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Forest  
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Tongass National Forest

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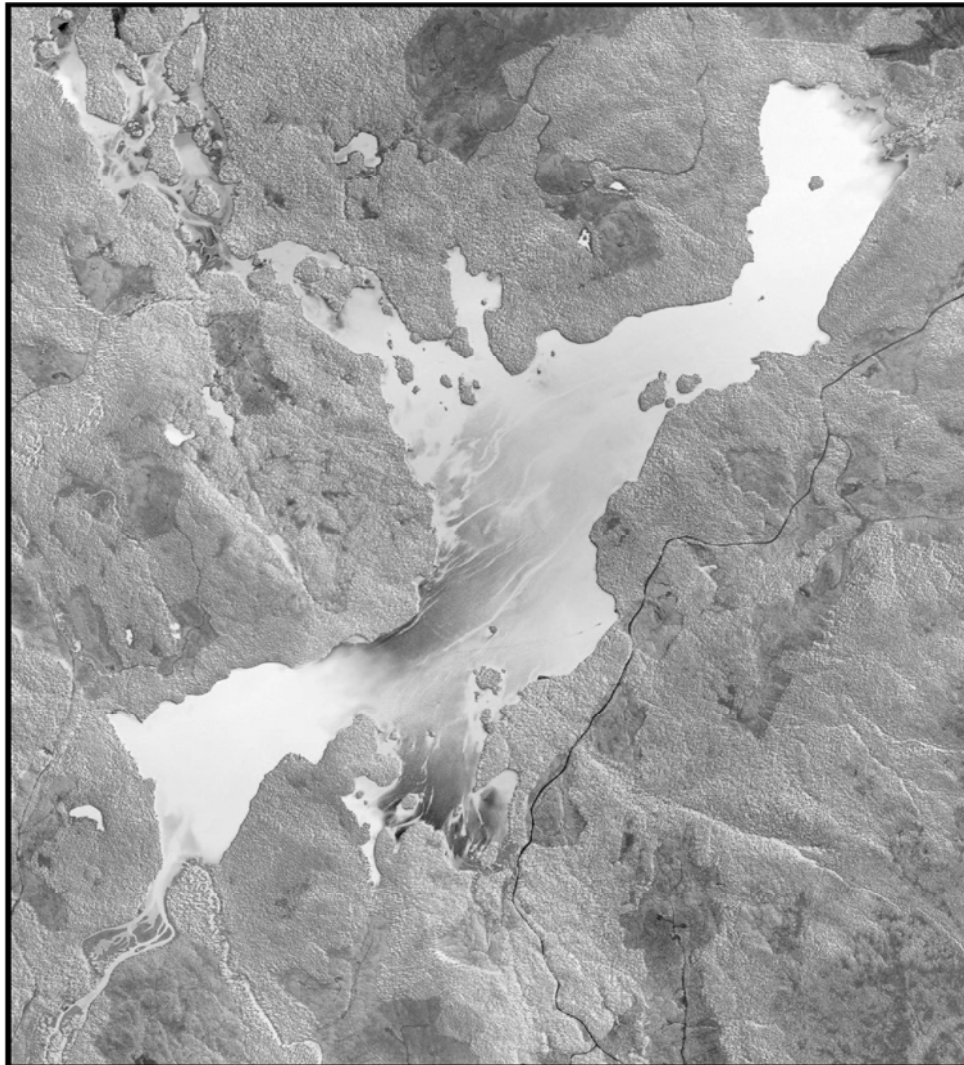
December 2008



# Draft Environmental Impact Statement Logjam Timber Sale

Thorne Bay Ranger District,  
Tongass National Forest

Volume 1 with Appendix A



## Acronyms

<b>ACHP</b> Advisory Council On Historic Preservation	<b>NFS</b> National Forest System
<b>ACMP</b> Alaska Coastal Management Program	<b>NMFS</b> National Marine Fisheries Service
<b>ADEC</b> Alaska Department of Environmental Conservation	<b>NOI</b> Notice of Intent
<b>ADF&amp;G</b> Alaska Department of Fish and Game	<b>NWI</b> National Wetland Inventory
<b>ADNR</b> Alaska Department of Natural Resources	<b>OG</b> Old Growth
<b>AFRPA</b> Alaska Forest Resources and Practices Act	<b>OGR</b> Old-growth Reserve
<b>AHMU</b> Aquatic Habitat Management Handbook	<b>PNW</b> Pacific Northwest Forest and Range Experiment Station
<b>ANCSA</b> Alaska Native Claims Settlement Act (1972)	<b>POG</b> Productive Old Growth
<b>ANILCA</b> Alaska National Interest Lands Conservation Act (1980)	<b>R10</b> Region 10 (Alaska Region of Forest Service)
<b>ASQ</b> Allowable Sale Quantity	<b>RCS</b> Road Condition Survey
<b>BA</b> Biological Assessment	<b>ROD</b> Record of Decision
<b>BE</b> Biological Evaluation	<b>ROS</b> Recreation Opportunity Spectrum
<b>BMP</b> Best Management Practice	<b>RPA</b> Forest and Rangeland Renewable Resources Protection Act (1974)
<b>CEQ</b> Council on Environmental Quality	<b>SEIS</b> Supplemental Environmental Impact Statement
<b>CFR</b> Code of Federal Regulations	<b>SHPO</b> State Historic Preservation Office
<b>CRM</b> Copper River Meridian	<b>SMS</b> Scenery Management System
<b>CZMA</b> Coastal Zone Management Act (1972)	<b>TES</b> Threatened, Endangered, Sensitive (species)
<b>DBH</b> Diameter (of a tree) at Breast Height (about 4.5 feet high)	<b>TTRA</b> Tongass Timber Reform Act (1990)
<b>DEIS</b> Draft Environmental Impact Statement	<b>U.S.C.</b> United States Code
<b>EIS</b> Environmental Impact Statement	<b>USDA</b> United States Department of Agriculture
<b>EFH</b> Essential Fish Habitat	<b>USFWS</b> United States Fish and Wildlife Service
<b>EPA</b> Environmental Protection Agency	<b>VCU</b> Value Comparison Unit
<b>ESA</b> Endangered Species Act	<b>VPA</b> Visual Priority Area
<b>FEIS</b> Final Environmental Impact Statement	<b>VRM</b> Visual Resource Management
<b>FSH</b> Forest Service Handbook	<b>WAA</b> Wildlife Analysis Area
<b>FSL</b> Forestry Sciences Laboratory	<b>WSRA</b> Wild and Scenic Rivers Act
<b>FSM</b> Forest Service Manual	
<b>FVS</b> Forest Vegetation Simulator	
<b>GIS</b> Geographic Information System	
<b>GMU</b> Game Management Unit	
<b>GPS</b> Global Positioning Unit	
<b>HUC</b> Hydrologic Unit Code (United States Geographic Service)	
<b>IDT</b> Interdisciplinary Team	
<b>LTF</b> Log Transfer Facility	
<b>LUD</b> Land Use Designation	
<b>LWD</b> Large Woody Debris	
<b>MA</b> Management Area	
<b>MAF</b> Marine Access Facility	
<b>MBF</b> Thousand Board Feet	
<b>MIS</b> Management Indicator Species	
<b>MMBF</b> Million Board Feet	
<b>MMI</b> Mass Movement Index	
<b>NEAT</b> NEPA Economic Analysis Tool	
<b>NEPA</b> National Environmental Policy Act	
<b>NFMA</b> National Forest Management Act (1976)	

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Cover Photo: Aerial Photo of Sweetwater Lake, 1996

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File Code: 1950/2430

Date:

Dear Reviewer,

This is an opportunity to comment on the proposed Logjam Timber Sale Project Draft Environmental Impact Statement (DEIS) on the Thorne Bay Ranger District, Tongass National Forest. This letter is our request for comment on this proposed action and alternatives to the proposed action before a final decision is made.

This DEIS presents the purpose and need for the proposed project. It describes the proposed action, objectives, and the environmental effects of implementing the project. The proposed action, Alternative 2 (the preferred alternative) includes: harvesting up to 75 million board feet (MMBF) of timber across approximately 3,700 acres of harvest units, using ground-based, cable, and helicopter logging systems; and constructing approximately 29 miles of road. This alternative includes approximately 99 acres of harvest within inventoried Roadless Areas (IRAs).

Your comments are welcome and will be most useful if they are specific to this proposed action. Reviewers should provide the Forest Service with their comments during the review period of the DEIS. Written, oral, and electronic comment on the DEIS will be accepted for 45 calendar days following the date of publication of the notice of availability (NOA) of this DEIS in the Federal Register. It is important that reviewers provide their comments at such times and in such a way that they are useful to the Agency's preparation of the EIS. Comments should clearly articulate the reviewer's concerns and contentions. The submission of timely and specific comments can affect a reviewer's ability to participate in subsequent administrative review or judicial review *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519, 553 (1978). Environmental objections that could be raised at the DEIS stage, but that are not raised until after completion of the Final Environmental Impact Statement (FEIS) may be waived or dismissed by the courts, *City of Angoon v. Hodel*, 803 F.2d 1016, 1022 (9th Cir. 1986) and *Wisconsin Heritages, Inc. v. Harris*, 490 F. Supp. 1334, 1338 (E.D. Wis. 1980). Because of these court rulings, it is very important that those interested in this proposed action participate by the close of the 45 day comment period, so that comments and objections are made available to the Forest Service at a time when it can meaningfully consider and respond to these comments in the FEIS.

To assist the Forest Service in identifying and considering issues and concerns on the proposed action, comments on the DEIS should be as specific as possible. It is also helpful if comments refer to specific pages or chapters of the DEIS. Comments may also address the adequacy of the DEIS, or the merits of the alternatives formulated and discussed in the statement. Reviewers may wish to refer to the Council on Environmental Quality Regulations for implementing the procedural provisions of the National Environmental Policy Act at 40 CFR 1503.3 in addressing these points. Comments received, including the names and addresses of those who comment, will be considered part of the public record on this proposal and will be available for public



inspection. (Authority: 40 CFR 1501.7 and 1508.22; Forest Service Handbook 1909.15, Section 21).

Your comments need to include:

1. Your name and mailing address (a telephone number is optional)
2. The project title “Logjam Timber Sale DEIS”
3. Your organization name if you are commenting as a representative
4. Your signature is required for appeal eligibility (a scanned signature is accepted on email)

To comment by email, use a format compatible with MS Word and send to: [comments-alaska-tongass-thorne-bay@fs.fed.us](mailto:comments-alaska-tongass-thorne-bay@fs.fed.us) Subject Line: comments-Logjam. Written comments must be sent to the following address: Thorne Bay Ranger District Attn: Logjam DEIS PO Box 19001, Thorne Bay, AK 99919 or FAX comments to: 907-828-3309 You can hand deliver comments to the Thorne Bay Ranger District office Mon-Fri, 8am-5pm except for holidays. You can also arrange to make oral comments. For more information you can call Frank Roberts, Zone Planner (907) 828-3226.

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Sincerely,

FORREST COLE  
Forest Supervisor



# Draft Environmental Impact Statement

## Prince of Wales Island, Alaska

### Lead Agency:

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**Abstract:** The Logjam project area is located in Southeast Alaska on Prince of Wales Island, northeast of the community of Thorne Bay. This is a timber sale project. Timber would come from 4 Land Use Designations in which the Tongass Land and Resource Management Plan allows timber harvest. This proposed action would harvest up to 75 million board feet (MMBF) of timber and build approximately 29 miles of road. Harvest methods for the proposed action and alternatives include clearcutting (even-age management) using conventional and cable and shovel logging systems to harvest timber. Helicopter harvest would also be a method of harvest for the proposed action and alternatives. Helicopter logging would use a two age management method to harvest by clearcutting using a reserve silviculture prescription, through either 50% or 75% basal area retention within helicopter yarding areas.

**Alternative 1 (No Action):** If selected, no new Forest Service harvest activities would be initiated as a result of this decision. Current and on-going management activities would continue. This alternative does not preclude timber harvesting from other areas at this time or from the project area at some time in the future.

**Alternative 2 (Proposed Action):** This alternative proposes timber harvest using ground based and helicopter, logging systems to log approximately 75 MMBF of timber on about 3,703 acres. This alternative includes approximately 99 acres of harvest within inventoried Roadless Areas (IRAs). This alternative proposes construction of approximately 29 miles of road construction, of which, 8 miles would be new National Forest System road that would be stored at project completion.

**Alternative 3:** This alternative proposes timber harvest using ground based and helicopter, logging systems to log approximately 52 MMBF of timber on about 2,708 acres. This alternative proposes construction of approximately 15 miles of road construction, of which 2 miles would be new National Forest System road that would be stored at project completion.

**Alternative 4:** This alternative proposes timber harvest using ground based and helicopter, logging systems to log approximately 38 MMBF on about 1,694 acres. This alternative proposes construction of approximately 13 miles of road construction, of which 3 miles would be new National Forest System road that would be stored at project completion.

**Alternative 5:** This alternative proposes timber harvest using ground based and helicopter logging systems to log approximately 68 MMBF on about 3,348 acres. This alternative proposes construction of approximately 18 miles of road construction, of which 4 miles would be new National Forest System road that would be stored at project completion.

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# Summary

The Logjam project area is located in Southeast Alaska on Prince of Wales Island, northeast of the community of Thorne Bay (see Map 1) and covers approximately 56,133 acres of National Forest System lands (NFS). The Logjam project area contains 1,129 acres of state and private lands (non-NFS) and 55,004 acres of National Forest System (NFS) lands. The project area consists of six Land Use Designations (LUDs) as defined in the 2008 Tongass Land and Resource Management Plan (Forest Plan). Of the six LUDs in the project area (Timber Production, Modified Landscape, Scenic Viewshed, Recreational River, Scenic River and Old-Growth Habitat), the majority of units are located within three LUDs: Timber Production, Modified Landscape and Scenic Viewshed. The Forest Plan authorizes timber harvest in these LUDs. The project area is within reasonable proximity to local mills and communities.

The Forest Service has prepared this Draft Environmental Impact Statement (DEIS) to analyze the potential impacts of timber harvesting and road management in the Logjam Project Area. This DEIS is in compliance with the National Environmental Policy Act 42 U.S.C. 4321 et seq. (NEPA), the National Forest Management Act of 1976, and all other relevant federal and state laws and regulations. In implementing Forest Plan direction in accordance with the Council of Environmental Quality regulations (40 CFR 1500-1508), this DEIS answers the following eight questions:

## 1 – What action is proposed?

This Proposed Action (Alternative 2) would harvest 75 million board feet (MMBF) of timber and build approximately 29 miles of road. This DEIS is being prepared in compliance with the National Environmental Policy Act (NEPA) and other Federal and State laws and regulations. Three action alternatives to the proposed action have been developed. The Forest Supervisor of the Tongass National Forest will make a final decision as to method, amount of harvest, and amount of road building in the Record of Decision for this project when a Final Environmental Impact Statement (FEIS) is prepared, subsequent to this document. This Proposed Action (Alternative 2) includes about 99 acres of harvest within lower value<sup>1</sup> Inventoried Roadless Areas (IRAs). The Proposed Action and all action alternatives would accomplish the Goals and Objectives of the Tongass National Forest Land and Resource Management Plan.

(40 CFR 1502.4(a); 1508.23; 1502.14; and 1502.5)

## 2 – Why is the project being proposed?

The underlying purpose of the Logjam Timber Sale Project is to meet Forest Plan goals and objectives. The underlying need is to provide a reliable, economic supply of sawtimber which allows Southeast Alaska mills to support timber industry employment that contributes to the local and regional economies of Prince of Wales Island and Southeast Alaska.

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<sup>1</sup> See 2008 Forest Plan, ROD Adaptive Management Strategy page 64.

## Summary

The Logjam Timber Sale Project is proposed at this time to respond to goals and objectives of the Forest Plan (USDA 2008b), to help move the project area toward the desired conditions described in that plan, and to meet the needs of Southeast Alaska timber operators. The Forest Plan includes both forest-wide goals and objectives and area-specific (land use designation) goals, objectives, and desired future conditions. The Logjam Timber Sale DEIS; as a project would respond to the following Forest Plan goals and objectives:

### Forest Plan Goals and Objectives

#### 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 (USDA2008b, 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).

Seeking to meet timber demand for the Tongass National Forest is required by Section 101 of the 1990 Tongass Timber Reform Act (TTRA) which states that, “...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..” With this DEIS the interdisciplinary team found that the project area has a roaded landscape, tree species composition, and general tree quality that presents an opportunity for an economic timber harvest. Additionally, the interdisciplinary team found that the timber resources in project area are of high value for local economies. Southeast Alaska, and locally the Prince of Wales Island area, has experienced a significant decline in manufacturing and natural resource employment. This decline has been mirrored by a decline in sawmill industry production and reduced harvest levels. By allowing the use of renewable timber resources to Southeast Alaska mills, jobs and income are generated for Southeast Alaska’s economy. Therefore, an underlying need exists for

a reliable economic supply of sawtimber for Southeast Alaska mills. The need for project action is further explained in Chapter 1, page 5 and in greater detail in Appendix A, of this document.

(40 CFR 1502.13)

### **3 – Alternatives – What other action would meet the same need?**

All action alternatives to the proposed action are consistent with the Forest Plan. All applicable Forest Plan Standards and Guidelines have been incorporated into the design of the proposed units and alternatives. While some alternatives have been designed to provide a greater measure of protection than is required by the Forest Plan for some resources, such as spreading out units to reduce the impacts to sensitive watersheds (see Alternative 4), all alternatives were designed to meet Forest Plan Standards and Guidelines for all other resources. Additional direction comes from applicable laws and Forest Service manuals and handbooks. Site-specific descriptions and resource considerations for each potential harvest unit are included as unit cards in Appendix B of this Draft EIS. All roads have been located and will be designed to avoid or minimize effects on wetlands. Resource considerations for each proposed new system road are included in the road cards in Appendix C of this Draft EIS. Each alternative complies with the Forest Plan Conservation Strategy designed to ensure the maintenance of viable populations of all vertebrate species on the Tongass by means of a comprehensive approach based on principles of conservation biology. Forest Plan Standards and Guidelines for riparian areas are applied to all streams within the project area.

Each action alternative provides a different response to key issues while still meeting the stated purpose and need of this EIS. Each of these alternatives represents a site-specific proposal developed through an intensive, field-verified, interdisciplinary team evaluation of timber harvest unit and road design.

The following is a brief discussion of how the alternatives respond to the key issues identified for the Logjam Project. A detailed comparison of these issues by project alternative is summarized in Chapter 2, and a full examination of issue comparison by alternative is provided in Chapter 3.

#### **Alternative 2**

The proposed action (Alternative 2, which is the Forest Service preferred alternative) seeks to maximize timber volume in this entry.

#### **Alternative 3**

This alternative action addresses effects related to road construction and stream crossings. Alternative 3 also addresses cumulative effects of past harvest on stream flow. This alternative maintains the current roadless characteristics (Issue 4) of the Inventoried Roadless Areas (IRAs).

#### **Alternative 4**

The primary objective of in the design of Alternative 4 is to minimize the fragmentation of wildlife habitat. This alternative maintains the current roadless characteristics (Issue 4) of the Inventoried Roadless Areas (IRAs). Alternative 4 emphasizes wildlife habitat and travel corridors, while providing opportunities for timber harvest and road construction (Issue 2). It

## Summary

minimizes the effects on wildlife by reducing the amount of timber harvest acres and miles of road construction.

### Alternative 5

Alternative 5 emphasizes timber sale economics while maximizing total volume harvested (Issue 3). This alternative emphasizes economical timber harvest, by minimizing road construction and maximizing cable and shovel clearcut settings. This alternative is also designed to maintain current roadless characteristics in IRAs in same the manner of Alternative 4.

(40 CFR 1502.14; and 1508.25(b))

## 4 – What would it mean not to meet the need for project action?

Not meeting the need for timber production in the project area would mean that Forest Plan requirements for continuous yield of timber would have to be met in other areas. Harvest from small sales may continue to occur in this area if this project does not go forward. However, harvest in this manner does not include a landscape level approach, does not provide a balanced view of resource needs, and would contribute only a minimal amount of wood fiber to the local and regional economies of Southeast Alaska.

(40 CFR 1508.25(b) (1); and 1502.14 (d))

## 5 – What are the effects of the proposed action, and alternative actions — in comparative format?

In Chapter 2, Alternatives Considered in Detail (page 22) tracks the manner in which Alternatives meet the Purpose and Need for the project, and Table 3 beginning on page 29, compares outputs, objectives and effects of the alternatives in terms of the key issues. Chapter 3 the Affected Environment and Effects of the Key Issues, shows a comparison of effects of proposed action and alternative actions in a comparative form. Chapter 3, Other Resource Considerations, also has an in-depth discussion and details of alternative effects by other resources beginning on page 143 and provides an in-depth discussion of the affected environment and environmental consequences of proposed and alternative actions by resource.

The following four issues were determined to be potentially key or significant and within the scope of the project decision. The IDT developed the alternatives to the Proposed Action to address these issues; Chapter 2 of this DEIS discusses and compares the alternatives. Chapter 3 examines the existing condition and analyzes the effects or consequences of the project as it relates to these issues. The following summarizes these effects:

### ISSUE 1 – Effects to Aquatic Habitat

Alternative 1 (No Action) has no direct, indirect, or cumulative effects.

Alternative 2 would result in minor effects on sedimentation and aquatic habitat. Compared to other alternatives, Alternative 2 has the most effects on sedimentation and aquatic habitat. Alternative 2 could result in moderate cumulative effects if existing roads are not stored and

decommissioned, with practices specifically focused on restoring natural drainage patterns and reducing sediment sources.

Alternative 3 would result in minor effects on sedimentation and aquatic habitat. Compared to Alternative's 2 and 5, Alternatives 3 and 4 are similar, with less effect on sedimentation and aquatic habitat. Alternative 3 would have fewer road-stream crossings (Class I, II, and III) than Alternative 4, resulting in the least effects of all alternatives.

Alternative 4 would result in minor effects on sedimentation and aquatic habitat. Compared to other alternatives, Alternative 4 is similar to Alternative 3, with less effect on sedimentation and aquatic habitat than Alternatives 2 and 5.

Alternative 5 would result in minor effects to sedimentation and aquatic habitat. Compared to other alternatives, Alternative 5 ranks second in effects on sedimentation and aquatic habitat.

### **ISSUE 2 – Wildlife and Subsistence Use**

All alternatives would result in a decrease in deer habitat capability. The resulting deer densities in all alternatives will be above 18 deer per square mile in WAA 1421 and in the combined area of WAAs 1420, 1421, and 1422.

All action alternatives would result in an increase in the road density of WAA 1421. Both the current density and the density as a result of this project are above the threshold guideline for areas where wolf mortality has been identified as a concern; however wolf mortality has not been identified as a concern by the State of Alaska in WAA 1421.

All action alternatives would result in a decrease in high value marten habitat.

All action alternatives would result in a decrease in snag dependent species habitat.

All action alternatives would result in a decrease in Prince of Wales flying squirrel habitat; however habitat adequate to maintain viable populations of flying squirrels is maintained within old growth reserves.

All action alternatives would result in a decrease in productive old growth habitat. Habitat adequate to maintain viable populations of old growth associated species such as the spruce grouse, migratory birds and others is maintained within the old growth reserves.

The proposed action and alternatives are not anticipated to cause impact to any suitable habitat, nor cause disturbance to individuals for the following species: trumpeter swan, peregrine falcon, or Kittlitz's murrelet.

The Logjam project may have an effect on the goshawk and its habitat within the project area. It is determined that action alternatives of this project may adversely impact individual northern goshawks, but that all alternatives are not likely to result in a loss of viability in the Project Area, nor cause a trend toward federal listing.

### **ISSUE 3 – Timber Supply and Sale Economics**

Each of the four action alternatives is responsive to the need for a reliable, economic supply of sawtimber to meet market demand. These alternatives also have the potential to support timber industry employment and benefit local and regional economies. The extent to which each alternative meets this need is correlated directly to the total volume of timber harvest for that alternative. Alternative 2, the Proposed Action, allows for the greatest total volume of timber

## Summary

harvest and therefore has the greatest potential to meet the purpose and need of the Project followed by Alternatives 5, 3 and 4 respectively. These alternatives would provide less volume to meet demand and would therefore provide less opportunity for employment and income to local and regional economies.

For timber volume to contribute to the stated purpose, it must also be economically viable. Current indicated bid value estimates show all alternatives to have a positive value. The quantity of economically viable timber volume available at project implementation would depend on a number of factors. Changes in regional and global timber markets and other factors such as fuel costs can dramatically affect stumpage values and logging costs at the time of implementation and harvest. The full economic benefits of a given alternative may not be available under poor market conditions. Current estimates show indicated bid values that are relatively similar for all alternatives. Alternative 5 has the highest indicated bid value of any alternative due to relatively low logging and road costs. Alternative 5 also allows the second highest volume of harvest—approximately 8 percent less than Alternative 2. Selection of Alternative 2 would not preclude those management options available under Alternative 5 with the exception of approximately 258 harvest acres added after scoping as explained in Chapter 2.

A stable timber economy requires an even flow of timber; which allows operators to make capital investments and employ qualified workers. Timber from the Logjam Project constitutes a portion of the timber supply available to Southeast Alaska's economy. A stable timber supply in Southeast Alaska depends on the success of many timber sales across the forest. The importance of this project to the region's timber industry is emphasized by the relatively favorable economics of the available volume. The amount of timber harvest also affects the availability of timber in the future and contributes to long-term timber supply.

There would be no adverse human health and environmental effects for any alternative that disproportionately impacts minority and low income populations because of the location and nature of this project.

### **ISSUE 4 – Inventoried Roadless Areas**

Alternative 2 (Proposed Action), proposes timber harvest (99 acres) in IRAs 511 and 514. This proposed timber harvest is in portions of the IRAs considered a lower value roadless component by the Forest Plan (see Timber Sale Program Adaptive Management Strategy, Chapter 1). Alternatives 3, 4, and 5 have no timber harvest activities in IRAs 511 and 514. For all Action Alternatives, the proposed harvest acres in combination with the previous harvests, are not likely to affect the roadless character of these two IRAs, because: proposed actions or alternative actions would not cause development in corridors between the IRAs; would not reduce the remoteness of these areas; would not greatly reduce the acreages of the IRAs; and would be unlikely to affect the biological, geological, scientific, or recreation values of the IRAs.

(40 CFR 1502.14; 1508.8; and 1502.16)

## **6– What factors will be used when making the decision among alternatives?**

The factors that will likely influence the decision between alternatives include: design and location of timber harvest, as well as road construction and reconstruction, social and economic

factors (see Timber Supply and Sale Economics, page 121), and silvicultural practices in the Project Area (see Decisions to be made in Chapter 1, page 6).

(40 CFR 1502.23)

### **7 – Are there any ways to mitigate adverse effects?**

The action alternatives propose to mitigate some resource impacts, as described in Chapter 3. Adverse effects, such as risks from windthrow to standing timber after harvest have been evaluated, and means to minimize windthrow are incorporated into all harvest unit prescriptions by way of windfirm buffers, where needed. If any previously undocumented goshawk nests are discovered at any time prior to or during the implementation of this project, the appropriate protection measures (nest buffers) would be enacted.

General Mitigation common to all alternatives is described in Chapter 2 beginning on page 25. Detailed mitigation measures are listed in a site-specific manner on each Unit Card in Appendix B and each Road Card in Appendix C of this document.

(40 CFR 1508.25(b) (3); 1502.14(f); 1502.16(h); 1508.20; and 1500.2(e))

### **8 – What monitoring is necessary?**

Routine implementation monitoring is part of the administration of a timber sale contract. The sale administrators and road inspectors ensure that the prescriptions contained on the unit and road cards, and the unit silvicultural prescriptions, are incorporated into contract documents; they then monitor performance relative to contract requirements (Appendices B and C). Input by resource staff specialists, such as fisheries biologists, soil scientists, hydrologists and engineers, would be regularly requested during this implementation monitoring process. These specialists provide technical advice when questions arise during project implementation.

Tongass National Forest staff annually conducts a review of BMP implementation and effectiveness. The results of this and other monitoring are summarized in a Tongass National Forest Annual Monitoring and Evaluation Report. This report provides information about how well the management direction of the Forest is being carried out and measures the accomplishment of anticipated outputs, activities and effects.

(40 CFR 1505.3; and 1505.2(c))

## **DEIS Organization**

This Draft Environmental Impact Statement (DEIS) discloses the direct, indirect, and cumulative environmental impacts that would result from the proposed action and alternatives. All numbers in this document are approximate. The document is organized into four chapters:

- Chapter 1 explains the Purpose and Need for the Proposed Action, discusses how the Logjam Timber Sale Project relates to the 2008 Tongass Land and Resource Management Plan (Forest Plan), and identifies the significant, or key issues driving the DEIS analysis.

## Summary

- Chapter 2 describes the Proposed Action, compares alternatives to the Proposed Action including a No-action Alternative, and summarizes the significant environmental consequences by issue.
- Chapter 3 describes the natural and human environments potentially affected by the Proposed Action and alternatives, and discloses what potential effects are anticipated.
- Chapter 4 contains the list of preparers, the DEIS distribution list, literature cited, a glossary, and an index.
- Appendices provide additional information on specific aspects of the proposed project. This DEIS incorporates documented analyses by summarization and reference where appropriate.

The Draft Environmental Impact Statement is available on line:

<http://www.fs.fed.us/r10/tongass/projects/projects.shtml>

Copies of this DEIS may be obtained from the USDA Forest Service office at Thorne Bay, Alaska. Additional documentation, including more detailed analyses of project-area resources, may be found in the project record located at the Thorne Bay Ranger District Office in Thorne Bay, Alaska.



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