Chapter 1

Purpose and Need

Background

This document describes the anticipated effects of, and alternatives to, a proposed timber sale on north Prince of Wales Island known as the Logjam Timber Sale. It describes the "Noaction Alternative" (Alternative 1), the "Proposed Action" (Alternative 2), and three other action alternatives for harvesting timber. The action alternatives also include building and maintaining roads. This DEIS discloses the environmental effects and resource outputs that are expected from each of the alternatives and potential mitigation measures.

The 2008 Tongass National Forest Land and Resource Management Plan (hereafter referred to as the Forest Plan), in combination with applicable environmental laws and regulations, provide the direction for this project. The Logjam Timber Sale Project proposes to move the project area from the current existing condition to the desired condition as identified in the Forest Plan for Land Use Designations that allow timber harvest.

The Interdisciplinary Team (IDT) used a systematic approach for analyzing the proposed project and alternatives to it, estimating the environmental effects, and preparing this DEIS. The planning process complies with the National Environmental Policy Act (NEPA) and the Council on Environmental Quality (CEQ) regulations. Planning was coordinated with the appropriate Federal, State, and local agencies, and local federally recognized tribes. The public, agencies, and tribes were involved in the planning process through meetings, letters, and personal conversations.

The best available science is considered in preparation of this DEIS. However, what constitutes best available science might vary over time and across scientific disciplines. As a general matter, the IDT has shown consideration of the best available science when it has insured the scientific integrity of the discussions and analyses in the project NEPA document. Specifically, this DEIS and the accompanying Project Record identifies methods used, references reliable scientific sources, discusses responsible opposing views, and discloses incomplete or unavailable information, scientific uncertainty, and risk (See 40 CFR, 1502.9 (b), 1502.22, 1502.24).

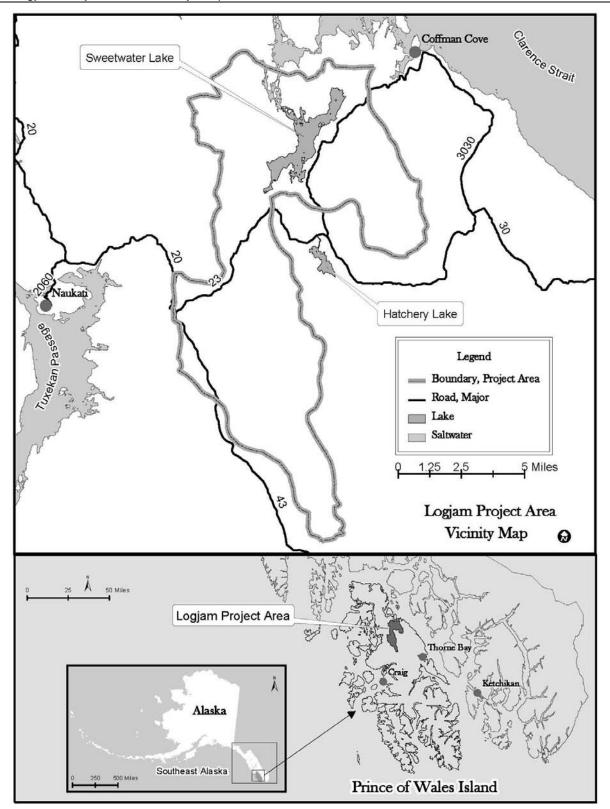
The Project Record references all scientific information considered: papers, reports, literature reviews, review citations, academic peer reviews, science consistency reviews, and results of ground-based observations to validate best available science. This DEIS incorporates by reference (as per 40 CFR 1502.21) the Project Record, including specialist reports and other technical documentation. Information from specialist reports has been summarized in Chapter 3. The Project Record is located at the Thorne Bay Ranger District Office in Thorne Bay, Alaska. All numbers in this document are approximate.

Description of the Project Area

The Project Area is located on Prince of Wales Island, and is within the Thorne Bay Ranger District, approximately 23 air miles northwest of Thorne Bay, Alaska. The Logjam project area encompasses 56,133 acres of north Prince of Wales Island in Southeast Alaska near Coffman Cove. Elevation ranges from sea level to over 2500 feet in the headwaters of Logjam Creek. The majority of the Logjam project is within Value Comparison Units (VCUs) 5770 and 5730, in an area north of National Forest System (NFS) road 2052000, south of Coffman Cove (Map 1). VCUs are comparable to large watersheds and generally follow major topographic divides; see Chapter 3, "Introduction," for a detailed definition of VCUs. There are currently 125 miles of existing NFS roads and 46 miles of decommissioned temporary roads within the Project Area.

The project proposes timber harvest in the following twelve watersheds: Barnes Lake, Coffman Creek, Galligan Creek, Gold Lagoon, Gutchi Creek, Hatchery Creek, Lake Bay Coastal, Logjam Creek, Naukati Creek, Sweetwater Lake, Staney Creek and Trumpeter Creek. These watersheds are discussed in Chapter 3, Issue 1: Effects to Aquatic Habitat.

Map 1. Logjam Project Area Vicinity Map



Purpose—Forest Plan Goals and Objectives

The goal of the Logiam project is to implement Forest Plan direction (see Relationship to the Forest Plan, page 6). The Forest Plan includes Forest-wide multiple—use goals and is incorporated here by reference; these goals include, but are not limited to the following:

Timber—Goal

• Provide for the continuation of timber uses and resources by the timber industry and Alaska residents (USDA 2008b, 2-7).

Timber—Objectives

- Seek to provide an economic timber supply sufficient to meet the annual market demand for Tongass National Forest timber, and the market demand for the planning cycle, up to a ceiling of this Plan's allowable sale quantity, which is 2.67 billion board feet in the first Decade (USDA 2008b, 2-7).
- Provide 2-3 years supply of volume under contract to local mills and then establish shelf volume to maintain flexibility and stability in the sale program (USDA 2008b, 2-7).
- Review the timber sale program and work with state and other partners to implement changes that will keep an "economic timber" perspective throughout the process and monitor the implementation of these reforms to ensure they are consistently employed across the Forest (USDA 2008b, 2-7).

Local and Regional Economy—Goal

• Provide a diversity of opportunities for resource uses that contribute to the local and regional economies of Southeast Alaska (USDA 2008b, 2-5).

Local and Regional Economy—Objective

• Support a wide range of natural resource employment opportunities within Southeast Alaska communities (USDA 2008b, 2-5).

Using relevant Forest Plan Goals and Objectives, the interdisciplinary team found from analysis of the existing condition in the Logjam project area that the area's roaded landscape, and tree species composition, and general tree quality provides opportunity for economic timber harvest. From this project area, a large amount of the available timber can be harvested using relatively inexpensive shovel or cable yarding systems without requiring extensive road construction. The entire project area is within 60 road miles of most Prince of Wales Island mills including those in Goose Creek Industrial Area in Thorne Bay, and the Viking Mill in Klawock. Additionally, the project area is within reasonable access to Marine Access Facilities for any potential bidder in Southeast Alaska. This makes the area well suited to contribute to a reliable flow of timber to the forest products industry.

Southeast Alaska and the Prince of Wales Island area have experienced a significant decline in manufacturing and natural resource employment. This decline has been mirrored by a decline in sawmill industry production and harvest levels. Therefore, a need exists for a reliable economic supply of sawtimber for Southeast Alaska mills to maintain and increase current levels of industry and employment.

Need—A Reliable, Economic Supply of Sawtimber

Alaska mills support timber industry, employment, and contribute to the local and regional economies of Prince of Wales Island and Southeast Alaska. The underlying need for the project comes from the Forest Service need to meet demand from industry annually and during the planning cycles; the timber industry includes large and small timber purchasers, mill operators, and the value-added wood product industries in Southeast Alaska who are dependant upon a reliable supply of sawtimber in the region and on Prince of Wales Island. Appendixes A of this document discusses in detail how this project meets this need and Forest Plan objectives.

The forest products industry has been a vital part of the economy of Southeast Alaska since the 1950s. The Forest Service timber sale program endeavors to provide a continued flow of timber to the forest product industry. Coordinated timber sale planning is essential for meeting the goals of the Forest Plan and to provide an orderly flow of timber to local industry. Further, detailed explanations of the rationale for considering timber harvest in the Logiam Project Area and market demand for wood products is located in Appendix A of this document. More information can also be found in the Forest Plan FEIS, which describes the latest timber demand analyses and projections (USDA 2008c, 3-506 to 3-507).

The Logiam Timber Sale Project is proposed at this time to respond to the aforementioned need, as well as the goals and objectives identified for the project area by the Forest Plan, and to move the project area toward the desired condition described in the Forest Plan. This project will do this by:

- (a) Managing suitable timber lands for the production of saw timber and other wood products on a sustained basis (Timber Production LUD) (USDA 2008b, 3-116);
- (b) Allowing for a variety of successional stages that provide for a range of wildlife habitat conditions (Modified Landscape LUD) (USDA 2008b, 3-109);
- (c) The use of small openings or uneven-aged systems (Scenic Viewshed LUD) (USDA 2008b, 3-102); and (d) providing for a variety of scenic conditions (Recreational River LUD) (USDA 2008b, 3-88).

Proposed Action

This project would establish a trend toward the desired conditions as described in the Forest Plan. This would be accomplished by addressing an underlying purpose and need (40 CFR 1502.13) with the following activities:

- Harvest up to 75 million board feet (MMBF) of timber across approximately 3,703 acres of harvest units, using ground-based cable, and helicopter systems, and a combination of silvicultural prescriptions.
- Construct approximately 8 miles of new National Forest System Roads to access timber harvest units; and store these roads after timber harvest activities are completed.
- Construct approximately 21 miles of temporary road which would be decommissioned after timber haul is complete.
- Reconstruct approximately 3.2 miles of road National Forest System Road.

A "Proposed Action" is defined early in the project planning process to briefly describe the project's actions and the magnitude of the actions. This serves as a starting point for the environmental analysis, and gives the public and other agencies specific information on which to focus comments. Using these comments (see discussion of Significant Issues later in the chapter) and information from preliminary analysis, the interdisciplinary team then develops alternatives to the proposed action. These are discussed in detail in Chapter 2.

Logjam project prescriptions were written to meet Forest Plan standards and guidelines, and to meet the objectives identified by the interdisciplinary planning team. The criteria used to select the appropriate silvicultural system for each unit includes the following:

- The Desired Condition as determined by the Forest Plan;
- Standards and Guidelines;
- Operational feasibility (possible logging systems);
- Economics:
- Windthrow hazard (the presence of tree and stand attributes determining windthrow potential);
- Stand conditions (diseases and decay fungi); and
- Regeneration potential

Decisions to be made

The Forest Supervisor will decide on the design and location of timber harvest, as well as road construction and reconstruction, social and economic factors, and silvicultural practices. Other factors considered may include, but are not limited to:

- The estimated timber volume to make available from the project, as well as the location, design, and scheduling of timber harvest, road construction and reconstruction, and silvicultural practices used;
- Access management measures for all roads in the project area;
- Mitigation measures and monitoring requirements; and
- Whether there may be a significant possibility of a significant restriction on subsistence uses.

Relationship to the Forest Plan

The Logiam DEIS tiers to the Tongass Land and Resource Management Plan, Final Environmental Impact Statement, Plan Amendment (January 2008). This amendment updates the current Tongass Land Management Plan, which was approved in 1997 and incorporates the 2003 Supplemental Environmental Impact Statement for Roadless Area Evaluation for Wilderness Recommendations and 26 non-significant amendments.

The Logiam project was identified as a Category 3 project in the Forest Plan Amendment Record of Decision. A Category 3 timber sale project is a project in which a Draft

Environmental Impact Statement has not been released for public comment before the effective date of the 2008 Forest Plan. These projects shall be based on the amended Forest Plan and will be consistent with all applicable management direction within the 2008 Forest Plan.

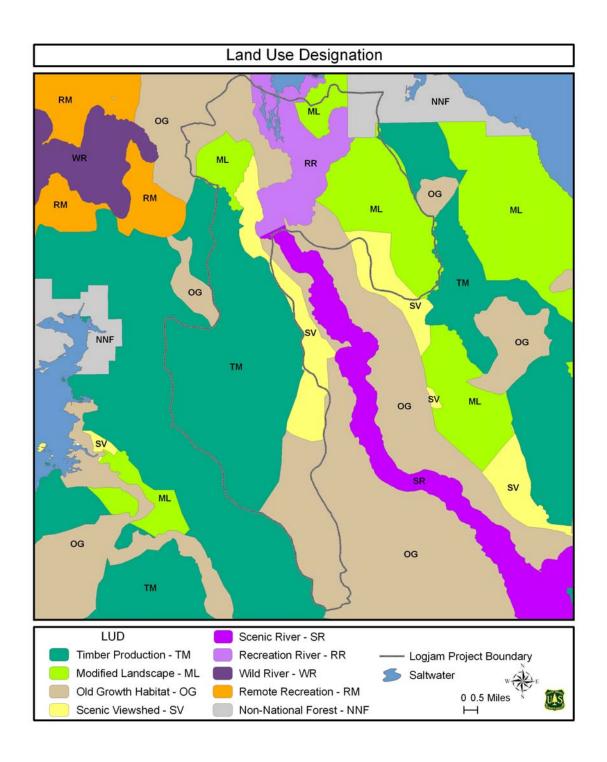
Forest Plan Land Use Designations (LUDs)

The Forest Plan provides land and resource management direction for the Tongass National Forest, by designating areas appropriate for various activities through the use of land use designations (LUDs), six of which occur in this project area. Each LUD provides for a unique combination of activities, practices, and uses. Map 2 shows the LUDs in the project area and on adjacent lands.

Areas of the Forest are allocated to Land Use Designations (LUDs) for different uses. Each LUD has a management prescription. Each prescription includes goals, objectives, and a desired condition, as well as management practices, standards and guidelines by resource. A brief description of the primary focus of each LUD as it relates to the Logjam project is listed below. Each LUD provides for a variety of resource uses to varying degrees. Each management prescription is much more complex and the full description of these management prescriptions are in the Forest Plan, Chapter 3.

Standards and guidelines are designed so that activities are integrated to meet land allocation objectives. These standards and guidelines apply to all or most areas of the Forest and are used in conjunction with the management objectives for each LUD. Specific standards and guidelines are applicable to the LUDs. All standards and guidelines are in Chapter 4 of the Forest Plan.

Map 2. Land Use Designations in the Logjam Project Area



Logjam Project Area

The Logjam project area contains 55,004 acres of National Forest System (NFS) lands and 1,129 acres of state and private lands (non-NFS). The NFS lands are allocated to Timber Production, Modified Landscape, Scenic Viewshed, Recreational River, Scenic River and Old-Growth Habitat LUDs, as presented in Table 1.

Table 1. Summary of Acreage by Ownership and LUD in Logjam Project Area

LUD	ТМ	ML	sv	RR	SR	OG	Non- USF S	Total
LUD Acreage	21,003	11,242	4,740	6,304	89	11,626	1,129	56,133

TM-Timber Production, ML-Modified landscape, SV- Scenic Viewshed, RR- Recreational River,

SR- Scenic River, **OG-** Old-Growth Habitat

Note: Eight acres of Unit # 573-01 lie within the Recreational River LUD.

Timber Production

The Timber Production LUD makes up approximately 37 percent of the project area. The focus of the Timber Production LUD is to emphasize sustained, long-term timber production. Timber harvest activities are located and designed to meet timber objectives.

Modified Landscape

The Modified Landscape LUD comprises approximately 20 percent of the project area. Management within Modified Landscape LUD emphasizes sustained, long-term timber production while minimizing the visibility of development in the foreground distance zone. This recognizes the scenic values of forested lands as viewed from identified Visual Priority Travel Routes and Use Areas (Forest Plan, Appendix F) and provides for modifying timber harvest practices accordingly by reducing the effects to scenery.

Scenic Viewshed

Approximately 8 percent of the project area is designated as Scenic Viewshed LUD. Management within the Scenic Viewshed LUD emphasizes sustained, long-term timber production while minimizing the visibility of developments. This recognizes the scenic values of forested lands as viewed from identified Visual Priority Travel Routes and Use Areas (Forest Plan, Appendix F) and provides for modifying timber harvest practices accordingly. The Scenic Viewshed LUD emphasizes the scenic values to a greater degree than the Modified Landscape LUD.

Recreational River

Approximately 11 percent of the project area is designated as Recreational River. The focus of this LUD is to manage Recreational River segments that were recommended by the Forest Plan Decision to maintain their outstandingly remarkable values and classification eligibility until Congress designates the segments or decides not to designate them. Timber harvest on suitable forest lands is allowed if adjacent lands are being managed for that purpose (i.e., designated as Timber Production LUD, Modified Landscape LUD, and Scenic Viewshed

LUD) with consideration of the scenery resources. Some portions of the Recreation River LUD within the Logiam project area meet these criteria and some do not.

Scenic River

Less than one percent of the project area is designated as Scenic River LUD. The focus of this LUD is to manage Scenic River segments that were recommended by the Forest Plan Decision to maintain their outstandingly remarkable values and classification eligibility until Congress designates the segments or decides not to designate them. Timber harvest on suitable forest lands is allowed if adjacent lands are being managed for that purpose; however, this is not applicable to the Logjam project area. Development activities within the Scenic River LUD need to achieve higher scenery standards and result in more remote recreation experiences. No timber harvest is proposed in this LUD.

Old Growth

Approximately 21 percent of the project area is designated as Old Growth Habitat. The focus of this LUD as related to the Logiam project is to maintain areas of old-growth forests and their associated natural ecological processes to provide habitat for old-growth associated resources. Timber harvest for timber management objectives is not compatible with this LUD.

Non-National Forest System Lands

Two percent (1,129 acres) of the project area is non-National Forest Service system land. These lands are either privately owned, or lands that have been conveyed to the State of Alaska or to Native corporations. No activities in these areas are considered as part of this project. However, past and present activities or those future projects that are known to be proposed on these lands are included in cumulative effects analysis.

2008 Forest Plan

The Forest Plan Amendment was signed on January 23, 2008 and became effective March 17, 2008. The amendment was prepared in response to the decision by the U.S. Court of Appeals for the Ninth Circuit in *Natural Resources Defense Council vs. U.S. Forest Service* (421 F.3d 797) in August 2005. The amendment analyzed the inadequacies identified by the court and incorporated new information to the extent feasible. Following are some of the changes from the 1997 Plan that relate to the Logjam project area:

Timber Sale Program Adaptive Management Strategy

In an effort to balance competing demands for timber production and preservation of undeveloped areas, the Forest Plan, Timber Sale Program Adaptive Management Strategy was approved (see Forest Plan, ROD, page 64). Under this strategy, the operation of the timber sale program will be implemented in three phases, as determined by actual timber harvest levels.

Phase 1 – Phase 1 includes most of the roaded portion of the suitable land base in the project area, along with lower value Inventoried Roadless Areas (IRA). The Logjam project proposes harvest in the roaded portion of the suitable land base and about 100 acres of harvest in the lower value roadless component.

The Timber Sale Program Adaptive Management Strategy Phase 1 as it applies to the Tongass land base could sustain an annual level of timber harvest of about 150 MMBF. The scheduled timber sale program will generally be confined to this land base until such time as the level of timber harvest reaches at least 100 MMBF for two consecutive years. Personal use of timber, micro sales, salvage sales, small commercial timber sales (generally less than one MMBF), young-growth management projects, and the roads associated with these activities, would be allowed in development LUDs outside of the Phase 1 portion of the suitable land base before the 100 MMBF criteria takes effect.

Phase 2 – Phase 2 includes Phase 1 lands as explained above and most of the moderate value inventoried roadless areas. The Phase 2 portion of the suitable land base of the Tongass National Forest could sustain a level of timber harvest of about 200 MMBF. The scheduled timber sale program will generally be confined to this land base, until such time as the level of timber harvest on the Tongass National Forest reaches at least 150 MMBF for two consecutive years. Personal use of timber, micro sales, salvage sales, small commercial timber sales (generally less than one MMBF), young-growth management projects, and the roads associated with these activities, would be allowed in development LUDs inside the Phase 2 portion of the suitable land base. Alternative 5 of this DEIS proposes about 19 acres of harvest inside Phase 2 that will be reserved for personal use of timber, micro sales, and small commercial timber sales (these Phase 2 acres are not inside an IRA).

Phase 3 – Phase 3 includes the remaining suitable land base including all of the Phase 1 and 2 lands and the higher value Roadless Areas within development LUDs. There is no Phase 3 in the Logiam project.

The Logjam project area contains suitable lands identified as either Phase 1 or Phase 2. Table 2 shows the amount of acres within each Phase and whether or not the acres are within an Inventoried Roadless Area

Table 2. Acres by	/ Phase and Roaded	Status for	Logjam P	roject Area
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	Roaded	Inventoried Roadless Areas
Phase 1	23,937	2,640*
Phase 2	24,131	2,640*
Phase 3	0	0
No Phase ^a	3,823	10,810

^a These acres are within an nondevelopment LUD or a LUD that may or may not allow timber harvest (e.g., Recreational River or Scenic River)

For a further explanation of the Timber Sale Program Adaptive Management Strategy, see the Forest Plan Record of Decision.

Forest Plan Land Use Designations

The amended Forest Plan improves the network of small old-growth reserves through work completed by an interagency team. Biologists from the State of Alaska, U.S. Fish and Wildlife Service (FWS), and the Forest Service reviewed nearly 300 small old-growth reserves identified in the 1997 Forest Plan and recommended reconfigurations for many of

^{*}These are the same acres in Phase 1 land, which is included in Phase 2 land.

them. The amended Forest Plan finalized the location of the majority of the small OGRs; therefore, project-level reviews are not necessary, except as outlined in the Forest Plan, Appendix K. No review is necessary for the small old-growth reserves within the Logjam project area.

The amended Forest Plan approved expansion of Geologic Special Interest Areas to protect nearly 47,000 acres of newly identified karst lands that are most vulnerable to disturbance from development. No Geological Special Interest Areas were identified in Logjam project area.

Forest Plan Standards and Guidelines

Most of the Forest Plan standards and guidelines have remained the same; however, certain sections have been rewritten for clarity. Some standards and guidelines have been changed or modified. A change that has an effect on the Logjam project is the adoption of a Forest-wide Legacy Standard and Guideline as a replacement of the 1997 goshawk foraging and high value marten habitat standards and guidelines. The Legacy Standard and Guideline applies in watersheds, as identified by VCU number in the Forest Plan, where the level of past or anticipated timber harvest is high. One of these VCUs is partially within the Logjam project area, VCU 5710.

Public Involvement

Public involvement is a key component of the planning process. Among other things, the scoping process is used to invite public participation, to help identify public issues, and to obtain public comment at various stages of the environmental analysis process. Although scoping begins early, it is a process that continues until a decision is made.

Public Scoping

The following is a summary of the letters, contacts, and meetings that took place during the planning of this project:

- April 1, 2005: Project listed in the 3rd quarter Schedule of Proposed Actions for the Tongass National Forest
- May 2, 2005: Scoping letter sent out to identify issues
- May 13, 2005: Notice of Intent to prepare an EIS published in the Federal Register (Vol. 70, No. 92)
- May 13, 2005: Legal notice printed in the *Juneau Empire*, *Ketchikan Daily News* and *Island Times*
- May 16, 2005: Public meeting held in Naukati 7 attendees
- May 17, 2005: Public meeting held in Craig 0 attendees
- May 18, 2005: Public meeting held in Coffman Cove 4 attendees
- May 19, 2005: Public meeting held in Thorne Bay 5 attendees

Consultation with Other Government Agencies

The following governments and agencies have been consulted about this project:

- State of Alaska Office of History and Archaeology
- Central Council of the Tlingit and Haida Indian Tribes of Alaska
- Sealaska Corporation

Other Agency Involvement

Several other agencies reviewed this project and provided their professional input on topics in which they have expertise. In some cases, reviews are necessary because another agency has authority to issue permits for a specific activity proposed by the Forest Service. The relationship to other agencies in the planning of this project is described below.

U.S. Army Corps of Engineers

The U.S. Army Corps of Engineers (Corps) is responsible for approving proposals to dredge or place fill materials in the coastal waters of the United States under Section 404 of the Clean Water Act. The Corps also has administrative authority over activities associated with wetlands. Any road construction in wetlands is of interest to the Corps and the Forest Service must consider and reduce effects on those areas. No wetlands permits are necessary from the U.S. Army Corps of Engineers because roads built in wetlands are for silvicultural purposes and will follow the 33CFR 323 guidelines to avoid and minimize impacts to wetlands.

U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (EPA) provides a general review in accordance with their responsibilities under NEPA, Section 309 of the Clean Air Act, and Section 402 of the Clean Water Act. They also administer permits associated with the LTFs under the National Pollution Discharge Elimination System.

National Marine Fisheries Service

The National Marine Fisheries Service (NMFS) has authority for threatened or endangered marine life and for all anadromous salmon. They are currently evaluating Essential Habitat for all salmon, including freshwater salmon. The Forest Service consults with NMFS on possible effects on those species.

U.S. Fish and Wildlife Service

The USFWS administers the Endangered Species Act (ESA). The Forest Service has ongoing consultation with the USFWS to determine if the proposed project would affect threatened or endangered species. Effects on other wildlife species are also discussed with the USFWS, since they have expertise in many areas and are interested in managing wildlife in ways that will prevent the need for listing species as threatened or endangered in the future.

State of Alaska

The State of Alaska was involved in the development of the Forest Plan and the Memorandum of Understanding (MOU) for Economic Timber Sales. Alaska Department of Natural

Resources Division of Forestry consulted extensively with Thorne Bay District Foresters, Silviculturist and other specialists on this project. This partnership between the State and the USFS has resulted in increased involvement by the State in the Logiam Project.

Four departments in the State of Alaska were asked to participate in the planning of this project. They provided general comments and suggestions as well as specific reviews. These departments include:

- Alaska Department of Environmental Conservation (ADEC): Participates in cooperative water quality management through Section 319 of the Clean Water Act and a Memorandum of Agreement with the Forest Service. ADEC also issues a certificate of compliance with Alaska Water Quality Standards under Section 401 of the Clean Water Act for log transfer facilities.
- Alaska Department of Fish and Game (ADFG): Involved in the Coastal Zone Consistency review and is especially interested in stream activities and other fish, water, wildlife, and subsistence issues.
- Alaska Department of Natural Resources (ADNR): ADNR Division of Forestry assisted in reconnaissance and consultation to the Logiam interdisciplinary team regarding economic timber harvest. As well, ADNR issues tideland permits and lease or easement necessary for the log transfer site.
- Office of Project Management and Permitting (OPMP): Part of the ADNR, the OPMP office provides overall coordination for the State's comments and administers the Alaska Coastal Management Program (ACMP) which has been approved by the Secretary of Commerce. If a Federal agency determines that an activity in Alaska has coastal effects, it must evaluate the activity for consistency with the applicable enforceable policies of the ACMP, and submit a consistency determination to the State for review. To make the process more efficient, categories of activities may be evaluated and reviewed together under what is called a "general consistency determination" (GCD). Upon approval of a GCD, activities within that category do not require an individual consistency determination or review. The Forest Service has developed a GCD for timber harvest activities conducted on the Tongass National Forest, and the State of Alaska has agreed that Tongass timber harvest activities are consistent to the maximum extent practicable with the enforceable policies of the ACMP.

The Logiam Timber Sales project will not include any activities outside the scope of the GCD. Consequently, no individual ACMP consistency determination or review is required.

• State Historic Preservation Office (SHPO): Compliance with Section 106 of the National Historic Preservation Act (NHPA), a process to determine the effects of alternatives on heritage resources.

Availability of DEIS

The Notice of Availability for this DEIS will be published in the Federal Register and in the Ketchikan Daily News, the official newspaper of record. The 45-day comment period will

begin on the date of publication of the Notice of Availability in the Federal Register. This DEIS will be mailed to everyone on the project mailing list. A list of recipients is included in Chapter 4 of this DEIS. The DEIS will also be available at the Thorne Bay Ranger District and upon request. This DEIS is also available electronically: www.fs.fed.us/r10/tongass/projects/projects.shtml.

Issues

The Interdisciplinary Team used an issue identification process to analyze comments received during scoping. This process was used to ensure that all significant issues were identified, and that all other issues were meaningfully addressed in the analysis. Results of the interdisciplinary team issue identification process and a summary of all scoping comments is located in the project record.

Comments were received from individuals, organizations, State agencies, and other Federal agencies. Each comment received during scoping was considered a potential issue, and was evaluated to determine in which of the following ways the comment was resolved or addressed:

- Determined to be outside the scope of the Project (not site-specific)
- Already decided by law, regulation, Forest Plan, or other higher level decision
- Irrelevant to the decision being made
- Conjectural and not supported by scientific or factual evidence
- Resolved through mitigation
- Used to drive or partially drive an alternative
- Support for the project

Although there are often many potential issues and concerns associated with the planning of a timber sale, NEPA direction requires detail analysis of those issues that may be significant. This ensures that the analysis and documentation are focused primarily on the issues that are most important to the Logjam project area and the decision to be made. Other concerns, listed under Other Environmental Considerations, are listed below and are summarized in Chapter 3.

The following four issues were determined by the interdisciplinary team after analysis of scoping comments to be potentially key or significant and within the scope of the project decision. The IDT developed alternatives to the Proposed Action to address these issues; Chapter 2 of this DEIS discusses and compares the alternatives. Additional concerns were considered but did not form a basis for an alternative; these concerns are discussed in Chapter 2 under Alternatives Considered but Eliminated from Detailed Analysis.

Units of measure were defined to identify how each alternative responds to a significant issue. Measures were chosen that were quantitative where possible; predictable; responsive to the issue; and linked to cause and effect relationships. These measures describe how the

alternative affects the resource or resources central to the issue. The following issues were used for the Alternative development for the Logiam project.

Issue 1: Effects to Aquatic Habitat

Issue Statement: Cumulative effects of past and proposed harvest and existing and proposed roads in the Logiam project area may increase sedimentation and impact aquatic habitat.

Project scoping responses expressed concerns about the intensity of past harvest in the Logjam project area and its effects on watersheds and fish. The interdisciplinary team developed Issue 1 in response to this concern. The analysis (and development of Alternative 3) emphasized Sweetwater, Logjam, and Trumpeter watersheds because they comprise most of the project area. These watersheds have high fisheries values and the highest levels of harvest and road construction.

Unit of measure: The comparison of alternatives for this issue focuses on the following three units of measure:

- Watersheds with more than 20 percent basin area harvested from 1979 to present (young growth thirty years of age or younger);
- Total miles of new road construction; and
- New Class I and II stream crossings.

Issue 2: Wildlife and Subsistence Use

Issue Statement: The proposed action combined with past harvest may affect deer winter range, habitat fragmentation, productive old-growth (POG) habitat, subsistence use, and road density.

Public comments expressed concerns about subsistence use and wildlife in the project area. The availability of suitable winter range for deer is a factor influencing deer populations in Southeast Alaska. Deer rely on high-volume, mature forests at lower elevations for winter habitat. Deer are a subsistence food source for qualified subsistence users. Additional timber harvest in low-elevation habitat may create additional fragmentation and decrease winter range of deer.

Project scoping responses expressed concerns about the intensity of past harvest in the Logjam project area and its effects on wildlife. The interdisciplinary team developed Issue 2 in response to this concern. The development of Alternative 4 responded to this issue by reducing the amount of productive old growth harvested, the impact to high value deer habitat, road densities by WAA (an access concern related to subsistence use and wolf mortality), and travel corridors (which are tied to POG patch sizes).

Units of measure: The comparison of alternatives for this issue focuses on the following four units of measure:

- Acres of POG remaining
- Acres of deer winter range harvested
- Road density within WAA
- POG patch size remaining

Issue 3: Timber Supply and Sale Economics

Issue Statement: The proposed action may affect socioeconomic conditions of local communities.

Timber sale economics affect the viability of Southeast Alaska's forest products industry and the ability of the industry to contribute to the local and regional economies. Timber purchasers and affected communities are concerned about the quantity and quality of timber volume offered by the Forest Service, the cost of road construction, as well as the logging costs associated with the proposed logging systems and silvicultural prescriptions.

Units of measure: The units of measure used to evaluate the effects of the proposal and compare alternatives include:

- Volume of timber by species
- Acres of harvest by logging system
- Miles of road construction and re-construction
- Logging and road cost (per MBF)
- Indicated bid value (\$ per MBF)
- Number of annualized jobs

Issue 4: Inventoried Roadless Areas

Issue Statement: Timber harvest and road construction may affect roadless area characteristics within Inventoried Roadless Areas.

Numerous comments were received from the public requesting no road construction or timber harvest within any Inventoried Roadless Area (IRA) on the Tongass National Forest. Portions of Sarkar #514 IRA and Thorne River #511 IRA are in the Logjam project area. The roadless areas were evaluated in terms of their ecological, geological, cultural, educational, managerial and scenic qualities.

Units of measure: The comparison of alternatives for this issue focuses on the following four units of measure

- Acres of timber harvest in IRA
- Miles of new road construction in IRA
- Acres of IRA retaining roadless characteristics

Other Environmental Considerations

Other resource concerns are important, but were not used to drive alternative development. These resources are protected to such a degree by the Forest Plan Standards and Guidelines, and by other laws and constraints, that the effects from each of the alternatives are not significant. A more detailed discussion of these important resources and the protection measures used for them can be found in the specialist's resource reports and is summarized in Chapter 3.

Issues considered as part of this analysis, which are not considered significant, include:

- Air quality
- Karst
- Soils and Wetlands
- Transportation
- Botany
- Fisheries
- Invasive Species
- Silviculture
- Heritage
- Recreation
- Scenery
- Subsistence
- Wild and Scenic Rivers

Applicable Laws and Executive Orders

Shown below is a partial list of Federal laws and executive orders pertaining to project-specific planning and environmental analysis on Federal lands. While most pertain to all Federal lands, some of the laws are specific to Alaska.

- Alaska Native Claims Settlement Act (ANCSA) of 1971
- Alaska National Interest Lands Conservation Act (ANILCA) of 1980
- American Indian Religious Freedom Act of 1978
- Archeological Resource Protection Act of 1980
- Bald and Golden Eagle Protection Act of 1940 (as amended)
- Cave Resource Protection Act of 1988
- Clean Air Act of 1970 (as amended)
- Clean Water Act of 1977 (as amended)
- Coastal Zone Management Act of 1972 (as amended)
- Endangered Species Act (ESA) of 1973 (as amended)
- Executive Order 11593 (cultural resources)

- Executive Order 11988 (floodplains)
- Executive Order 11990 (wetlands)
- Executive Order 12898 (environmental justice)
- Executive Order 12962 (aquatic systems and recreational fisheries)
- Executive Order 13007 (Indian sacred sites)
- Executive Order 13112 (Invasive Species)
- Executive Order 13175 (government-to-government consultation)
- Executive Order 13443 (hunting heritage and wildlife conservation)
- Forest and Rangeland Renewable Resources Planning Act (RPA) of 1974 (as amended)
- Magnuson-Stevens Fishery Conservation and Management Act of 1996
- Marine Mammal Protection Act of 1972
- Migratory Bird Treaty Act of 1918 (amended 1936 and 1972)
- Multiple-Use Sustained-Yield Act of 1960
- Native American Graves Protection and Repatriation Act (NAGPRA) of 1990
- National Environmental Policy Act (NEPA) of 1969 (as amended)
- National Forest Management Act (NFMA) of 1976 (as amended)
- National Historic Preservation Act of 1966 (as amended)
- National Invasive Species Act of 1996
- National Transportation Policy (2001)
- Organic Act of 1897
- Rivers and Harbors Act of 1899
- Tongass Timber Reform Act (TTRA) of 1990
- Wild and Scenic Rivers Act of 1968, amended 1986

Availability of the Project Record

The project record contains supporting material that documents the NEPA process and analysis from the beginning of the project through project implementation.

The project record is located at the Thorne Bay Ranger District office in Thorne Bay, Alaska. Reference documents, such as the Forest Plan and the Tongass Timber Reform Act, are available for review at public libraries and Forest Service offices throughout Southeast Alaska, including the Forest Supervisor's Office in Ketchikan. The Forest Plan and FEIS are also available on CD-ROM and on the Internet (http://tongass-fpadjust.net/).

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