



United States
Department of
Agriculture

Forest
Service

Alaska Region
Tongass National Forest

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File Code: 2410

Date: November 21, 2008

Dear Planning Participant:

Enclosed is your copy of the Draft Environmental Impact Statement (DEIS) for the Central Kupreanof Timber Harvest on the Petersburg Ranger District, Tongass National Forest. This document describes the no-action alternative, and three action alternatives. At this point Alternative 3 is the preferred alternative. However, please review all alternatives since any alternative, combination of alternatives, or a new alternative within the range of these alternatives may be selected in the final decision for this project.

I am the Responsible Official for this project and will make the decision on whether or not timber harvest will occur and where it will occur; the management of existing roads, and any other activities proposed in these alternatives.

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. Therefore, comments should be provided prior to the close of the comment period and 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.

Comments received in response to this solicitation; including names and addresses of those who comment, will be part of the public record for this proposed action. Comments submitted anonymously will be accepted and considered; however, anonymous comments will not provide the respondent with standing to participate in subsequent administrative review or judicial review.

The 45-day comment period on the DEIS will begin on the date the Notice of Availability is published in the Federal Register. A public notice will also be placed in the *Ketchikan Daily News*, the newspaper of record, and the *Petersburg Pilot*, the weekly newspaper in Petersburg, Alaska.

Please send written comments to Chris Savage, Petersburg District Ranger, or Tiffany Benna, Team Leader, ATTN: Central Kupreanof Timber Harvest, USDA Forest Service, P.O. Box 1328, Petersburg, AK 99833. Comments may also be e-mailed to: comments-alaska-tongass-petersburg@fs.fed.us, with Central Kupreanof Timber Harvest in the subject line.



If you need additional information or if you would like additional copies of the DEIS, please call the Petersburg Ranger District at (907) 772-3871. The document can also be accessed online at: <http://www.fs.fed.us/r10/tongass/projects/projects.shtml>.

Sincerely,

A handwritten signature in cursive script, appearing to read "Forrest Cole".

FORREST COLE
Forest Supervisor

Central Kupreanof Timber Harvest

Draft Environmental Impact Statement

Tongass National Forest
USDA Forest Service
Alaska Region

Lead Agency: USDA Forest Service
Tongass National Forest
648 Mission Street
Ketchikan, AK 99901

Responsible Official: Forrest Cole
Forest Supervisor
Tongass National Forest

For Further
Information Contact: Tiffany Benna/Planning Team Leader
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Abstract

The USDA Forest Service proposes to harvest up to 70.2 million board feet (MMBF) of timber in the Central Kupreanof project area on Kupreanof Island, Petersburg Ranger District, Tongass National Forest. Timber volume would be offered through the Tongass timber sale program. The actions analyzed in this Draft Environmental Impact Statement (DEIS) are designed to implement direction contained in the 2008 Tongass Land and Resource Management Plan (Forest Plan) and the Tongass Timber Reform Act (TTRA). The DEIS describes four alternatives, which provide different combinations of resource outputs and spatial locations of harvest units. The action alternatives would make between 28.1 and 70.2 MMBF of timber available for harvest within the project area. The significant issues addressed by the alternatives and the Final EIS include: Timber Economics, Roadless and Road Management/Access. The preferred alternative at this point is Alternative 3. However, any of the alternatives may be selected in the Record of Decision for the Final EIS.

Also analyzed in this document are Projects Common to All Action Alternatives. They are analyzed as common to all action alternatives and include such possible activities as; culvert replacement, second growth thinning, and road, cabin and trail maintenance. These projects will provide potential stewardship contracting opportunities in the local area.

Summary

Introduction

The Central Kupreanof Timber Harvest project area is located centrally on the western portion of Kupreanof Island, on the Petersburg Ranger District of the Tongass National Forest, Alaska Region (Region 10) of the Forest Service, an agency of the U.S. Department of Agriculture (see Vicinity Map, Figure 1-1).

This chapter discusses the background of the Central Kupreanof Timber Harvest project and ties to the 2008 Tongass Land and Resource Management Plan (referred to as the Forest Plan in this document). It includes the steps taken to identify environmental issues and public concerns related to implementation of the project.

Purpose and Need

The purpose and need for the proposed action responds to the goals and objectives identified by the Tongass Land and Resource Management Plan, and helps move the area toward the desired conditions as described in the Forest Plan. The Forest Supervisor is the Responsible Official for this action and will decide whether or not to harvest timber from the Central Kupreanof Timber Harvest area, and if so, how this timber will be harvested. The decision will be based on the information that is disclosed in the environmental impact statement. The Responsible Official will consider comments, responses, the disclosure of environmental consequences, and applicable laws, regulations, and policies in making the decision and will state that rationale in the Record of Decision.

The purpose of the Central Kupreanof Timber Harvest project is to:

- Manage the timber resource for production of sawtimber and other wood products from suitable lands made available for timber harvest on an even-flow, long-term sustained yield basis, and in an economically efficient manner.

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- 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.
- Provide for a diversity of opportunities for resource uses that contribute to the local and regional economies of Southeast Alaska.

Appendix A of this document provides information on how this project relates to the overall Tongass National Forest timber sale program, and why the project is being scheduled at this time.

Proposed Action (Alternative 2)

The proposed action, as published in the Federal Register, provides for multiple timber sale opportunities and would result in the production of approximately 40 million board feet (mmbf) of timber from approximately 2,025 acres of forested land. Up to 11.1 miles of National Forest System (NFS) roads and 7.0 miles of temporary roads may be necessary for timber harvest. Through two field seasons and the interdisciplinary process, the proposed action has been adjusted to respond to on the ground conditions and resource concerns while remaining within the scope of the original proposed action. The Proposed Action for this project still provides for multiple timber sale opportunities and will result in the production of approximately 46.8 mmbf (about 39.4 mmbf of sawlog and 7.4 mmbf of utility) from 2,506 acres of forested land. Up to 7.3 miles of new NFS and up to 3.9 miles of temporary road would be constructed for timber harvest. A range of alternatives, responsive to significant issues, has been developed and includes a no action alternative.

The interdisciplinary team has identified several projects within the project area that could serve as stewardship opportunities along side the timber harvest proposal. These projects consist mainly of trail maintenance, pre-commercial thinning opportunities (both for silvicultural and wildlife purposes), fisheries and hydrology opportunities, and road maintenance activities. These projects will be analyzed as common to all action alternatives. (See Chapter 2, pages 8 and 9.)

Decisions to be Made

Based on the environmental analysis in this EIS, the Forest Supervisor will decide whether and how to implement activities within the Central Kupreanof Project Area in accordance with Forest Plan goals, objectives, and desired conditions. The decision may include the following:

- The location, amount, and method of timber harvest, road construction, marine access facilities, and silvicultural practices.
- Road management objectives for constructed, reconstructed and existing roads associated with the timber sale.
- Any necessary project-specific mitigation design, mitigation measures and monitoring requirements.
- Whether to implement the Project Opportunities common to all action alternatives.
- A determination of whether there may be a possibility of a significant change in subsistence uses and access.
- A Microsale program along existing NFS Roads 6030, 6040, 6314, 6314S, 6326, 6328, 6334, 6336, 6339, and 6367.

Significant Issues

Significant issues are used to formulate and design alternatives, prescribe mitigation measures, and analyze significant effects. Significant issues for the Central Kupreanof Timber Harvest have been identified through public and internal scoping. Similar issues are combined where appropriate. Issues can arise from a variety of sources, including:

- Issues, concerns, and opportunities identified in the Forest Plan,
- Issues identified for similar projects (past actions),
- Current internal issues,
- Changes in public uses, attitudes, values, or perceptions,
- Issues raised by the public during scoping, and
- Comments from other government agencies.

Measures of the significance of an issue are based on the extent of the geographic distribution, the duration of the related effects, or the intensity of interest or resource conflict surrounding the issue. For an issue to be considered significant at the project level, it must be relevant to the specific project so that it can be appropriately addressed at the project level. Some issues have already been resolved through national level direction or analyzed at the Forest Plan level.

Once a significant issue is identified, measures are developed to analyze how each alternative responds to the issue. Measures are chosen that are quantitative (where possible), predictable, responsive

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to the issue, and linked to cause and effect relationships. These measures describe how the alternative affects the resource(s) at the heart of the issue. Monitoring and mitigation of the anticipated environmental effects of the project are also designed to be responsive to significant issues.

These issues are addressed through the proposed action and the alternatives.

Issue 1- Timber Supply/Sale Economics

Issue statement: Optimizing volume and net return on timber harvest will provide for flexibility, in both the long and short term, for offering economically viable timber sales.

This issue relates to the viability of the local economies, both on Kupreanof Island and within Southeast Alaska. It concerns proposed timber sales, the potential employment and revenues generated by the project, and the ability of smaller companies to compete for timber sales in the project area. It also relates to the availability of a timber supply and overall ability to respond to ever-changing future markets. This issue addresses both maximizing timber harvest and “best” economics. While looking at financial efficiency analysis is one tool to gauge economics, a greater number of units/larger volume available allows for greater diversity and flexibility in responding to future market demands and to appropriately packaging potential sales. Also, with the 2008 Forest Plan decision and implementation of the adaptive management strategy, timber economics must consider maximizing opportunities in the Phase 1 land base.

Units of Measure

The unit of measure to compare alternatives will include timber volume measured in million board feet (MMBF), logging costs per thousand board feet (MBF), indicated bid in dollars per MBF, employment in number of direct job years, direct income based on projected employment, and logging systems by harvest method (acres). The unit of measure will also include a qualitative discussion of an alternative’s ability to provide for greater diversity and flexibility in responding to future market demands and packaging a variety of potential sales.

Issue 2 – Inventoried Roadless Areas

Issue statement: Timber harvest and building roads in inventoried roadless areas will reduce roadless acres within the project area and affect roadless values as identified in the 2003 Tongass Land and Resource Management Plan Revision Final Supplemental Environmental Impact Statement – Roadless Area Evaluation for Wilderness Recommendations (2003 Forest Plan SEIS).

This issue relates to timber harvest and the related construction of new roads to facilitate timber harvest in inventoried roadless areas.

Additional roads and harvest would result in reducing acres of roadless area in the project area, and could affect roadless values as identified in the 2003 Forest Plan SEIS. Nationally, inventoried roadless areas are considered to have valuable qualities. Several comments were received from the public concerning management of roadless in the project area. Three of the four inventoried roadless areas within the project area may be directly affected by proposed activities.

Unit of Measure

Comparison of alternatives will include acres of inventoried roadless areas affected, percent of inventoried roadless areas affected, and the effects to the roadless values of each inventoried roadless area as identified in the 2003 Forest Plan SEIS.

Issue 3 – Road Management/ Access

Issue statement: Road building, reconstruction and closures associated with the timber sale may change access within the project area.

The construction and use of forest roads is the focus of much concern on both a national and local scale. Comments ranged from requesting no more new roads and closure of most existing roads to requests to increase access by new roads and opening more existing roads. Decisions made from the analysis in this EIS will include proposed road construction in each alternative (new construction and reconstruction), use of existing NFS roads, and the status of these roads after timber harvest.

Roads influence wildlife populations, water quality, subsistence use, the type of recreational opportunities available. Concerns were also expressed over the ability to maintain open roads. The District will look at road management objectives across the district, including the entire Kake Road System during the District Road Analysis Process (RAP). Recommendations for roads not associated with the proposed activities will be carried forward and analyzed through the District's NEPA Access Travel Management (ATM) process by 2009.

Unit of Measure

Comparison of alternatives will include miles of road (NFS and temporary) constructed, miles of reconstructed road, miles of road to be left open, miles of road to be closed associated with timber harvest activities, miles of new NFS and temporary road to be constructed in inventoried roadless areas, cost of maintenance for open roads, reconstruction, and new (NFS and temporary) road construction.

Projects Common to all Action Alternatives

The following projects were identified by the Interdisciplinary Team as possible stewardship opportunities within the project area. These projects are not design criteria or mitigation measures to reduce the

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effects of the alternatives, but could be used to improve or enhance resources or to complete obligations within the project area. These project opportunities are common to all action alternatives and are suitable for potential stewardship contracting opportunities.

Funding for project contracting may come from a combination of timber receipts and other appropriated dollars. The receipts from the value of the timber would be used to finance the contractual requirements, and a priority listing of the project area activities would be included in the contract. These projects would either be accomplished as part of the contract or independently. There will be a list of mandatory projects to be completed with timber receipts, combined with the possibility of using other appropriated dollars available at the time to maximize the number of projects completed.

See Figure 2.5 for more information regarding Projects Common to all Action Alternatives.

Fisheries/ Hydrology

The Road Analysis Process (RAP), updated with decisions made with this project, recommends road management objectives for the Kake Road System. Ultimate storage/closure of these roads and these fisheries/hydrology projects will depend on the analysis and decisions made in the District Access and Travel Management Plan. Implementation of the recommended road management objectives would result in the removal of 19 culverts that do not meet fish passage standards.

Recreation

Maintain the four recreational hiking trails in the area: Cathedral Falls (0.5 mi.), Goose Lake (0.75 mi.), Hamilton Creek (1.0 mi.), and Big John Bay (1.75 mi.) The total length of all trails combined is about four miles. The work could include annual brushing, condition surveys and replacement of gravel as needed. Structure work on the trails could also be included depending on the extent and difficulty of the work. Gravel for trail maintenance in the past has been obtained locally in Kake.

Conduct annual maintenance for the Big John Bay Cabin including preparing it for occupancy in the spring and winterizing it at the end of the season. In addition, deferred maintenance and repairs could also be considered for this project. The cabin can be accessed by hiking the 1.75-mile trail off Road 45001 or by boating to Big John Bay.

Invasive Plants

Hand-pull a small population of spotted knapweed located on the 6337 Road. Work could involve up to a half-day of work annually for at least five years and possibly monitoring and/or hand-pulling beyond that depending on how well the plants respond to hand-pulling. Proper disposal of the pulled weeds would be specified as part of the project design, most likely burning in a controlled manner. Other roadside

weed populations could also be included, if new populations are discovered.

Silviculture/ Wildlife

Currently there are 325 acres of precommercial thinning to accomplish in second growth stands that could potentially be done under a stewardship contract on the Kake road system. These stands are approximately 25 years old. By modifying thinning prescriptions to include spacing varying from 14x14 to 18x18 feet, thinning in these stands would also benefit wildlife. It would provide cover and allow side lighting to reach the forest floor. There is the possibility of using the cut material for some type of product if the contractor is interested. (See Figure 2-5)

Transportation

There are approximately 114 miles of Forest Service System roads in the Kake road system, which encompasses the Central Kupreanof EIS project area. Of those 114 miles of roads there are approximately 94 miles of open roads that need maintenance to remain open. This maintenance generally includes brush cutting, blading of the road surface, ditching and cleaning of culverts to keep proper drainage. Of the 94 miles of open road there are approximately 38 miles of mainline roads (6040, 6328, 6314, 6314S) that take first priority for maintenance.

Petersburg Ranger District historically has approximately \$70,000 per year to spend on road maintenance on the Kake Road System. On the average it costs \$2,000 per mile to maintain roads, which equates to 35 miles of road per year that can be done in Kake. Generally, two thirds of the mainline roads are done and the remaining portion is spent on selected side roads.

Alternatives Considered in Detail

The No-Action Alternative (Alternative 1), Proposed Action (Alternative 2) and two other action alternatives (Alternatives 3 and 4) are considered in detail in this chapter. Alternatives 3 and 4 provide alternate means of satisfying the Purpose and Need for this project than does the Proposed Action. They respond differently to the significant issues that are discussed in this chapter. Maps of all alternatives considered in detail are provided at the end of Chapter 2. The map for Alternative 1, the No-action Alternative, represents the current condition of the project area (See Figures 2-1 through 2-4, at the end of this chapter, for maps of each alternative). Larger-scale maps of the alternatives are contained in the project record.)

Alternative 1 (Figure 2-1)

Alternative 1 proposes no new timber harvest or road construction in the Central Kupreanof Timber Harvest project area at this time. It does not preclude future timber harvest or other activities from this area. The Council on Environmental Quality (CEQ) regulations (40 CFR 1502.14d) requires that a “No Action” alternative be analyzed in

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every EIS. This alternative represents the existing condition against which the other alternatives are compared.

Alternative 2 (Figure 2-2)

Alternative 2 is the Proposed Action and was designed to meet the Purpose and Need for this project. It would offer up to 46.8 MMBF (sawlog and utility) of timber from 2,506 acres. It would provide 2,031 acres (81%) of clearcut (CC), 33 acres (1%) clearcut with reserves (CCR), and 442 acres (18%) uneven-aged management. There would be 7.3 miles of new NFS road constructed, 2.9 miles of reconstructed road, and 3.9 miles of temporary road construction to access timber.

Alternative 2 was designed to address concerns related to timber economics and deer habitat.

Alternative 3 (Figure 2-3)

Alternative 3 would provide the largest amount of volume of all the alternatives. It proposes harvesting 70.2 MMBF (sawlog and utility) from 3,647 acres. It would provide 3,127 acres (86%) of clearcut (CC), and 520 acres (14%) uneven-aged management. This alternative proposes helicopter yarding for those units where access by road construction is not feasible. Ground based systems and associated road construction are analyzed for this alternative. There would be 25.1 miles of new NFS road constructed, 9.1 miles of reconstructed road and 6.1 miles of temporary road constructed.

This alternative would respond to the direction to maximize timber harvest opportunity while meeting Forest Plan standards and guidelines (Cole, 2005). It addresses the timber economics issue by maximizing the proposed volume available and would allow the Forest Service the flexibility to respond to current and future market demands.

Alternative 4 (Figure 2-4)

Alternative 4 was developed in response to public concerns about the impacts of increased access, timber harvest, and road building on roadless area characteristics. This alternative offers the lowest amount of volume at 28.2 MMBF (sawlog and utility) from 1,327 acres. All units would be clear-cut (CC). There would be no new NFS road construction, 2.6 miles of road would be reconstructed and 2.2 miles of temporary road would be built.

Alternative 4 has been designed to address all of the significant issues to some extent. It does not propose harvest and road building within the boundary of any inventoried roadless area, although there would be effects to the zone of influence. Harvest would be limited to units in close proximity to existing roads. No new NFS road and only 2.2 miles of temporary road are proposed, which addresses concerns related to increased access. Less road building equals out to shorter haul distances which also satisfies timber economics concerns related

to today's market, but does not take into account the need for flexibility in the long term.

Design Criteria Common to All Action Alternatives

All alternatives are consistent with the 2008 Tongass Land and Resource Management Plan (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 additional consideration for potential wildlife travel corridors, all alternatives were designed to meet Forest Plan Standards and Guidelines for these and 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 and road cards in Appendix B of this Draft EIS. These cards serve as the prescription or design narrative for the project as well as detail design elements for the construction and reconstruction needed for existing National Forest System roads.

Biodiversity and Old Growth

The small old growth habitat reserves were evaluated and redesigned in the 2008 Forest Plan and adjustments adopted. Figure 2-1 in this chapter outlines these reserves.

Beach and Estuary Fringe

Beach and estuary fringe extend 1,000 feet inland from mean high tide along all marine coastlines. The Forest Plan classifies the beach and estuary fringe as unsuitable for planned commercial timber harvest (Forest Plan pages 4-5). No timber harvest or new roads are proposed in beach or estuary fringe.

Fish and Marine Habitats

Forest Plan Standards and Guidelines for riparian areas are applied to all fish streams (Class I and II) within the project area and to non-fish bearing Class III streams.

Hydrologic and fisheries resource analysis for the project has included landscape, watershed, and site-level considerations. Unit cards and road cards in Appendix B indicate which streams are likely to need special attention during implementation, such as applying timing restrictions for in-stream activities, or using larger-than-normal culverts or bridges.

All applicable Best Management Practices (BMPs) would be incorporated during sale design and harvest administration. A National Pollutant Discharge Elimination System permit is still valid for the Hamilton Bay LTF.

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This permit provides for protection of water quality by eliminating discharge of surface water directly from the working area to the environment through the use of settling ponds and a drainage system.

Heritage Resources

Areas considered as having a high probability of containing heritage resources (cultural sites) have been intensively surveyed by heritage resource specialists. No heritage resources have been identified in the project area. A detailed Heritage Resource Report was submitted to the Alaska State Historic Preservation Officer (SHPO) as per the R10 Programmatic Agreement with the Alaska State Historic Preservation Office and the Advisory Council on Historic Preservation. If heritage resources or items protected by the Native American Graves Protection and Repatriation Act are discovered during implementation, work should cease in the immediate vicinity. The sale administrator should be contacted, who will contact the appropriate archaeologist. The Petersburg District Ranger in consultation with the appropriate Native organization and the State Historic Preservation Office will determine a course of action.

Invasive Species

On October 19, 2007, the Tongass National Forest implemented a supplement to the Forest Service Manual 2080 concerning invasive plant species (Supplement No.: R10 TNF-2000-2007-1). An invasive plant species risk assessment has been completed and recommendations to reduce risk of spread are included in Chapter 3.

Karst Resources

All activities have been designed to avoid high-vulnerability karst and to meet Forest Plan Standards and Guidelines for low and moderate vulnerability karst areas.

Soils, Water Quality and Wetlands

Potential harvest units with slopes greater than 72 percent have received an on-site analysis of slope and class IV channel stability and an assessment of potential down stream effects. At the project planning level, the Forest Supervisor may approve timber harvest on slopes of 72 percent or more on a case-by-case basis, based on the results of an on-site analysis of slope Class IV channel stability and on an assessment of potential impacts of accelerated erosion on downslope and downstream fish habitat, other beneficial uses of water, and other resources. Areas with moderate risk are included in the proposed units where the potential for downstream effects is low.

Road locations generally avoid slopes greater than 67 percent, unstable areas, and slide-prone areas where it is feasible to do so. Roads on slopes in excess of 67% or on unstable soils require geotechnical investigation and appropriate designs.

All roads would be located to avoid wetlands to the extent practicable. Where wetlands cannot be avoided, 33CFR 323.4 baseline provisions and State approved BMPs are followed to minimize impacts to

wetlands (see road cards and unit cards, Appendix B).

Scenery

Potential harvest units within the viewshed of a Visual Priority Travel Route and Use Area were evaluated for consistency with the Scenic Integrity Objectives as required in the Forest Plan. Where needed, unit boundaries and silvicultural prescriptions were designed to be consistent with the Forest Plan.

Roads

Temporary (or NFS) roads were proposed in all units where shovel-yarding distances exceeded 500 feet to provide a surface for log hauling. Temporary road locations on the maps are estimated. Temporary road locations are subject to approval by the Forest Service. Temporary road decommissioning will be part of the timber sale contract.

Road closures will occur up to ten years after the completion of timber harvest. Road closure, storage and decommissioning are described in the Road Management/Access section in Chapter 3 and in the Glossary of Chapter 4.

Rock Quarries

Existing rock quarries may be expanded or new rock quarries may be developed to support new road construction and road maintenance. Quarry sites would be developed within 500 feet of a road and avoid Class I and Class II stream buffers, old-growth habitat reserves, eagle and goshawk nest tree buffers and non-developmental LUDs. With either the expansion of an existing quarry or the development of a new site, the area footprint would not exceed five acres.

Log Transfer Facility (LTF)

The existing permitted LTF located in Hamilton Bay would be used to transport logs by saltwater to a processing facility. The operator has the option to barge or raft the logs. Hamilton Bay was placed on the 1996 Section 303 (d) list for debris. Past dive surveys had indicated that excessive bark existed on the bottom of Hamilton Bay as a result of logging operations on Kupreanof Island that used the Hamilton Bay log transfer facility. Dive survey reports from September 2000 of 0.6 acre bottom coverage and the June 2002 of 0.6 acre document that this water is compliant with standards. This water was removed from the Section 303 (d) list in 2002/2003.

Logging Camp

No land camp is proposed in the project area for any of the alternatives. The town of Kake or a floating camp could be used during harvest activities. Appropriate permits would need to be acquired by the operator for use of a floating camp.

Subsistence

All alternatives have been evaluated in compliance with ANILCA, Title VIII, Section 810 and 811. Alternatives will have no significant effects on subsistence. Subsistence hearings will be held as required between the Draft and Final EIS for this project.

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Timber Harvest/ Helicopter Logging

A service and staging area for helicopter logging operations would be needed in Alternatives 2 and 3. This site would consist of an existing developed site adequate for helicopter maintenance and fueling operations. This area may require the removal of existing vegetation or if a rock pit is used minor expansion may be required for safety or the movement of existing material to level the pit floor and clear obstacles.

Table S-1. Comparison of Alternatives by Issue and Effects

(Note-Numbers may not add up to the totals shown due to rounding)

Units of Measure	Alt 1	Alt 2	Alt 3	Alt 4
Issue 1- Timber Supply/Sale Economics				
Indicated Bid Value(MBF)	0	(\$80.96)	(\$122.46)	(\$70.99)
Logging/Transportation Cost (MBF)	0	\$382.00	\$421.00	\$359.00
Road Costs (MBF)	0	\$19.00	\$41.00	\$17.00
Temporary Road Miles	0	3.9	6.1	2.2
System Road Miles	0	7.3	25.1	0
Helicopter Sawlog Volume (MMBF)	0	3.0	3.4	0
Ground Based Sawlog Volume (MMBF)	0	36.4	55.6	23.6
Total Volume (MBF)	0	46.8	70.2	28.2
Direct Jobs	0	156-221	234-332	94-133
Economic Flexibility Ranking	N/A	2	1	3
Issue 2- Inventoried Roadless Areas				
Acres of Timber Harvest within Inventoried Roadless Areas	0	434	1,339	0
Miles of NFS Roads (closed after harvest)	0	1	13	0
Miles of Temporary Roads within Inventoried Roadless Areas (decommissioned after harvest)	0	0	2	0
Total Acres Affected Including Buffers (600' for harvest units, 1200' for roads)	0	1,220	5,674	140
Percent of Inventoried Roadless Area Affected for the Project Area	0	0.9	4.6	0.1
Issue 3- Road Management/Access				
Miles of Proposed New NFS Road to be Constructed	0	7.3	25.1	0
Miles of Proposed New Temporary Road	0	3.9	6.1	2.2
Miles of Reconstructed Existing Closed Road to Remain Open after Harvest	0	2.9	9.1	2.6
Miles of Open Existing NFS Road before Harvest	64	64	64	64

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Units of Measure	Alt 1	Alt 2	Alt 3	Alt 4
Miles of Road to be Left Open for up to ten years after Harvest	64	74.2	98.2	66.6
Miles of New and Temporary Road to be Constructed in Inventoried Roadless Areas	0	1	15	0
Miles of Existing National Forest System Road to be Closed after Harvest	0	1.1	2.0	2.0
Total Road Cost for all New Temporary, New NFS, and Reconstructed Road within the Project Area	\$0	\$2,039,000	\$6,017,000	\$416,000
Total Miles of Road Remaining Open after Implementation of each Alternative	64	62.9	62	62
Other Environmental Considerations				
Effects on Wildlife				
Acres of POG Habitat Harvested	0	2,427	3,568	1,261
Percent Change from Current Condition within Project Area (57,628 acres of POG)	0	4.2%	6.2%	2.2%
Percent change from current condition (2008) within WAA (268,611 Acres of POG)	0	0.9%	1.3%	0.5%
Percent Change from Current Condition (2008) within Biogeographic Province (307,710 acres of POG)	0	0.8%	1.2%	0.4%
Percent Reduction From Historic/Original Condition Geographic Province (-28%) (431,217 acres of POG)	-29%	-29.8%	-30.2%	-29.4%
Percent Reduction From Historic/Original Condition WAA (-27%) (359,445 acres of POG)	-27%	-27.9%	-28.3%	-27.5%
Effects on Timber and Vegetation				
Total Acres Even-aged Management (Clearcut)	0	2,031	3,127	1,327

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Units of Measure	Alt 1	Alt 2	Alt 3	Alt 4
Total Acres Two-aged Management (Clearcut with Reserves)	0	33	0	0
Total Acres Uneven-aged Management (Single-tree Selection)	0	442	520	0
Total Acres of Harvest by all Silviculture Systems	0	2,506	3,647	1,327
Effects on Soils				
Total Acres Soil Disturbance	0	124.8	257.1	51.4
Acres of Very High Risk Hazard (MMI-4) Soils in Units by Alternative	0	10	17	0
Effects on Wetlands				
Total Miles of Road (Reconstructed, Temporary and NFS) Crossing Wetlands	0	0.8	2.0	.34
Effects on Heritage Resources	None			
Effects on Scenery- Percent of Past and Proposed Visual Disturbance by Viewshed				
Hamilton	5%	7%	7%	6%
Big John Bay	15%	22%	23%	20%
Rocky Pass	2%	3%	3%	2%
Upper Castle	2%	2%	4%	2%
Upper Duncan	1%	2%	4%	1%
Effects on Recreation	No Significant Effects			
Effects on Hydrology/Fisheries- 30 year Cumulative Harvest Percentage by Watershed (assuming a 2009 implementation date)				
Hamilton Creek	1.9%	5.3%	5.4%	4.6%
McNaughton Point	2.9%	13.8%	14.5%	11.9%
Big John Creek	4.5%	6.8%	7.1%	5.8%
West Duncan Canal	0.4%	1.3%	2.5%	0.6%
Keku Creek	0.2%	0.4%	0.4%	0.2%
Castle River	1.3%	1.5%	2.7%	1.5%

DEIS Summary

Units of Measure	Alt 1	Alt 2	Alt 3	Alt 4
Tunehean Creek	1.2%	1.9%	1.9%	1.5%
Total Number of Proposed Stream Crossings by Alternative				
Hamilton Creek	0	22	31	2
McNaughton Point	0	14	14	1
Big John Creek	0	6	13	1
West Duncan Canal	0	5	43	0
Keku Creek	0	4	4	0
Castle River	0	4	29	4
Tunehean Creek	0	4	5	0
Total	0	59	139	8
Effects on TES (plants)	No Effects	May impact individuals but is not likely to lead to a Federal listing		
Effects on Subsistence	No Significant Effects			

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