

I. Introduction

This document is a public Record of Decision (ROD) that documents my decision to approve the Revised Land and Resource Management Plan for the Tongass National Forest (Forest Plan), and the rationale for making that decision. This Forest Plan is contained in the document entitled *Land and Resource Management Plan - Tongass National Forest*, dated 1997, and is based on Alternative 11 in the *Tongass Land Management Plan Revision Final Environmental Impact Statement*, with modifications as noted in this document. The map of record for the Forest Plan is labeled "Tongass National Forest Land and Resource Management Plan" and dated 1997. The maps associated with specific resources and other alternatives considered in the Final Environmental Impact Statement (Final EIS) are labeled "Tongass National Forest Land Management Plan Revision Final" and dated 1996.

The Forest Plan is part of the long-range resource planning framework required by the Forest and Rangeland Renewable Resources Planning Act, as amended by National Forest Management Act (NFMA). This legislation requires each Forest Supervisor to develop a plan that directs management activities on the forest. Forest plans are to be revised when conditions have significantly changed, or at least every 15 years. The Forest Plan, commonly referred to as the Tongass Land Management Plan or "TLMP," and this ROD, will guide the management of the Tongass National Forest for the next 10 to 15 years.

Management of the many natural resources of the 17-million-acre Tongass National Forest has wide-ranging impacts. The Tongass National Forest comprises much of Southeast Alaska, from lands adjacent to the boundary of Wrangell-St. Elias National Park and Preserve in the north, to the Canadian border in the south. It includes most of the islands of the Alexander Archipelago, and the mainland between these islands and the Canadian border to the east. The unique forest landscape contains over 1,000 islands and dramatically varying topographic relief, with a mosaic of forest, peatlands, steep rocky areas and other nonforested lands. Because of its size, the Tongass National Forest is administered by three Forest Supervisors, each responsible for one Administrative Area - the Chatham, Stikine and Ketchikan Areas.

A primary goal of the Forest Plan is to provide for the sustainability of the resources of the Tongass National Forest, while directing the coordination of multiple uses, such as outdoor recreation, timber, wildlife, fish, watershed, and wilderness. To accomplish this goal, the Forest Plan includes a wide range of land allocations spanning areas which essentially allow no land-disturbing activities to areas allowing intensive resource development, and a set of standards and guidelines which ensure management objectives for these land allocations are met. Recognizing that conditions on the Tongass National Forest do not remain static and that new information is constantly being developed, the Forest Plan embraces an adaptive management approach. This approach refers to the continuous process of action-based planning, monitoring, research, evaluation, and adjustment, with the objective of improving implementation to achieve desired management goals and objectives.

Throughout the development of the Final EIS and the Forest Plan, I have asked for a plan that is scientifically credible, resource-sustainable and legally sufficient. I conclude that this Forest Plan meets those criteria.

II. The Decision

The decision I am making today is to approve the revised Forest Plan, which is based on Alternative 11 as described in the Final EIS, with modifications as further explained in this ROD. The elements of this decision are listed below. These decision elements are fully supported by the environmental analysis documented in the Final EIS, as required by law and regulation. The details of these decision elements may be found in the Forest Plan chapters or appendices noted.

I have made my decision after careful review of the public comments on a series of draft environmental impact statements (EIS's) prepared pursuant to the National Environmental Policy Act (NEPA), including the Draft EIS for the Tongass Land and Resource Management Plan revision, the Supplement to the Draft EIS, and the Revised Supplement to the Draft EIS. I also have reviewed the Final EIS and the revised Forest

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Plan. These EIS's were developed to respond to emerging new information as well as various congressional directives. The Final EIS for the Forest Plan is tiered to the Final EIS for the Alaska Regional Guide, which establishes Regional standards and guidelines and distributes tentative resource objectives from the Resources Planning Act program to the forests. All site-specific projects will be subject to additional environmental analysis, which will tier to the Final EIS for the Forest Plan.

The decisions I am making are required by law and regulations governing forest planning. Components of my decision include: (A) the goals and objectives which establish the desired conditions for implementing the Plan (Chapter 2); (B) management prescriptions which include specific goals and objectives and standards and guidelines for 19 different Land Use Designations (Chapters 3 and 4); (C) identification of the amount of land suitable for timber production; (D) establishment of an allowable sale quantity (ASQ) for the amount of timber that can be sold in the first decade; (E) a monitoring plan that ensures quality control of and learning from Plan implementation (Chapter 6); and (F) recommendations for, and approvals of, special management areas, such as Research Natural Areas and Wild and Scenic Rivers.

Also included with this ROD are two reports required by Congress. The first of these is a study report on the Kadashan watershed, as required by section 203 of the Tongass Timber Reform Act (TTRA). The second is a report on cooperative fisheries planning, as required by Section 507 of the Alaska National Interest Lands Conservation Act (ANILCA). Both of these reports will be transmitted to Congress.

This decision also amends those goals and objectives and standards and guidelines of the Alaska Regional Guide, and any Forest policies listed under Appendix B of the Final EIS for the Alaska Regional Guide, that are inconsistent with the goals and objectives and standards and guidelines of this revised Plan. This amendment of the Regional Guide applies only to the Tongass National Forest, and not to the Chugach National Forest.

A. Goals and Objectives

Forest multiple-use goals and objectives are described in Chapter 2 of the Plan. These goals and objectives guide the overall management for the Forest and fulfill the requirements of 36 CFR 219.11(b). The attainment of these goals and objectives will ensure the sustainability of the Tongass National 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 congressional budget allocations, changed circumstances or new information. Some of the more important desired forest conditions and human uses are as follows:

The Forest will be managed to produce desired resource values, products, services, and conditions in ways that also sustain the diversity, function, and productivity of ecosystems. The forest will be managed to maintain a mix of habitats at different spatial scales capable of supporting the full range of naturally occurring flora, fauna, and ecological processes native to Southeast Alaska.

The Forest will be characterized by extensive, unmodified natural environments. Old-growth will be the predominant vegetative structure on the Tongass, and the abundance and distribution of habitats, especially old-growth forests, will be maintained to sustain viable populations and provide for continued commercial, sport and subsistence use of fish and wildlife species.

The outstanding scenery of the Forest will be a major attraction for visitors. The Forest will be managed to provide a full range of recreation opportunities. Forest visitors will enjoy a visually appealing scenery, with emphasis on areas seen along the Alaska Marine Highway, State highways, major Forest roads, and popular recreation places.

Overall aquatic habitat will be managed to maintain or restore the natural range and frequency of aquatic habitats on the Tongass National forest; this will sustain the diversity and production of fish and other freshwater organisms and provide a world class sport and commercial fishery.

The timber resource will be managed for production of sawtimber and other wood products from timber lands available for sustainable timber harvest, on an even-flow, sustained-yield basis and in an economically efficient manner. We will seek to provide a timber supply sufficient to meet the annual market demand for Tongass National Forest timber and the market demand for the planning cycle. The Forest also will be managed to encourage environmentally sound mineral exploration, development and reclamation, while protecting other resource needs and values.

B. Management Prescriptions

The Forest Plan, Chapters 3 and 4, sets forth the management prescriptions that describe how land managers should operate on the Tongass National Forest. These chapters provide the expectations and limits on how and where activities will be conducted. The prescriptions include Land Use Designations (LUD's) with a range of management objectives, and specific standards and guidelines designed to ensure attainment of those objectives.

Land use prescriptions have been established for 19 LUD's. Four groups of LUD's similar in management direction and environmental effects have been identified. The following table shows the 19 LUD's for the Forest Plan, as they fall within the four groups. The first two groups are also sometimes referred to as "non-development LUD's," and the latter two groups as "development LUD's."

Table 1.
Land Use Designations⁽¹⁾

Non-development LUD's (13,428,299 acres)		Development LUD's (3,866,036 acres)	
Wilderness and National Monument (5,885,387 acres)	Mostly Natural (7,542,912 acres)	Moderate Development (1,119,000 acres)	Intensive Development (2,747,036 acres)
Wilderness National Monument Wilderness National Monument	LUD II Old-growth Habitat Research Natural Area Remote Recreation Semi-Remote Recreation Municipal Watershed Special Interest Area Wild River Scenic River Recreational River Experimental Forests	Scenic Viewshed Modified Landscape	Timber Production Minerals Transportation & Utility Systems

¹ In this table, the total area within each LUD is included. However, in some cases, more than one Land Use Designation can be applied to the same area (such as a Special Interest Area within Wilderness). Therefore, totaling the acres of the LUD's will exceed the total National Forest acreage. No acreage has been calculated for the Transportation and Utility Systems LUD.

Management prescriptions consist largely of standards and guidelines. Standards and guidelines 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 LUD's. 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.

Some components of the management prescriptions received special consideration in my decision-making because I believe they are essential to maintain sustainability of ecosystems and the supply of goods and services. Following are some of these essential components, as organized by resource, as well as additional decisions, that weighed heavily in my selection of Alternative 11. The order in which they are discussed does not indicate a preference for any resource over another.

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Fish Habitat

In all LUD's where land-disturbing activities are allowed, the riparian and fish forest-wide standards and guidelines will apply across the landscape. These standards and guidelines substantially expand current protection for fish habitat. Specific stream-buffer requirements are also included. These may be adjusted to site-specific conditions after completion of watershed analysis as long as fish habitat objectives are still met. Flexibility can be maintained to adjust "default" stream buffers to local conditions following watershed analysis, in which the State of Alaska and other Federal agencies are invited to participate.

Minerals

Except for Wilderness and certain other withdrawn areas, all Tongass National Forest lands are open to minerals exploration and development. The need for future withdrawals, such as to maintain natural ecological processes within Research Natural Areas, will be determined on a case-by-case basis. Should Congress designate portions of rivers as "Wild," they will be withdrawn from mineral entry at that time. All withdrawals are subject to valid existing rights. For certain areas with high mineral development potential, a Minerals LUD has been developed. The Forest Plan applies the Minerals LUD to all 12 areas with high potential for development that also show likely economic viability. These total approximately 166,215 acres, less than one percent of Tongass National Forest lands. Standards and guidelines will be applied to mineral exploration and development and include provisions which require financial bonds where appropriate and review of plans of operation with appropriate mitigation measures.

Recreation and Tourism

Several LUD's, in particular Semi-remote Recreation and Scenic River, provide opportunities for a spectrum of recreation and tourism activities, and permit facilities consistent with the land setting. Where opportunities exist to enhance recreation or tourism experiences in natural settings, LUD's that allow developed recreation or tourism facilities are favored over those that do not encourage developed recreation. We will cooperatively participate with local communities and user groups when implementing development projects to supplement those opportunities located on other lands and jurisdictions (Forest Plan, pages 4-33 to 4-50).

Scenic Quality

The effects of management activities on scenic quality are considered within each land allocation. All areas of the Forest have an assigned Visual Quality Objective (VQO). VQO's indicate the desired or acceptable level of human induced alterations to the natural landscape. Meeting or exceeding VQO's is required for any activity which has the potential to negatively affect the visual character of the landscape. The long-term desired future condition for a specific area is the maintenance of a visual quality level that is at least as high as the adopted VQO for that area. Landscape/viewshed analyses are done when planning projects within viewsheds. Alternative 11 has 3,866,000 acres with a VQO of retention, where activities are designed not to be visually evident to the casual forest visitor, or partial retention, where activities may be evident but will remain visually subordinate to the characteristic landscape. This accounts for about 75 percent of all seen areas outside of Wilderness.

Subsistence

The Subsistence forest-wide standards and guidelines (Forest Plan, pages 4-86 to 4-87) reflect the policies of Title VIII of ANILCA. Specific public involvement and analysis requirements will be followed to ensure that management activities consider impacts upon rural residents who are subsistence users. Consultations will occur with the Southeast Alaska Federal Subsistence Regional Advisory Council on current and proposed management actions. The standards and guidelines likewise provide for participation by recognized Tribal governments and subsistence user groups in various matters relating to subsistence.

The standards and guidelines provide for the making of recommendations for subsistence regulations and the provision of technical support to the Southeast Alaska Federal Subsistence Regional Advisory Council and Federal Subsistence Board. In my role as Regional Forester, I also serve on the Federal Subsistence Board representing the Secretary of Agriculture. The standards and guidelines provide the enforcement of subsistence use regulations promulgated by the Federal Subsistence Board.

The Forest Service will evaluate changes in subsistence-use patterns and activities by consulting with subsistence user groups and by cooperating with appropriate State and Federal agencies in periodic surveys of wildlife populations. Reasonable access to subsistence resources will be maintained and subsistence users' needs will be considered in fish and wildlife improvement projects, as well as in access and facilities projects.

Timber

The Tongass National Forest will continue to allow timber harvest while maintaining sustained yield and multiple use goals. The forest-wide standards and guidelines for timber include general direction to "Ensure that silvicultural systems other than clearcutting are considered through an appropriate project level analysis process. However, uneven-aged management systems will be limited to areas where yarding equipment suited to selective logging can be used" (Forest Plan, Chapter 4, "Timber").

The timber standards and guidelines (Forest Plan, Chapter 4, "Timber") include direction to "Use clearcutting only where such a practice is determined to be the best system to meet the objectives and requirements of Land Use Designations." We estimate (Final EIS, page 3-268) that clearcutting, using even-aged management, will predominate regeneration timber harvesting (about 80 percent). The timber standards and guidelines also state that the two-aged management system, in which some of the harvest unit is left uncut to provide structural diversity and a biological legacy in the regenerated timber stand, "may be used where windthrow or dwarf mistletoe are not major threats or can be tolerated" (Forest Plan, Chapter 4, "Timber"). This harvest method will account for at least 20 percent of regeneration harvests.

Forest-wide, considering all land allocations where timber harvesting is permitted, it is estimated that 65 percent of harvesting will involve clearcutting, with the remaining 35 percent utilizing other methods.

The Alaska Region, the Tongass National Forest, and the Pacific Northwest Research Station will continue to study and experiment with alternative harvest systems. Monitoring and evaluation will be important in determining what alternative harvest systems may be appropriate for the Tongass, and where and when they will be used. The determination of which harvest methods to incorporate in a timber sale project will be made considering site-specific information as part of project-level decision-making, using Forest Plan standards and guidelines.

Adaptive management will be used to test uneven-aged management where the interdisciplinary process determines the system is appropriate to meet the objectives and requirements of the Land Use Designation.

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Transportation

Road construction for timber management will normally only occur in LUD's which allow timber harvest. Several other LUD's allow roads through them to access adjacent areas, but such uses will be infrequent. Therefore, most of the road construction will occur in the approximately 3.7 million acres covered by the Timber Production, Modified Landscape, and Scenic Viewshed LUD's.

Road construction and management is covered under the transportation forest-wide standards and guidelines. These include comprehensive measures for maintaining soil productivity and water quality, restrictions of road use to minimize effects on wildlife, and direction to avoid fish-bearing streams and wetlands where feasible. Best Management Practices for complying with State Water Quality Standards to provide for beneficial uses of water apply to all road construction and reconstruction activities. The adopted Visual Quality Objectives for each LUD apply to road design and location as well as timber management practices. The siting, design and construction of log transfer facilities are also covered by the transportation forest-wide standards and guidelines, and the Log Transfer Facility Siting, Construction and Monitoring-Reporting Guidelines (Appendix G of the Forest Plan).

For certain areas identified by the State of Alaska as appropriate for development of major transportation or utility systems, a Transportation Utility System LUD has been developed.

Wetlands

Many wetlands are protected by incorporating them in non-development LUD's. In the development LUD's, the Plan's standards and guidelines for beach and estuary fringe and riparian areas provide additional protection to wetlands. The Plan also includes forest-wide standards and guidelines for wetlands, which establish a requirement to "Avoid alteration of, or new construction on wetlands, wherever there is a practicable, environmentally-preferred alternative, considering the functions and values of wetlands as well as other non-wetland ecosystems in the project area" (Forest Plan, Chapter 4, "Wetlands").

Because the scientific information related to the effects of timber harvesting on forested wetlands on certain soil types (i.e., Kaikli, Karheen, Kitkun, and Maybeso soil series) is incomplete, the information needs section of the Forest Plan describes an ongoing research study of these issues. Therefore, because such effects are unknown, and specific concerns for these four soil types exist, I direct the Forest Supervisors to avoid harvesting on these four forested wetland soils. Because it is not always possible to identify small inclusions of these soils within a larger area of another soil type, instances where two acres or less of these soils are harvested unintentionally might be unavoidable. I expect such unintentional harvest to have minimal environmental effect. This direction is to be given the full force and effect of a standard and guideline. The monitoring plan requires the Forest Supervisors to monitor the amount of any such harvest. When the scientific study is finished, or earlier if monitoring information warrants, the decision may be re-evaluated to include these soil series in the tentatively suitable or suitable timber land base.

Wildlife

Wildlife habitat needs are predicated to a great extent on maintenance of old-growth forest. The old-growth habitat strategy is comprised of two key components. The first is a forest-wide system of reserves that is designed to protect the integrity of the existing old-growth ecosystem. The system of reserves included in the Forest Plan is based on the old-growth conservation strategy initially developed by the Interagency Viable Population Committee (VPOP) in 1993, with modifications as a result of additional scientific information and analysis.

The Forest Plan's reserve system is composed of three elements:

1. All non-development LUD's, including Wilderness, Legislated LUD II, Wild River, Remote and Semi-remote Recreation, Research Natural Area, Municipal Watershed, and other LUD's that essentially maintain the integrity of the old-growth ecosystem;
2. 38 large (40,000-acre minimum), 112 medium (10,000-acre minimum), and a network of 237 small (approximately 1,600 acres) mapped Habitat Conservation Areas (HCA's), allocated in part to the Old-Growth LUD and in part overlapping with other LUD's; and
3. Full protection of all islands smaller than 1,000 acres.

The small, medium, and large HCA's, which in the Old Growth LUD total 1.1 million acres and contain approximately 613,000 acres of productive old-growth forest, were mapped in conjunction with non-development LUD's to meet VPOP design criteria. Small HCA's were allocated to ensure that every large watershed on the Tongass will retain at least one contiguous block of old-growth forest to facilitate distribution of species with limited dispersal capabilities. Of the 21 biogeographic provinces, we maintained at least one very large contiguous reserve (over 180,000 acres) in 17 provinces and at least one large reserve (over 75,000 acres) in 2 provinces. In the remaining 2 provinces are collections of smaller islands that have large reserves ranging from 30-40,000 acres each. When combined with the productive old growth in the other non-development LUD's and the small islands, the reserve system as a whole protects approximately 3.55 million acres of productive old growth, or about 70 percent of the existing productive old growth on the Tongass National Forest.

The second component of our forest-wide old-growth habitat strategy is the set of standards and guidelines that apply in the development LUD's, where commercial timber harvesting is permitted. In these areas, which make up 22 percent of the Forest, the standards and guidelines will sustain key components of the landscape that the available scientific information indicates is important for wildlife. Collectively these standards and guidelines will maintain approximately 69 percent of current productive old growth within areas of commercial timber harvest. The Plan will provide a 1,000-foot buffer along the entire marine shoreline with no scheduled timber harvest. Riparian management standards and guidelines will sustain substantial old growth riparian habitat. The Plan further provides specific direction for connectivity where project-level analysis indicates that riparian buffers, beach fringe, and various aspects of the old-growth strategy are not sufficient to meet the objectives of connectivity.

C. Land Suitable for Timber Production

The Forest Plan also classifies lands suitable for timber production and determines where on those lands timber harvesting should be allowed, in accordance with NFMA regulations, 36 CFR 219.14(a), and Section 102 of the TTRA. Appendix A of the Forest Plan details the criteria and process used to determine the forest lands tentatively 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 harvesting may occur.

The LUD's further define where timber management may occur. Many areas in LUD's that do not allow commercial timber harvest contain tentatively suitable forest lands, but these lands will be managed for resource uses other than timber production. LUD's which allow timber management, Timber Production, Modified Landscape, Scenic Viewshed, Scenic River, and Recreational River, total approximately 3.7 million acres, or 22 percent of the Tongass National Forest, and contain 1.3 million acres of tentatively suitable forest lands. Three of these LUD's, Timber Production, Modified Landscape, and Scenic Viewshed, account for nearly all of the 676,000 acres suitable for timber management under the Forest Plan.

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D. Allowable Sale Quantity

The ASQ for timber 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.

Although the maximum amount of timber that could be harvested during the first decade of Revised Plan implementation is an average of 267 MMBF per year, a level of 200 MMBF or less is more likely to be offered over the next few years, given current market conditions and the transition that both the timber industry and the Forest Service is experiencing. Therefore the public can expect the amount of timber to be offered annually to vary between 200 MMBF or less and 267 MMBF.

The ASQ consists of two separate Non-Interchangeable Components (NIC's) called NIC I, which is 2.2 billion board feet of timber per decade, and NIC II, which is .47 billion board feet per decade. While binding as an upper limit, the NIC components are estimates and do not reflect all of the factors that may influence actual sale levels. These components are non-interchangeable because the lower sale levels in one component may not be compensated for by higher sale levels in the other. The separate limits on each component are binding on a decadal basis. The NIC I component includes land that can be harvested with normal logging systems. The NIC II component includes land that has high logging costs due to isolation or special equipment requirements. About 80 percent of the ASQ comes from NIC I land and about 20 percent comes from NIC II. This represents a higher reliance on lands represented in the NIC II component than in the past.

E. Monitoring and Evaluation

The monitoring plan, required by NFMA regulations, 36 CFR section 219.12 (k), is contained in Chapter 6 of the Forest Plan. It provides for three types of monitoring: (1) implementation monitoring to determine if the standards and guidelines are being followed, (2) effectiveness monitoring to verify 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. Others 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 for funding under the Forest Plan.

To ensure effective monitoring, protocols for gathering information should be developed and monitoring should be accomplished through a cooperative effort with our Federal partners (i.e., the Environmental Protection Agency, U.S. Fish and Wildlife Service, and National Marine Fisheries Service) and the State of Alaska. Accordingly, I am directing the Forest Supervisors to convene an interagency group within 60 days of this ROD to develop and recommend specific monitoring protocols to respond to monitoring questions specified in Chapter 6 of the Forest Plan. I have requested the participation of the Pacific Northwest Research Station to assist in these efforts. I also would like private organizations, recognized Tribal governments, and interested individuals to have an opportunity to participate in monitoring activities.

I also have determined that interagency monitoring of the Queen Charlotte goshawk and the Alexander Archipelago wolf is necessary, as part of ongoing studies or otherwise. The Forest Service will initiate efforts within 60 days of this ROD to plan and conduct new studies, or modify ongoing studies, in cooperation with the appropriate Federal and State agencies.

The Forest Service will conduct an evaluation of the Forest Plan in five years, as provided by the NFMA planning regulations (36 CFR 219.12(g)). That review will include an evaluation of the effectiveness of the Plan's old-growth strategy and riparian direction to conserve biodiversity and prevent the need to list species under Endangered Species Act (ESA). The evaluation will be conducted in collaboration with the appropriate Federal and State agencies. Any needed changes in the Plan's direction will be incorporated through the amendment or revision process.

F. Recommendations On Special Management Areas

I am making two types of recommendations on special management areas: (1) recommendations on new Research Natural Areas, and (2) recommendations for rivers in the Wild and Scenic Rivers System. No additional Wilderness proposals, or changes to existing Wilderness are being proposed at this time. In addition to these recommendations, I have designated two land-use areas for research and education purposes.

Research Natural Areas

I have decided to follow the Forest Supervisor's recommendations and designate six Research Natural Areas (RNA's). They are being designated to provide opportunities for research to better understand natural ecological processes and special habitats. These RNA's include: (1) 1,636 acres in the Rio Roberts RNA, on the Ketchikan Area, (2) 4,723 acres in the Robinson Lake RNA, on the Ketchikan area, (3) 7,417 acres in the Marten River RNA, on the Stikine Area; (4) 1,623 acres in the Kadin Island RNA, on the Stikine Area, (5) 9,958 acres in the Tonalite Creek RNA, on the Chatham Area, and (6) 8,306 acres in the Warm Pass RNA, on the Chatham Area.

I join the Director of the Pacific Northwest Research Station in recommending to the Chief of the Forest Service that the RNA designation at Pack Creek be terminated. This 5,000-acre area has experienced significant human use for several decades, and is one of the best places in the world for viewing brown bear. The level of human use makes the Pack Creek designation incompatible with some of the objectives for RNA's. West Gambier Bay (11,549 acres) will be designated as an RNA to replace the existing Pack Creek RNA upon approval by the Chief of the Forest Service to terminate the RNA designation for Pack Creek. I will sign the Designation Order for West Gambier Bay RNA upon approval by the Chief of the termination of the Pack Creek RNA. The Forest Plan designates Pack Creek as a Zoological Special Interest Area.

Wild and Scenic Rivers

I have reviewed the process used to determine eligibility of rivers for inclusion in the National Wild and Scenic Rivers System. I concur with that process and agree that 112 rivers, in whole or in part, are eligible for designation as part of the National Wild and Scenic Rivers System. These eligible river segments total 1,394 miles.

I am recommending 32 of the eligible rivers for inclusion in the National Wild and Scenic Rivers System. These recommendations are preliminary administrative recommendations that will receive further review and possible modification by the Chief of the Forest Service, the Secretary of Agriculture, and the President of the United States. Congressional action is necessary to designate rivers as part of the National Wild and Scenic Rivers System. A list of the rivers is included in Chapter 3 of the Forest Plan, and the rationale for these recommendations is discussed further in Appendix A of this Record of Decision.

With regard to the remaining 80 eligible rivers that I am not recommending for designation as part of the National Wild and Scenic Rivers System, 37 of them have a majority of their eligible corridors within Wilderness areas or Legislated LUD II areas, and are therefore statutorily protected from development. In addition, 25 rivers have a majority of their eligible corridors within other non-development LUD's. There will be no scheduled timber harvest, and very little of other kinds of development, in these areas over the next 10 to 15 years. These rivers could be recommended for designation in future Forest Plan revisions. The

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rationale for finding these river segments not suitable for Wild, Scenic or Recreational river designation is contained in Appendix A of this ROD.

Research and Education

Two other LUD's provide different kinds of opportunities for the study and appreciation of forest resources, ecological processes, and special natural features. First, the Forest Plan retains the two existing experimental forests, Maybeso and Young Bay, under the Experimental Forest LUD. These areas are important for studying the effects of forest management practices. Second, the Forest Plan also establishes 16 new Special Interest Areas. Many of these areas will provide opportunities for the study and interpretation of unique geological, botanical and zoological features, including the cave resources of Prince of Wales and Dall Islands, and several specialized wildlife habitats; others recognize unique cultural, scenic and recreational values or uses. I have considered the potential resource trade-offs of these designations (see the Final EIS, pages 3-207 to 3-209), and find no significant effects to other existing or potential resource uses.

The Information Needs section of the Forest Plan (Appendix B) describes an accelerated three- to five-year research program of 11 research studies, each of which will fill an identified gap in the information base needed for development of the next revision of the Forest Plan. These studies, along with the monitoring and evaluation program discussed below, form the basis of our adaptive management approach for the Tongass National Forest. Adaptive management recognizes that scientific information is always improving, and must continue to do so to serve as the feedback mechanism necessary to ensure the sustainability of land management practices. As part of our adaptive management program, we will involve other appropriate Federal and State agencies in planning and conducting these research studies.

Areas Of Special Interest

I want to highlight some of the specific land allocations in the Forest Plan. Many of these were part of the Preferred Alternative of the RSDEIS released for public comment in April 1996; others represent changes made since that time. These allocations reflect concerns raised in public comments, and most provide additional protection to areas of special interest or with specific resource values:

In the vicinity of Sitka, most of the more accessible areas, islands, and shorelines have been allocated to the Old-growth Habitat, Semi-remote Recreation, or Special Interest Area LUD's. None of these LUD's allow scheduled timber harvest.

In Tenakee Inlet, most shoreline areas, inlets, and bays are in Old-growth Habitat LUD's where scheduled timber harvest is not allowed.

The south end of Kuiu Island is allocated to Semi-remote Recreation. In the eastern portion of Kuiu Island, the allocations to the Old-growth Habitat and Modified Landscape LUD's have been expanded.

All of Mansfield Peninsula is allocated to Semi-remote Recreation.

Nearly one-half of the Cleveland Peninsula, including the entire southwestern portion, is in Semi-remote Recreation; the remainder is a combination of Old-growth Habitat, Modified Landscape, and Timber Production.

On Prince of Wales Island, almost all of the area known as Honker Divide is allocated to the Old-growth Habitat LUD, with a portion along the outer boundary in Scenic Viewshed, where limited timber harvest could occur. Thorne River and Hatchery Creek are recommended for inclusion in the National Wild and Scenic Rivers System. An area of Old-growth Habitat also connects Honker Divide to the Karta Wilderness.

Additional Old-growth Habitat LUD allocations enhancing the forest-wide reserve system have been made in other areas, including northeast Chichagof Island and Port Houghton.

III. Alternatives Considered

Over the course of planning for the Forest Plan, four EIS's or supplements to EIS's have been prepared and distributed: a Draft EIS in 1991, a Supplement to the Draft EIS (SDEIS) in 1991, a Revised Supplement to the Draft (RSDEIS) in 1996, and a Final EIS in 1997. In the Draft EIS, seven alternatives and three additional "variations" (based on three alternatives from among the seven) were considered in detail. An eighth alternative, the "Preferred Alternative," was a combination of some of these and was described separately. For the SDEIS, five alternatives, including one preferred by the Forest Supervisors, were considered in detail. The body of the RSDEIS analyzed nine alternatives in detail, and the Forest Supervisors identified a modified version of one of these as the Preferred Alternative in the cover letter for the RSDEIS. Of these ten alternatives, nine were considered in detail in the Final EIS. In addition, modifications were made to the Forest Supervisors' Preferred Alternative in response to public comments and additional analysis. That alternative, the Preferred Alternative in the Final EIS, is displayed as Alternative 11 and discussed in detail. I am selecting Alternative 11, as modified in this Record of Decision, as the revised Forest Plan for the Tongass National Forest.

A total of 34 alternatives has been discussed in the environmental impact statements associated with the Forest Plan. Some of these alternatives have been carried from one EIS to another and refined in response to public comments, new information, or changing circumstances. The Final EIS (pages 2-8 to 2-24) describes the evolution of the ten alternatives considered in detail in the Final EIS. The various components of the wide range of alternatives are detailed at pages 2-11 through 2-62 of the Final EIS, and are summarized below.

A. Action Alternatives Considered in Detail

Alternative 1. The theme of this alternative is to emphasize high-quality fish and wildlife habitat, unroaded areas, wild, scenic, and recreational rivers, scenic quality, subsistence use, and a wide range of recreation and tourism opportunities in a natural setting. Geographic areas mentioned in public comments as deserving protection, and all identified recreation places, would be assigned to non-development LUD's. Very limited opportunities would be provided for small-scale timber production using uneven-aged management systems. This is the environmentally preferable alternative (the one having the least potential adverse effect to the physical and biological environment). The Present Net Value (PNV) of the future stream of net benefits from recreation and tourism activities over the next 150 years is estimated to be \$4.62 billion.

Alternative 2. The theme of this alternative is to emphasize timber and mineral production, recreation and tourism, subsistence, and scenery. Many of the more important wildlife habitats, recreation and subsistence opportunities, and scenic values would be maintained in a natural setting. No network of old-growth habitat reserves would be provided. The commercial timber harvest program would employ harvest rotations averaging 100 years, using the clearcut harvest method. The average annual first decade ASQ for timber would be 463 MMBF (including sawlog plus utility volume). The PNV of the future stream of net benefits from recreation and tourism activities and timber sales over the next 150 years is estimated to be \$5.35 billion.

Alternative 3. The theme of this alternative is to provide a mix of National Forest uses and activities similar to Alternative 2, with additional emphasis on fish and wildlife habitat protection and the karst and caves resource. A network of old-growth habitat reserves would be provided in all biogeographic provinces. Commercial timber harvest would employ harvest rotations averaging 100 years, using uneven-aged and two-aged harvest methods. The average annual first decade ASQ for timber would be 256 MMBF (including sawlog plus utility volume). The PNV of the future stream of net benefits from recreation and tourism activities and timber sales over the next 150 years is estimated to be \$4.83 billion.

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Alternative 4. The theme of this alternative is to provide a mix of National Forest uses and activities similar to Alternative 2, with additional emphasis on fish and wildlife habitat protection and the karst and caves resource. No network of old-growth habitat reserves would be provided. Commercial timber harvest would employ extended harvest rotations averaging 200 years, using uneven-aged and two-aged harvest methods. The average annual first decade ASQ for timber would be 130 MMBF (including sawlog plus utility volume). The PNV of the future stream of net benefits from recreation and tourism activities and timber sales over the next 150 years is estimated to be \$4.84 billion.

Alternative 5. The theme of this alternative is to provide a mix of National Forest uses and activities similar to Alternative 2, with additional emphasis on fish and wildlife habitat protection and the karst and caves resource. A network of old-growth habitat reserves would be provided in four biogeographic provinces. In addition, commercial timber harvest would employ extended harvest rotations averaging 200 years, using uneven-aged and two-aged harvest methods. The average annual first decade ASQ for timber would be 122 MMBF (including sawlog plus utility volume). The PNV of the future stream of net benefits from recreation and tourism activities and timber sales over the next 150 years is estimated to be \$4.83 billion.

Alternative 6. The theme of this alternative is to provide a mix of National Forest uses and activities similar to Alternative 2, with additional emphasis on fish and wildlife habitat protection and the karst and caves resource, and more emphasis than Alternatives 3-5 on resource uses contributing to the local and regional economies of Southeast Alaska. A network of old-growth habitat reserves would be provided in four biogeographic provinces. In addition, commercial timber harvest would employ harvest rotations averaging 100 years, using uneven-aged and two-aged harvest methods. The average annual first decade ASQ for timber would be 309 MMBF (including sawlog plus utility volume). The PNV of the future stream of net benefits from recreation and tourism activities and timber sales over the next 150 years is estimated to be \$4.91 billion.

Alternative 7. The theme of this alternative is to provide a timber supply from public lands to meet market demand in Southeast Alaska. Management of other resources would be done in an efficient manner consistent with the emphasis on timber supply, while meeting environmental standards. Some areas with low timber volumes would be managed with an emphasis on wildlife, subsistence, recreation, scenery and other non-commodity values. No network of old-growth habitat reserves would be provided. The commercial timber harvest program would employ harvest rotations averaging 100 years, using the clearcut harvest method. The average annual first decade ASQ for timber would be 640 MMBF (including sawlog plus utility volume). The PNV of the future stream of net benefits from recreation and tourism activities and timber sales over the next 150 years is estimated to be \$5.63 billion.

Alternative 10. The theme of this alternative is to provide a mix of National Forest uses and activities similar to Alternative 2, with additional emphasis on fish and wildlife habitat protection and the karst and caves resource. A network of old-growth habitat reserves would be provided in all biogeographic provinces. Commercial timber harvest would employ harvest rotations averaging 100 years, using primarily even-aged and two-aged harvest methods. The average annual first decade ASQ for timber would be 300 MMBF (including sawlog plus utility volume). This alternative is based on the Forest Supervisors' Preferred Alternative released for public comment with the RSDEIS; changes were made in response to additional analysis. The PNV of the future stream of net benefits from recreation and tourism activities and timber sales over the next 150 years is estimated to be \$4.87 billion.

Alternative 11. (The Selected Alternative). The theme of this alternative is to provide a mix of National Forest uses and activities with an emphasis on fish and wildlife habitat protection and the karst and caves resource. A comprehensive network of old-growth habitat reserves will be provided in all biogeographic provinces. Commercial timber harvest will employ harvest rotations averaging 100 years, using even-aged, two-aged, and uneven-aged harvest methods. The average annual first decade ASQ for timber is 267 MMBF (including sawlog plus utility volume). The PNV of the future stream of net benefits from recreation and tourism activities and timber sales over the next 150 years is estimated to be \$5.05 billion. This is the alternative used as the basis for developing the Forest Plan.

B. No-Action Alternative

Alternative 9. Alternative 9 is the no-action alternative for this environmental analysis and serves as a baseline for comparison. This alternative would continue the land use designations, resource outputs and activities, and management direction of the current Tongass Land Management Plan (as approved in 1979, amended in 1986, and amended again in 1991 as a result of the Tongass Timber Reform Act of 1990). Timber harvest levels that contribute to maintaining local employment would be emphasized, along with maintaining the variety of recreation opportunities and scenic quality currently available. Opportunities for local residents to pursue traditional lifestyles, including subsistence use and recreation, would continue. The average annual first decade ASQ for timber would be 549 MMBF (including sawlog plus utility volume). The PNV of the future stream of net benefits from recreation and tourism activities and timber sales over the next 150 years is estimated to be \$5.38 billion.

C. Alternatives Not Considered In Detail

Eight of the nine alternatives of the RSDEIS are included in the Final EIS. Alternative 8 was eliminated from detailed consideration in the Final EIS because it was determined that its dual goals of development, as reflected in Alternative 7, and adoption of an old-growth reserve strategy, as reflected in Alternatives 3 and 10, were largely incompatible. It was determined that these goals were better achieved through these other alternatives. Moreover, the projected outputs of Alternative 8 were generally similar to those of Alternative 6.

An alternative emphasizing a departure from non-declining-even-flow timber outputs for the first decade was considered unnecessary because several alternatives meet or exceed recent and current harvest levels, and meet or exceed projected market demand for the first decade. An alternative recommending declassification of Wilderness to make more land available for timber harvest was not considered in detail for the same reasons.

Several individuals and organizations suggested development of a recreation or tourism alternative. The spectrum of land use designations of the existing alternatives covered this because they permit substantial recreational uses and tourism development. Changes were made to the Recreation standards and guidelines in response to this suggestion.

Several conservation groups proposed alternatives during the public comment period on the RSDEIS. Proposed alternatives were received from groups including the Alaska Rainforest Campaign, the Association of Forest Service Employees for Environmental Ethics, the Defenders of Wildlife, the Narrows Conservation Coalition, the Sierra Club Legal Defense Fund, the Southeast Alaska Conservation Council, and the Wilderness Society. The Natural Resources Defense Council and the Sitka Conservation Society endorsed one or more of these alternatives. Other groups including the Alaska Wilderness Recreation and Tourism Association, Lynn Canal Conservation, Inc., and the Tongass Community Alliance, submitted alternative proposals in a more abbreviated form that generally conform with the Alaska Rainforest Campaign alternative. These alternatives generally emphasized fish and wildlife resources and habitat, subsistence opportunities, and natural settings areas.

These alternatives were reviewed to determine how effects of each proposed alternative compared to the effects of existing alternatives already under consideration. (See pages 2-11 through 2-18 of the Final EIS.) In conducting the analysis, it was assumed that many potential environmental effects of alternatives stem primarily from the level of allowed timber harvest, the acres disturbed, and associated road construction. Accordingly, if any of the proposed alternatives would result in a suitable timber land base insufficient to operate a viable commercial timber program, similar to Alternative 1, then the effects of the proposed alternatives were considered to be essentially the same as Alternative 1, even if resource-protection features differed. Therefore, the analysis primarily discussed the estimated availability of suitable timber lands under the various alternatives.

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In addition, the analysis had to rely on various assumptions because most of the proposed alternatives described features only in general terms, e.g., designating additional wildlife reserves, establishing minimum wildlife corridors, requiring timber harvest to mimic natural disturbances, and prohibiting timber harvest in important tourism areas. The analysis concluded that only the Alaska Rainforest Campaign and the Southeast Alaska Conservation Council alternatives could likely support a small commercial timber program. Because the rest of the proposed alternatives would have effects essentially indistinguishable from Alternative 1, the Final EIS did not analyze them in further detail.

A timber program under either the Alaska Rainforest Campaign or Southeast Alaska Conservation Council alternatives was estimated to fall somewhere between the 0 MMBF of Alternative 1 and the 122 MMBF of Alternative 5. Throughout the Final EIS, Alternatives 1 and 5 are estimated to have very similar environmental effects on a variety of resources. In the absence of more detailed descriptions of the elements of the proposed alternatives, consideration of the proposed alternatives in further detail would have required either numerous assumptions or extensive additional information. For all of these reasons, these alternatives were not analyzed in detail in the Final EIS.

I also have considered these alternatives from the perspective of non-market and non-use values. As explained on pages 3-501 through 3-504 of the Final EIS, non-market values, principally from recreation and tourism, vary only slightly among all of the alternatives considered in detail. Alternatives 1 and 5, for example, have PNV's from recreation and tourism of \$4.6 and \$4.5 billion, respectively. All of the alternatives proposed by conservation groups would fall somewhere between these values, with the differences being slight. The Final EIS does not attempt to measure non-use values, because the methodologies for doing so are still very controversial, result in divergent estimates, and are impractical at the level required for comparative analysis of Forest Plan alternatives. If we were able to value non-use, there would not be a great difference among Alternatives 1, 5, or those proposed by conservation groups.

D. The Environmentally Preferable Alternative

The Council on Environmental Quality 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 damage to the biological and physical environment; it also means the alternative that best protects, preserves, and enhances historic, cultural, and natural resources.

Alternative 1 of the Final EIS, which was described in the earlier section on alternatives, is the environmentally preferable alternative. This is defined as the alternative having the least adverse effects to the physical and biological (as opposed to the social and economic) environments.

Alternative 1 would allow the smallest amount of direct human-induced effects on the human environment. It has the lowest amount of roading, the least amount of timber harvesting, and would exclude intensive management over most of the Tongass National Forest. This alternative provides the greatest protection for old-growth-dependent wildlife species, and ensures the greatest protection of scenic quality.

IV. Rationale For Decision

My decision to select Alternative 11 was reached after a comprehensive review of the relevant environmental, economic, and social consequences of the Final EIS alternatives and is based on a number of factors. The discussion below of why I selected Alternative 11 from among the ten alternatives analyzed in the Final EIS highlights several factors that were of primary importance to my decision. Next, the discussion of public issues and comments further explains why I believe Alternative 11 best responds to multiple needs, including ensuring a healthy forest habitat and providing a sustainable supply of goods and services including timber. My consideration of national policy issues, as explained, further shaped my decision. Forest Plan compliance with applicable laws, regulations, and executive orders, which is discussed in a separate section of this ROD, also was a key factor.

A. Comparison of Alternatives

The maintenance of habitats needed to ensure the long-term viability of all Tongass wildlife and fish species and to sustain commercial, sport and subsistence use, is a key factor in my decision. In terms of fish, I find that all alternatives maintain riparian habitats and water quality in the short-term to at least the minimums required by law. For long-term viability, however, especially of individual fish stocks or entities, the alternatives have varying degrees of risk. I want to ensure the long-term productivity of Southeast Alaska's exceptional fish resource, to the extent that resource may be affected by management of the Tongass National Forest. Based on the analysis in the Final EIS (Chapter 3, "Fish"), and the results of the two Fish/Riparian panels, Alternatives 2, 6, 7, 9, and 10 generally involve higher risk and do not offer me this assurance. Of the remaining four alternatives (other than Alternative 1), Alternative 11 consistently rated lowest, or as low, in the level of risk to fish. I also favor the use of one forest-wide option, which for Alternative 11 is option 2A as described in the Final EIS (Chapter 3, "Fish"), for riparian protection, and the incorporation of watershed analysis as a part of this option.

Long-term viability for wildlife species has been extensively studied and analyzed, and is discussed in detail in the Final EIS (pages 3-380 to 3-429) and Appendix N to the Final EIS. Based on this analysis, the alternatives fall into roughly three groups (excluding Alternative 1, which has essentially no additional risk): Alternatives 2, 7, and 9 having relatively high risk of not maintaining habitat sufficient for viability of all species, Alternatives 3, 6, and 10 having an intermediate level of risk, and Alternatives 4, 5, and 11 having a lower risk for various species of concern. 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 the relatively high assurance that the habitat needed for long-term viability of all wildlife species would be maintained and commercial, sport and subsistence use sustained.

Alternatives 4, 5, and 11 are comparable in this regard, although Alternatives 5 and 11 tends to have a somewhat lower risk than Alternative 4 for most species. Each alternative uses a different approach to maintaining viability, with Alternatives 4 and 5 relying more on extended timber harvest rotations and VCU harvest thresholds, with Alternative 5 adding a limited reserve system, and Alternative 11 relying more on a forest-wide system of old-growth habitat reserves, and somewhat greater protection for riparian areas and the beach fringe. In this context, I favor Alternative 11 because, among many reasons, its reserve strategy enables the setting aside of unfragmented old-growth habitat blocks of varying sizes forest-wide, focusing on areas of key importance to wildlife and areas of concern to the public and other agencies; and, within those areas available for timber harvesting, Alternative 11 offers more flexibility for timber harvesting and adaptive management approaches. Additional standards and guidelines added to Alternative 11, which respond to concerns raised in connection with certain wildlife species, provide further assurance that Alternative 11 will adequately maintain wildlife habitat.

Maintaining options for a variety of social and economic uses of the Tongass—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—was another key factor in my decision. 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 that changes in public

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needs, economic conditions, or new technologies may bring. Alternatives 4 and 5 (in addition to Alternative 1) do not have a timber program that would be adaptable to changing demands or new technologies and would be more likely to adversely affect communities whose primary employment comes from timber harvesting. Alternatives 4 and 5 also generally offer fewer opportunities for the more developed types of recreation uses and access. Alternatives 7 and 9 have timber program potentials in excess of what would be needed to respond to changes within the timber industry and would not maintain an acceptable level of scenic quality or undeveloped recreation opportunities. Alternatives 7, 9, and 2 do have a higher PNV than the selected alternative. PNV is but one measure of economic efficiency based on a calculation of assigned dollar value to resource outputs less associated costs. While Alternative 11 has a somewhat lower PNV, given the failure of PNV to consider qualitative factors critical to accurately predicting net public benefits, and the superior ability of Alternative 11 to balance many competing values and uses of the Tongass National Forest, I find that Alternative 11 currently provides the best strategy for maximizing net public benefits.

Alternatives 1, 3, 6, 10, and 11 are better than alternatives 2, 4, 5, 7, and 9 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. Based on the previous discussion of fish and wildlife viability, Alternatives 3, 6, 10, and 11 all provide a reasonable assurance of maintaining subsistence resources and opportunities. In both cases, Alternative 11 rates relatively higher than the others. In addition, all five alternatives, 2, 3, 6, 10, and 11, have a timber program potential (Allowable Sale Quantity) that allows flexibility to respond to changing needs within the timber industry, as reflected in the most recent demand study (see Final EIS, Appendix M), and are responsive to communities dependent upon timber harvesting. All five alternatives also recognize areas of high mineral potential within the Tongass.

Finally, several alternatives respond well to the need to recognize and protect areas across the Tongass with special or unique resources or features. Among these are the karst and caves resource, rivers eligible for inclusion in the National Wild and Scenic Rivers System, and areas suitable for designation as Special Interest Areas or Research Natural Areas. Alternatives 7 and 9 fall far short in this regard, and Alternative 2 lacks adequate protection of karst areas and associated caves. Alternatives 3, 4, 5, 6, 10, and 11 apply the Karst and Caves standards and guidelines, and designate all recommended Special Interest Areas. Of these, Alternatives 3, 4, 5, 6, and 10 recommend 25 rivers for Wild, Scenic or Recreational designation, and Alternative 11 recommends 32 rivers. Alternative 11's additional rivers give it a slight edge. Alternatives 1, 2, 3, 4, 5, 6, 7, 10, and 11 designate four additional Research Natural Areas, while Alternative 9 designates no additional ones.

Alternative 1, the "environmentally preferable" alternative, would result in the least adverse effects to the physical and biological environment. Essentially, with no scheduled timber program and no new road construction, it has no additional adverse effects of these types. Accordingly, in comparison with other alternatives, it tends always to rate highest when levels of resource protection are a consideration. Conversely, when timber-related employment and community dependence on such employment, infrastructure development and new road access, or rural development in a multiple-use context, are considerations, Alternative 1 generally ranks lowest. I conclude that it does not provide an acceptable balance between environmental protection and resource use.

Given the many social and economic trade-offs inherent in national forest management, I find that Alternative 11 best balances the many interrelated environmental, social and economic issues that arise when managing for multiple uses. The following discussion of responses to public and other reviewers' comments further explains the rationale underlying my decision.

B. Issues Receiving Additional Consideration

There are a number of factors that the selected alternative responds to and for which the public has expressed concerns. These areas deserve a more thorough discussion to fully describe the selection I have made and the implications of the selected alternative to public issues.

Alternatives to Clearcutting

Many respondents believe that alternatives to clearcutting should be included in the Forest Plan and that this harvest method should be replaced by other methods. Others believe that this method of harvest is appropriate for regeneration of forests on the Tongass National Forest.

Historically, the clearcut or even-aged regeneration harvest system has proven to be the predominant harvest system for most areas of the Tongass. Even-aged management favors shade-intolerant tree species such as Sitka spruce and cedar over the shade tolerant, but less desirable western hemlock. Western hemlock makes up approximately 83 percent of old-growth forests on the Tongass. It has been estimated that at the end of a 75- to 100-year rotation period, even-aged second-growth stands would be 50 percent Sitka spruce. Clearcutting also results in less danger of dwarf mistletoe infestation, higher growth rates and improvements in timber yields. Clearcutting has also proven to be economically efficient.

Nonetheless, recognizing the controversy surrounding clearcutting and the need for additional information regarding use of alternative silvicultural methods, the Alaska Region and the Pacific Northwest Research Station are studying alternative harvest systems. Monitoring and evaluation will be important in determining what alternative harvest systems may be appropriate for the Tongass, and where and when they will be used. We will also monitor the growth and development of young stands, particularly at high elevations and lower-quality sites, to check our estimates of volume from these stands.

The determination of which harvest methods to incorporate in a timber sale project will be made considering site-specific information as part of project-level decision-making, using Forest Plan standards and guidelines. The project-level determinations of harvest methods will be discussed and disclosed in NEPA documents and will be subject to the notice and comment appeal (36 CFR 215).

Deer Winter Range

Some respondents to the RSDEIS expressed concerns that the RSDEIS Preferred Alternative did not include the deer winter range standard. This standard, included in Alternative 3, would require land management projects to maintain all current deer habitat capability in areas where deer harvest exceeds 20 percent of habitat capability, and seeks to maintain deer winter range in areas where deer harvest is between 10 and 20 percent of habitat capability.

The Forest Plan does not include this standard because the plan adequately protects deer habitat and the standard would be very difficult to administer because the standards and guidelines could change management on an annual basis depending on weather, hunter success, demand, or other factors.

The Forest Plan includes requirements to "Identify important deer winter range before or as part of project analysis" and to "Assure interdisciplinary involvement and consideration of deer winter range in project planning and in the environmental analysis process" (Forest Plan, Chapter 4, "Wildlife"). Deer habitat also is protected under a standard for wolf conservation. In addition, the Plan's 1,000-foot beach and estuary fringe, wider riparian buffers, and large, medium, and small old-growth habitat reserves maintain needed habitat. In all, the Forest Plan protects 86 percent of high-value deer winter range and 83 percent of deer habitat capability. As a result, the Final EIS concludes that "Alternative 11 (the preferred) ranks relatively high in the conservation of deer habitat" (Final EIS, page 3-369).

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Because other elements of the Forest Plan, as described above, adequately protect deer winter range habitat, I concluded that any incremental benefits of the standard do not outweigh its administrative problems. For these reasons, the deer winter range standard was not included in the selected alternative.

Fish Habitat

Many reviewers of the RSDEIS recommended a higher level of protection, referred to in that document as “option 1,” at least for certain watersheds identified by the State of Alaska as containing the highest fisheries values. Others suggested that stream protection measures need to be increased. The State of Alaska recommended a different methodology be used to identify watersheds with the highest fisheries values.

In considering how best to respond to all these concerns, we concluded that distinguishing high-value watersheds from lower-value ones poses significant analytical and administrative problems. For example, the high-fish-value watersheds proposed by the State of Alaska were identified by an analysis of coho habitat capability, pink salmon escapement, and sport-fishing use. This approach could overlook additional factors such as sensitive or unique fish populations, subsistence uses, or others, which are also important when determining fish values. In addition, providing less protection to the “lower-value” watersheds inherently ignores the high cumulative value of these watersheds. Accordingly, the decision was made to develop new riparian management direction for the Final EIS that would apply to all watersheds across the Forest, wherever land-disturbing activities are allowed. Another decision was made to incorporate all the recommendations made in the Anadromous Fish Habitat Assessment (AFHA) report for additional protection, because AFHA is the most comprehensive and credible scientific review of the measures needed to protect fish habitat on the Tongass.

The standards and guidelines and other direction of the Forest Plan I am approving today meet or exceed all of those recommendations by AFHA, and include some of the features of option 1. These standards and guidelines will be applied in all watersheds on the Forest, and are sufficient to protect fish habitat and provide for sport and commercial fisheries and subsistence.

Karst and Caves

Some respondents believe that the karst and cave resources are valuable and should be protected while others believe that not enough information is known about these resources to judge whether they should be protected or not.

New information has become available since release of the 1991 SDEIS about the extent to which much of the Tongass has world-class karst and cave resources. Given a high correlation between occurrences of karst and high-quality timber, questions have arisen regarding how best to protect karst and cave resources while meeting other management objectives.

The Plan includes forest-wide standards and guidelines for management of karst and cave resources that incorporate: a) the results of a 1995 karst vulnerability assessment conducted through a partnership between the Forest Service and national cave experts; b) the results of a 1996 analysis of karst landscapes and associated resources by the interdisciplinary planning team; and c) requirements of the Federal Cave Resources Protection Act of 1988.

High-vulnerability karst lands will be removed from the commercial forest lands suitable land base as they are identified in project planning. Timber management and related activities will generally be excluded from these areas. Limited road construction for access to other areas will be allowed if no alternatives are available and karst resource values would not be compromised.

Land-disturbing activities such as timber harvest and road construction will be allowed on moderate-vulnerability karst lands, with more restrictive practices than would be included in such activities on non-karst lands. No significant adverse effects on karst and cave resources will result from implementation of the Forest Plan (see the Final EIS, pages 3-85 to 3-86).

Local Economy/Socioeconomic Considerations

Many respondents expressed concern that the Forest Service should be more sensitive to and involved with ensuring that communities affected by decreased timber harvesting can maintain economic stability.

Socioeconomic needs of the communities of Southeast Alaska are an important aspect addressed in the Forest Plan. The Forest Plan includes forest-wide standards and guidelines for rural community assistance which provide for the consideration of development opportunities by resource managers, and for the sharing of information with local agencies, planners and managers. Rural community assistance is a national as well as regional and local emphasis within the Forest Service.

The Forest Plan provides opportunities for continuing or expanding resource-related industries in many other ways. Each of the "timber harvest" Land Use Designations (Scenic Viewshed, Modified Landscape, and Timber Production) includes the goal of supplying timber to small businesses, and small business opportunities were considered in projecting timber demand and setting the ASQ. Areas important to the recreation and tourism industries have been identified and mapped, and were important in the selection of appropriate recreation-oriented land use designations for many portions of the Forest.

Although not directly related to the Forest Plan revision, another socioeconomic consideration is the Southeast Alaska Economic Disaster Fund established under Public Law 104-134, as amended by Public Law 104-208. Under these statutes, a total of \$110 million will be provided over a four-year period (\$50 million in fiscal year 1996 and \$20 million annually for the next 3 years) to a number of communities throughout Southeast Alaska to help these communities deal with the socioeconomic effects of reduced timber harvest activities. Eligible communities include Wrangell, Ketchikan, Sitka, Petersburg, Craig, Hoonah, Hydaburg, Kake, Klawock, Pelican, Skagway, Angoon, Coffman Cove, Kasaan, Tenakee Springs, Thorne Bay, Metlakatla, Haines, Juneau, and Yakutat. Each community is in the process of determining how these funds will be spent.

The Forest Service is also participating in a large effort by a variety of Federal, State, and local agencies and the private sector to form the Southeast Alaska Community Economic Revitalization Team (SEA CERT), patterned after a similar effort in the Pacific Northwest. Now in the formative stages, SEA CERT is expected to include 13 Federal agencies, including the Forest Service, USDA Rural Development, Natural Resource Conservation Service, Economic Development Administration, Small Business Administration, Department of Labor, Environmental Protection Agency, Public Health Service, U.S. Army Corps of Engineers, Housing and Urban Development, Bureau of Indian Affairs, U.S. Fish and Wildlife Service, and the National Marine Fisheries Service. State members are expected to include the Departments of Community and Regional Affairs, Commerce and Economic Development, Labor, and Fish and Game, with the participation of numerous other State agencies. Local members, to date, include most communities in Southeast Alaska. The goal of SEA CERT is to promote economic stabilization and community development in timber-dependent communities in Southeast Alaska.

Many reviewers of the RSDEIS believed its socioeconomic analysis to be inadequate. They recommended that the Forest Plan not be completed until this analysis was re-done, mainly to include quantitative estimates of the effects of various plan alternatives on employment and other socioeconomic indicators of each community in Southeast Alaska.

Nearly 250 pages of socioeconomic analysis are contained in the Final EIS (pages 3-431 to 3-685). It is a comprehensive analysis of these issues. Additionally, due to significant interest in depicting community-specific socioeconomic effects, the Final EIS includes several analyses that were not included in previous drafts, including:

- ◆ The description of the economy of Southeast Alaska has been substantially modified to include an analysis of the recent economic trends for groups of communities as defined by the Alaska Department of Labor. The description of current economic and social conditions within each of the

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32 communities and a qualitative analysis of potential impacts has also been updated and improved.

- ◆ The history and current situation of the logging camps now operating in Southeast Alaska is included, recognizing that the individuals living and working there are an important part of the region, and will be affected by the decisions made concerning management of the Tongass National Forest.
- ◆ The projected economic timber volume of each alternative is compared to both the reported installed capacity and historic processing levels of existing mills, both open and closed. This analysis is depicted in both graphic and narrative form to display potential effects of each alternative on the region's timber-processing facilities. The potential impacts of mill closures have also been analyzed at the borough, census area, or community group level to indicate where employment and income change would most likely be concentrated at a scale of interest to individuals in those areas.
- ◆ The geographic areas where timber harvest activity is likely to occur are mapped. This analysis accounts for implementation of the land use allocations and the standards and guidelines, and it accounts for areas where timber harvest may be less economic due to operability considerations.
- ◆ Areas which approximate the extent of each community's day-to-day use area, or community use area, have been delineated and displayed, both graphically and in a tabular form. The tabular analysis allows individuals to gather information about how their "backyards" will likely be affected or maintained over the next 10-15 years by all the alternatives considered in the Final EIS.
- ◆ The map of subsistence activities has been updated to more accurately reflect where deer actually have been harvested.

The description of community-level subsistence effects of the alternatives has been substantially improved by tailoring it to historic subsistence use by each community.

Community-specific effects of each alternative on nine socioeconomic factors are also described in the Final EIS. Factors include timber jobs, fishing jobs, recreation and tourism jobs, mining jobs, economic diversity, community stability, quality of life, recreation opportunities, and access to traditional lifestyles.

The estimated community-specific effects are inherently qualitative. Nonetheless, the information included in the Final EIS far exceeds that provided in any previous Tongass forest planning document, and is more than adequate to allow full consideration in my decision of the projected socioeconomic effects of the alternatives.

Some reviewers of the RSDEIS disagree with its conclusion that activities on the Tongass, including timber harvest, are expected to have no significant effect on employment in the commercial fishing sector over the next ten years.

The Final EIS, which examines potential effects over the next decade, reaches a conclusion that, for a variety of reasons, no significant effects on commercial fishing employment will occur under the alternatives considered. There may be long time-lags between forest management activities and effects on fish habitat, and noticeable cumulative adverse effects on fish stocks and related employment. Moreover, a number of other factors influence fish stocks and commercial fishing jobs, such as oceanic conditions, market forces, and fishing regulations. Accordingly, it is impossible to quantify the adverse long-term effects on fishing jobs associated with the alternatives considered in the Final EIS. That does not make these effects any less real. It does, however, explain why the Final EIS does not make any quantitative estimate of these effects.

Measures are included in the Forest Plan to protect fish habitat and prevent unacceptable long-term risks to commercial fishing employment. The Final EIS concludes that only Alternative 1 has a lower risk to fish habitat than the selected alternative. I believe the Forest Plan will protect fish habitat and minimize effects from the management of the Tongass on commercial and sport fisheries and dependent subsistence uses.

Concerns were also expressed regarding the effects of the Forest Plan on employment in the recreation and tourism sectors.

The Final EIS (pages 3-488 and 3-490) states that:

“The impact of [timber] harvest activity on recreation capacity will accumulate over time with increasing impacts in later decades. However, the fact that current supply generally exceeds demand results in employment and income estimates across alternatives for the next decade which show very little variance relative to timber. Impacts in subsequent decades may be somewhat more pronounced....For some visitors, the presence of roads and timber harvest may conflict with their expectations and impact their experiences. This analysis has not attempted to measure the potential effects on non-resident visitation because of alternative uses of the Forest such as timber harvest, mineral development, or commercial fishing.”

The Forest Plan has some minor unquantifiable risk of reducing undeveloped recreation and tourism employment over the next several decades; such risks would be higher under alternatives with higher levels of timber harvest and road construction. Conversely, those alternatives with greater road construction would increase the opportunities for roaded recreation. I believe the Plan has adequately responded to concerns of impacts on recreation and tourism as discussed elsewhere in this ROD.

Popular and Community Use Areas

The Forest Service received numerous comments requesting that various areas throughout the Tongass be assigned a non-development LUD.

Alternative 1 of the Final EIS considered the impacts of assigning a non-development LUD to all of the areas for which such a suggestion was made. A number of comments suggesting non-development LUD's be allocated to certain VCU's were addressed, including those from the State of Alaska suggesting the Forest Service develop “appropriate management prescriptions that protect community use, and fish and wildlife values” in VCU's having high levels of community use. Based upon such comments, the Forest Plan assigns non-development LUD's to all or a significant portion of a number of VCU's that were assigned to development LUD's in the RSDEIS Preferred Alternative. Some of these include:

VCU 84 - the entire Sanborn Canal area.

VCU 196 - the entire VCU (Chicken Creek west of Hoonah).

VCU's 202 and 223 - the portage between West Port Frederick and Tenakee Inlet.

VCU's 299-303, 309, 310, and 313 - many areas around Sitka, including Halleck and Krestof Islands, the lands along Sukoi Strait and Krestof and Nakwasina Sounds, and inland portions of VCU's 299 and 313.

VCU 527 - the entire VCU (adjacent to Port Protection).

VCU's 576 (entire VCU) and 596 - expanding the Old-growth Habitat LUD designation of Honker Divide and south to the Karta Wilderness.

VCU's 592 (entire VCU) and 593 - northwest of Craig, including the area known as “11-Mile.”

VCU's 713-716 - all of these four VCU's, the southwest portion of Cleveland Peninsula.

VCU 806 - the entire area west and north of Salmon Creek (near Hyder).

Many commenters suggested that an entire VCU or group of VCU's be assigned a non-development LUD based upon community use or other concerns that involved only a portion of the VCU or group of VCU's. In many VCU's, much of the subsistence use occurs along the beach fringe, which is protected by the forest-wide standard and guidelines mandating a 1,000-foot beach fringe. In other cases, small old-growth habitat reserves were added that coincide with the primary area of community use. Thus, in many cases, part or all of the concerns that prompted the suggestion for non-development allocation of a particular VCU are addressed by focusing on the key habitat or use within that VCU, allowing for other multiple use considerations for the remainder.

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The Community Assessments portion of the Final EIS, Volume 2, contains a description of each community's population, economy, and subsistence use; maps of the community use area; summaries of comments from the community; and an analysis of the potential effects on the community. Part B of Appendix L is devoted to the response to public comments regarding individual geographic areas. For each area, the Final EIS summarizes the comments received and responds to those comments, indicating the LUD's assigned and how those allocations address the concerns expressed.

Recreation and Tourism

Some Forest users prefer unmodified, unroaded areas with limited access and few improvements. Others prefer natural-appearing areas accessible by road. Some reviewers expressed concern about the projection that the demand for Semi-primitive Motorized recreation opportunities (principally boating and floatplane use of fairly remote areas) is expected to exceed the available capacity, and suggested reducing timber harvest activities near certain bays and anchorages to avoid this result.

Some land allocations have been changed in response to these concerns. In addition, the 1,000-foot beach-fringe buffer and the riparian standards and guidelines will reduce scenic changes in those places scheduled for timber harvest.

The demand for Semi-primitive Motorized recreation opportunities is expected to exceed the inventoried supply due in large degree to an increasing resident population and tourism growth. These factors will increase the number of people operating boats and planes to access Semi-primitive Motorized areas, especially those places surrounding larger communities. This may make the areas less desirable to those people who want the solitude associated with a semi-primitive recreational experience. People may adapt to the increasing number of people, they may discontinue going to the National Forest, or they may search out new areas, traveling farther to regain solitude. These changes are expected to occur under any Forest Plan alternative. Relatively few changes in semi-primitive motorized opportunities are expected to occur as a result of land management activities such as timber harvesting. Recreation and tourism resources are discussed on pages 3-128 to 3-147, and 3-488 to 3-491 of the Final EIS.

My decision focused on the different recreation and tourism opportunities and kinds and quality of recreation experiences available throughout the Forest. Consequently, I believe the resource standards and guidelines and the changes in LUD allocations reflected in Alternative 11 are sufficient to maintain recreational and tourism opportunities throughout the Forest.

Roadless Areas

Many respondents have expressed concerns with maintaining the unroaded character of the Tongass National Forest. Some believe these unroaded lands should be put into productive timber use, while others expressed the need to preserve these lands in an unroaded state.

During the congressional deliberations leading to the passage of the Tongass Timber Reform Act, 23 unroaded areas of importance to conservation groups and members of the public were included as Wilderness in a bill passed by the House of Representatives. These areas totaled over 1.8 million acres. All or a substantial portion of 16 of these areas, about 900,000 acres, were ultimately designated (along with another 100,000 acres not in the House bill) by the TTRA either as Wilderness or Congressionally designated LUD II areas. The remainder of these areas, many of which have been frequently cited in public comments since TTRA, are allocated to Forest Plan LUD's.

Thus, while no new Wilderness is proposed under any alternative, 90 percent of all currently unroaded lands on the Forest will still be roadless at the time of the next Forest Plan revision, assuming that roadless acres become roaded in the same proportion as in the past (Final EIS, 3-170). Potential Wilderness may be considered again at the time of the next revision (Final EIS, 3-170).

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In the meanwhile, special areas of concern have been fully considered and have been designated under specific LUD's. These designations, in some cases, allow unroaded lands to be included in the suitable timber base. In other cases, they preserve the roadless and wilderness character of the land. Thus, after carefully considering each area's attributes and resource potentials, the following sets forth the land allocations of particular concern:

- ◆ *Sullivan Island* - all in Semi-remote Recreation.
- ◆ *Port Houghton/Sanborn Canal* - areas adjacent to saltwater, and the salt chuck at the head of the bay, are in a combination of Old-growth Habitat and Scenic Viewshed. The remaining inland portions are primarily in Timber Production.
- ◆ *Rocky Pass* - all in Remote or Semi-remote Recreation.
- ◆ *West Duncan Canal* - the eastern one-third of the area (the Duncan Canal side) is in a combination of Old-growth Habitat and Semi-remote Recreation, with most of the inland portion in Timber Production.
- ◆ *South Kuiu* - all in Semi-remote Recreation
- ◆ *Sarkar Lakes* - all in Remote Recreation, or Wild, Scenic and Recreational River.
- ◆ *Kegan Lake* - all in Semi-remote Recreation and Wild River.

Other unroaded areas mentioned most frequently in the public comments are allocated as follows:

- ◆ The unroaded portions of the Chilkat Range are primarily in Semi-remote Recreation. The roaded southwestern portion near Point Couverden includes areas in Timber Production and Scenic Viewshed.
- ◆ *Chicken Creek* - allocated entirely to Old-growth Habitat.
- ◆ *Mansfield Peninsula* - allocated entirely to Semi-remote Recreation.
- ◆ *Tenakee Inlet* - most of the shoreline areas, including several inlets and bays, are in either Old-growth Habitat or Modified Landscape, with inland areas in Timber Production.
- ◆ The "Sitka Use Area," those National Forest lands in the vicinity of Sitka, includes a mixture of designations; most of the more accessible portions, islands and shorelines are allocated to the Old-growth Habitat, Semi-remote Recreation, or Special Interest Area LUD's.
- ◆ *Farragut Bay* - primarily in Semi-remote Recreation.
- ◆ *East Kuiu Island* - mostly in Old-growth Habitat or Modified Landscape.
- ◆ *Cleveland Peninsula* - the entire southwestern portion, roughly one-half of the area, is in Semi-remote Recreation. The remainder is a combination of Old-growth Habitat, Modified Landscape and Timber Production.
- ◆ *Honker Divide* - the Thorne River and Hatchery Creek are in Scenic and Recreational River; the remainder of the area generally called Honker Divide, including Rio Roberts, is in Old-growth Habitat, with some Scenic Viewshed along the outer boundaries.
- ◆ *Dall Island* - all but the extreme northern portion is in either Semi-remote Recreation, or the Special Interest Area LUD as a geological area. Modified Landscape is at the north end.

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Scenic Quality

Many reviewers are concerned with alteration of scenic quality resulting from management activities, principally timber harvesting and roading. Many believe that the Plan should be sensitive to particular areas important to local residents, recreationists, and tourists.

Effects on the scenery (Final EIS, pages 3-178 to 3-196) are largely measured in how much any alterations to the naturally-appearing landscape will be evident to the casual viewer. Over 75 percent of the Tongass will remain essentially unaltered from its present condition, so the focus of scenic quality is on the remaining lands that are subject to disruption of scenic quality. By identifying selected areas most frequently seen by most forest users (the Visual Priority Routes and Use Areas, Forest Plan, Appendix F), and applying special management where alterations to the natural landscape will occur, another seven percent of the Tongass will maintain a reasonably natural appearance for the majority of Forest users. In the remaining 15 percent of the Tongass, management activities may, over time, tend to dominate the landscape. There will be areas within the latter category that are important for their scenic qualities to some Forest users, and in these areas the scenic quality is likely to be significantly reduced.

Subsistence

Throughout the forest planning process, some individuals and groups, including most recently the Southeast Alaska Federal Subsistence Advisory Council, have advocated the creation of a subsistence Land Use Designation which would be used in concert with the other 19 LUD's in the Forest Plan. Others believed that special consideration was not warranted. The recommendation for a subsistence LUD has not been adopted, in part because there is no agreement on what activities should and should not be allowed in such a LUD. In addition, all LUD's provide for subsistence uses of the Forest.

Subsistence hearings and other meetings with subsistence users were held throughout Southeast Alaska to obtain the specific concerns of subsistence users. Based on the analysis of the effects of fully implementing projects scheduled in the Forest Plan (Final EIS, Chapter 3, "Subsistence and Communities"), there may be restriction on subsistence uses of deer in some areas of the Forest due to effects projects may have on abundance and distribution of deer and competition among hunters. In addition, the number of subsistence users, such as deer hunters, is likely to increase over time, which will increase the potential for unmet demand in some areas of the Forest. A number of non-subsistence users are also likely to rise, increasing the competition for limited resources. In conducting the subsistence evaluation it has been determined that, in combination with other past, present, and reasonably foreseeable future actions, there will be no significant restriction for salmon, other finfish, marine mammals, invertebrates, river otter, moose, waterfowl, seabirds, other small game, edible plants, or firewood. Together, these resources account for an average of at least 75 percent of the total harvest of subsistence resources.

Timber

Allowable Sale Quantity. Many respondents expressed a belief that the ASQ estimates in the RSDEIS were considerably overstated, asserting that standards and guidelines had not been properly modeled or that mistakes had been made in the analysis.

I recognize that ensuring an accurate projection of timber volume is a difficult task and believe the Forest Plan is based on the most thorough and accurate analysis ever conducted for forest planning purposes in Alaska. The projection tools used in this analysis include a number of Model Implementation Reduction Factors, or MIRF's. MIRF's account for factors encountered during project planning and field review that suggest less timber should be harvested on a particular site than was anticipated in the Forest Plan. Extensive comparisons were made of model projections to actual on-the-ground timber harvest practices to develop estimates of how much land might be identified during project planning as area where timber harvest was not possible under the standards and guidelines of the Forest Plan. These estimates became the MIRF's, which were incorporated into all estimates of timber production. In this way, the effects of unmapped streams that will require no-harvest buffers, unmapped karst and cave resources, new bald

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eagle, osprey, or goshawk nests, and a host of other site-specific constraints not identifiable until project field verifications are accounted for in the calculation of the ASQ of the Final EIS.

Although adjustments have been made in the ASQs for the alternatives carried forward from the RSDEIS to the Final EIS, the changes are relatively minor and are based on routine modeling revisions and data updates. The effect of the measures added to Alternative 11 have not been explicitly modeled, but are judged to be relatively small (Final EIS, Appendix N). Ultimately, the ASQ estimates contained in the Final EIS are substantially more accurate than such estimates included in the previous drafts, including the RSDEIS.

Demand. Research scientists at the Pacific Northwest (PNW) Station have recently completed new projections of demand for timber from the Tongass National Forest. The new projections include a medium projection that averages 110 MMBF per year over the next decade and low and high projections that average 68 and 154 MMBF per year, respectively, over the same time period. These projections are considerably lower than those done by the PNW Station in 1990 and 1994 (Final EIS, Appendix M). The differences are attributed to, among other things, expectations of reduced consumption in the principal markets for Alaska wood products and increased competition in those markets from other suppliers. They also consider the effects of the recent closures of the pulp mills operated by the Alaska Pulp Corporation and the Ketchikan Pulp Company.

The projected demand is for sawlogs suitable for producing lumber in Southeast Alaska mills. The ASQ for the Forest Plan and the annual timber sale program on the Tongass include both sawlogs and other types of wood. Over the past ten years, about 52 percent of the timber volume harvested on the Tongass has gone to Southeast Alaska sawmills. If this ratio continues into the future, the ASQ needed to satisfy the medium projection of demand would be about 212 MMBF per year. Under the same assumption, the ASQ needed to satisfy the low and high projections of demand would be about 130 and 296 MMBF per year respectively. These numbers can be compared with the actual ASQ, which averages 267 MMBF per year over the next decade.

Market demand is volatile; the projections done by the PNW 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. We will continue to track market demand and to report on it in the Supply and Demand report we prepare annually pursuant to Section 706(a) of ANILCA.

Non-Interchangeable Components. Some respondents expressed concerns that the ASQ is based on the ability to harvest timber on economically marginal lands, as well as economically profitable lands, yet the actual harvest has been derived disproportionately from the more economical lands, leaving the economically marginal lands unharvested. These more economical lands are also of great importance to wildlife.

The ASQ has been subdivided into two separate Non-Interchangeable Components (NIC's) called NIC I (which is 2.2 billion board feet of timber per decade) and NIC II (which is .47 billion board feet per decade). The reason these components are called non-interchangeable is that lower sale levels in one component may not be compensated for by higher sale levels in the other. The separate limits on each component are binding.

The NIC I component includes land that can be harvested with normal logging systems. Historically, most of the NIC I component has been economical for timber purchasers; about 93 percent of the timber program has come from this component. The NIC II component includes land that has high logging costs due to isolation or special equipment requirements. Historically, about seven percent of the timber program has come from this component.

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The timber sale program in the Forest Plan places a higher reliance on the NIC II component than in the past. About 80 percent of the ASQ comes from NIC I land and about 20 percent comes from NIC II. Based on history, we expect that the NIC I component will generally have harvesting costs that can be borne by most purchasers. However, depending on the market, much of the NIC II component may not be economically feasible to harvest. Subdivision of the ASQ into components is intended to ensure that the lower-cost NIC I lands are not over-harvested if this proves to be the case.

The NIC I and NIC II estimates are based on best forest-wide data available. This data will be updated during the implementation of timber sale projects, and it is reasonable to expect that project level analysis will produce more accurate results. The volume offered from NIC I and NIC II components will be tracked carefully during project implementation. The Forest Supervisors will also review the accuracy of the planning information used to allocate the ASQ between the two NIC's during the first year of plan implementation. If the data from these analyses indicate a need to make adjustments, we will do so.

Sustainability of the Timber Industry. Some respondents cited concerns regarding the sustainability of the timber program and industry in Southeast Alaska, asserting that when harvest shifts from old-growth to second-growth stands in 40 to 50 years, it will produce timber that current mills are not equipped to process, and products for which there is no market. Other concerns have been expressed about the viability of the industry without a processing facility for the low-quality wood that used to be processed into pulp before the pulp mills in Sitka and Ketchikan ceased operations.

At the present time, timber markets in Southeast Alaska have been disrupted by the economic changes associated with the ending of the two long-term sale contracts held by the Alaska Pulp Corporation and the Ketchikan Pulp Company. The Governor of Alaska has chartered a task force to address the problems and opportunities created by this economic transition. Both industry and community leaders on the task force are struggling to identify and encourage alternative timber processing industries for Southeast Alaska. We are supporting this effort in an invited advisory capacity and recognize that such efforts take time.

To address concerns of sustaining timber industries in Southeastern Alaska, the PNW Research Station and the Forest Service's Forest Products Laboratory in Madison, Wisconsin, are conducting a study entitled "Evaluating Wood Quality Potential for Young-Growth Western Hemlock/Sitka Spruce and Small-Diameter Old-Growth Sitka Spruce in Southeast Alaska." This study is one of the high-priority information needs identified in the Forest Plan. It will produce basic product-recovery information and estimate likely markets for products from the young-growth timber and from "pulpwood" available from the Tongass. Results should be available over the next 3-5 years.

Additionally, the Regional Forester has the authority to allow the export of logs on areas being logged primarily for local manufacture. Timber sale program export policy administration can be adjusted in relation to market and facilities, without the need to further amend the Forest Plan or supplement the Plan EIS. The Plan does not govern export policy, which is defined by 36 CFR 223 regulations and related Forest Service manual, handbook, and timber-sale contract provisions.

Wildlife Habitat

Many respondents to the RSDEIS opposed establishment of old-growth reserves. These respondents believe the science underpinning this wildlife habitat conservation approach is weak. They believe the risk to timber industry workers from the reductions in lands available for timber harvest is higher and more certain than the wildlife viability risks, so no reductions should be made in the land base available for timber harvest unless and until greater scientific information justifying the risks to timber workers becomes available over the next several years.

Other respondents believe the RSDEIS offered too little protection for wildlife habitat. Many of these respondents recommended larger and more numerous habitat reserves, a wider beach fringe, and other steps to increase protection for wildlife habitat.

The analysis contained in the Final EIS (pages 3-362 to 3-429) and Appendix N supports the need for additional protection of wildlife habitat from the current situation. Although the scientific information on habitat needs of several Tongass wildlife species is incomplete, the analysis contained in the Final EIS incorporates the best scientific information available, including among other things the VPOP Committee's 1993 report, the independent peer review of that report (PNW Station, 1994), the VPOP Committee's 1994 response to the peer review, the conservation assessments for the wolf, goshawk, and marbled murrelet, and the results of panelists convened to assess the risk associated with the various alternatives to certain species.

Some respondents believe that the results of the wildlife panel assessments included in the RSDEIS indicate that the Preferred Alternative (Alternative 10 in the Final EIS) from last April would have a low probability of protecting sufficient habitat to maintain well-distributed viable populations of wildlife. Some suggested that the Preferred Alternative should have been analyzed by the risk assessment panels along with the other alternatives.

We reconvened the risk assessment panels and evaluated Alternative 10 and the selected Alternative 11. Several other previously paneled alternatives were also evaluated to serve as reference points for comparisons with the 1996 panel results. Alternatives 1, 5, and 9 were used as reference points since these alternatives were not changed substantially between the RSDEIS and the Final EIS. The results of this additional risk assessment work is contained in Appendix N of the Final EIS and has been fully considered in my final decision.

We have crafted an old-growth habitat strategy as part of the Forest Plan that is fully responsive to our obligations to manage habitat to maintain well-distributed viable populations within a multiple-use context. This strategy is designed to reduce fragmentation of old-growth habitat on the Forest, and has been developed through careful analysis and integration of the best scientific information available on this subject. A further explanation of this strategy can be found in Appendix N of the Final EIS. An additional explanation of the Forest Plan's compliance with the fish and wildlife requirements of NFMA is discussed in Part VI of this ROD.

C. National Policy Considerations

Some aspects of national policy have been mentioned previously (e.g., mining and rural development). The Forest Plan responds to one of the most important of these programs, the Forest and Rangeland Renewable Resources Planning Act (RPA) program. Under the RPA, the Forest Service prepares a long-term, nation-wide strategic plan every five years to guide the management of the National Forest System.

The Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA) required the Forest Service to prepare a long-term strategic plan, referred to as the RPA Recommended Program, and update that Program every 5 years. The 1995 Program update is still in draft due to a variety of factors, including extensive Congressional interest. Under the provisions of the Government Performance and Results Act (GPRA) of 1993 all government agencies are expected to develop a strategic plan that covers a 3-5 year time horizon. The Forest Service has forwarded a draft GPRA strategic plan to the Congress for review and comment. This GPRA plan will be used by the agency to develop annual performance plans linked to the budget and enable evaluation of agency and individual performance (i.e., accountability) and year-end reporting. The GPRA goals and objectives are consistent with the Draft 1995 RPA Program. I have reviewed these documents and conclude that the Forest Plan is consistent with the strategic goals of these documents.

The 1990 RPA program has four major themes for Forest Service multiple use management: (1) enhance recreation, wildlife and fisheries resources; (2) ensure environmentally acceptable commodity production; (3) improve scientific knowledge about natural resources; and (4) respond to global resource issues. The Forest plan responds to these goals by: (1) enhancing recreation, wildlife and fisheries with LUD's for Semi-remote Recreation, Old-growth Habitat, Scenic Viewsheds, and Modified Landscapes; (2) ensuring environmentally acceptable commodity production through timber harvesting, use of the Minerals LUD, and forest-wide standards and guidelines for air, soil, water, and other resources; (3) improving scientific

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knowledge about natural resources through monitoring and evaluation, and as addressed in the section on Research and Education in this ROD; and (4) responding to global resource issues, such as climate change, by retaining over 75 percent of the Tongass National Forest as unavailable for timber harvesting.

The draft 1995 RPA Program and the Draft GPRA Strategic Plan establish four major goals for the Forest Service: (1) protect ecosystems; (2) restore deteriorated ecosystems; (3) provide multiple benefits for people, within the capabilities of ecosystems; and (4) ensure organizational effectiveness. The Forest Plan responds to these goals by: (1) protecting ecosystems through the creation of old-growth reserves, riparian and beach buffers, and other standards and guidelines for resource protection; (2) restoring deteriorated ecosystems through fish habitat restoration, including a 10-year schedule of enhancement projects as outlined in Appendix L of the Forest Plan; (3) providing multiple benefits for people through maintenance of scenic quality, providing for recreation and tourism, responding to subsistence needs, and providing wood products; and (4) ensuring organizational effectiveness with this Forest Plan by setting the framework for management actions and establishing goals, objectives, standards and guidelines, and monitoring for measuring accountability.

V. Means To Avoid Environmental Harm

A. Mitigation Measures Adopted

Extensive measures to avoid or minimize environmental harm have been adopted in the Forest Plan. These measures have been discussed previously, and include forest-wide standards and guidelines which at a minimum meet all requirements of applicable laws, regulations, State standards, and additional standards and guidelines for each land use designation. 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, the old-growth reserve areas, and survey and management requirements for endemic mammals. Additional mitigation measures were developed specifically for Alternative 11 which are designed to reduce risk of viability concerns to certain species, as further discussed in Appendix N to the Final EIS and in the NFMA discussion in Part VI of this ROD.

B. Mitigation Measures Not Adopted

The Final EIS discusses a number of “alternative component options” that were designed to address the issues. Some of these options, when considered in combination, make up the alternatives considered in detail in the Final EIS. Most of these options were designed to mitigate effects on specific resources, and as such represent either varying levels of resource protection, or alternative ways of achieving a similar level of protection through mitigation. Those that did not become a part of the final Forest Plan, but potentially offered similar or more mitigation than the option selected, are discussed briefly here. For the beach and estuary fringe, and the karst and caves resource, the options selected provide the highest level of mitigation of the options considered for those resources.

Several options were available to address various aspects of wildlife habitat, and in particular the need to maintain habitat to ensure long-term species viability. For instance, of the three options for a forest-wide old-growth habitat reserve system, the full-reserve option (the highest level) was selected for the final Forest Plan. Another way to provide a similar level of mitigation was available under the silvicultural rotation options emphasizing the use of extended harvest rotations. Based on the analysis in the Final EIS, neither approach, taken by itself, necessarily provided a higher level of mitigation, and could only be evaluated in conjunction with all the other options used for a particular alternative. This interrelationship of options is important in understanding their effectiveness.

The extended rotation option was not selected for the final Forest Plan. The combination of a forest-wide reserve system, the widest no-harvest beach fringe, a high level of riparian protection, and other measures provides a comparable level of mitigation to that provided by extended rotation silviculture (see Appendix N of the Final EIS, and the discussions pertaining to wildlife habitat and viability elsewhere in this ROD). The

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Forest Plan provides an equivalent ecological rotation of 300 years for the forest-wide landscape. The options of VCU harvest thresholds and old-growth retention percentages also were not selected, for similar reasons. The Forest Plan attains the same objective as these measures, an equivalent 300-year rotation forest-wide, and in the great majority of individual VCUs (see Appendix N of the Final EIS). For similar reasons, the use of only uneven-aged timber harvest systems, or only uneven-aged and two-aged in combination, were not adopted.

Riparian option 1 was not selected. It provided the least risk for the riparian and fisheries resources, going beyond the recommendations of the Anadromous Fish Habitat Assessment. Riparian option 2A, selected for the Forest Plan, was designed to fully implement the assessment recommendations, and the Final EIS analysis (in Chapter 3, "Fish"), as well as the reconvened Fish/Riparian panel, found the forest-wide use of option 2A comparable to a combination of options 1 and 2 in reducing risk.

The deer winter-range option was also not adopted. This would provide additional habitat protection in areas where current deer harvests are high in comparison to the estimated deer habitat capability. The use of the wider beach fringe option and small habitat conservation areas in each VCU result in a similar level of mitigation.

Appendix N of the Final EIS discusses in some detail other possible mitigation measures proposed through various viable population studies, but which did not become alternative options or part of the Forest Plan. These included a wider beach fringe in which uneven-aged systems would be allowed, larger habitat conservation areas forest-wide, 300-year silvicultural rotations, and other measures to reduce fragmentation and ensure connectivity. The objectives of these measures are all evaluated in comparison to the final Forest Plan, which offers a similar or better level of mitigation. Most of the components of the various alternatives recommended by conservation groups (discussed in the Final EIS, Chapter 2) are the same as, or similar to, the measures evaluated in Appendix N of the Final EIS.

C. Monitoring And Evaluation

The Forest Plan includes a monitoring and evaluation plan which will provide an ongoing assessment of the effectiveness of the Forest Plan standards and guidelines. The results of monitoring will be used to evaluate the assumptions used in developing the Forest Plan, and may be the basis for amendments or revisions. 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.

We will work with the U.S. Fish and Wildlife Service and other Federal and State agencies to further review whether the Forest Plan's old-growth strategy is adequate and to develop Conservation Agreements with the U.S. Fish and Wildlife Service and the Alaska Department of Fish and Game to further address the conservation needs of the Alexander Archipelago wolf and the Queen Charlotte goshawk. If further analysis shows that adjustments are needed, the direction in the Plan will be changed in accordance with NFMA, NEPA, and other applicable law.

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VI. Findings Related To Other Requirements

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

A. National Environmental Policy Act

The 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: 1) to provide decision makers with a detailed accounting of the likely environmental effects of a proposed action prior to its adoptions; and, 2) to inform the public of, and allow comment on, such efforts.

The Forest has compiled and generated an enormous amount of information relevant to the effects of each of the alternatives considered in the Final EIS. Such information builds on the data, analysis, and public involvement set forth in the documents prior to this Final EIS (see the Final EIS, pages 1-1 to 1-7, and Appendix L), which include the 1990 DEIS, the 1991 SDEIS, and the 1996 RSDEIS.

All substantive comments, written and oral, made on the 1990 DEIS, the 1991 SDEIS, and the 1996 RSDEIS have been summarized and responded to in the 612-page Appendix L of the Final EIS. Over the course of analysis, this public involvement has lead to substantial changes in the alternatives.

I find that the environmental analysis and public involvement process complies with each of the major elements of the requirements set forth by the Council on Environmental Quality for implementing NEPA (40 CFR 1500-1508).

First, the Final EIS considered a broad range of reasonable alternatives. The 10 alternatives considered in detail in the Final EIS represent only part of the total number of alternatives considered over the course of the DEIS, SDEIS, and RSDEIS. Additionally, numerous options within alternatives were considered as discussed in the Final EIS, pages 2-1 to 2-23. Alternatives presented in the Final EIS encompass a broad range of response to issues, including a timber suitable land base ranging from 0 to 1.6 million acres, a retention VQO ranging from 2 to 5.9 million acres, and various options of even-aged to uneven-aged silvicultural systems.

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. The environmental effects analysis estimates timber activities and timber associated activities, such as road building, in excess of 100 years. The analysis of effects to wildlife was based on implementation of the Forest Plan for 100 years and considers changes to vegetation both temporally and spatially (Final EIS, pages 3-351 to 3-430). Moreover, although non-federal lands are outside the scope of this decision, effects from their management have been considered in the Final EIS to a degree appropriate for a programmatic NEPA document at this scale.

Third, the Final EIS makes use of the best available information. Application of a geographical information system (GIS) 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 72-page bibliography (Chapter 6 of the Final EIS). Uncertainties connected with environmental impacts were addressed with the use of expert panels for effects on wildlife and human communities. Complex wildlife habitat models were employed to better understand the relationships between management actions and impacts to wildlife. Certain key issues or resources were addressed through the use of peer-reviewed assessments (i.e., goshawk and marbled murrelet). A complex linear program was used to estimate the feasibility of maintaining the long-term flow of goods and services from the planning area. All of these tools, taken together, constitute use of the best available information.

Fourth, I have recognized new information as it has come to light since release of the RSDEIS in 1996. The Final EIS has included discussion of the recent closure of the Ketchikan Pulp Company (KPC) pulp mill in

March 1997, and responded to the most recent estimates of changing timber demand in Southeastern Alaska. We have concluded that there is no need to prepare an additional Supplement (Final EIS, Appendix M) or provide for additional public comment. As new information becomes available, it will be evaluated through our monitoring program and used to amend or revise this Plan as needed.

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, ESA, and other environmental laws following applicable public involvement and appeal procedures.

B. National Forest Management Act

The National Forest Management Act and implementing regulations specify a number of requirements which 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 which received heightened public attention are discussed in further detail below.

Diversity and Viability Provisions For Fish and Wildlife

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 met 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” (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.

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 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. Moreover, interagency efforts may suggest additional conservation measures.

In reaching this decision, I also have considered the standards and guidelines that were developed specifically for Alternative 11 after consideration of the results of the risk assessment panels for selected species, conducted in March and April of 1997. The added measures strengthen the forest-wide standards and guidelines for the Queen Charlotte goshawk, the American marten, and endemic mammals, plus connectivity of old-growth forest among large and medium old growth habitat reserves and other natural

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setting LUD's. These additional standards and guidelines, which are discussed in Appendix N of the Final EIS, are designed to contribute to the viability of these species.

Based on 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 below.

The Conservation Strategy

The conservation of biological diversity commonly requires a dual strategy addressing both individual species and entire ecosystems. For the Tongass, habitat needs for sustaining viable populations of individual species are addressed by guidelines for specific species or species groups represented by management indicator species. This species-by-species approach can best be addressed after an ecosystem context is provided. I will specifically address the ecosystem most at risk from resource management on the Tongass—the old-growth forest ecosystem.

The Old-Growth Habitat Reserves

The Forest Plan contains an integrated old-growth habitat conservation strategy consisting of two basic components: (1) a forest-wide reserve network, and (2) a matrix management strategy.

The first, the forest-wide reserve network, protects the integrity of the old-growth forest. The Tongass currently has approximately 5,060,000 acres of productive old-growth forest. The Forest Plan will fully protect 70 percent of that in some form of non-development LUD, reasonably distributed across the Forest; this will include about 163,000 acres of the Old-growth LUD. For planning purposes, the Tongass National Forest has been divided into various geographic areas, including 21 biogeographic provinces where certain kinds of plants and animals tend to occur together. Within National Forest System lands, some of the 21 biogeographic provinces are fully protected, such as Admiralty Island and West Chichagof, while the North Prince of Wales province has 50 percent of the current productive old-growth in reserves and the Kupreanof-Mitkof province has 38 percent. Forty-four percent of the old growth in reserves is high-volume old growth, which is generally considered to be higher quality wildlife habitat, compared to a forest-wide average of 43 percent today and 47 percent in 1954. Appendix N of the Final EIS discusses these considerations in more detail, as does the Final EIS, pages 3-363 to 3-429.

The second component of the old-growth conservation strategy is management of lands with LUD allocations where commercial timber harvest may occur. Within these areas, which make up about 22 percent of the Forest, components of the old-growth ecosystem are maintained by standards and guidelines designed to protect important areas and provide old-growth forest habitat connectivity. Some of the primary management prescriptions, designed to ensure protection of a significant proportion of remaining high-quality habitat within the matrix, are the 1,000-foot beach and estuary fringe and riparian buffers. Other standards and guidelines preclude or significantly limit harvest in areas of high hazard soils, steep slopes, karst terrain, visually sensitive travel routes and use areas, and timber stands technically not feasible to harvest. In addition to providing significant old-growth protection, many of these prescriptions such as the beach and estuary fringe, riparian buffers, and small reserves provide important connectivity functions. The small reserves were mapped to provide temporary functional habitat for animals dispersing between large and medium reserves and to ensure that species of concern have a relatively high likelihood of occurring in each 10,000-acre watershed. Finally, the Forest Plan contains an additional standard and guideline which provides for a connection between each large or medium habitat reserve and at least one other reserve if other standards and guidelines are not sufficient. Sample analyses across the forest will be reviewed by a team of wildlife biologists, silviculturists and ecologists in cooperation with the PNW Science Team to review the implementation and effects of specific direction to provide connectivity among reserves.

This overall landscape design is responsive to many of the recommendations by an independent science peer review (PNW Review) of the initial underlying old-growth conservation strategy as designed by the Interagency Viable Population Committee (VPOP), as well as subsequent responses to these recommendations. For example, the old-growth strategy responds to recommendations to protect existing largest blocks of contiguous high-volume old growth from further fragmentation in a number of ways, including incorporation of many existing roadless areas into reserves, increasing the total proportion of old growth reserved including a high-volume component (quality component) and allocating at least one very large reserve (greater than 120,000 acres) in 17 of 21 biogeographic provinces. In the remaining four provinces, either large reserves (over 75,000 acres) or aggregates of “larger” reserves (over 30,000 acres) are allocated. The strategy also responds to concerns about incorporating larger corridors by, among other things, increasing the beach buffer zone to 1,000 feet and providing the multi-component strategy, as described above, that provides important landscape connectivity functions.

I also will initiate discussions to design an interagency scientific review of the old-growth habitat strategy, in cooperation with the appropriate Federal and State agencies and the PNW Research Station. The Forest Service also will work with other Federal and State agencies on interagency reviews of the location of small old-growth habitat LUD reserves in relation to where new projects are being planned. These reviews may cover more than one project if mutually agreeable, in order to make them more cost-effective.

Management Indicator Species And Other Species Of Management Concern

NFMA prescribes the use of management indicator species (MISs), whose response to land management activities can be used to predict the likely response of other species with similar habitat requirements. Thirteen MISs have been identified for the Tongass Forest Plan. All of the MIS are associated with the spruce and hemlock forests of Southeast Alaska, which represent 98 percent of the productive old-growth forests of the Tongass. The effects of the Forest Plan on certain of these species of management concern, as well as two species, the Queen Charlotte goshawk and the Alexander Archipelago wolf, which have received heightened attention due to petitions to list as threatened and endangered under the Endangered Species Act, are summarized below.

The Queen Charlotte Goshawk and Alexander Archipelago Wolf

Queen Charlotte Goshawk. In addition to the old-growth habitat strategy, the Forest Plan contains measures that address conservation concerns related to the Queen Charlotte goshawk. The Forest Plan direction for maintaining habitat to sustain viable northern goshawk populations relies primarily on the findings of the interagency northern goshawk conservation assessment. This assessment, prepared as part of the forest planning process, synthesized the best available scientific information related to goshawk conservation and provided management considerations for sustaining goshawk populations.

We examined the proportion of old-growth forest remaining, after full implementation of the Forest Plan for 100 years, in each of the 678 “Value Comparison Units” (VCU’s) that contain goshawk habitat. A VCU is a geographic area that generally encompasses a drainage basin containing one or more large stream system. This analysis (see Final EIS, Appendix N) indicates that the proportion of old-growth in 620 of these 678 VCU’s (91 percent) is effectively consistent with a conclusion in the goshawk assessment that a 300-year rotation across the forest landscape would have a high likelihood of sustaining goshawks. Of the 58 out of 678 VCU’s with goshawk habitat that would not be consistent with a 300-year rotation under the Forest Plan, 30 of these are dispersed across the Forest. The remaining 28 VCU’s are located on the central and northern portion of Prince of Wales Island. The Plan contains two compensatory measures for this area consistent with the findings of the goshawk assessment. First, the Plan designates several very large reserves on this portion of Prince of Wales Island. The Sarkar-Honker /Divide-Karta reserves on northern and central Prince of Wales Island, for example, total over 200,000 acres. Another 200,000-acre preserve is located on the southern portion of Prince of Wales Island and a 58,000-acre preserve on Kosciusko Island. Second, a specific protective standard and guideline has been added to the Forest Plan to address goshawk habitat in VCU’s where more than 33 percent of the productive old-growth forest goshawk foraging habitat has been converted to young conifer stands (i.e., those VCU’s that do not meet the effective

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300-year rotation). In these units, timber harvest treatments over two-acres in size must meet certain minimum criteria designated to maintain forest stand structure characteristics beneficial to goshawks.

A more detailed explanation of goshawk protection and management provisions can be found in Appendix N of the Final EIS.

Alexander Archipelago Wolf. The interagency wolf conservation assessment was developed in cooperation with the U.S. Fish and Wildlife Service and the Alaska Department of Fish and Game (ADF&G) to synthesize the best available information to address wolf conservation. Using the major findings contained within the assessment, the Forest Plan provides a high likelihood of sustaining viable wolf populations in Southeast Alaska (see Appendix N, and pages 3-399 to 3-406 of the Final EIS). The wolf assessment identified three principal management considerations to address both near-term and long-term wolf viability concerns.

1. Deer are the principal prey of wolves; consequently maintaining a long-term deer herd capable of sustaining a viable wolf population is a habitat management concern. The wolf assessment indicated that a deer population of approximately 13 deer per square mile would reduce risks to long-term wolf viability. This density of deer is likely to support wolves and also sustain the current harvest of deer by humans.
2. Large roadless and unfragmented reserves are considered necessary in biogeographic provinces where intensive timber harvesting has occurred or is planned, to reduce the long-term risk to wolf viability. The wolf assessment describes a reserve system of approximately 50,000 acres (the approximate core activity area of one wolf pack) for every 192,000 acres of landscape where wolves occur.
3. The third concern related to wolf viability is the potentially unsustainable human-induced mortality in some areas, both legal and illegal. The wolf assessment identified open road access as a contributing factor to excessive mortality, and found that reported wolf mortality increases substantially when open-road density exceeds 0.7 miles of road per square mile. The Forest Plan requires participation in cooperative interagency monitoring and analysis to 1) identify areas where wolf mortality is excessive; 2) determine if the mortality is unsustainable; and 3) identify the probable causes of the excessive mortality. Access management may be implemented where analysis indicates road access is contributing to unsustainable wolf mortality rates.

Appendix N of the Final EIS contains a thorough explanation of how these three components affect wolf viability and how the Plan will ensure adequate protection.

Recent court action requires the U.S. Fish and Wildlife Service to reconsider its decision not to list the Queen Charlotte goshawk and the Alexander Archipelago wolf pursuant to the Endangered Species Act. Consistent with the principles of adaptive management, the Forest Service will further examine our old-growth habitat strategy relative to conservation measures examined in the interagency conservation assessments prepared over the last 18 months as part of the forest planning process. The Forest Service will work closely with the U.S. Fish and Wildlife Service and State agencies to determine whether any subsequent changes to overall Plan direction will be needed to provide for the conservation of these two subspecies in Southeast Alaska. Such changes, if needed, will be made to the Plan in compliance with applicable laws. Given the habitat strategy in the revised Forest Plan and these commitments, we do not believe that listing of either species is warranted.

Selected Management Indicator Species

Brown Bear. Concerns have been raised about road access as a potential contributing factor to brown bear mortality. These concerns, and the Forest Service treatment of them, are similar to those discussed above regarding wolves. If interagency monitoring efforts suggest that excessive bear mortality occurs as a consequence of road access, then road access management will be implemented and hunting regulations will also be examined, in cooperation with other agencies. In addition, the Plan includes a standard and

guideline that requires evaluation of the need for additional protection of important bear foraging sites during project planning. Where needed, 500-foot forested buffers to provide protection during feeding are to be established, where available. Identification and management of important brown bear feeding sites is to be done in consultation with the Alaska Department of Fish and Game.

Endemic Mammals. Special management consideration has been given to potentially endemic taxa. A PNW reviewer identified a concern for small island endemic taxa, which may be more susceptible to local extinction. The Other Mammal Assessment Panel which assessed risk to viability for these species also expressed concerns relative to endemic taxa. In response to these concerns, the Forest Plan classifies all islands smaller than 1,000 acres as unsuitable for timber harvest. In addition, a survey and manage standard and guideline was added to further reduce the risk to endemic mammals. Where distinct taxa are located, proposed projects will be designed to ensure their long-term persistence on the island.

In addition, the PNW Research Station is conducting a long-term study to identify the existence of endemic mammal taxa throughout the island archipelago of Southeast Alaska. These studies will continue and will be accelerated to examine islands less than 163,000 acres for the potential presence of locally endemic taxa that may be at risk as a result of additional vegetation management activities. These studies should describe habitat relationships to examine the strength of association with old-growth forest habitats. If initial results of these studies document the existence of endemic mammals on islands less than 163,000 acres, then survey and management direction included under the Terrestrial Endemic Mammals in the revised Plan will be applied to those islands.

Marten. American marten were one of the primary species considered in the design of the original VPOP strategy. The network of interconnected Habitat Conservation Areas (HCA's) was intended to support a number of local populations that could interact as a metapopulation, thus providing long-term viability. Various management concerns have been raised in connection with the marten. The risk assessment panel convened in 1997 noted concerns regarding the likelihood of marten populations remaining well distributed across the Tongass for at least 100 years. The extent of timber harvest under short-rotation management contributed to these concerns. Subsequent to the panel assessment, Alternative 11 was strengthened based on comments provided by the panelists, information drawn from past studies, and information on existing habitat conditions on the Tongass. Three different measures were applied to Alternative 11 to improve the likelihood of maintaining habitat to support well-distributed populations of marten. These include special prescriptions for managing high-value marten habitat in timber harvest areas to retain important forest stand features in higher risk biogeographic provinces. These measures are described more fully in the standards and guidelines on pages 4-118 through 4-119 of the Final EIS, and their effects are further described in Appendix N to the Final EIS.

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 decision necessarily will involve some degree of uncertainty. Based on my review of the record, including the Final EIS and Appendix N, I find that the old-growth strategy and specific species management prescriptions represent a balance of wildlife habitat conservation measures which consider the best available scientific information and, within an acceptable level of risk inherent in projecting management effects, will provide fish and wildlife habitat to maintain well-distributed viable populations of vertebrate species in the planning area, and maintain the diversity of plants and animals.

Sensitive Species

A Biological Evaluation was completed for the 28 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 24 species, individuals or their habitats may be impacted by the selected alternative, but the impacts may not likely contribute to a trend toward Federal listing or cause a loss of viability to the population or species. No impact will occur to the northern pike because natural habitat conditions associated with the lakes it inhabits

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are expected to be maintained. No impacts will occur to the northern rockcress, Kamchatka rockcress, and the straight-beak buttercup because they are no longer recognized as a taxonomic entity. No sensitive species will experience beneficial impacts or experience impacts to its individuals or habitats with a consequence that the impact may contribute to a trend towards Federal listing or cause a loss of viability to the population or species.

Within 60 days from the signing of this ROD, in cooperation with the U.S. Fish and Wildlife Service and Alaska Department of Fish and Game, I will initiate a schedule for review and revision of the Regional Sensitive Species list, especially for the marten and other species evaluated by the endemic and wide-ranging mammals panels.

Regional Guide

The Regional Guide has been amended by this decision as discussed on page 3 of this ROD. Amending the Regional Guide in favor of the goals and objectives and standards and guidelines of the revised Plan is necessary to reflect changes in the management situation, advances in our understandings of land and ecosystem management, and changes in applicable laws. It will also correct aspects of the Regional Guide that have become outdated. One of the Guide's goals for timber, for example, is based on a section of ANILCA which has since been amended by the TTRA of 1990. Several of the Guide's standards and guidelines call for practices that are now considered inappropriate on the Tongass National Forest.

C. Alaska National Interest Lands Conservation Act, Section 810

An ANILCA Section 810 evaluation and determination is not required for approval of a revised Forest Plan, 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 decision-making in compliance with ANILCA Section 810.

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 RSDEIS: (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 32 communities throughout Southeast Alaska for the Draft EIS and the SDEIS, and in 31 communities for the RSDEIS.

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 Revised 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 Alaska Regional Guide, 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.

D. 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."

Legal advice to the Forest Service indicates that annual timber sale offerings from the Tongass National Forest will be limited to an amount of timber for which there is demand, as referred to in TTRA. The Forest Service will develop procedures to ensure that annual timber sale offerings are consistent with market demand.

E. Coastal Zone Management Act

The Plan's forest-wide standards and guidelines include direction for coordinating all projects that affect any land or water use or natural resource of the coastal zone with the State of Alaska, Division of Governmental Coordination. This coordination is done to ensure that activities are consistent, to the maximum extent practicable, with the enforceable policies of the Alaska Coastal Management Program. For timber harvest and associated road management, providing a level of resource protection no less than that provided by the Alaska Forest Practices and Resources Act ensures that activities are consistent, to the maximum extent practicable, with the Alaska Coastal Management Program. The standards and guidelines of the Forest Plan, and other applicable direction such as the Best Management Practices contained in the Soil and Water Conservation Handbook, provide at least as much resource protection as the standards of the Alaska Forest Resources and Practices Act and its implementing regulations.

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F. Endangered Species Act

Consultation requirements under Section 7 of the ESA, as amended, have been completed with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service. Both U.S. Fish and Wildlife Service and National Marine Fisheries Service reviewed the Biological Assessment for the Threatened and Endangered species under their regulatory jurisdiction and concluded that the Forest Plan revision was “not likely to adversely affect” threatened or endangered species occurring on the Tongass National Forest. Copies of correspondence with each agency are included in Appendix J of the Final EIS. The Queen Charlotte goshawk and Alexander Archipelago wolf were subjects of ESA listing petitions that were reviewed and formally accepted by the U.S. Fish and Wildlife Service in 1994. The U.S. Fish and Wildlife Service concluded in 1995 that listing was not warranted for either subspecies, but remains concerned for their long-term viability. In part, the U.S. Fish and Wildlife Service decisions were based on expectations of the Forest Service employing species specific conservation strategies into the revised Forest Plan. Recent court decisions have required the U.S. Fish and Wildlife Service to re-evaluate both listing petitions. Both subspecies, I believe, will be adequately protected by this Plan as discussed in Appendix N of the Final EIS and elsewhere in this ROD.

G. 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 the Final EIS (pages 3-323 and pages 3-56 through 3-73). 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

H. 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.

I. Flood Plains 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.

J. Environmental Justice (Executive Order 12898)

Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” requires that Federal agencies make achieving environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health and environmental effects of their programs, policies, and activities on minority populations and low-income populations.

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 (1990 Census), the

population (1995, Alaska Department of Labor), the percent of Natives within the population (1990 Census), and recent trend and economic events for 32 Southeast Alaska communities. The section also includes a discussion of potential timber harvesting within each community's use area, the potential impacts to the subsistence resources and land base used by each community, and a community summary of public comments received during the revision process.

We have conducted a qualitative assessment of environmental justice considerations based on the information in the Final EIS described above. My conclusion is that the risk of such disproportionate effects on minority or low-income populations from implementation of the Forest Plan is very low. The Final EIS consistently ranks Alternative 11 as among those with the lowest risk of adverse environmental effects from land management activities on wildlife and fish habitat and subsistence resources. In most cases, Alternative 11 is ranked about the same as Alternatives 4 and 5. Only Alternative 1, which has no commercial timber program, is consistently ranked lower in risk. The wildlife panels, for example, ranked Alternative 11 virtually the same as Alternative 5, with only Alternative 1 being lower in risk. I conclude that the risk of environmental justice problems would be higher under Alternatives 2, 3, 6, 7, 9, and 10, due to higher risks of adverse environmental effects on wildlife and fish habitat and subsistence resources under these alternatives, which could disproportionately affect low-income or Native populations in Southeast Alaska.

I also believe that the risk of other types of environmental justice problems would be lower under Alternative 11 than under Alternatives 1, 4, and 5, because these alternatives would pose higher risks of disproportionately high adverse socioeconomic effects on low-income populations in the communities where timber-processing facilities and workers are located. Accordingly, I conclude that Alternative 11 has the lowest overall risk of environmental justice concerns among all the alternatives considered in detail in the Final EIS.

Another way to analyze the potential environmental justice issues related to Alternative 11 is to identify the communities in Southeast Alaska that have high concentrations of minority or low-income populations, and review features included in Alternative 11 that address potential concerns of these communities. There are 13 communities in Southeast Alaska with a noticeably higher than average population of Alaska Natives or of households below the poverty line. These communities include Angoon, Edna Bay, Hoonah, Hydaburg, Kake, Kasaan, Klawock, Metlakatla, Meyers Chuck, Port Alexander, Port Protection, Saxman, and Yakutat. In each case, these communities have substantial portions of the surrounding vicinity in either private ownership or non-development LUD's. In addition, where development LUD's are located near these communities, the management direction of the Forest Plan, such as the 1,000-foot beach and estuary fringe and riparian standards and guidelines, will adequately protect fish and wildlife habitat and subsistence resources used by residents of these communities.

K. 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.

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VII. Implementation

A. Plan Effective Date

The approved Tongass National Forest Land and Resource Management Plan is effective 30 days from the date of the Notice of Availability in the *Federal Register* for the Final EIS.

B. Transition to the Revised Plan

The revised 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 1979 TLMP (as amended in 1985-86 and 1991), it provides a programmatic framework within which project-level decisions, including timber sales, 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.

Timber Sales

The relationship of four categories of timber sale projects to the revised Plan is described below. In summary, the completed projects in category 1 will not be affected by the revised Plan. The projects in categories 2 and 3, which were initiated under the management direction of the 1979 TLMP, as amended, and which will all be completed within the next few years, may be affected to varying degrees by the revised Plan. Many of these projects have already been developed to achieve consistency with recently proposed versions of the revised Plan. All the new timber sale projects in Category 4 that will be initiated during the 10- to 15-year life of the revised Plan will be consistent with the Plan.

1. **Completed timber sale projects for which NEPA decision documents were signed and whose timber volumes have all been sold to independent operators or released to long-term contract holders before the effective date of this Plan.** The decision documents for these projects do not need to be modified because of the revised plan.
2. **Timber sale projects 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.** The decision documents for these projects do not need to be modified because of the revised plan, except as noted below. Timber sale projects in this category include, among others, the Northwest Baranof, Eight Fathom, Southeast Chichagof, APC Final Supplement to the EIS's for the 1981-86 and 1986-90 Operating Periods, Kelp Bay, Ushk Bay, Upper Carrol, South Lindenberg, Lab Bay, and Cloudy timber sale projects. I have reviewed these projects and determined that they are consistent with the goals, objectives, and projected environmental effects of the revised Plan, and that, with the exception of the Eight Fathom and South Lindenberg projects, it is not necessary to modify them further in proceeding with their implementation. To achieve greater consistency with the revised Plan, I have directed the Forest Supervisors to modify the Eight Fathom timber sale project to avoid compromising an Old-growth Habitat LUD in the Plan, and the South Lindenberg project to better achieve the Plan's riparian standards and guidelines.

The remaining unsold parts of the timber sale projects in this category which have not already been reviewed with the U.S. Fish and Wildlife Service will continue to be reviewed prior to actual sale. Any outstanding fish and wildlife concerns identified in such reviews will be alleviated or mitigated where feasible and necessary through site-specific adjustments.

Also, some new standards and guidelines for wildlife, which address landscape connectivity, endemic terrestrial mammals, northern goshawk, and American marten, were added to the Plan through the process described in Appendix N of the FEIS. My intent in adding these new standards and guidelines is to avoid some possible long-term cumulative effects without disrupting timber sale

projects currently being implemented. Therefore, I am directing the Forest Supervisors to review the projects in this category and to incorporate the new measures to the extent feasible, but only in a manner that will avoid causing major disruptions in their implementation.

- 3. Timber sale projects now being planned, but for which a NEPA decision document will not be signed before the effective date of this Plan.** This category includes projects for which Notices of Intent to prepare EIS's have been published, and projects (including salvage sale projects) for which scoping has already been initiated. Projects falling in this category include, among others, the Chasina, Crystal Creek, Canal/Hoya, Control Lake, Indian River, Rowan Mountain, Crane, Sea Level, Luck Lake, Staney Creek, Finger Mountain, and Port Houghton/Cape Fanshaw timber sale projects. Many of these projects have already been developed to achieve consistency with recently proposed versions of the revised Plan. Projects in category 3 will need to be consistent with all the applicable management direction of the revised plan, except for new standards and guidelines for wildlife listed above in category 2. My intent in adding these new standards and guidelines is to avoid some possible long-term cumulative effects without disrupting timber sale projects currently being planned.

Therefore, I am also directing the Forest Supervisors to incorporate the new measures where needed in planning the projects in this category. The measures will be implemented in a manner that is least disruptive to the design and implementation of the projects. The extent to which these measures should be incorporated into the sales will be determined through review by an interagency implementation team consisting of the National Marine Fisheries Service, Environmental Protection Agency, U.S. Fish and Wildlife Service and pertinent State agencies. Any outstanding fish and wildlife concerns identified in such reviews will be alleviated or mitigated. Any unresolved concerns from these reviews will be resolved between the Regional Forester and the counterparts in the other agencies.

- 4. Timber sale projects for which the project-level NEPA process has not yet begun.** These new projects shall be based on this revised Plan and will be consistent with all the applicable management direction it provides.

Removal of Area Analysis Requirement

On January 10, 1997, a federal court held in *Friends of Southeast's Future v. Morrison*, NO. J96-011-CV (District of Alaska) that the Ushk Bay Timber Sale project did not properly undertake an "Area Analysis" the court found was required by the 1979 TLMP. The Court also upheld the sale against claims that it violated NEPA. The Forest Service continues to believe the Ushk Bay Timber Sale satisfied all the requirements of the 1979 TLMP and has appealed the district court's decision. In any event, this Record of Decision and the revised Plan remove any requirements for "Area Analysis." The Ushk Bay timber sale and any similarly situated timber sale are specifically allowed to proceed in accordance with the standards and guidelines that were in effect at the time the NEPA decision document for the project was signed, but without undertaking any "Area Analysis."

Application to Other Contracts, Permits and Special Use Authorizations

Revised Plan direction applies to other contracts awarded, and permits and special use authorizations signed, by Forest Service responsible officials on or after the effective date of the revised Plan. As necessary, contracts awarded and permits and special use authorizations signed prior to the effective date shall be reviewed for consistency with the revised plan. Any of these instruments which are determined by the responsible official to be inconsistent shall be adjusted as necessary to achieve consistency with the revised Plan, but only to the extent legal authority exists to make adjustment and subject to valid existing rights. Contracts, permits and special use authorizations which are determined by the responsible official to be consistent with the revised Plan, or which are adjusted to be consistent to the extent legal authority exists for adjustment and subject to valid existing rights, may proceed.

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The Swan Lake-Tyee Intertie project will need to be consistent with all the applicable management direction of the revised plan, except for new standards and guidelines for Wildlife listed above in the category 2 timber sale projects. My intent in adding these new standards and guidelines is to avoid some possible long-term cumulative effects without disrupting projects currently being planned. Therefore, I am also directing the Forest Supervisors to incorporate the new measures to the extent feasible in planning this project, but only in a manner that will avoid causing major disruptions in its design and implementation.

Collaborative Stewardship

As part of Forest Plan implementation, the Forest Supervisors and District Rangers will increase their efforts in collaborative stewardship within the communities of Southeast Alaska. Collaborative stewardship means bringing people together to share in the decision making in implementing Forest Plan direction.

The Forest Plan land use allocations and direction have some flexibility. Interaction among interested people within communities can lead to mutually acceptable resolution of resource use issues. I am hopeful that such interaction and participation will lead to more local influence, better knowledge of forest activity, and fewer appeals and cases of litigation.

I recognize that the success of collaborative stewardship will depend on shared commitment by all involved parties, including the State and other Federal agencies. We will do our best to provide the opportunities for collaborative stewardship throughout Southeast Alaska and welcome everyone's participation in this cooperative program.

VIII. Appeal Rights

This decision is subject to appeal in accordance with the provisions of 36 CFR 217 by filing a written notice of appeal within 90 days of the date specified in the published legal notice of this decision, as provided in 36 CFR 217.5(b) and 36 CFR 217.8(a)(3). The appeal must be filed with the Reviewing Officer:

USDA Forest Service
P.O. Box 96090, NFS, 3NW, Appeals Office
Washington, D.C. 20090-6090

A copy must simultaneously be sent to:

Phil Janik, Regional Forester
USDA Forest Service
Alaska Region
709 W. 9th Street
Juneau, AK 99801

The notice of appeal must include sufficient narrative evidence and argument to show why this decision should be changed or reversed (36 CFR 217.9). Requests to stay approval of the Forest Plan will not be granted (36 CFR 217.10(b)). For a period not to exceed 20 days following the filing of a Notice of Appeal, the Reviewing Officer shall accept requests to intervene in the appeal from any interested or potentially affected person or organization (36 CFR 217.14(a)).

Decisions on site-specific projects are not made in this document. Schedules of resource projects for the first decade are contained in Appendix L of the Forest Plan. Decisions on proposed projects will not be made until completion of environmental analysis and documentation for the specific project, in compliance with the National Environmental Policy Act.

I encourage anyone concerned about this decision, the Forest Plan, or the Final EIS, to contact Planning Team leader Beth Pendleton in Juneau, Alaska at (907) 585-8700 before submitting an appeal. It may be possible to resolve the concern in a less formal manner.

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IX. Contact Persons

If you would like more information on the Forest Plan or the Final Environmental Impact Statement, please contact any of the following officials:

Gary Morrison, Forest Supervisor
Tongass National Forest, Chatham Area
204 Siginaka Way
Sitka, AK 99835
907-747-6671

Abigail Kimbell, Forest Supervisor
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Petersburg, AK 99833
907-772-3841

Bradley Powell, Forest Supervisor
Tongass National Forest, Ketchikan Area
Federal Building
Ketchikan, AK 99901
907-225-3101

Beth Pendleton, Team Leader
Forest Plan Revision Team
8465 Old Dairy Road
Juneau, AK 99801
907-586-8700

Signature



Phil Janik
Regional Forester

MAY 23, 1997
Date