forest Plan was adopted. For example, forbs and shrub populations are more extensive in thinned young-growth stands than was assumed in previous forest planning efforts. This information is relevant for the analysis of the effects of timber harvest on species like the Sitka black-tailed deer that feed on forbs and shrubs. Management

practices of young-growth forest stands, such as thinning, can substantially improve the forage for deer, and also promote better growth of the remaining trees for future timber harvest. Precommercial thinning involves cutting most of the small trees that naturally grow back in areas where the old-growth trees have been removed, usually about 15 to 25 years after the initial removal. When thinning is done at this stage, the young-growth trees removed are so small that that they usually have no commercial value, so it must be paid for by appropriated funds. Similarly, thinning of young-growth stands that are 50 to 70 years old can yield commercially marketable trees—hence the name "commercial thinning"--while also improving forage for wildlife and higher timber yields in the future. Many organizations have encouraged the Forest Service to transition the timber program on the Tongass from one based on the harvest of old-growth forest to one that harvests young-growth stands. Such a transition would enhance the protection of old-growth forest habitat.

For all of these reasons, I support the transition of the Tongass timber program to one based more on the harvest of young-growth stands. The amended Forest Plan has been carefully reviewed to ensure that it contains no provisions that might impede such a transition. Young growth could potentially comprise a substantial portion of the Tongass timber program in as little as three decades, with initial young-growth operations beginning in earnest by the end of the current planning cycle. The ultimate success of this effort, however, will depend on several factors, including investments by the timber industry in milling equipment designed for smaller young-growth trees, integration of the industry to effectively process all products harvested from the Forest, and funding decisions made by Congress.

Climate Change

Interest in climate change, and knowledge of this issue, have grown enormously over the last decade. The two broad questions relevant to the decision on the 2008 Forest Plan Amendment are the extent to which climate change might affect the natural resources of the Tongass National Forest and the uses of those resources, and the extent to which management of the Tongass could affect climate change.

As discussed in Chapter 3 of the Final EIS, the effects of climate change on the natural resources of the Tongass are highly uncertain, especially over the long run, and likely to be small, especially over the next 10 to 15 years. While there is general agreement among scientists that the climate is warming, there is considerable uncertainty concerning the exact effects of climate change on the forests of Southeast Alaska and how best to deal with possible changes to the many resources on the Tongass. There is a risk that climate change may result in increased blowdown, increased tree mortality from insects and disease, increased fire frequency and severity, adverse effects on air quality, changes to vegetation, streams, fish and wildlife habitat, and subsistence and recreational uses of the National Forest. However, there is considerable uncertainty concerning specific predictions of how the climate may change, and even more uncertainty regarding the effects of climate change on the resources of the Tongass National Forest.

Consequently, it is important for the Tongass to stay abreast of the evolving scientific information related to the effects of climate change. However, the state of current knowledge and the uncertainty about specific effects of climate change leads me to conclude that the best course of action today is continued management of the Tongass for resiliency in the face of uncertain but anticipated change. This will be done primarily by management of the Tongass as a mostly intact ecosystem with a robust monitoring plan that will allow for adaptive management intervention if and when effects of climate change are more certain.

The same is true regarding effects on climate change of the alternatives analyzed in the Final EIS. For example, as described in the Climate and Air section of Chapter 3, the science regarding the effects of timber harvest on carbon sequestration is uncertain. Some studies suggest that timber harvest may increase the release of carbon to the atmosphere, which would tend to increase greenhouse gasses and global warming. Others indicate that timber harvest may increase the amount of carbon sequestered from the atmosphere. In either case, the effects are likely to be small, especially compared to other routine human activities. Accordingly, information on climate change is not essential to a reasoned choice among the alternatives displayed in the Final EIS.

For these reasons, the issue of climate change has played a limited, but important role in this decision in the context of monitoring. The Forest Service will continue to monitor potential effects of climate change through existing monitoring programs and through the Monitoring and Evaluation Plan. Existing monitoring programs include our Regional forest health program that monitors forest health changes related to insects, disease, pathogens and windthrow across Region 10, and the long-term forest inventory system. In addition, the Forest Plan's monitoring and evaluation provisions have been updated to address the effects of all change, including climate change I believe these efforts will detect any significant effects of climate change on the Tongass. If such changes are detected, they will be addressed through existing planning procedures to determine whether changes in management of the Forest are warranted.

Ecosystem Services

Ecosystem services are those services and benefits provided by healthy ecosystems. They can be broadly defined to include consumptive uses, such as logging, fishing, and hunting, as well as other benefits associated with forests such as watershed services, soil stabilization and erosion control, improved air quality, climate regulation, carbon sequestration, and biological diversity. Ecosystem services are a topic of growing interest within the Forest Service, its partners and stakeholder groups.

Some members of the public have expressed concerns that ecosystem service values are not adequately considered in decision-making processes because they are not valued on a par with goods and services that are traded in commercial markets. The Final EIS discusses different attempts to measure the value of ecosystem services. While ecosystem services values on the Tongass are undoubtedly high, there is uncertainty about the accuracy of these estimates. It is also difficult to determine how the alternatives differ in the level of ecosystem services provided. The fact that the Final EIS does not assign a monetary value to ecosystem services does not lessen their importance in the decision-making process. In fact, a large proportion of the Final EIS is devoted to assessing impacts to the forest resources that cannot be readily expressed in monetary terms. This decision takes these values into consideration. As previously mentioned, the undeveloped nature of the Tongass National Forest, and the ecosystem services provided by the Forest, will be adequately protected by the Forest Plan. Even if timber harvest and road construction were conducted at maximum allowable levels under the Forest Plan for 100 years, at least 80 percent of the Tongass would still be in a roadless, undeveloped condition.

This Forest Plan Amendment also supports ongoing initiatives in Southeast Alaska to develop ecosystem services markets such as the Fuels for Schools program, thinning of young growth for wildlife habitat improvement, and implementation of practices and technologies to reduce the carbon 'footprint' of Forest Service operations.

Transportation and Utility System Corridors

The Transportation and Utility System (TUS) LUD was originally developed as part of the 1997 Plan to:

- Acknowledge the potential need for major highways or utility systems connecting communities in Southeast Alaska with each other, and connecting the region to the continental highway system and power grid.
- Identify likely locations for such connections.
- Facilitate construction of them.

The Forest Plan does not, however, approve any of these projects. As with any other proposed site-specific activity, construction of a TUS requires further project-level NEPA analysis and decision-making. During that process, all reasonable alternative routes must be considered, even those that may not be foreseeable at the programmatic, Forest Plan stage. Consequently, the objectives of the TUS LUD can be met without trying to identify on the LUD map every reasonable alternative route for every potential highway or utility system.

During the development of the EIS for the 2008 Forest Plan Amendment, State agencies and members of the public expressed concerns that not all potential TUS corridors were on the Forest Plan LUD map. Specifically, the Alaska Department of Transportation and Public Facilities (ADOT&PF) advised that several potential TUS routes identified in the Department's Southeast Alaska Transportation Plan were not included in the Draft EIS map. In response to these concerns, the Forest Service added a potential utility route for the community of Pelican to the LUD map in the Final EIS, and made other minor changes. In addition, the Plan's management direction for the TUS LUD has been clarified to improve its implementation, and to note that not all reasonable alternative routes for all potential TUS connections are—or can be--identified on the map. The Forest Service also will retain the information provided by ADOT&PF regarding alternative TUS routes in the planning record, to ensure this information will be available for any future land management decisions.

Cooperation with the State of Alaska

The Forest Service and the State of Alaska signed a Memorandum of Understanding (MOU) (January 28, 2006) to include the State as a cooperating agency in the development of the 2008 Forest Plan Amendment. Under this MOU, the State has participated extensively throughout the planning process for the 2008 Forest Plan. This cooperative effort has been essential in clarifying and resolving many land management issues. Future cooperation is addressed under the implementation section of this ROD.

Public Input

As explained in Chapter 1 of the Final EIS, the 2008 Tongass Forest Plan Amendment is based in part on public input gathered over the course of many years during previous planning efforts, including the development of the 1997 Forest Plan, the 2003 Supplemental EIS, the National Roadless Rule and project-level NEPA analyses. Additional public input for the 2008 Amendment to the Tongass Forest Plan began in January 2006 when the Forest created a website specific to the amendment (*www.tongass-fpadjust.net*) and requested input on the amendment process. The Notice of Intent to prepare the EIS continued the process of gathering public input when it was published in the *Federal Register* in March 2006. Appendix A of the Final EIS summarizes the public input process that led to the development of the significant issues.

The Draft EIS was released for public comment in January, 2007. Twenty-five public meetings were held. These meetings included 23 meetings in communities located throughout Southeast Alaska, a meeting in Anchorage, and an electronic public meeting held on the internet. These meetings included both an open house and a hearing. A total of 204 people provided formal testimony at these hearings.

The 90-day public comment period was scheduled to end in mid-April but was extended an additional 18 days because of bad weather in Southeast Alaska and to give people more time to comment on the changes made to small old-growth reserves. Approximately 84,500 comments were received during the 108-day public comment period. Approximately 98 percent of the responses were form letters. Comments were received from all 50 states and 89 other countries. This reflects the importance of the Tongass at the national and international level.

All comments were carefully reviewed, coded, and consolidated into logical comment summaries. Responses were developed to each comment summary and revisions made to the analysis or Forest Plan as appropriate. These comment summaries and responses can be found in Appendix H of the Final EIS.

Review of the public comments resulted in Alternative 1 being modified between the Draft and Final EIS, with all roadless areas and other high interest areas, such as Kuiu Island, being removed from the suitable timber land base. The results of the public involvement and comment process led to a number of other improvements, clarifications and updates between the Draft and Final EIS.

Tribal governments and Alaska Native corporations were also consulted throughout the planning process. They participated in the hearings described above and their comments are included in the summaries developed for Appendix H.

There have been numerous collaborative meetings and discussions held between groups with an interest in the Tongass. The Tongass Futures Roundtable, a group of 35 diverse stakeholders, organized many of these discussions with the intent of finding common ground on Tongass issues. These discussions continue and I am encouraged by the willingness of participants to work towards solutions that will benefit all of Southeast Alaska.

Finally, during the course of the development of the 2008 Forest Plan Amendment, the Forest Service has had thousands of informal contacts with people interested in the Amendment. The Forest Service approach has been thoroughly open and transparent. I am proud of the extent to which the Forest Service has involved the public in this process.

The Use of Science in the Planning Process

This Forest Plan Amendment builds upon the work previously done to revise and amend the Forest Plan. The management direction in the 1997 Tongass Forest Plan was the result of significant collaborative efforts throughout Southeast Alaska, the State, and across the nation. The 1997 Plan was developed collaboratively with other Federal and State natural resource management agencies, including the National Marine Fisheries Service, the Alaska Department of Fish and Game, the U.S. Fish and Wildlife Service, the Environmental Protection Agency, and the Forest Service Pacific Northwest Research Station. Representatives of the last three agencies were full members of the 1997 Tongass Forest Plan Revision interdisciplinary planning team. The process for developing the 1997 Forest Plan included peer reviews of the conservation strategy and review by panels of wildlife experts to ensure the Plan would be scientifically credible and resource sustainable.

The conservation strategy was the subject of a technical interagency workshop held in April 2006, which was designed to review and evaluate the conservation strategy in light of new science developed since the 1997 Plan. The workshop brought together scientists from a variety of organizations, including the Forest Service, the State of Alaska, other agencies, universities, and others, along with Tongass land managers, to report on and discuss current research relative to the conservation strategy, as well as experiences over the past 10 years relative to its implementation. The new science discussed at the workshop was fully considered throughout the planning process and in the modifications to the Plan.

The development of the EIS and the amended Forest Plan has been based on consideration of the best available science throughout the planning process. This has occurred by comprehensively reviewing available scientific research and other information relevant to the resource areas addressed. In addition, the specific modeling and analysis methods used were documented in Appendix B of the Final EIS or within other appendices or individual resource sections. Scientific sources relied on were cited, responsible opposing views were discussed, incomplete and unavailable information was acknowledged, and scientific uncertainty and risk was addressed in relevant portions of the Final EIS.

The amended Forest Plan provides for the sustainability of the resources of the Tongass National Forest, while directing the coordination and management of multiple uses of national forest land resources in cooperation with the State of Alaska, such as outdoor recreation, timber, mining, wildlife, fish, watershed, and wilderness. Recognizing that conditions on the Tongass National Forest do not remain static, that new information is constantly surfacing, and that considerable scientific uncertainty is associated with many conclusions regarding resource effects, the amended Forest Plan embraces an adaptive management approach. The Timber Sale Adaptive Management Strategy is a good example of this approach.

The Tongass National Forest worked closely with the Pacific Northwest Research Station to ensure consideration of the best available science throughout the process of amending the Tongass Forest Plan. The Station provided various science products to the Tongass Planning Team. Station

scientists conducted four advisory science consultations on the topics of timber demand analysis, ecosystem services, and the use of deer models. Several Station scientists participated in the 2006 conservation strategy review workshop to examine new science information relating to the conservation strategy, and to identify additional information needs for the Tongass Plan Amendment. The Station produced a revised timber demand analysis which was published in July of 2006 (Brackley et al 2006). The Tongass Planning Team utilized the information from the new report, science consultations and the conservation strategy workshop in developing the Draft EIS.

Following the release of the Draft EIS, the Pacific Northwest Research Station conducted six science reviews to determine if relevant science information was considered and reasonably interpreted with consequences, uncertainties and risks appropriately identified. Informal science reviews were conducted on timber demand analysis, vegetation mapping, young-growth management, carbon sequestration and climate change, and ecosystem services. A more formal review was conducted on the elements of the conservation strategy dealing with the Queen Charlotte goshawk, American marten, Sitka black-tail deer, northern flying squirrel and endemic mammals. Station scientists were asked by the Alaska Forest Association (AFA) to describe more fully the timber demand study. In response, the scientists met with AFA and held a workshop to explain their methodology. As additional follow up, Station scientists also crafted the addendum to the Brackley et al. study of timber demand to provide additional details and clarification.

The Pacific Northwest Research Station provided input to Appendix D of the Final EIS, which deals with the science background, description of changes, assumptions and rationale for the old-growth conservation strategy, wildlife standards and guidelines, and wildlife viability components of the Forest Plan. The Station also provided input to Appendix G of the Final EIS, which describes how the Station's market demand projections are used in timber sale planning. The Tongass Planning Team considered all the information from the science reviews, the timber demand addendum, and comments on Appendix D in compiling the Final EIS and ROD. A reconciliation table was developed to document how the science review input was considered in development of the Final EIS. The planners also met directly with Station representatives in July of 2007 to discuss the reconciliation of comments and seek additional feedback. The administrative record includes all science advisory consultation and science review comments provided by the Station, as well as the reconciliation demonstrating how the comments and information were used to inform the Final EIS and ROD.

Based on the level of rigor employed in reviewing available science and in incorporating and documenting this information throughout the planning process, in addition to the involvement of the Pacific Northwest Research Station at every step of the planning process, I am confident that the Final EIS and this ROD thoroughly consider and use the best available science.

Potential Land Adjustments

Appendix C of the Final EIS has been updated regarding new developments relating to potential land adjustments that could affect the implementation of the Forest Plan. Conceptual proposals from the Trust Land Office, representing the Alaska Mental Health Trust Authority, and Shee Atika Corporation are discussed in Appendix C. Additionally, proposed legislation introduced since the Draft EIS was published warrants some discussion here.

Two bills have been introduced in the U.S. House of Representatives that may affect lands within the Tongass National Forest, H.R. 3350, the Alaska Native Veterans Land Allotment Act and H.R. 3560, the Southeast Alaska Native Land Entitlement Finalization Act. Although a hearing was held by the House Natural Resources Committee in November, 2007 regarding these proposed bills, at this time no additional hearings or committee assignments have been identified and it is not clear whether these proposals will move further through the legislative process. Based on their current status, addressing the effects of these proposals relative to this Forest Plan decision is premature given the speculative nature of the prospects for legislative enactment. If at a later date one or both of these proposals become law, an analysis of the effects will be necessary to determine if a revision or amendment of the Forest Plan is warranted.

Land adjustments have been and will continue to be important considerations as the new Forest Plan is implemented. To continue to meet the conservation strategy and timber management goals and objectives of this Forest Plan decision, major discretionary land adjustment proposals will be considered if the proposed exchange of lands maintains the conservation strategy, ensures public access for subsistence uses, and at least a portion of the timber volume from the lands conveyed from the Tongass National Forest contributes to the timber manufacturing industry in Southeast Alaska.

National Policy Considerations

The Forest Plan reflects several aspects of national policy. Among the most important of these is the Forest Service Strategic Plan, developed under the Government Performance and Results Act of 1993.

In July 2007, the Forest Service completed a Strategic Plan for Fiscal Years 2007-2012, which provides direction to guide the entire agency in delivering its mission. Forest Service programs and budgets are aligned with the goals and objectives in this Strategic Plan which supplements the USDA Strategic Plan for Fiscal Years 2005-2010. Managing the Nation's forests and grasslands requires the complex integration of several levels of planning and cooperation with State and local planning efforts. These levels are defined below.

- *Strategic planning* takes place at the highest level and identifies strategic priorities for the agency that are implemented over a period of time through annual agency budgets. The strategic priorities are based on national assessments of natural resources and are responsive to social and political trends.
- *Business planning* by national programs, regions, research stations, and the Northeastern Area translates the broad strategic direction into the regionally specific work that contributes to the agency's mission.
- *Unit planning* (e.g., land and resource management plans for national forests and grasslands) provides an inventory of resources and their present conditions on a particular management unit. This inventory, coupled with the desired future condition for the resources, is the basis for annual work planning and budgeting.
- *Annual work planning* identifies the projects that all units propose for funding within a fiscal year. This level of planning involves the final application of strategic direction into a unit's annual budget to move its resources toward its desired future condition.

In addition, monitoring is essential to track resource conditions and human activities over time to effectively manage the Nation's forests and grasslands.

This amendment to the Tongass Forest Plan fulfills the unit planning level described above, and implementation will occur through the annual work planning level. In addition, the monitoring plan has been refined as the essential quality control mechanism that facilitates learning from Plan implementation.

I find the amended Tongass Forest Plan to be not only consistent, but strongly supportive of the goals in the agency-wide Forest Service Strategic Plan, as follows:

1. This decision continues to provide a balance between land stewardship services and meeting public demands for various uses of the Tongass National Forest. The updates and refinements in the Forest Plan multiple-use goals and objectives and management prescriptions include direction for rare plants, sacred sites, invasive species, and young growth management that will continue to restore, sustain and enhance the Forest's ecosystems and related services.
2. By keeping the ASQ at a level able to meet the possible future demands of an integrated industry, the amended Forest Plan helps maintain or create processing capacity and infrastructure in local communities. With the Timber Sale Program Adaptive Management

Strategy, I am confident that higher value roadless areas will remain intact unless timber harvest levels increase beyond 150 MMBF long enough to implement Phase 3 of the Strategy.

3. While open space is not the same issue in Southeast Alaska as it is in other parts of the country, partnerships with the State, Tribes, Native Corporations, and local communities will continue to contribute to responsible land management across all lands.
4. Continued use of the recreation opportunity spectrum to help identify and quantify different types of recreation settings on the Tongass National Forest will assure a mix of the highest quality outdoor opportunities and experiences. The sense of vastness, wildness and solitude will remain, with over three-quarters of the Tongass in natural or undeveloped LUDs, and opportunities for other users' desires to have developed and easy access will remain or may be increased in the moderate and intensive development LUDs.
5. Maintaining basic management capabilities relates to daily operations and accountability on the Forest, including continuing to cooperate with other Federal, State, Tribes, Native Corporations, local governments and private-sector partners. The objectives in the amended Forest Plan continue to emphasize opportunities for rural community and technical assistance.
6. While engaging Urban America may not seem directly applicable to Southeast Alaska, the Tongass leadership will continue to engage partners and educators in development and use of conservation education materials during implementation of the Forest Plan. One of the recreation and tourism objectives continues to emphasize projects that facilitate community use or community connections, and another forest plan standard and guideline is to identify opportunities and priorities for interpretation of heritage resources for public education and recreation. Direction in the amended Forest Plan continues to encourage traditional American values such as conservation ethic, appreciation of nature, national and community pride, and national and community well-being, including the stability of lifestyle and character.
7. To provide science-based applications, the amended Forest Plan continues the goal to seek out and promote research opportunities consistent with identified information needs described in Appendix B. Objectives for the nonwilderness national monument LUD continue to be to inventory, research, protect and interpret National Monument resources and make resource and research information about National Monuments available to other forest units where it may be beneficial.

Means to Avoid Environmental Harm

Mitigation Measures Adopted

Extensive measures to avoid or minimize environmental harm were adopted in the 1997 Forest Plan. Based on 10 years of experience in implementing and monitoring these measures, many of them have been updated in the 2008 Forest Plan Amendment, as previously discussed. These measures include forest-wide standards and guidelines, and additional standards and guidelines for each land use designation. At a minimum, these standards and guidelines meet all requirements of applicable laws, regulations, and State standards. Mitigation measures are an integral part of the standards and guidelines. Singularly and collectively, they avoid, rectify, reduce, or eliminate potential adverse environmental impacts of forest management activities. Some more significant mitigation measures are the beach fringe and riparian buffer zones, and the network of old-growth reserves. Based on the analysis in the Final EIS, including the response to comments contained in Appendix H, I conclude that all practicable means to avoid or minimize environmental harm from the amended Forest Plan have been adopted.

Mitigation Measures Not Adopted

The State of Alaska recommended changes to a standard regarding protection of important brown bear foraging sites adjacent to salmon streams. Since 1997, this standard has required project-level

planning teams to consult with the State to determine where such foraging sites exist, and where buffers of approximately 500 feet from the stream should be adopted, within which no timber harvest is allowed. The State recommended this be modified to mandate buffers of at least 500 feet on all anadromous streams. This change has not been adopted because brown bear populations are healthy, the analysis contained in the Final EIS indicates they will remain so, and monitoring information suggests the current standard is adequate. In addition, other standards and guidelines offer protection related to brown bear foraging sites. For example, the beach and estuary fringe standard and guideline requires no-harvest buffers 1,000 feet inland from beach vegetation. When applied on the ground, other existing standards often result in stream buffers of 500 feet in the lower reaches of salmon streams. For these reasons, I conclude that protection of brown bear foraging sites can continue to be ensured at the project level without additional requirements being added to the Forest Plan.

The U.S. Fish and Wildlife Service recommended that goshawk nest buffers be increased from 100 acres to 500 acres of productive old-growth habitat to protect active and alternate nest sites and post-fledging habitat from timber harvest. This measure was not adopted because the Service's recent decision not to list the goshawk as a threatened or endangered species under the Endangered Species Act suggests that such action is not essential, and because the analysis contained in the Final EIS indicates that nest buffers, in addition to the other protective measures included in the Forest Plan, will provide adequate habitat for nesting and fledgling goshawks.

Additional details on proposed changes to the Forest Plan, and the reasons why such proposals were not adopted, are contained in Appendix H of the Final EIS.

Monitoring and Evaluation

The Forest Plan includes a monitoring and evaluation plan to continually assess the effectiveness of the Forest Plan standards and guidelines. Monitoring results will be used to evaluate the assumptions used in developing the Forest Plan, and may be the basis for amendments or revisions, just as the information from the monitoring conducted since 1997 helped form the basis for this Amendment. The Forest Plan may be amended at any time if changes to the standards and guidelines are needed. Monitoring will also ensure that both forest-wide and land use designation standards and guidelines are being correctly applied. The monitoring program will include monitoring of timber harvest levels under the Timber Program Adaptive Management Strategy to determine if and when the timber program can move from one phase of the Strategy to another.[21]

In addition to the Forest Service, nearly all other State and Federal natural resource agencies, the academic community, and numerous organizations and individuals want to know more about the social, economic and ecological uses and values, including ecosystem services values, of the Tongass National Forest and the environment in which it is located. I believe there are many opportunities to better align and coordinate the interests, resources, and efforts of these groups in monitoring and evaluating the implementation of the Forest Plan. As previously mentioned, details of the monitoring program such as data gathering protocols will continue to be developed in consultation with all interested State and Federal agencies.

Findings Related to Other Requirements

The Forest Service manages the Tongass National Forest in conformance with many Federal laws and regulations. In this section we consider each of the major laws involved in this programmatic-level decision.

[21] All scheduled timber harvest in a fiscal year will count toward the level needed to move the timber sale program to a higher phase.

National Environmental Policy Act

NEPA requires that Federal agencies prepare detailed statements on proposed actions that significantly affect the quality of the human environment. NEPA's requirement is designed to serve two major functions:

- To provide decision-makers with a detailed accounting of the likely environmental effects of proposed actions prior to adoption.
- To inform the public of, and allow comment on, such efforts.

The Forest Service has developed, gathered, and reviewed an enormous amount of information regarding the potential effects of each of the alternatives considered in the Final EIS. This information expands and refines the data, analyses, and public input described in the NEPA documents associated with the 1997 Forest Plan, including the 1989 Analysis of the Management Situation (which has been updated as part of the 2008 Forest Plan Amendment and is contained in the planning record); the draft, supplemental, and final EISs leading to the 1997 ROD; documents associated with the 2003 Supplemental EIS; and the Draft and Final EISs for the 2008 Tongass Forest Plan Amendment. My decision also considers the vast array of public input, including public meetings, comments from the internet website, and comments received during the 108-day comment period on the Draft EIS.

All substantive comments, written and oral, made on the 2007 Draft EIS have been summarized and responded to in Appendix H of the Final EIS. During the course of this effort, this public involvement has lead to substantial changes in the analysis and the alternatives.

I find the environmental analysis and public involvement process the Final EIS is based on complies with each of the major elements of the requirements set forth by the CEQ regulations for implementing NEPA (40 CFR 1500-1508). My conclusion is supported by the following findings.

First, the Final EIS considered a broad range of reasonable alternatives. The seven alternatives considered in detail in the Final EIS represent only part of the total number of alternatives considered over the course of the analysis. As described above in the "Alternatives Considered" section, 39 alternatives from previous EISs were considered before selecting the seven analyzed in detail in the Draft and Final EIS. These seven alternatives presented in the Final EIS encompass a broad range of response to issues, including a timber suitable land base ranging from 0.3 to 1.2 million acres and an average annual first-decade ASQ from 49 to 421 MMBF.

Second, the Final EIS reflects consideration of cumulative effects of the alternatives by evaluating past, present, and reasonably foreseeable future actions in the planning area including Federal, State, Tribal and private lands. The environmental effects analysis estimates the potential effects of timber activities and timber-associated activities, such as road construction, for 100 years. The analysis of effects to wildlife was based on the assumption that these activities would take place at their maximum allowable levels each year for 100 years, an extremely conservative assumption. This analysis considers changes to vegetation both temporally and spatially (Final EIS Appendix D). Moreover, although non-federal lands are outside the scope of this decision, effects from their management have been thoroughly considered in the Final EIS.

Third, the Final EIS makes use of the best available information. The geographic information system database, constructed during the development of the 1997 Forest Plan, has been thoroughly updated, and was used to evaluate complex spatial effects resulting from implementation of the alternatives, such as maintenance of connectivity corridors for wildlife and how visual condition could change over time. The best available science was used to help estimate environmental consequences, as evidenced from the extensive reference section of the Final EIS (Chapter 6), the multiple appendices that document methods or other technical information, and the involvement of other organizations as described in the section of this ROD dealing with the use of science in the planning process. Uncertainties connected with environmental impacts and market demand have been acknowledged and addressed through the Timber Sale Program Adaptive Management

Strategy. A linear optimization model was used to estimate the long-term flow of timber from the planning area. All of these tools, taken together, constitute use of the best available information.

The decision here does not authorize timber sales or any other specific activity on the Tongass National Forest. Site-specific decisions will be made on projects in compliance with NEPA, the Endangered Species Act, and other environmental laws following applicable public involvement and appeal procedures.

National Forest Management Act

The National Forest Management Act and implementing regulations specify a number of requirements that guide Forest Service planning. The Forest Plan complies with each of these management requirements, as explained in this ROD and accompanying Final EIS and appendices. Certain requirements that received heightened public attention are discussed in further detail below and in other sections of this ROD.

Diversity and Viability Provisions for Fish and Wildlife

As described in detail in the section of this ROD on protecting wildlife habitat and biodiversity, after considering the statute, regulation, case law, and examination of the record, I find that this decision satisfies the requirements of the law because it will provide an amount and distribution of habitat adequate to maintain viable populations of vertebrate species in the planning area and will maintain the diversity of plant and animal communities. I base my determination on the evidence in the planning record, as summarized in the above section of this ROD.

Sensitive Species

A Forest Plan-level Biological Evaluation was completed for the 24 species/subspecies (4 wildlife, 2 fish and 17 plant species/subspecies) currently listed in the Alaska Region's sensitive species list that are known or are suspected to occur on the Tongass National Forest. For some species, individuals or their habitats may be impacted by the selected alternative, but the impacts are not expected to contribute to a trend toward Federal listing or cause a loss of viability to the population or species.

Endangered Species Act

There are no terrestrial species on the Tongass National Forest that are listed as threatened or endangered under the Endangered Species Act. Threatened and endangered species that may be affected by future projects, as discussed in the updated Biological Assessment, are limited to marine species (mammals and fish). Consultation requirements for these species under Section 7 of the Act were met with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service.

Magnuson-Stevens Fishery Conservation and Management Act

Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act states that all Federal agencies must consult the National Marine Fisheries Service for actions or proposed actions that may adversely affect essential fish habitat. The Act promotes the protection of essential fish habitat through project review, assessment, and mitigation of activities that may adversely affect these habitats. The Forest Plan itself, including this amendment, does not authorize any specific project or actions and therefore does not affect essential fish habitat. Future project activities designed to implement the amended Forest Plan that may adversely affect essential fish habitat will go through consultation per the Act. The National Marine Fisheries Service was an important contributor in the development of the 1997 Forest Plan, participated in informal consultation and

review of this amendment effort, and continues to be involved in the implementation and monitoring of projects and actions implementing the plan.

Tongass Timber Reform Act

The Tongass National Forest will continue to be managed in compliance with Section 101 of the TTRA, which states in part that the Secretary of Agriculture "…shall, to the extent consistent with providing for the multiple use and sustained yield of all renewable forest resources, seek to provide a supply of timber from the Tongass National Forest which (1) meets the annual market demand for timber from such forest and (2) meets the market demand from such forest for each planning cycle."

As discussed in detail in the section on market demand, the Forest Service has adopted an adaptive management approach to meeting these requirements. The requirement dealing with annual market demand is met through implementation of the Morse methodology, which estimates the volume of timber to be offered annually. The TTRA requirement regarding market demand for each planning cycle is met by adopting the selected alternative as described in the Final EIS and this ROD, and by a series of annual applications of the Morse methodology.

Coastal Zone Management Act

Under the Coastal Zone Management Act (CZMA), Federal agency activities that affect any land or water use or any natural resource of a State's coastal zone must be carried out in a manner that is consistent to the maximum extent practicable with the enforceable policies of that State's federally approved coastal management program. The Forest Plan does not, by itself, authorize activities such as timber harvest or road construction that may affect the coastal zone. Thus, the Forest Plan does not have coastal effects. Site-specific activities that affect the environment require further site-specific analysis and public involvement under NEPA, CZMA, and other Federal and State environmental laws and regulations.

This finding of no coastal effects is consistent with the Memorandum of Understanding between the Forest Service and the State of Alaska concerning CZMA consistency reviews, which does not list forest plans as one of the activities expected to affect the coastal zone. The State of Alaska has never conducted a consistency review of a forest plan or a forest plan amendment or revision.

During the NEPA process for site-specific activities, the Forest Service will continue to determine whether the subject project has coastal effects, and whether an individual CZMA consistency review is required. Under the General Consistency Determination for Tongass Timber Sales, approved by the State of Alaska in December 2006, most timber sales conducted on the Tongass National Forest have been determined to meet or exceed the standards of the Alaska Forest Resources and Protection Act. Accordingly, most timber sales have been determined to be consistent to the maximum extent practicable with the enforceable policies of the Alaska Coastal Management Program, and do not require individual consistency review. Only those timber sales that require a State or Federal license or permit under a provision of law other than the Alaska Forest Resources and Protection Act require individual review under the CZMA for consistency with the Alaska Coastal Management Program.

Alaska National Interest Lands Conservation Act

The Alaska National Interest Lands Conservation Act (ANILCA), as amended, contains numerous provisions, including provisions regarding access, that apply to management of the Tongass National Forest. However, it is not necessary to address these provisions in the context of this decision. An ANILCA Section 810 evaluation and determination is not required for approval of a Forest Plan amendment, a programmatic-level decision that is not a determination whether to "withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition" of National Forest lands. However, a forest-wide evaluation and determination is included for the Forest Plan revision to facilitate future project-level planning and decisionmaking in compliance with ANILCA Section 810 (16 U.S.C. § 3120).

Consistent with Section 810 of ANILCA, the Forest Plan has been evaluated for potential effects on subsistence uses and needs. A cumulative effects analysis of resource developments on subsistence resources is included in the Final EIS (Chapter 3, "Subsistence"). Based on this analysis, implementation of the Forest Plan may result in a significant restriction to subsistence use of deer due to the potential effects of projects on the abundance and distribution of these resources, and on competition for these resources.

Two actions included in Section 810 were completed for the Draft EIS: (1) giving notice to the appropriate State agency, local committees and regional councils; and, (2) giving notice of, and holding, "a hearing in the vicinity of the area involved." Because the area is the entire Tongass National Forest, such hearings were held in 23 communities throughout Southeast Alaska for the Draft EIS.

Also included in Section 810 is the determination that: "(a) such a significant restriction of subsistence uses is necessary, consistent with sound management principles for the utilization of the public lands, (b) the proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition, and (c) reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions." I will now discuss each of these three points.

Necessity, Consistent with Sound Management of Public Lands. The amended Forest Plan has been examined to determine whether its potential for a significant restriction of subsistence uses is necessary, consistent with the sound management of public lands, as required by the Multiple-Use Sustained Yield Act, the National Forest Management Act, the Alaska National Interest Lands Conservation Act, the Tongass Timber Reform Act, and relevant State laws. The requirements of these laws have been reviewed and several of these have been discussed in this ROD.

The Forest Plan must be designed to provide a mix of resources and uses to best meet the needs of the American people. It must be designed to maximize net public benefits, as previously discussed. Some of the resource uses necessary to achieve these benefits have the potential to adversely affect subsistence uses within the Tongass. However, given the multiple-use mandate and the other requirements of law, these effects to subsistence uses are necessary, consistent with the sound management of public lands.

Amount of Public Land Necessary to Accomplish the Proposed Action Purpose. The amount of land necessary to implement the Forest Plan is, considering sound multiple-use management of public lands and the goals and objectives of the Plan, the minimum necessary. A forest plan must involve, by law, the entire forest. The plan does not authorize by itself any land-disturbing activities. Most of the Tongass National Forest, except the icefields, is used by one or more rural communities for subsistence deer harvesting. Many of the land use designations protect high value subsistence areas.

Reasonable Steps to Minimize Adverse Impacts Upon Subsistence Uses and Resources. The continuation of subsistence opportunities, and reasonable steps to minimize effects on subsistence resources, are provided for by the forest-wide standards and guidelines for subsistence, as well as related standards and guidelines for riparian areas, fish, and wildlife. Many important subsistence areas were assigned land use designations that exclude timber harvesting. The beach and estuary fringe forest-wide standards and guidelines apply to all beach fringe and estuarine areas not under more restrictive designations. Adverse impacts to subsistence uses and resources are minimized through these measures. The potential site-specific effects on subsistence uses, and reasonable ways to minimize these effects, will be analyzed and considered during project-level planning.

It is not possible to substantially reduce timber harvest in some areas by concentrating it in other areas without affecting subsistence resources and uses important to one or more rural communities. Also, concentrating timber harvest outside more important subsistence areas while still meeting the timber harvest goals of the Forest Plan could not be done without affecting the natural distribution of wildlife species, or without potentially significant effects to watersheds.

Clean Water Act

Full implementation of the Plan and this ROD is expected to maintain and improve water quality and satisfy all State water quality requirements. I base this finding on the extensive standards and guidelines contained in the Plan, the application of State-approved "Best Management Practices" specifically designed to protect water quality, and the discussion of water quality and beneficial uses contained in Chapter 3 of the Final EIS. Examples include the beach and estuary fringe areas, riparian buffers, and road design requirements. Additionally, project level analysis for subsequent activities under the Plan will be required to demonstrate compliance with Clean Water Act and State water quality standards.

Clean Air Act

At the scale of a programmatic plan such as this, the overall level of activities proposed under this decision is not anticipated to degrade air quality or violate State implementation plans. This finding is based on information presented in the Final EIS. The only non-attainment area within the vicinity of the Tongass National Forest is Juneau. Conformity determinations and more detailed air quality impact analyses will be made at subsequent levels of planning and analysis, where emissions can be more accurately quantified and reasonably forecasted and local impacts assessed.

Floodplains and Wetlands (Executive Orders 11988 and 11990)

These Executive Orders require Federal agencies to avoid, to the extent possible, short- and long-term effects resulting from the occupancy and modification of flood plains, and the modification or destruction of wetlands. Forest-wide standards and guidelines are provided for soil and water, wetlands, and riparian areas to minimize effects to flood plains and wetlands. They incorporate the Best Management Practices of the Soil and Water Conservation Handbook. The forest-wide standards and guidelines for beach and estuary fringe apply to all estuaries where less restrictive management might otherwise occur.

Environmental Justice (Executive Order 12898)

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires each federal agency to make the achievement of environmental justice part of its mission by identifying and addressing disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations. The Order further stipulates that the agencies conduct their programs and activities in a manner that does not have the effect of excluding persons from participating in, denying persons the benefits of, or subjecting persons to discrimination under such programs, policies, and activities because of their race, color, or national origin.

The issue of environmental justice is analyzed within Chapter 3, Social and Economic Overview, of the Final EIS. The community assessment section indicates the per capita incomes (2000 Census), the population (2001, Alaska Department of Labor), the percent of Natives within the population (2000 Census), and recent trend and economic events for 32 Southeast Alaska communities. The analyses also includes discussions of potential timber harvesting within each community's use area, the potential impacts to the subsistence resources and land base used by each community, as well as potential impacts relative to recreation and tourism relative to each community.

The results of the analyses are very similar to those found in the 1997 Forest Plan Final EIS and the 2003 Forest Plan Final Supplemental EIS. I have concluded the amended Forest Plan results in a very low risk of disproportionate effects on minority or low-income populations in Southeast Alaska.

Civil Rights

Civil Rights are defined as "the legal rights of United States citizens to guaranteed equal protection under the law" (USDA Forest Service Manual 1730). Civil rights impact analysis for environmental or natural resource actions is part of the social impact analysis package in a necessary environmental impact statement and is not a separate report (USDA Forest Service Handbook 1709.11).

The Forest Service is committed to equal treatment of all individuals and social groups in its management programs in providing services, opportunities and jobs. Because no actual or projected violation of legal rights to equal protection under the law is foreseen under the Forest Plan for any individual or category of people, no civil rights impacts are reported in the Final EIS.

Implementation

Plan Effective Date

There are two different regulatory provisions governing the effective date for the amended Forest Plan. The NFMA planning regulations state that "[T]he approved plan shall not become effective until at least 30 days after publication of the notice of availability of the final environmental impact statement in the Federal Register…." (36 CFR § 219.10(c)(1).) The applicable appeal regulation states that "[I]mplementation of any decision subject to appeal pursuant to this part shall not occur for 7 calendar days following publication of the legal notice of the decision as required in this part." (36 CFR § 217.10(a).)

Therefore, the approved Tongass National Forest Land and Resource Management Plan Amendment is effective 30 days after the Notice of Availability of the Final EIS is published in the *Federal Register*, or 7 calendar days following publication of the legal notice of this decision in the Juneau Empire and the Anchorage Daily News, whichever is later.

Effective Direction

During the long and complex history of forest planning on the Tongass, many planning documents (forest plans, environmental impact statements, and records of decision) have been prepared. While all of these documents are useful and often build upon each other, it can be confusing to the public and to Forest Service employees searching for management direction or information to use in project level analysis. The planning record for the 2008 Tongass Forest Plan Amendment includes a summary of the current status of each of these documents.

In terms of management direction, this 2008 Record of Decision and the amended Forest Plan supersede all past forest plans and records of decision for the Tongass National Forest.

Continuing the Partnership with the State of Alaska

As described in a previous section of this ROD, the State of Alaska has participated as a cooperating agency in all phases of the planning process for this Forest Plan Amendment, under an MOU signed in 2006. The Forest Service and the State find it desirable to continue this relationship to promote effective and coordinated implementation of the Plan. Accordingly, as directed in the section of this ROD describing the decision, the Forest Supervisor will develop a comprehensive cost-sharing agreement with the State of Alaska regarding implementation of the 2008 Forest Plan within six months of the effective date of the Plan. I expect the agreement to outline the relationship between the Tongass National Forest and the State of Alaska regarding implementation of the Forest Plan, monitoring and evaluation, and making changes in response to new information from monitoring or other sources within an adaptive management framework. The cost-sharing agreement should also outline the roles and responsibilities of the Forest Service and the State throughout this process.

Timber Sale Program Adaptive Management Strategy

The Timber Sale Program Adaptive Management Strategy restricts timber sales and associated road construction to a specified portion, or phase, of the ASQ land base until actual timber harvest indicates the need for a larger land base. Land management activities unrelated to timber sales are not affected by the Strategy. The map of land included in each phase of the Strategy is included on the compact disc of the Final EIS and is also available on the internet at *www.fs.fed.us/r10/tongass/*.

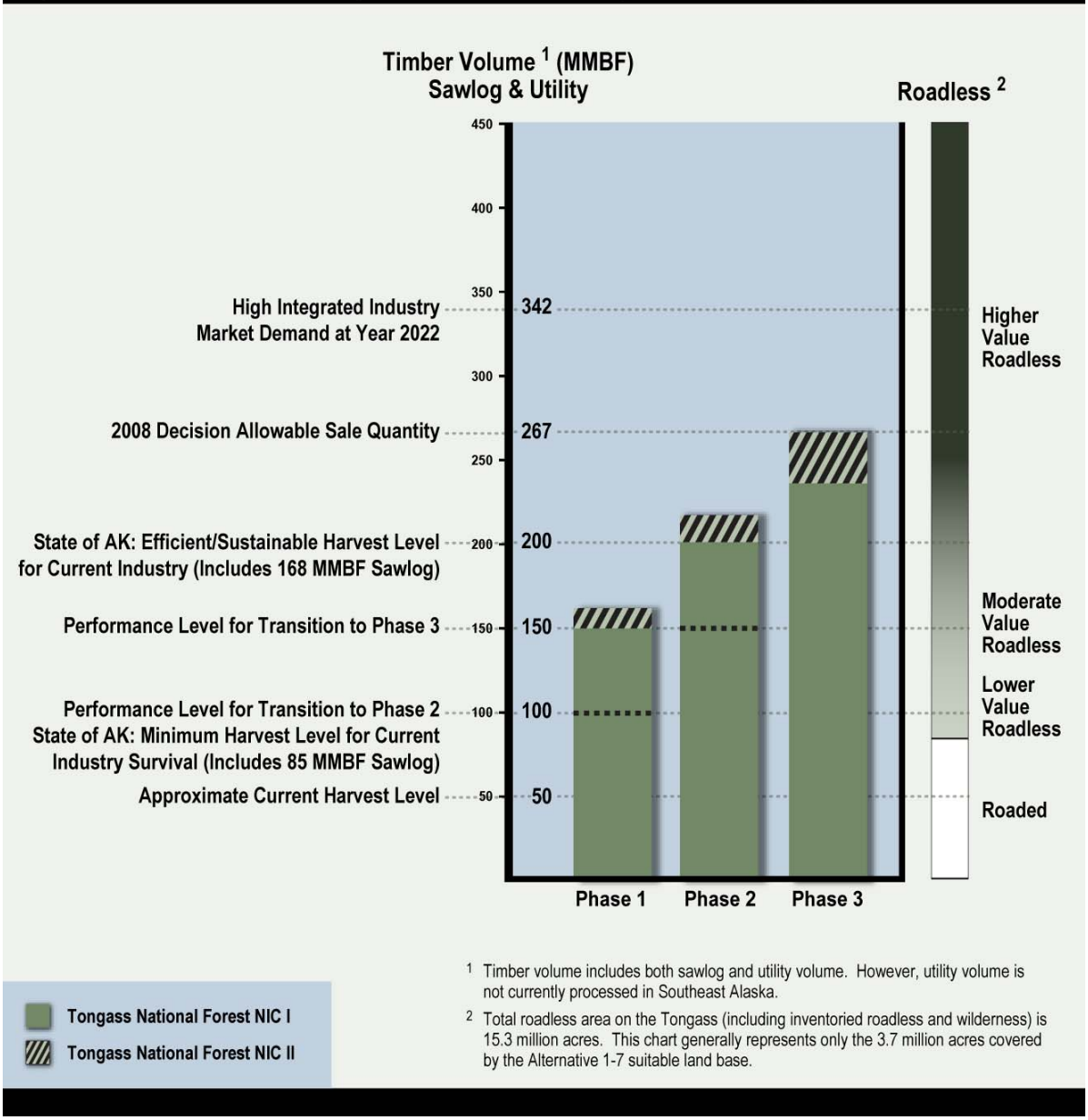
The Strategy is an extra step the Forest Service is taking to respond to recommendations from many parties that we avoid timber harvest and road construction in areas of the Tongass that are perceived as being more environmentally sensitive unless demand materializes to warrant such activity in those areas. The Strategy is based on three critical factors:

1. The long-term demand for timber from the Tongass is inherently very uncertain, and is influenced by the ability of all interested parties to work together to stabilize the timber supply.
2. The annual average ASQ of 267 MMBF is considerably higher than the current level of timber harvest on the Tongass.
3. The land base associated with the ASQ includes roadless areas, many of which are highly valued by substantial portions of the public.

As noted earlier, and as depicted in Figure 1, the VCUs in the Alternative 6 suitable land base have been evaluated according to each VCU's roadless values. The land base includes Roaded, Lower Value, Moderate Value, and Higher Value Roadless components. The Roadless column on the right side of the figure can be compared with the corresponding volume numbers on the left. The volume numbers reflect the estimated sustainable level of timber harvest associated with that portion of the land base. In general, a sustained harvest level of 100 MMBF would require the Roaded and much of the Lower Value Roadless portion of the land base; a level of 150 MMBF would require Roaded, Lower Value Roadless and some Moderate Value Roadless portions; a harvest level of 200 MMBF would require most of the remaining Moderate Value Roadless portions. Any harvest level over 200 MMBF would require entry into some of the Higher Value Roadless portions of the suitable land base.

Figure 1 also displays information received from the State of Alaska regarding the threshold levels of economically feasible Tongass timber sale volume that the State and the Forest Service believe are necessary over the short, medium, and long term. The State estimates that the currently operating sawmills need at least 83.5 MMBF of economically feasible sawtimber to remain in operation over the next one to two years. Over the longer term, an annual offer level of 167.5 MMBF of economic sawtimber from the Tongass would allow existing mills to operate efficiently, meaning two shifts per day, which would substantially increase their ability to compete in world markets. This level would also provide 30 MMBF annually for the veneer plant in Ketchikan to process low grade sawlogs. The majority of this volume would be derived from NIC I lands, which are more economically feasible because the timber can be harvested from them using conventional logging systems. Some volume from intermixed NIC II lands would also be included. When the utility volume is included, for which no processing facilities currently exist in Southeast Alaska, the total annual offer level needed from the Tongass to sustain the existing sawmills and veneer mill operating at efficient levels would be approximately 200 MMBF. The Strategy includes three phases:

Figure 1. Timber Sale Program Adaptive Management Strategy



Phase 1 – Phase 1 includes most of the roaded portion of the ASQ land base, along with most of the lower value inventoried roadless areas. The Phase 1 portion of the land base could sustain a level of timber harvest of about 150 MMBF. The scheduled timber sale program will generally be confined to this land base until such time as the level of timber harvest reaches at least 100 MMBF for two consecutive years. Personal use of timber, micro sales,[22] salvage sales, small commercial timber sales generally less than one MMBF, young-growth management projects, and the roads associated with these activities, would be allowed in development LUDs outside of the Phase 1 portion of the ASQ land base. Total scheduled timber harvest will be monitored each fiscal year and will count toward both ASQ and the 100 MMBF performance level. Timber harvest conducted in non-

[22] Micro sales are timber sales on Prince of Wales Island of down or dead trees totaling no more than 50 thousand board feet, to supply small niche-market timber processors.

development LUDs for purposes other than timber production (e.g., wildlife habitat improvement) will not count toward either ASQ or the Adaptive Management Strategy's performance levels.

Phase 2 – Phase 2 includes Phase 1 lands and most of the moderate value roadless areas. The Phase 2 portion of the ASQ land base could sustain a level of timber harvest of about 200 MMBF. The scheduled timber sale program will generally be confined to this land base until such time as the level of timber harvest reaches at least 150 MMBF for two consecutive years. Personal use of timber, micro sales, salvage sales, small commercial timber sales generally less than one MMBF, young-growth management projects, and the roads associated with these activities, would be allowed in development LUDs outside of the Phase 2 portion of the ASQ land base. Total scheduled timber harvest will be monitored each fiscal year and will count toward both ASQ and the 150 MMBF performance level. Timber harvest conducted in non-development LUDs for purposes other than timber production (e.g., wildlife habitat improvement) will not count toward either ASQ or the Adaptive Management Strategy's performance levels.

Phase 3 – Phase 3 includes the remaining ASQ land base.

In each phase, timber sale planning and sale preparation will be done within the corresponding portion of the land base (with the exceptions noted above for micro sales, small sales, salvage sales, and young-growth projects) until actual timber harvest performance indicates transition to the next phase is needed. The transition from one phase to the next must occur at a level lower than the maximum sustainable harvest level of the phase due to the lag time required for the timber sale planning process to be completed. This will allow flexibility for the Forest Service to complete the NEPA process and prepare a volume of timber ready to be offered for sale (referred to as shelf volume) ahead of actually offering the timber for sale (timber sold but not harvested is referred to as volume under contract). Adequate volume must be maintained in each category to respond quickly to short-term increases in harvest levels. A portion of shelf volume will normally be offered for sale each year to maintain an adequate level of volume under contract. Essentially, shelf volume replaces volume harvested each year, and would also be available for any new processing facilities that may be built. The amounts needed in these categories are a volume under contract equal to three years of volume harvested, and shelf volume equal to an additional three to five years of volume harvested. To the degree the Forest Service is successful in maintaining these levels, the transition from one phase of the Strategy to another will be seamless. The levels of volume available will be determined by the amount of funding appropriated by Congress; the ability of the Forest Service to prepare and offer economic timber for sale; and the ability of industry to purchase, harvest, process, and sell their products.

Timber Sale Economics

Providing economic timber sales in Southeast Alaska has always been a challenge and is expected to remain so into the future. The basic lack of infrastructure in a relatively isolated and harsh environment significantly affects development and operational costs. Earlier timber sale programs included significant investments in infrastructure development to aid individual timber sales be more economic. In recent years, investments in deferred road maintenance and construction of long term system roads in timber sale project areas has helped ensure timber sales are economic. Timber sale planning and the manner in which Forest Plan standards and guidelines are applied to specific timber sales can have significant cost consequences on the sales. Since 1997, monitoring of timber sale projects and of the implementation of the Forest Plan has revealed inconsistent interpretation and application of certain Forest Plan standards and guidelines, with resulting adverse consequences on timber sale economics. Similar issues that affect timber sale economics arose during the Forest Plan 5-Year Review and the review of the Forest Plan's conservation strategy. Evaluation of this issue during preparation of the 2008 Forest Plan Amendment indicates timber sales can be designed to be economic under most market conditions if the Forest Plan standards and guidelines are consistently interpreted and applied within the intent of the Forest Plan. Forest Plan implementation training will be conducted to ensure that the Plan is implemented consistently, effectively, and efficiently. This will include training in planning timber sales to fully meet the intent of the Forest Plan and also to be as economic as possible. Implementation of the 2008 Forest Plan will

be monitored. If it is determined that the Plan unnecessarily affects the ability to produce economic timber sale projects, an amendment following similar processes as this effort will be conducted, focusing on opportunities to promote economic timber sales without compromising the Forest Plan goals and objectives. It must also be noted that investments in some infrastructure will still be necessary, especially as forest plan implementation progresses into phases 2 and 3 of the Adaptive Management Strategy.

Forest Plan Implementation Demonstration Area

During the Five-year Review of the 1997 Forest Plan, and through our consultation with the State of Alaska on this Amendment, it became evident that a more rigorous evaluation of the effectiveness of the Forest Plan could be accomplished if done at a scale wider than an individual watershed or a single project. Significant components of the Plan that warrant such evaluation include the conservation strategy (both the system of old-growth reserves and the set of standards and guidelines that apply to the development LUDs), access and travel management planning and design, young-growth management in the maturing stands, restoration of habitat in non-development LUDs, and effects of invasive species (terrestrial and aquatic).

Consequently, I direct the Tongass Forest Supervisor to explore developing a demonstration area of sufficient scale to test full implementation of the amended Forest Plan. Anticipated results of implementing the Forest Plan would be compared with actual results of such implementation. Where results differ significantly, modifications of the Forest Plan would be considered through the amendment or revision process. The ideal location for the project would be a roaded island with the following additional characteristics:

- No city or town.
- Low roadless values in portions of the island without roads.
- An adequate diversity of wildlife and fish species to monitor changes over time.
- A conservation strategy following the Forest Plan guidance.
- A wide range of previously harvested areas to provide several age classes of young-growth stands.
- Adequate access to provide for extensive monitoring and visitation of the area.

For this project to succeed, a collaborative effort would need to be developed between research, special interest groups, the State of Alaska, communities in the immediate vicinity of the project area, and other agencies interested in the results. The purpose of this collaborative effort would be to select the site and to ensure appropriate monitoring is performed to address the main questions relative to the effectiveness of the Forest Plan components.

Transition to the Amended Forest Plan

The amended Tongass Forest Plan does not provide final authorization for any activity, including timber sales, nor does it compel that any contracts or permits be advertised or awarded. Rather, like the 1997 Forest Plan, it provides a programmatic framework within which project-level decisions are considered. Projects must undergo appropriate site-specific analysis, and comply with applicable requirements for public participation, environmental analysis and disclosure, and the administrative appeal procedure before final authorization and implementation.

Exercising my discretion under NFMA, I have determined that it is not necessary to apply the amended Plan's standards and guidelines retroactively, and I find that NFMA does not require revision of any pre-existing use and occupancy authorizations. However, I have also determined that the Forest Service has the discretion, on a case-by-case basis, to modify pre-existing authorizations if they are not consistent with newly established standards, including the standards and guidelines in the amended Plan.

Because this was an amendment of the 1997 Plan, much of the management direction of the 1997 Plan is carried forward relatively unchanged into the amended Forest Plan. Therefore, many existing projects and ongoing actions that were consistent with the 1997 Plan will continue to be so with the amended Forest Plan. Many management actions decided prior to the issuance of this Record of Decision are routine and ongoing. Those decisions will generally be allowed to continue unchanged because implementing pre-existing decisions and the associated effects of that implementation were considered as part of the baseline and assumed to continue in the environmental analysis of alternatives in the Final EIS for the 2008 Forest Plan Amendment. Because we considered these earlier decisions in our effects analysis, their implementation is not in conflict with the amended Plan.

Existing timber sale contracts, in most cases, will be completed within three years. Other use and occupancy agreements may have a substantially longer life than timber contracts. These use and occupancy agreements will be reviewed to determine if or when the Forest Supervisor should exercise discretion to bring them into full compliance with the amended Forest Plan. As discussed below, recent project decisions that have not yet been implemented will be reviewed and adjusted, if necessary, in consideration of the new standards and guidelines in the amended Forest Plan.

Timber Sales

The relationship of 3 categories of timber sale projects to the amended Forest Plan is described below. Additional work on timber sale projects in Categories 2 and 3 (described below) will be done only to the degree such work is consistent with the Timber Sale Program Adaptive Management Strategy and any LUD changes included in the amended Forest Plan. If any portion of any project in Categories 2 or 3 is in a non-development LUD under the amended Forest Plan, that portion may not be implemented and no further planning work may be done unless the project is consistent with the management direction of the amended Forest Plan (e.g., it is being proposed for purposes other than timber production, such as wildlife habitat improvement).

The three categories of timber sale projects are as follows:

1. **Timber sales under contract before the effective date of this Plan.** I have decided not to modify any existing timber sale contracts. As I stated earlier, the effects analyses contained in the Final EIS assumed that these contracts would be executed according to their terms. Moreover, the environmental effects of these 36 projects have been disclosed to the public through their site-specific project-level environmental documents. Since existing timber sale contracts will generally be completed within three years, I find it reasonable to allow pre-existing standards to remain in effect for that period of time. The sales included in this category as of December 31, 2007 are listed below. Any timber sale contract signed between that date and the effective date of the amended Forest Plan will also be included in Category 1.

Timber Sales in Category 1--Under Contract--as of December 31, 2007

Above Road
Ambrosia
Angel
Backline
Beaver Tail Special
Big Bear
Blind Slough
Bogo
Bohemia
Boomerang
Bound
Brisket Special Salvage
Buckdance Madder Reoffer
Bucktooth Special Salvage
Buster Creek Stringer
Crane
Divide
Dogleg Special Salvage
Drumlin Reoffer II
Finger Point
Fishsticks
Fishtrap Special Salvage
Fourleaf
Kensington Gold Project
Kensington Settlement
Kogish Shinaku II
Kosciusko Stewardship
Last Call Reoffer
Licking Creek
Lindenberg
Little Rock
Low Ridge
Luck Lac II
Lucky Charm Reoffer
Lucky Duck Reoffer
Microsale #27
Microsale # 126
Microsale #136
Microsale #137
Microsale #138
Microsale #139
Midpoint Special Salvage
Midway Reoffer II
Mink Tail Special Salvage
Moxie Special Salvage
Mustang Salvage Reoffer
Power Lake
Quill
Red Bull Salvage Sale
Red Mountain
Revilla Road Microsale
Sandy Cove Special Salvage
Scratchings
Setter Lake
Shady
Skipping Cow
Small Otter
Summore Change
Swan Tyee Timber Settlement
Swingset Special Salvage
Tall Tree
Three Moose
Turbo Otter
Tuxekan
Twin Shovel
Upper Carroll II
Vientos Cinco #5
Wedge
11 Permits

2. **Timber sale projects: (a) for which NEPA decision documents were signed before the effective date of this Plan, but whose timber volumes will not have been sold (wholly or in part) before the effective date of this Plan; (b) with a Final Environmental Impact Statement and no Record of Decision as a result of the May 18, 2007 Settlement Agreement in *Natural Resources Defense Council v. Forest Service*, Case No. 1:03-cv-00029-JKS (approved by the Alaska District Court on May 25, 2007); or (c) now being planned and for which a Draft Environmental Impact Statement has been released for public comment before the effective date of this Plan.** I have reviewed the 43 projects in this category and have determined that the 36 projects listed below are consistent with the goals and objectives of the amended Plan.[23]

[23] The environmental documents for seven projects in Category 2 cannot be found consistent with the amended Forest Plan without additional environmental analysis. These projects include Eight Fathom, Southeast Chichagof, Alaska Pulp Company Final Supplement to the EISs for the 1986-1990 Operating Periods, Kelp Bay, Northwest Baranof, Indian River, and Ushk Bay. Accordingly, any further work on these projects would require the issuance of a new draft EIS; therefore, these projects are treated as if they are in category 3.

Moreover, the environmental effects of these 36 projects have been disclosed to the public through their site-specific project-level environmental documents. These projects were also assumed to be implemented in the environmental analysis of Alternatives 5 and 6 in the 2008 Forest Plan Amendment Final EIS. Because the Final EIS considered these projects in its effects analysis, their implementation is not in conflict with the amended Plan.

I am directing the Forest Supervisor to review these projects, and incorporate the new direction in the amended Forest Plan to the extent this can be done without causing major disruptions in the implementation of these projects. Among the changes to be considered are the legacy standard and guideline in lieu of the 1997 Plan's standards and guidelines for goshawk foraging and marten habitat, and the new direction regarding probable goshawk nests. The Tongass Change Analysis Process[24] will be used on a project-by-project basis to determine whether additional environmental analysis and public involvement are necessary, and to document any modifications to the project in the project record.

The amended Forest Plan includes the new scenery management program, which is a replacement for the visual management system included in the 1997 Forest Plan. The two programs are essentially the same insofar as environmental effects are concerned, and the transition should be initiated only for new timber sale projects. I find that projects planned under the visual management system do not require changes to the scenery management program included in the amended Forest Plan.

Timber Sales Included in Category 2

Backline	Kosciusko
Baht	Kuiu
Bohemia Mountain	Madan
Boundary	Lab Bay
Canal Hoya	Navy
Chasina	Overlook
Cholmondeley	Roadside
Control Lake	Scott Peak
Couverden	Scratchings
Crane and Rowan Mountain	Sea Level
Crystal Creek	Soda Nick
Doughnut	Todahl Backline
Emerald Bay	Traitors Cove
Finger Mountain	Tuxekan
Goose Creek	Woodpecker 2002
Gravina	Woodpecker 2003
Heceta Commercial Thinning	Yakutat Salvage
Iyouktug	Yakutat Small Sales

3. **Timber sale projects for which a Draft Environmental Impact Statement has not been released for public comment before the effective date of this Plan.** These projects shall be based on the amended Plan and will be consistent with all applicable management direction.

[24] This process includes a review of new information and circumstances relevant to environmental concerns to determine if additional analysis is warranted.

Administrative Appeal Rights

This decision to amend the Tongass Forest Plan is subject to administrative review pursuant to 36 CFR Part 217. The Notice of Appeal must be in writing, meet the content requirements specified at 36 CFR 217.9, and be filed with the Reviewing Officer:

Regular Mail: Abigail Kimbell, Chief
USDA Forest Service
Attn: EMC Appeals
Mail Stop 1104
1400 Independence Avenue., SW
Washington, DC 20250-1104

Note that regular mail is irradiated before it is delivered to the National Headquarters, so regular mail may take longer than normal to arrive. Anything time sensitive should be sent via FedEx, UPS, Courier, etc. to the following address:

USDA Forest Service
Ecosystem Management Coordination
Attn: Appeals
Yates Building, 3CEN
201 14th Street, SW
Washington, DC 20250

Email Address: appeals-chief@fs.fed.us
Phone: 202-205-0895
Fax: 202-205-1012

Electronic appeals must be submitted in a format such as an email message, plain text (.txt), rich text format (.rtf), or Word (.doc). Appeals may also be hand delivered to the courier address above between the hours of 8:00 AM and 5:00 PM Monday through Friday, except Federal holidays.

The Notice of Appeal, including attachments, must be filed (regular mail, fax, email, express delivery, courier service, or hand delivered) with the Reviewing Officer at the correct location within 90 calendar days of the date the legal notice of this decision is published in the Juneau Empire and the Anchorage Daily News. The publication date in the newspapers of record is the exclusive means for calculating the time to file an appeal. Those wishing to appeal this decision should not rely upon dates or timeframe information provided by any other source.

I encourage anyone concerned about this decision, the Forest Plan, or the Final EIS, to contact the officials listed below before submitting an appeal. It may be possible to resolve the concern in a less formal manner.

Contact People

If you would like more information on the Forest Plan, the Final EIS, or this decision, please contact:

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Ketchikan, AK 99901-6591
(907) 225-3101

or

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Plan Amendment Project Manager
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Juneau, AK 99801
907-789-6246

Approval

January 23, 2008

DENNIS E. BSCHOR
Regional Forester

Date

Printed on Recycled Paper

Photograph taken looking northeast with Lindenberg Peninsula on Kupreanof Island and the mouth of Petersburg Creek (front cover) in the foreground, Petersburg Mountain (front cover) in the middleground, and Frederick Sound and the mainland in the background.