



United States
Department of
Agriculture

Forest Service

Tongass National Forest
R10-MB-717a

March 2011



Wrangell Ranger District Roadside Timber Sales

Decision Notice, Finding of No Significant Impact, and Environmental Assessment

Wrangell Ranger District
Wrangell, Alaska



Cover Photo: Road 6267 on Wrangell Island



United States
Department of
Agriculture

Forest
Service

Alaska Region
Tongass National Forest
Wrangell Ranger District

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File Code: 1950-1
Date: March 10, 2011

Dear Planning Participant,

Here is the Decision Notice and Finding of No Significant Impact (FONSI) for the Wrangell Ranger District Roadside Timber Sales Environmental Assessment (EA). It has been posted on the internet at: <http://www.fs.fed.us/r10/tongass/projects/projects.shtml> and at the Wrangell Library. Attached also is the Environmental Assessment for the Roadside Timber Sales and appendices. Copies of the Decision Notice and EA are also available upon request on CD or hardcopy from the Wrangell District.

The Decision Notice documents my decision to select Alternative 2, the proposed action, and the factors I considered in reaching the decision. The proposed action was developed based on public comments received during the scoping period. This project makes available up to 500 MBF of timber per year for offer as small scale commercial firewood sales, salvage sales and green-timber sales along the existing road systems on EtoLin, Wrangell, and Zarembo Islands. No roads will be constructed in this project.

As District Ranger, I am responsible for this decision. Information concerning implementation of this decision and appeal rights is included in the Decision Notice.

I want to thank those of you who took the time to review and comment on this project. For more information, please call Austin O'Brien at 907-874-2323.

Sincerely,

ROBERT DALRYMPLE
Wrangell District Ranger



Decision Notice, Finding of No Significant Impact, and Environmental Assessment

Wrangell Ranger District Roadside Timber Sales

Agency: USDA Forest Service
Tongass National Forest

Responsible Official: Robert J. Dalrymple, District Ranger
Wrangell Ranger District
P.O. Box 51
Wrangell, AK 99929

For Further Information: Austin O'Brien
Wrangell Ranger District
P.O. Box 51
Wrangell, Alaska, 99929
(907) 874-2323

Abstract

My decision is to implement Alternative 2 of the Wrangell Ranger District Roadside Timber Sales EA. The Selected Alternative will make available up to 500 MBF of timber per year along existing roads in salvage sales, small sales, and microsals. I have determined that the impacts of the Selected Alternative are not significant and preparation of an environmental impact statement is not required. The rationale for my decision and findings are described in the Decision Notice and Finding of No Significant Impact.

The Environmental Assessment and appendices are included in this document.

This document is available online at:

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

DECISION NOTICE and FINDING OF NO SIGNIFICANT IMPACT

Table of Contents

Decision	1
Rationale for the Decision	5
Purpose and Need	5
Issues.....	6
Public Comment	6
Changes to the EA	6
Environmental Effects	7
Public and Agency Involvement.....	7
Alternatives	8
Finding of No Significant Impact	8
Findings Required by Other Laws and Regulations	10
Distribution	14
Implementation Date.....	14
Administrative Review or Appeal Opportunities	15

Decision Notice and Finding of No Significant Impact

Wrangell Ranger District Roadside Timber Sales

**USDA Forest Service
Wrangell Ranger District, Tongass National Forest
Wrangell, Alaska**

This Decision Notice documents my decision for the Wrangell Ranger District Roadside Timber Sales project. It contains a brief summary of the environmental analysis completed for this project as well as my decision regarding which alternative to implement and the rationale for my decision. It also contains certain findings required by various laws, and information concerning the right to Administrative Review of this decision. The Environmental Assessment (EA) completed for this project documents the environmental analysis and conclusions upon which this decision is based. The EA is incorporated by reference in this decision document and is attached.

Decision

Based on the EA completed for this project, as well as my consideration of comments received during the 30-day public review of the document, it is my decision to implement Alternative 2, the Proposed Action, hereafter known as the Selected Alternative.

The Selected Alternative makes available up to 500 MBF of fuelwood and sawtimber per year as commercial salvage harvest of dead, dying, or blown down timber, and minor harvest of green fuelwood and green sawtimber. The timber will be offered as multiple salvage, fuelwood, small sales, and micro-sales, depending on annual demand from the public and local operators.

The removal of hazard and potential hazard trees will be emphasized. Individual green-timber sales will be limited to 50 MBF. Harvest systems will include even-aged management for salvage sales, and uneven-aged management (group selection or single-tree selection) for green tree sales. Timber harvest will require ground-based, cable, or helicopter yarding systems.

All harvest will occur within 1,200 feet from either side of existing roads within land use designations (LUDs) designated for development in the Forest Plan on Etoin, Wrangell, and Zarembo Islands as shown on the Selected Alternative maps DN-1, DN-2, and DN-3. This decision does not authorize harvest within non-development LUDs, beach fringe, or 2001 inventoried roadless areas with existing roads. No new road construction is authorized in this decision.

I am incorporating the design criteria and monitoring requirements described in the EA into my decision. This decision will be implemented using the Implementation Plan described in Appendix 1 of the EA. Because this decision is programmatic in nature, identification of appropriate site-specific practices and any necessary mitigation will be made during the annual project review process.

Figure DN-1: Project Area on Wrangell Island

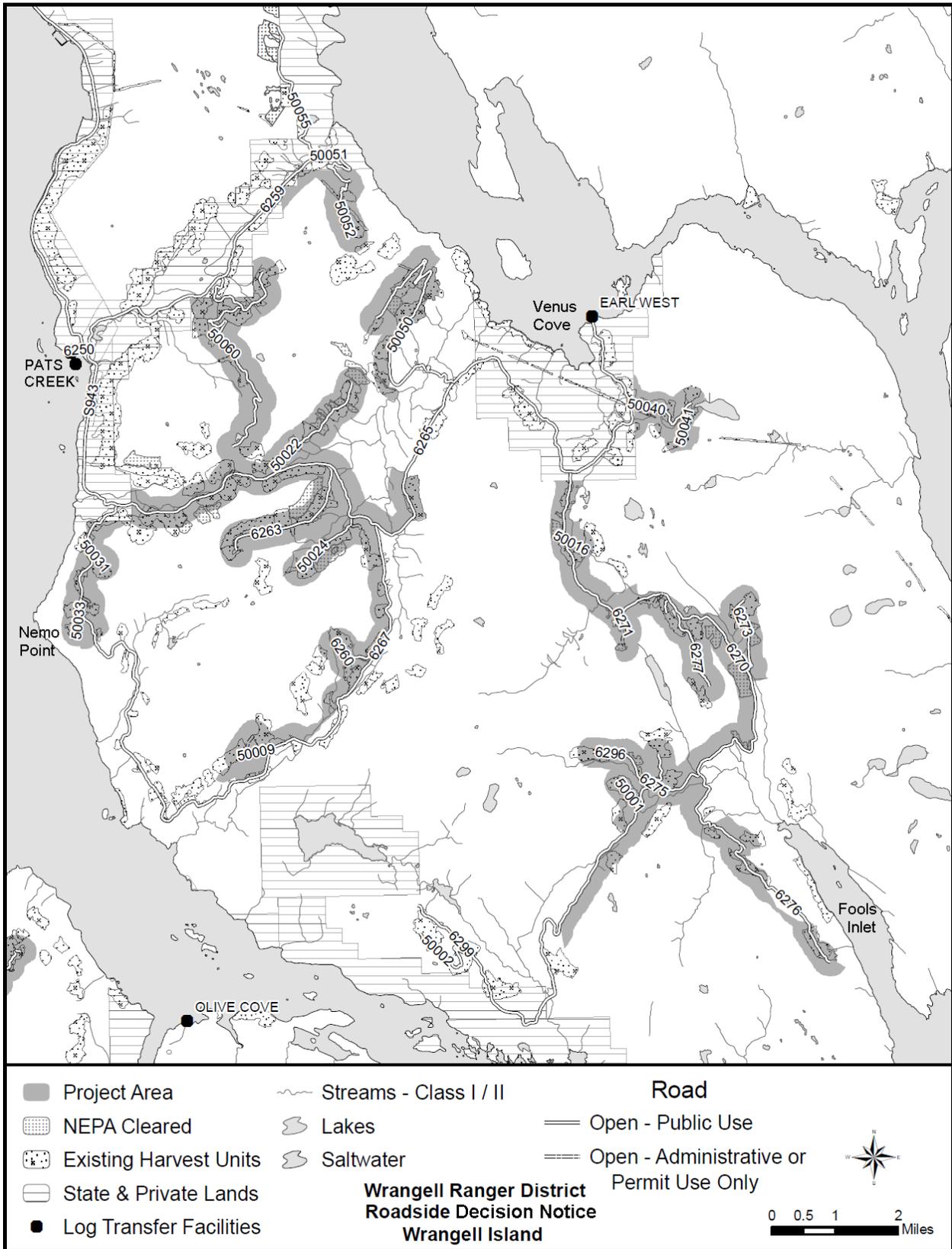


Figure DN-2: Project Area on Etolin Island

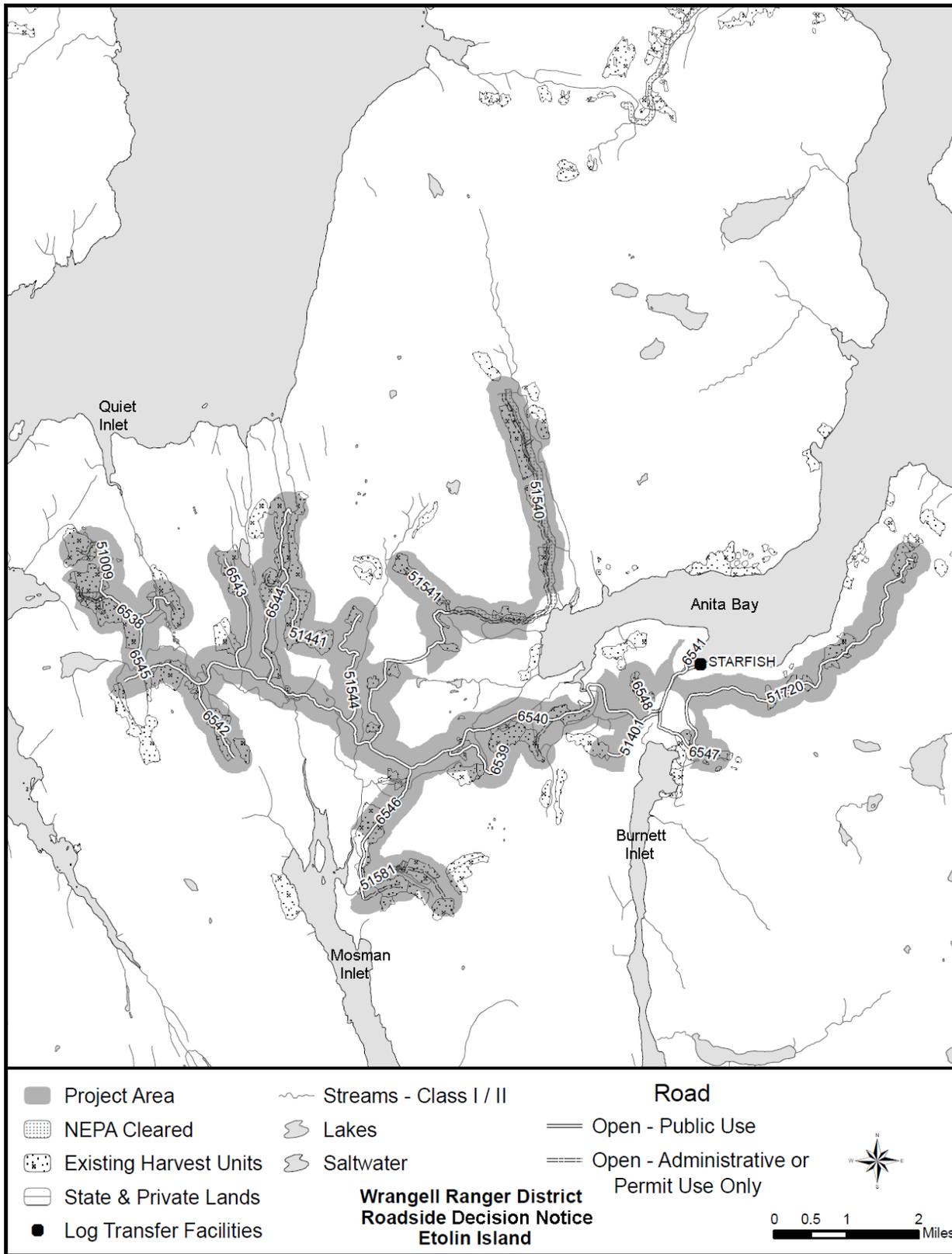
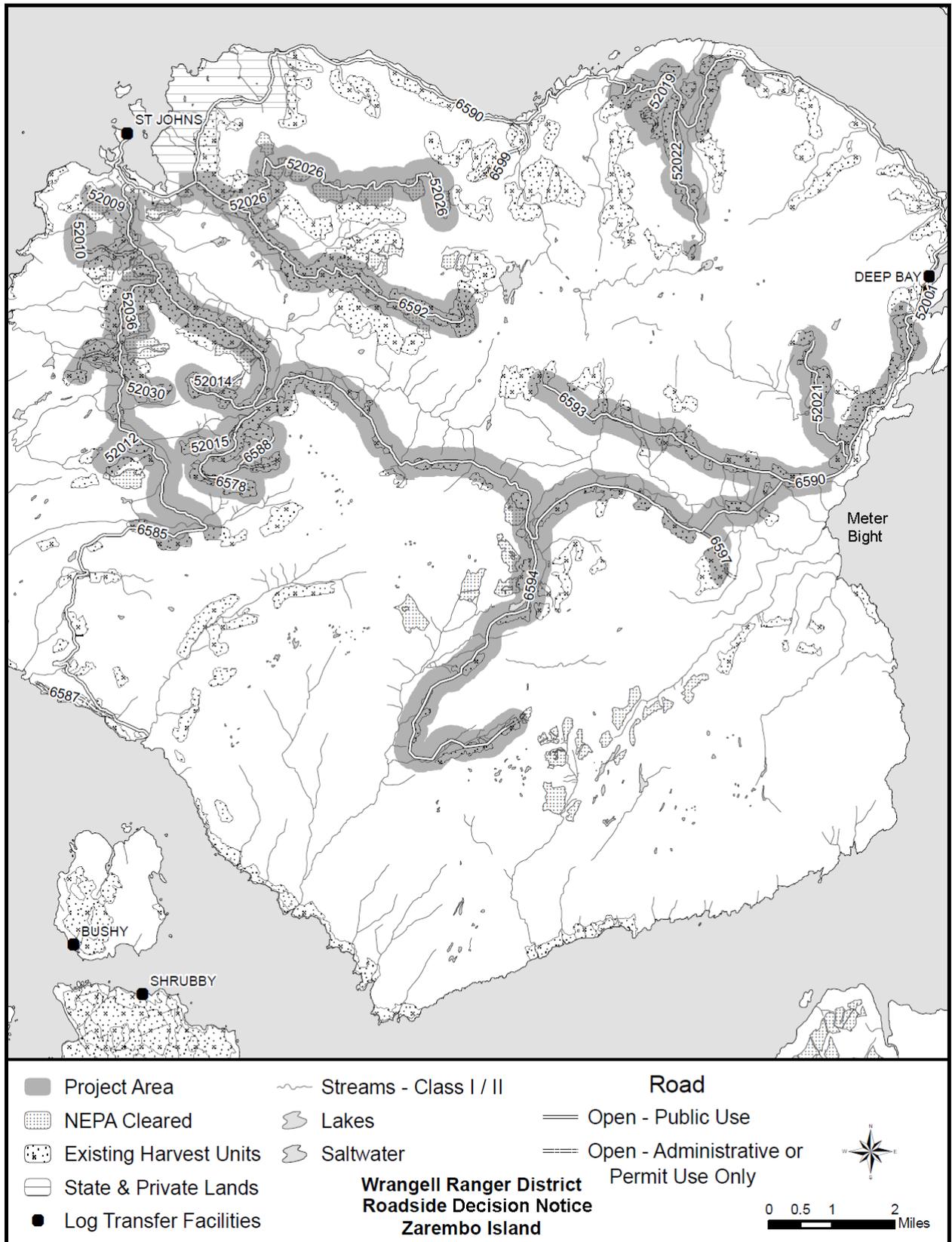


Figure DN-3: Project Area on Zarembo Island



Rationale for the Decision

In making this decision, I considered applicable laws, regulations, policy, and the Forest Plan in relation to information disclosed in the EA and planning record. I feel the best available science and information was used in the analysis. I considered how each alternative met the purpose of and need for action and addressed the issues. I also considered the effects of the project on the human and natural environment and weighed the potential resource effects, whether adverse and beneficial, as well as the public benefit.

Purpose and Need

I feel that the Selected Alternative best meets the purpose of and need for this project.

The Selected Alternative will support the local economy which is currently struggling economically. It would create opportunities for small businesses and individuals and provide economic benefit to the local community, small business operators, and the public by providing a predictable annual supply of timber and fuelwood. This project will contribute to one of the goals of the USDA Strategic Plan FY2010 – 2015 which is to “Assist Rural Communities to create Prosperity so they are Self-sustaining, Repopulating and Economically Thriving”. This project is also part of the Tongass Transition Framework which seeks to build upon current assets and economic sectors and develop other opportunities on the Forest. This project will supply multiple small sales that would locally provide the raw materials for a variety of wood products such as lumber, fuelwood, cedar shakes, and wood for artistic and musical pursuits.

The Selected Alternative will establish a program on the District which can provide a more predictable supply of fuelwood for personal firewood users and commercial firewood businesses to meet local fuelwood needs. It will allow the District to reduce the competition for fuelwood between the general public and commercial firewood businesses. It will increase the supply of fuelwood available to commercial operators and will designate specific areas for commercial operations. This supply of fuelwood will also contribute to the local economy by producing employment opportunities and reducing the community’s reliance on expensive imported non-renewable fossil fuels for heating.

The Selected Alternative will also allow the Wrangell District to improve public service in responding to requests for wood products in a more timely and efficient manner. It establishes a program that will be more efficient in meeting the local wood fiber needs of the community by consolidating multiple timber harvest opportunities into one process. The program will enable the District to respond more quickly to timber salvage opportunities and recover the economic value of salvage timber before it deteriorates. It provides for a more predictable supply of green sawtimber through microsals for commercial operators.

The Selected Alternative responds to the goals of the Forest Plan to seek to provide a supply of timber that meets the annual market demand and to maintain and promote wood production from suitable forest lands, providing a continuous supply of wood to meet society’s needs, consistent with the standards and guidelines for the specific LUDs in this project.

The Selected Alternative also provides an economical way to maintain safe roads on the District by removing hazard trees that could fall onto the road and cause injury or block traffic. These trees can then be made available for sawtimber or fuelwood.

The Selected Alternative will also promote forest health by allowing the removal of diseased or windthrown trees, thereby improving stand vigor and promoting more rapid regeneration of young trees.

When compared with the No-action Alternative, the Selected Alternative best meets the project's purpose and need, and best moves the project area toward desired conditions identified for each land use designation in the Forest Plan.

Issues

I chose the Selected Alternative because it best addresses the relevant issues, concerns, and opportunities. The key issue developed from scoping comments was the available supply of fuelwood and timber for the public and local small timber operators and manufacturers. Two alternatives were considered to address the key issue – the Proposed Action and no action. The Selected Alternative best meets this issue by providing a dependable supply of fuelwood and timber which can be made available to meet the needs of the public and local timber businesses over time.

Public Comment

The input received from the public and the State of Alaska weighed heavily in my decision. The project was initially developed in response to requests by local timber operators and fuelwood cutters for accessible dead, dying and blown-down fuelwood and timber as well as individual green trees. In making my decision, I considered comments received from the public during scoping and public meetings, and during the 30-day public review of the EA. Overall, the public comments generally supported this project, but some commenters expressed concern over the potential adverse effects. Appendix 4 of the EA contains the letters received in comment to the EA, and the Forest Service response to the concerns raised.

The design criteria for the Proposed Action incorporated public request for a variety of sale types and sizes. The design criteria also address environmental concerns such as potential effects on wildlife connectivity, POG, aquatic resources and riparian areas, or soil productivity are addressed in the EA and the Implementation Plan (Appendix 1), through Forest Plan Standards and Guidelines, best management practices (BMPs), and mitigation and monitoring.

I believe that these concerns are addressed by the incorporation of the design criteria, standards and guidelines, BMPs, and the Implementation Plan required in my decision which will minimize the potential for adverse environmental effects. I believe that my decision on the Selected Alternative best meets the desires expressed by the public.

Changes to the EA

Some changes, clarifying information presented in the EA, were made as a result of public and agency comments (see Appendix 4 of the EA). These changes include:

(EA p. 13) Salvage harvest, while conducted in accordance with Forest Plan Standards and Guidelines (VII. Salvage Harvest, p. 73), would not be authorized in non-development LUDs

under this decision. Therefore, parts A, B, D, E, and F of the Forest Plan reference would apply to salvage harvest under this decision; part C would not apply under this decision.

(EA pp. 23 and 38) The terms productive forestland and productive old growth (POG) in the silviculture and botany sections were clarified. Productive forestland and POG are not synonymous terms although historically (pre-harvest), all productive forestland was considered to be POG for this analysis. Productive old growth includes volume classes 4 and higher, and is old-growth forest capable of producing at least 20 cubic feet of wood fiber per acre per year, or having greater than 8,000 board feet per acre (Forest Plan p. 7-29). Productive forestland includes young growth in volume class sizes 1-3 as well as classes 4 and higher. It includes forested areas containing timber volumes of greater than or equal to 8,000 net board feet/acre or having the potential to achieve this volume and capable of maintaining that volume (producing 20 cu. ft/acre/year of industrial wood or having a site index of 40 or higher).

The productive forestland and productive old growth (POG) acreage figures were updated to read approximately 239,397 acres of pre-harvest POG, of which approximately 29,398 acres have been harvested.

Several changes were made to clarify language in the Implementation Plan (EA Appendix 1), which is included with the EA.

Environmental Effects

In making my decision I considered the resource analysis reports and planning record, and weighed the potential resource effects (including the cumulative effects) whether adverse and beneficial, as well as the public benefit. I found that neither of the alternatives, including the Selected Alternative, provides significant effects to the environment. These effects are summarized in Table 2 of the EA. This project is limited in nature and scope. The Selected Alternative provides for limited harvest (up to maximum of 500 MBF) of dead and down trees along approximately 165 miles of existing roads. It provides for only limited harvest of individual green trees. Green tree harvest would be limited to single tree or group harvest distributed to minimize openings and distributed along the road system. Individual green tree sales are further restricted in size to a limit of 50 MBF. Appropriate yarding systems will be used to achieve minimal ground disturbance and green-up requirements will be met. No new road construction is authorized in this decision.

The environmental effects are expected to be minor and are further mitigated by the use of the design criteria, standards and guidelines, and BMPs. The Implementation Plan incorporates design features and mitigation requirements intended to minimize the impacts to all resources. It requires additional resource review of each sale proposal. Each timber sale proposal will also require District Ranger review and approval.

Public and Agency Involvement

This project included extensive public, agency, and tribal involvement. This action has been listed on the Tongass National Forest Schedule of Proposed Actions (SOPA) since January 2009 and updated periodically during the analysis. At a public meeting the Ranger District held in April 2008, the public requested increased firewood availability, including commercial green

firewood sales on the existing road system. A scoping letter was sent out in January 2009 to agencies, groups, and individuals who have expressed interest in Forest Service projects in this area, and notice published in the *Wrangell Sentinel*. The Forest Service received six comments all in favor of the proposal, requesting increased availability of small sales and giving priority consideration to firewood for personal users on Wrangell Island. The Forest Service also consulted Federal, State, and local agencies, and tribes during the development of the EA: National Marine Fisheries Service, Alaska Department of Environmental Conservation, Alaska Department of Fish & Game, and Wrangell Cooperative Association.

The EA was made available for public comment in November 2010. A notice of availability was published in the *Wrangell Sentinel* on November 25, 2010. Three comment letters were received during the 30-day comment period and are included in Appendix 4 of the EA.

Alternatives

Two alternatives were developed to address the key issues developed from scoping. These alternatives are presented in Chapter 2 of the EA. The decision selects Alternative 2.

Finding of No Significant Impact

After considering the environmental effects described in the EA, I have determined that these actions will not have a significant effect on the quality of the human environment considering the context and intensity of impacts (40 CFR 1508.27). Thus, an environmental impact statement will not be prepared. I base my finding on the following:

1. *Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.* Neither adverse nor beneficial effects are significant in context or intensity to warrant an EIS for this project. My finding of no significant environmental effects is not biased by the beneficial effects of the action.
2. *The degree to which the proposed action affects public health or safety.* Based on the conclusions in the EA, I have determined that no significant impact would occur to the public health and safety. The project area is located away from populated areas. While harvest operations could cause temporary traffic delays or congestion to recreation users of the road system, the Forest Service would communicate with the public regarding when and where potential delays could take place. Removal of hazard trees along the roads will increase public safety.
3. *Unique characteristics of the geographic areas such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.* The project does not enter any roadless areas. No historic properties, park lands or farmlands are located within the area of potential effects for the project. An archeologist will review harvest locations for each proposed sale to determine if a field survey is needed. No wild and scenic rivers occur in the project area or are affected by the project. High-value wetlands and high-vulnerability karst will be excluded from harvest. Other wetlands and karst identified during field review of the annual operating plan will have site-specific protections in place to minimize potential effects. Therefore,

- I have determined there will be no significant effects on any unique characteristics of the area.
4. *The degree to which the effects on the quality of the human environment are likely to be highly controversial.* The effects on the quality of the human environment are not likely to be highly controversial. This project was proposed in response to requests by the local public and public input has been in favor of it. While there is some controversy over timber harvest of old-growth timber in Southeast Alaska in general, this project proposes primarily dead/down or dead/standing trees for salvage or firewood harvest, with some green tree harvest or small sales of 50 MBF or less, alongside existing road corridors. This project responds to the goals and objectives of the Forest Plan and helps move the project area towards conditions described in that Plan. Therefore, I have determined that there are no significant impacts based on the evidence found in the EA that would be highly controversial.
 5. *The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.* The Forest Service has considerable experience with the types of activities to be implemented. The effects analysis shows the effects are not uncertain, and do not involve unique or unknown risk. Small salvage sales, commercial firewood harvest, and microsalses of the kind proposed and analyzed in this EA have been successfully implemented under categorical exclusions and permits on the Wrangell Ranger District and elsewhere on the Tongass. The implementation plan specifies the site-specific analysis that would take place annually for the year's proposed sales plan. Based on this analysis, I have determined there are no unique or unknown risks involved with this project, therefore there is no significant impact due to uncertainty or a possible unique or unknown risk.
 6. *The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.* This action is not likely to establish a precedent for future actions with significant effects, because the types of actions proposed – microsalses, small salvage sales, and commercial firewood cutting permits – have already been occurring on the Wrangell Ranger District without significant effects. I have therefore determined the Proposed Action would set no precedent for future action with significant impacts, nor would it represent a decision in principle about a future consideration.
 7. *Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.* I have determined the Proposed Action will have individually insignificant impacts and cumulatively insignificant impacts as they relate to past, present, and reasonably foreseeable actions. All previously harvested stands on the District have regenerated and many have received various treatments such as thinning, pruning, or planting. There is no new road construction. The salvage harvest and limited scope and scale of individual green-tree sales contribute very minimally to cumulative effects, and no significant cumulative effects were identified for any resource.
 8. *The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.* The Forest Service has determined that a finding of No Historic Properties Affected is

appropriate for this project. This project meets the provisions stipulated in the Programmatic Agreement between the Forest Service, Alaska Region, the Advisory Council on Historic Preservation, and the State Historic Preservation Officer. Therefore, I have determined no significant impacts would occur that adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or cause loss or destruction of significant scientific, cultural, or historical resources.

9. *The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.* The action will not adversely affect any endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973, because there are no listed species or critical habitat in the project area or in areas adjacent to the project area, and no marine environment is included in the project area. Therefore, I have determined no significant impacts would occur that adversely affect an endangered or threatened species or its habitat.
10. *Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.* The following findings show that the action does not violate Federal, State, or local law requirements imposed for the protection of the environment and has been reviewed by Federal and State agencies. The action is consistent with the Forest Plan.

Findings Required by Other Laws and Regulations

National Forest Management Act

The National Forest Management Act (NFMA) requires specific determinations to be made for this project: consistency with the Forest Plan and FSM 2410.3, R10 Supp. 2400-2002-1 (5/7/2002); a determination of even-aged management as the optimal method of harvesting, if used; and specific authorizations to create openings over 100 acres in size, if any. Specific unit prescriptions will be developed for sales.

2008 Tongass Land and Resource Management Plan (Forest Plan): This decision is consistent with the Forest Plan, and both project alternatives complied with the Forest Plan. This project incorporates all applicable Forest Plan Standards and Guidelines and management prescriptions, and complies with Forest Plan goals and objectives (pages 2-4 through 2-9). The Forest Plan complies with all resource integration and management requirements of 36 CFR 219 (219.14 through 219.27). Application of Forest Plan direction for the Wrangell Roadside project ensures compliance at the project level. Therefore, I have found the Wrangell Roadside Timber Sales project consistent with the Forest Plan.

Even-aged Management as the Optimal Method of Harvesting: I have determined that even-aged management may be the optimal harvest method when used to remove dead or dying trees resulting from windthrow, insect infestations, and disease, in order to promote forest health and to hasten natural regeneration as provided for in the Forest Plan.

Harvest Openings over 100 Acres in Size: There are no harvest openings over 100 acres proposed for this project.

With the above considerations, I have found the Wrangell Roadside Timber Sales project is consistent with the Forest Plan and FSM 2410.3, R10 Supp. 2400-2002-1 and consequently complies with the National Forest Management Act.

Endangered Species Act of 1973

This decision is not anticipated to have a direct, indirect, or cumulative effect on any threatened and endangered species in or outside the project area. Consultation with the National Marine Fisheries Service was conducted and this agency has concurred that the project is not likely to adversely affect any threatened or endangered species. A biological evaluation has been completed for this action which determined that no federally listed threatened or endangered species will be affected by this activity. Consultation with the U.S. Fish and Wildlife Service was not necessary because no threatened and endangered terrestrial species occur in the project area.

Therefore, I find that no significant effects would occur to federally listed threatened and endangered species as a result of this decision.

Tongass Timber Reform Act

Application of Forest Plan Riparian Standards and Guidelines ensures that no commercial timber harvest is allowed within 100 feet horizontal distance either side of Class I or Class II streams flowing directly into a Class I stream.

Therefore, I have determined that no significant effects would occur to riparian areas because these buffers will be applied.

National Historic Preservation Act of 1966

The Forest Service program for compliance with the National Historic Preservation Act (NHPA) includes locating, inventorying and evaluating the National Register of Historic Places eligibility of historic and archeological sites that may be directly or indirectly affected by scheduled activities. Regulations (36 CFR 800) implementing Section 106 of the NHPA require Federal agencies to consider the effects of their actions on sites that are determined eligible for inclusion in or are listed in the National Register of Historic Places ("historic properties").

No documented archeological sites are located within the project area. I have determined that the project has little to no potential to affect historic properties because of its nature, size, location within the low archeological site sensitivity zone or location within areas that have previously been surveyed for cultural resources. However, since potential ground-disturbing activities are associated with this project and there are a few areas falling within the high archeological site sensitivity zone, proposed harvest locations will be assessed according to the Programmatic Agreement with the Advisory Council on Historic Preservation and the Alaska State Historic Preservation Officer.

I conclude no significant effects would occur to historic resources as a result of this decision.

Federal Cave Resource Protection Act

While there are some areas of high-, medium-, and low-vulnerability karst along existing roads on Etolin Island, Forest Plan Karst and Caves Standards and Guidelines would be applied to any karst resources. No harvest will occur on high-vulnerability karst lands; and on moderate-vulnerability karst lands, individual karst features will be buffered to maintain existing environmental condition around the features. Identification of appropriate practices and necessary mitigation during the annual project review process will prevent significant

impairment of karst lands during project implementation. Therefore, I have determined that no significant effects would occur to karst or caves from this decision.

ANILCA Section 810, Subsistence Evaluation and Finding

The effects of this project have been evaluated to determine potential effects on subsistence opportunities and resources. There is no documented or reported subsistence use that will be restricted as a result of this decision. For this reason, neither of the alternatives would result in a significant possibility of a significant restriction of subsistence use of wildlife, fish, or other foods. Therefore, I have found the Wrangell Roadside Timber Sales Selected Alternative consistent with ANILCA.

Clean Water Act

I have determined that this project fully complies with the Clean Water Act. Project activities meet all applicable State of Alaska Water Quality Standards.

My decision incorporates soil and water conservation practices (BMPs) to control nonpoint source pollution on the project area.

This project will be implemented using soil and water best management practices (BMPs) that are consistent with the Alaska Forest Resources and Practices Regulations (AFRPA) to achieve Alaska Water Quality Standards.

Therefore, I have determined that no significant impact to water quality is expected to occur from this decision.

Clean Air Act

Emissions anticipated from the implementation of the Selected Alternative will be minor and of short duration and are not expected to exceed State of Alaska ambient air quality standards (18 AAC 50). Therefore, I have determined that no significant impact to air quality would be expected to occur from this decision.

Coastal Zone Management Act of 1972, as Amended

Under the Coastal Zone Management Act (CZMA), Forest Service activities and development projects that affect the coastal zone must be consistent to the maximum extent practicable with the enforceable policies of the Alaska Coastal Management Program (ACMP). The State of Alaska has concurred with the Forest Service's General Consistency Determination (GCD) for Tongass National Forest Timber Sales. Under this GCD, all timber harvest and associated activities conducted on the Tongass National Forest – except those that require State or Federal permits – have been determined to be consistent with the enforceable policies of the ACMP. The Wrangell Roadside Timber Sales project does not include any activities that require a State or Federal permit. Therefore, the project falls within the scope of the GCD and no individual consistency determination is required.

Magnuson-Stevens Fishery Conservation and Management Act

Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act requires consultation with the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) for actions or proposed actions that may adversely affect essential fish habitat (EFH). The potential effects of EFH are discussed in the EA in Appendix 2, Essential Fish Habitat. Formal consultation with NMFS was initiated with the EA and EFH assessment.

The EFH assessment found that this project “may adversely affect Essential Fish Habitat” because the project harvests timber in watersheds that contain anadromous species, log hauling

would occur on existing roads that cross anadromous fish streams, and the project would authorize the use of marine transfer facilities. However, the effects of harvest on freshwater aquatic resources and the effects of using MAFs on marine resources are expected to be undetectable. Therefore, it is my determination that mitigation via no-harvest buffers and best management practices makes it unlikely that any significant adverse effects would occur to Essential Fish Habitat by implementing this project.

Executive Order 11988 (Floodplains)

Executive Order 11988 directs Federal agencies to take action to avoid, to the extent possible, the long- and short-term adverse impacts associated with the occupancy and modification of floodplains.

The project complies with the Forest Plan which excludes timber harvest from sensitive riparian areas. No harvest will be authorized in floodplains (considered one component of riparian management areas) where commercial harvest is not allowed by the Forest Plan Standards and Guidelines. No occupancy or modification to floodplains will occur due to timber harvest. Therefore, I have concluded that no significant impacts to wetlands or floodplains will occur due to timber harvest from this decision.

Executive Order 11990 (Wetlands)

Executive Order 11990 requires Federal agencies to avoid, to the extent possible, the long- and short-term adverse impacts associated with the destruction or modification of wetlands.

No new roads will be constructed, and high-value wetlands will be excluded from harvest. Dispersed individual tree and group selection harvest is expected to result in minimal change to the canopy and associated hydrologic processes. Any on-site processing facilities will be located to prevent or minimize impacting wetlands. No measurable effects on fish habitat are expected in either alternative; therefore, no significant impacts to fish habitat or wetlands would occur due to timber harvest from this decision.

Executive Order 12898 (Environmental Justice)

Executive Order 12898 directs Federal agencies to identify and address the issue of environmental justice, i.e., adverse human health and environmental effects of agency programs that disproportionately impact minority and low-income populations.

Implementation of the Selected Alternative is not anticipated to cause any adverse human health or environmental effects; therefore, I have concluded that implementation of the Selected Alternative is not anticipated to cause disproportionate adverse human health or environmental effects to minority or low-income populations.

Executive Order 12962 (Aquatic Systems and Recreational Fisheries)

Executive Order 12962 directs Federal agencies to conserve, restore, and enhance aquatic systems to provide for increased recreational fishing opportunities nationwide.

It is my determination that with the application of Forest Plan Standards and Guidelines, including those for riparian areas, no significant adverse effects to freshwater or marine resources will occur. Best management practices would be implemented to provide assurance of water quality and aquatic habitat protection for all freshwater streams affected by the project. Any adverse effects to recreational fishing opportunities will be insignificant.

Executive Order 13007 (Indian Sacred Sites)

Executive Order 13007 directs Federal agencies to (1) accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and (2) avoid adversely affecting the physical integrity of such sacred sites. Based on consultations with the appropriate Indian tribes, I have determined this project will not affect the integrity of any sacred sites or limit access to any sacred sites.

Distribution

The Wrangell Ranger District Roadside Timber Sales Decision Notice, FONSI, and EA are available on the internet at <http://www.fs.fed.us/r10/tongass/projects/projects.shtml>. Notification of the availability of the Decision Notice was sent to the project mailing list including State and Federal agencies, anyone commenting on the project, and anyone requesting a copy of this decision. The project mailing list is available in the project record. The Decision Notice is also available in hard copy or on CD, upon request.

A legal notice of the availability of this decision will be published in the *Wrangell Sentinel*.

Implementation Date

Implementation of my decision which is subject to appeal pursuant to 36 CFR part 215, may occur on, but not before, 5 business days from the close of the appeal filing period. The appeal filing period closes 45 days after publication of legal notice of this decision in the *Wrangell Sentinel*, published in Wrangell, Alaska.

Administrative Review or Appeal Opportunities

This decision is subject to administrative review (appeal) pursuant to 36 CFR Part 215. Individuals or non-federal organizations who submit written comments or otherwise express interest in this particular action during the comment period specified at 215.6 have standing to appeal this decision. The notice of appeal must be in writing, meet the appeal content requirements at 215.14 and be filed with the Appeal Deciding Officer:

Forest Supervisor, Forrest Cole
Tongass Supervisors Office, Ketchikan
648 Mission St.
Ketchikan, Alaska 99901
Fax: 907-228-6292
Email: appeals-alaska-tongass@fs.fed.us

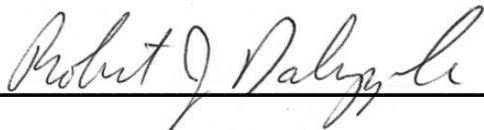
The Notice of Appeal, including attachments, must be filed (regular mail, fax, e-mail, express delivery or messenger service) with the Appeal Deciding Officer at the correct location within 45 calendar days of publication of notice of this decision in the *Wrangell Sentinel*, the newspaper of record for this project. The publication date in the newspaper of record is the exclusive means for calculating the time to file an appeal.

Appeals submitted electronically, including attachments, must be in an electronic format compatible with Microsoft Word.

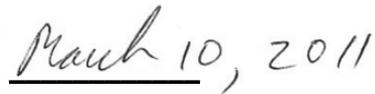
Hand-delivered appeals will be accepted at the Ketchikan Supervisors Office during normal business hours (8:00 am through 4:30 pm) Monday through Friday, excluding holidays.

Contact

For additional information concerning this decision or the Forest Service appeal process, contact Austin O'Brien, TMA, Wrangell Ranger District, P.O. Box 51, Wrangell, AK, 99929, phone number 907-874-2323.



ROBERT DALRYMPLE
District Ranger
Wrangell Ranger District



Date

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ENVIRONMENTAL ASSESSMENT

Table of Contents

Introduction.....	1
What Is Being Proposed With This Project?	1
Why Is This Project Being Proposed?	9
What Factors Will Be Used To Make A Decision On This Project?.....	11
Who Was Consulted For This Project?.....	11
Public Involvement	11
How Can We Meet the Purpose and Need?.....	12
Design Criteria for the Proposed Action.....	12
What Other Actions Could Meet The Same Need?	15
What Would It Mean Not To Meet The Need?	15
Comparison of Alternatives	15
Environment and Effects.....	19
What are the Effects of the No Action and the Proposed Action?.....	19
Timber Harvest Management	19
Supply and Demand.....	19
Timber Economics	20
On-site Log Processing.....	21
Direct and Indirect Effects.....	22
Cumulative Effects.....	22
Silviculture.....	23
Direct and Indirect Effects.....	23
Cumulative Effects.....	24
Transportation.....	25
Direct and Indirect Effects.....	25
Cumulative Effects.....	26
Wildlife Species and Old-growth.....	27
Direct and Indirect Effects.....	27
Cumulative Effects.....	29
Subsistence.....	30
Direct and Indirect Effects.....	30
Cumulative Effects.....	30
Aquatics	31
Freshwater Resources	31
Direct and Indirect Effects.....	32
Marine Resources.....	33
Cumulative Effects.....	34
Botany.....	35
Direct and Indirect Effects.....	35

Table of Contents

Cumulative Effects.....	38
Determination	38
Invasive Plant Species.....	38
Direct and Indirect Effects	40
Cumulative Effects.....	40
Inventoried Roadless Areas	41
Cumulative Effects.....	41
Heritage.....	41
Archaeological Analysis and Survey	41
Direct, Indirect, and Cumulative Effects	42
Recreation	42
Direct and Indirect Effects for All Islands	42
Wrangell Island Recreation.....	43
Direct and Indirect Effects to Wrangell Island Inventoried Recreation Places	43
Etolin Island Recreation.....	44
Direct and Indirect Effects to Etolin Island Inventoried Recreation Places	45
Zarembo Island Recreation.....	45
Direct and Indirect Effects to Zarembo Island Inventoried Recreation Places.....	46
Cumulative Effects.....	47
Scenery.....	48
Direct and Indirect Effects	48
Cumulative Effects.....	48
Soils.....	49
Direct and Indirect Effects	49
Cumulative Effects.....	50
Karst.....	50
Direct and Indirect Effects	51
Cumulative Effects.....	51
Wetlands	51
Direct and Indirect Effects	52
Cumulative Effects.....	52
What Mitigation and Monitoring Is Necessary For This Project?	52
Appendix 1: Wrangell Roadside Timber Sales EA Implementation Plan.....	A1-1
Annual Sale Plan.....	A1-1
Environmental Review.....	A1-2
Process for Consideration of New Information	A1-6
Appendix 2: Essential Fish Habitat	A2-1
Appendix 3: Past, Present, and Reasonably Foreseeable Projects	A3-1
Appendix 4: Response to Comments	A4-1

ENVIRONMENTAL ASSESSMENT

Introduction

The Forest Service has prepared the Wrangell Ranger District Roadside Timber Sales Environmental Assessment (WRD Roadside EA) in compliance with the National Environmental Policy Act (NEPA) and other relevant Federal and State laws and regulations. The WRD Roadside EA discloses the environmental effects of two alternatives: the Proposed Action and No Action. A preliminary Finding of No Significant Impact (FONSI) was included in the EA when it was distributed for comment in November 2010.

Additional documentation, including detailed analyses of project area resources, is located in the project planning record located at the Wrangell Ranger District Office in Wrangell, Alaska.

What Is Being Proposed With This Project?

This project proposes to authorize commercial salvage harvest of dead, dying or blown down fuelwood and sawtimber resulting from natural disturbance, and the minor harvest of green fuelwood and green sawtimber. This Proposed Action would authorize harvest of up to 500,000 board feet (MBF) of fuelwood and sawtimber per year, depending on demand from the public and local operators. Individual green-timber sales size depends on request but would be limited to 50 MBF each. The amount of harvest is limited in size, since the purpose of the annual plan is to meet the needs of local operators. Harvest activities are proposed to begin in 2011.

The project area for the WRD Roadside EA is the area on either side of existing National Forest System (NFS) roads on Wrangell, Etolin, and Zarembo Islands on the Wrangell Ranger District as shown on Figures 2 – 5, and within the development land use designations (LUDs) as identified in the Tongass Land and Resource Management Plan (Forest Plan). The project area does not include non-development LUDs, beach fringe, or 2001 inventoried roadless areas with existing roads. All commercial harvest will occur on suitable forest land within the development LUDs as specified in the Forest Plan. According to information contained in the GIS database, only about 13,378 acres (approximately 30 percent) of the project area is suitable and available commercial forest land.

No new road construction would be authorized in this decision. Figure 1 (below) is a vicinity map for the project area. Figures 2, 3, and 4, for each island, show the project area in greater detail, including road numbers and LTFs. Figure 5 shows the Forest Plan LUDs for the project area islands and surrounding areas.

Figure 1 - Wrangell Roadside EA Vicinity Map

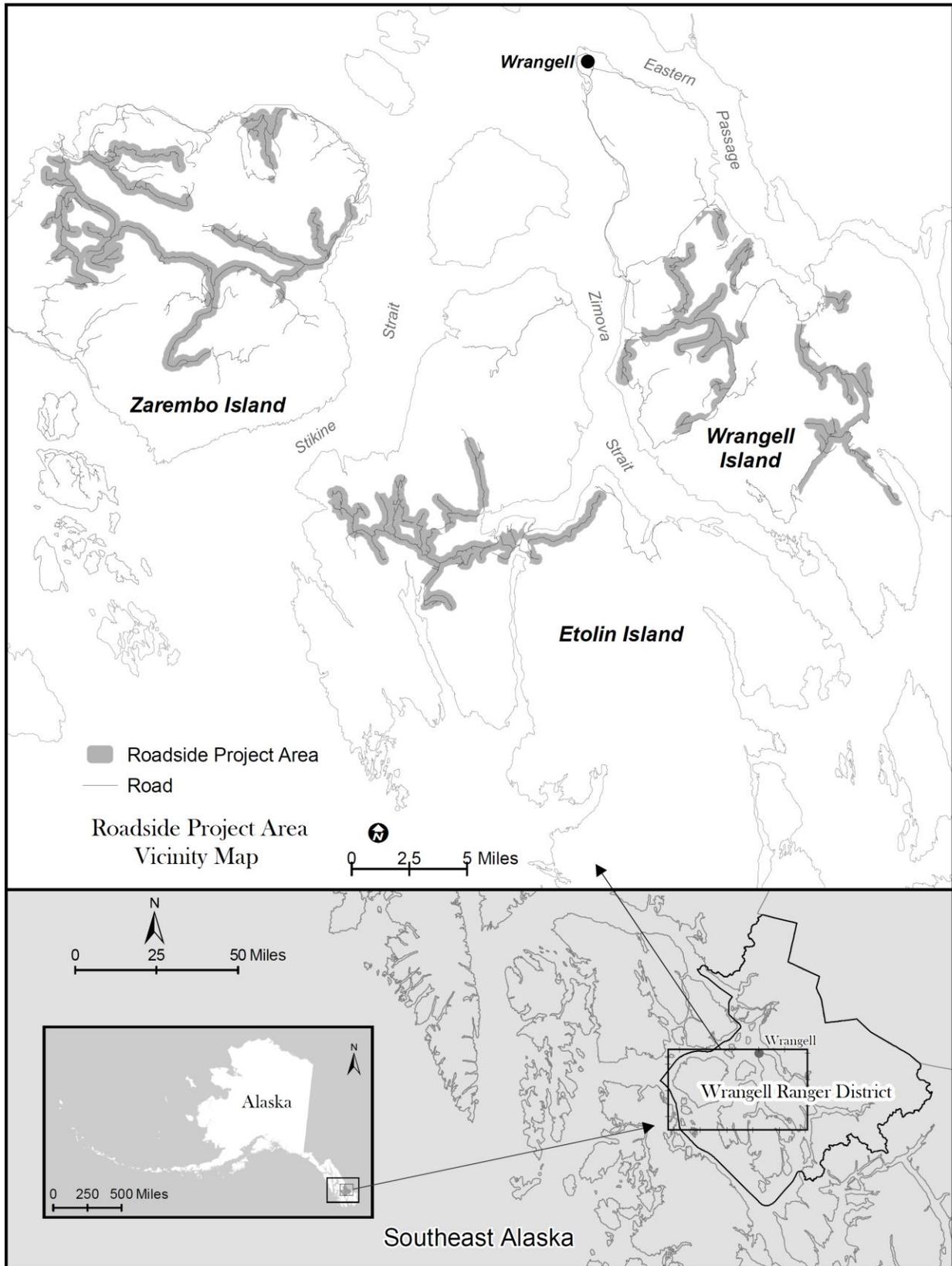


Figure 2 - Project Area on Wrangell Island

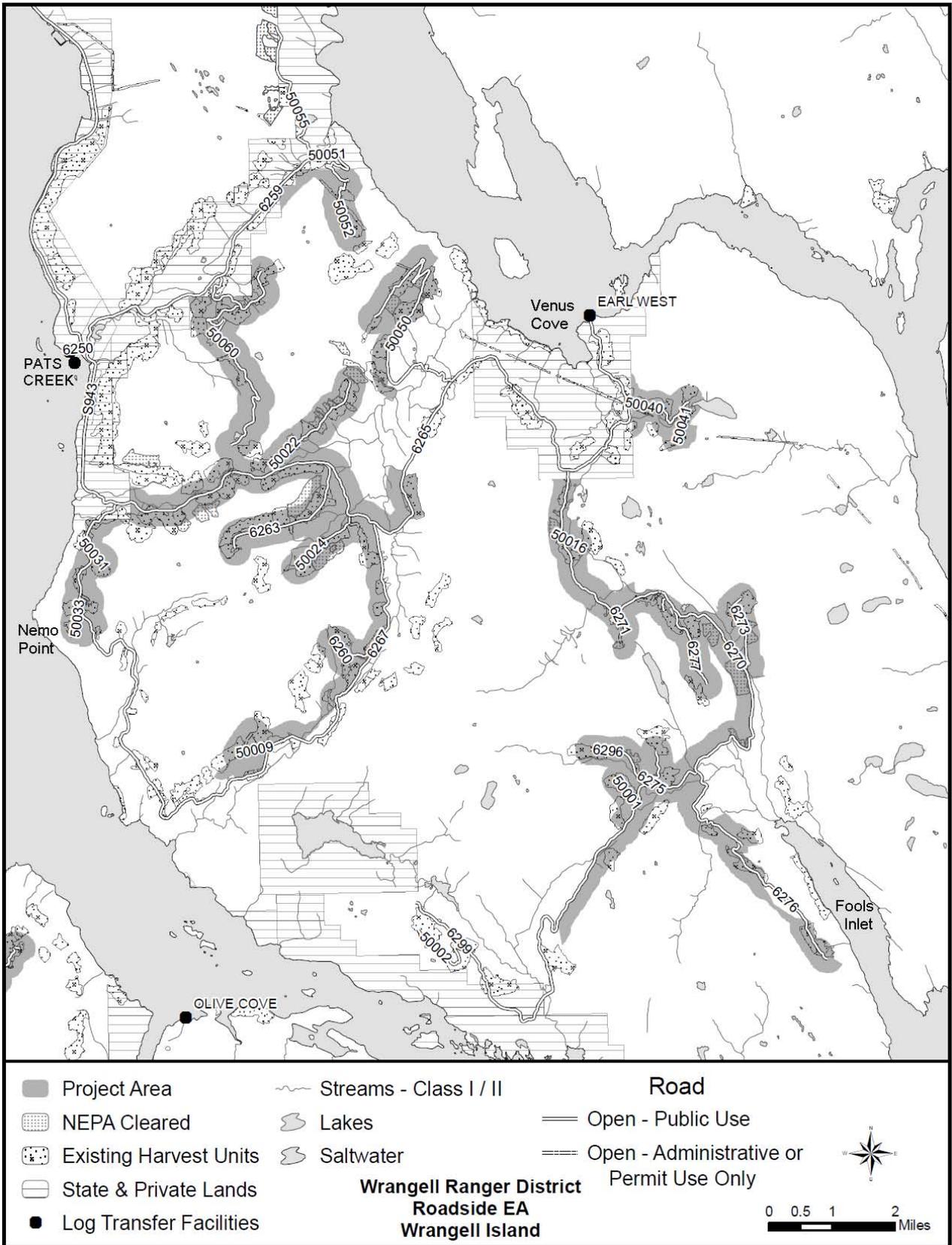


Figure 3 - Project Area on Etolin Island

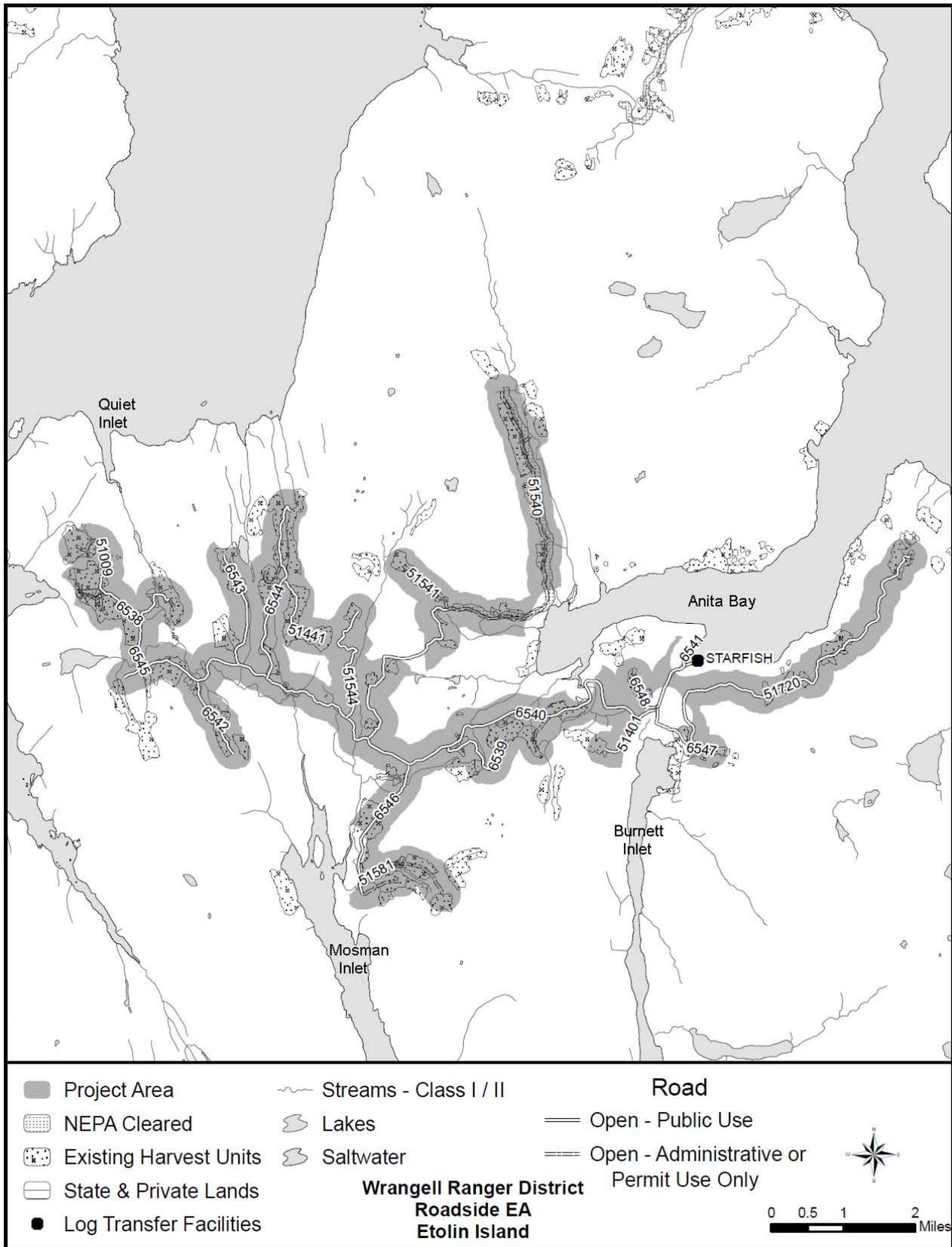
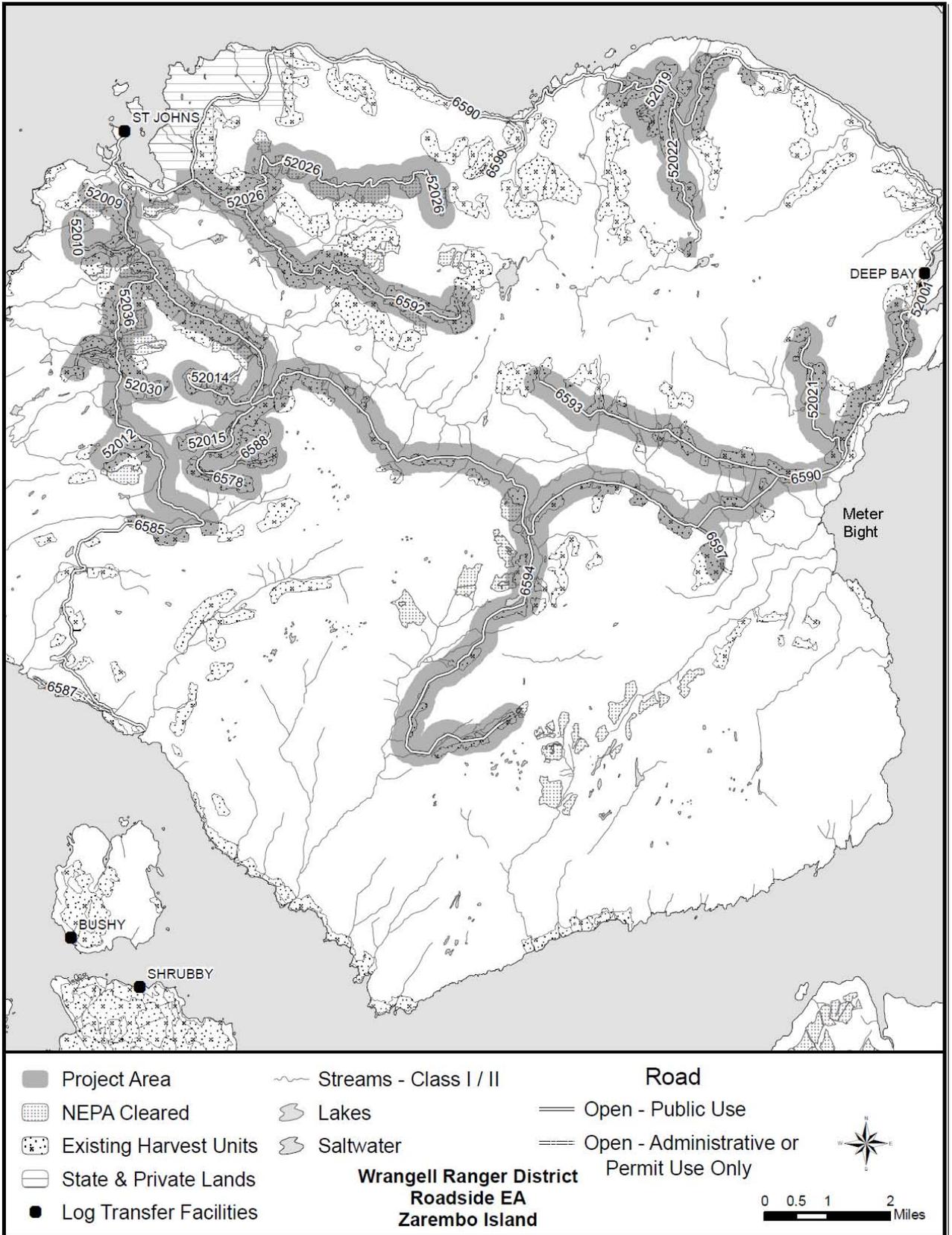
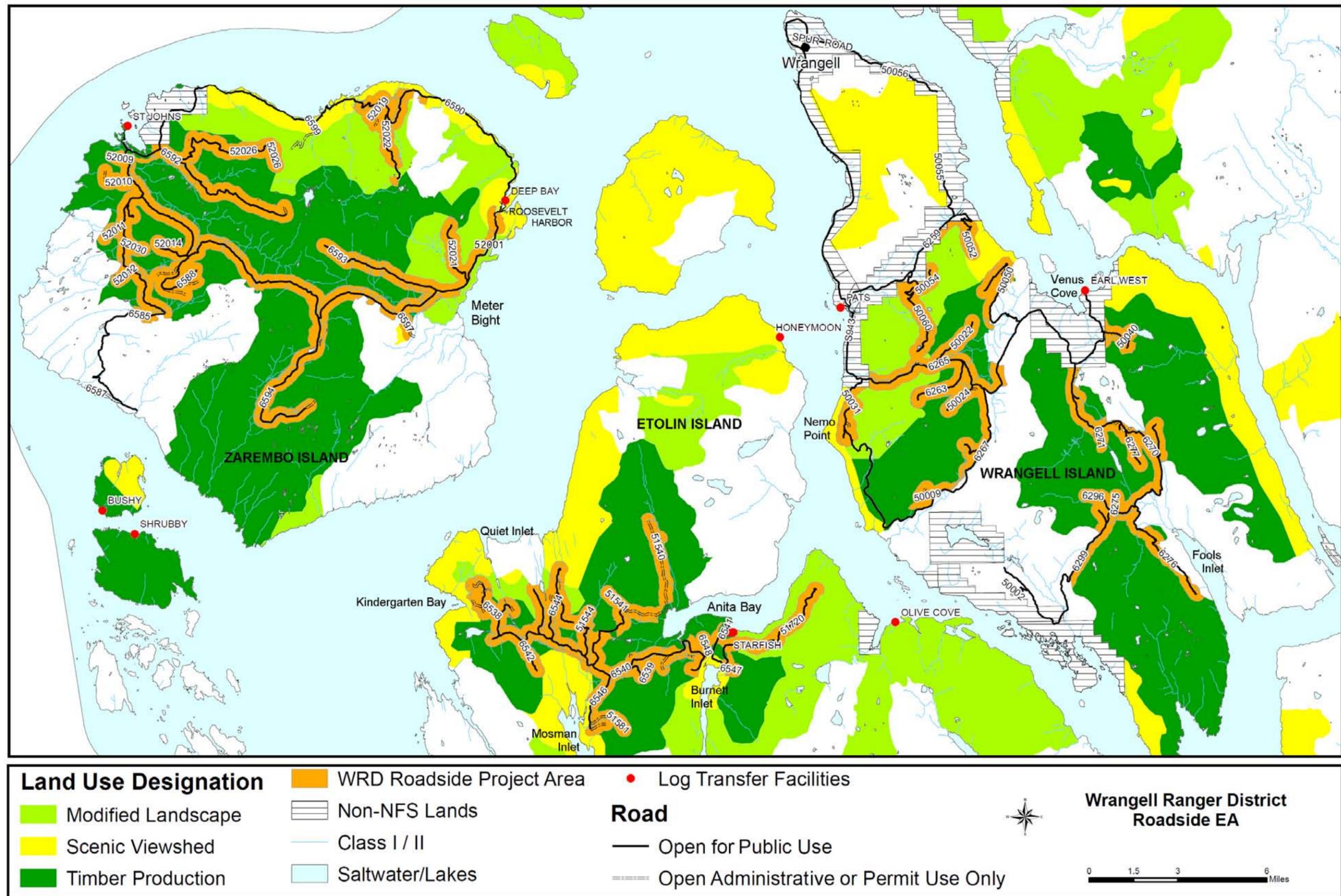


Figure 4 - Project Area on Zarembo Island



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Figure 5 - Land Use Designation Map



Back of 11" x 17" LUD Map

Why Is This Project Being Proposed?

The **purpose and need** for this project is to respond to the following:

1) Support the local economy.

Small businesses with limited capital investment resources are typical of the Southeast Alaska timber industry. In the past several years, most of the larger mills in Southeast Alaska have closed and Wrangell has struggled with economic recession. Recently, the mill in Wrangell which was originally built to meet the terms of one of the long-term contracts has been dismantled.

Small timber operators in the Wrangell area are mostly self-employed. They typically hire one to five employees on an as-needed basis. Implementation of this project would create many opportunities suitable for these remaining businesses and provide economic relief for local communities, small business operators, and individuals on Wrangell Island by providing a steadier annual supply of timber.

One of the goals of the USDA Strategic Plan FY2010 – 2015 is to “Assist Rural Communities to create Prosperity so they are Self-sustaining, Repopulating and Economically Thriving”. As part of this, the Alaska Region began in May 2010 to develop a Transition Framework program to build upon current assets and economic sectors and develop other opportunities. This project would be part of that by supplying multiple small sales that would provide the raw materials for a variety of wood products such as lumber, fuelwood, cedar shakes, and wood for artistic and musical pursuits.

2) Maintain a safe travel route while providing opportunities for small sales.

Part of road maintenance is to ensure that there are no „hazard’ trees along roads that could fall on the roadbed and either seriously injure or block traffic flow. These trees are routinely removed as necessary due to decay or blowdown. Part of the purpose of this EA is to aggressively assess any trees within this category and provide them as opportunities either for sawtimber or fuelwood. Another benefit for safety is the road maintenance required of the operator during a sale, which includes collection for surface rock replacement.

3) Promote forest health.

Forests in Southeast Alaska are a host to various insects and diseases. Many of these are part of the ecosystem, but others can reach proportions where they can cause damage and not allow the development of young healthy trees. By removing some of the diseased trees, or trees that have blown down, other trees remain healthy and young trees can become established.

4) Provide a supply of fuelwood to support both local small operators and personal firewood users’ needs.

The recent substantial increases in home heating fuel costs have resulted in a noticeable increase in demand for locally cut firewood. Firewood users have reported it is increasingly difficult to get enough firewood to meet the needs of the community. Based on comments from the public, the demand currently exceeds the supply being offered, and competition for this resource is expected to increase.

Currently, both personal-use and commercial firewood cutters can only remove dead trees (either standing or downed). Commercial operators that have permits can obtain dead and downed firewood along any open road system on Wrangell Island except the first 100 feet along the Pat's Creek and Nemo Loop road systems (green firewood is not available). Personal-use cutters can go anywhere on the open road system. This project would increase the amount of fuelwood available by expanding commercial fuelwood harvest to include dying and low-grade green trees. Offering commercial green fuelwood sales would reduce the competition that currently exists between commercial and personal-use firewood cutters by offering the commercial sales in specific areas.

5) Provide a supply and capture the economic value of salvage timber in an efficient and timely manner.

The WRD Roadside EA project consolidates multiple small-sale harvest activities under one analysis and uses the implementation plan, so resource managers could respond to requests in a more time efficient and cost-effective manner while managing the resource (Forest Service Handbook [FSH] 2409.18). It also allows for scheduled program of small sales and firewood sales. Due to the conditions in Southeast Alaska, some species deteriorate quickly and cannot be used for valuable products and their value for fuel wood diminishes. Due to reduced budgets and personnel, there is not always the opportunity to complete the required analyses before this happens.

6) Provide green sawtimber for small sales.

By consolidating multiple small-sale harvest activities under one analysis, the Forest Service can conduct a more-efficient environmental analysis, thereby meeting public demand from local operators for a small number of green trees in a timelier manner. These small sales would provide revenue to those purchasing the wood, since unlike the Alaska resident free-use program which does not allow the operator to sell products from the trees, the products can be sold. Identifying these sales in advance would reduce conflicts with that program.

7) Respond to the goals and objectives of the Tongass National Forest Land and Resource Management Plan (Forest Plan) and help move the project area towards conditions described in that Plan.

All development (Timber Production, Modified Landscape, and Scenic Viewshed) LUDs in the project area include the goal to “seek to provide a supply of timber that meets the annual market demand, consistent with the standards and guidelines for the LUD”. The Timber Production and Modified Landscape LUDs also include the goal “to maintain and promote wood production from suitable forest lands, providing a continuous supply of wood to meet society’s needs” (USDA 2008). This project would respond to those Forest Plan goals and objectives.

What Factors Will Be Used To Make A Decision On This Project?

Based on the environmental analysis in this EA, and following the goals, objectives and desired conditions outlined in the Forest Plan, the Responsible Official will decide whether and, if so, how to make timber available from the WRD Roadside EA project area.

This decision will include:

- Whether to authorize the harvest of salvage dead/dying and down trees that occur from natural causes;
- Whether to authorize the harvest of green and dead/dying fuelwood;
- Whether to authorize the harvest of sawtimber;
- What, if any, specific mitigation measures are needed; and
- What, if any, monitoring requirements are needed beyond the Forest Plan monitoring plan to ensure that established design criteria are implemented.

Who Was Consulted For This Project?

Public Involvement

In response to public interest concerning firewood availability, the Wrangell Ranger District held a meeting in April 2008 to gather input on increasing the availability of both commercial and personal-use firewood, and opportunities to minimize conflicts between each group. The meeting was attended by over 25 individuals interested in Forest Service efforts to increase firewood availability. One of the recommended actions from the meeting was to begin offering commercial green fuelwood sales on the existing road systems. The Wrangell Roadside project is being proposed as a direct result of the concerns and recommendations brought forth during this public meeting.

The Wrangell Roadside project has been listed in the Schedule of Proposed Actions since January 2009. The proposal was provided to the public and other agencies for comment during scoping in January 2009. The Forest Service received six comments on this project, all in favor of the proposal, requesting increased availability of small sales and giving priority consideration to firewood for personal users on Wrangell Island.

In addition to the public, the Forest Service consulted the following Federal, State, and local agencies, and tribes during the development of this EA:

Federal, State, and Local Agencies

- National Marine Fisheries Service
- Alaska Department of Environmental Conservation
- Alaska Department of Fish & Game

Federally Recognized Tribes

- Wrangell Cooperative Association

How Can We Meet the Purpose and Need?

Based on the comments from the public, other agencies, and a local tribal organization, the Deciding Official determined that the key issue was how to offer an accessible, more-readily available supply of fuelwood and timber for personal users, local small operators, and wood product industries. Therefore, only two alternatives are being considered: the No-action Alternative and the Proposed Action.

The Proposed Action would authorize salvage harvest of dead, dying or down fuelwood and sawtimber resulting from natural disturbance. It would also authorize the harvest of minor quantities of green fuelwood and green sawtimber. The combined volume would not exceed 500,000 board feet (MBF) per year. The volume would be offered as multiple salvage sales, fuelwood, small sales, and microsals within development LUDs along the existing road systems of Wrangell, Zarembo and Etolin Islands on the Wrangell Ranger District. By analyzing these similar types of sales in this EA, with additional site-specific analysis following the guidelines of the implementation plan, the Forest Service would be able to respond to requests and authorize small sales more efficiently.

Design Criteria for the Proposed Action

The specific locations of actual harvest areas would be identified by Forest Service personnel or based on proposals made by prospective purchasers. These proposed timber sales would then be included on an annual proposed sale plan (Appendix 1). All proposals will follow the guidelines established in this EA, the Forest Plan, and all applicable direction. The annual proposed sale plan will include a brief narrative of each sale and a summary sheet of all sale proposals with acres, volume, type of sale and whether requested by a purchaser and other comments. The approved annual sale plan will be posted on the public website and be available at the Wrangell Ranger District Office.

All commercial harvest activities authorized under this project will meet the following design criteria. See also Table 1, below.

Applicable to any harvest:

- Harvest would only occur in areas where Forest Plan land use designations (LUDs) allow timber harvest (Forest Plan, pages 3-101 to 3-121), namely Timber Production, Modified Landscape, and Scenic Viewshed;
- Harvest would only occur in areas suitable for timber harvest;
- Harvest would be within 1,200 feet on either side of existing road;
- No harvest would be authorized in the beach or estuary fringe, riparian management areas, unstable slopes or other areas where commercial harvest is not allowed by the Forest Plan Standards and Guidelines, or in 2001 inventoried roadless areas;
- No road construction would be needed for timber harvest;
- On-site processing may be allowed for some sales; and
- Projects would be implemented using the WRD Roadside EA Implementation Plan contained in Appendix 1.

Applicable to salvage of dead, dying or down trees:

- Salvage harvest would be authorized to remove down or dead timber in accordance with page 4-73 of the Forest Plan (VII. Salvage Harvest, parts A, B, D, E, and F); and
- Incidental green trees may be removed.

Applicable to green tree harvest:

- Single-tree selection or group selection sawlog sales would be limited to a maximum of 50,000 board feet (50 MBF) per sale.
- Green fuelwood sales would include non-merchantable, low quality, or dying trees; sales would be limited to a maximum of 50,000 board feet (50 MBF) per sale.
- Harvest in any individual stand would be limited to 33 percent of the average trees per acre with 67 percent retained for stand structure and wildlife habitat.

Table 1 - Proposed Sale Types

Sale type ----->	Commercial dead/down firewood	Salvage sawtimber	Commercial green fuelwood ¹	Microsale	Green sawtimber
Rx	Single-tree selection	Salvage	Partial cut	Single-tree selection	Single-tree selection or group selection
Retention	N/A	N/A	Average 67% of trees per acre	N/A	N/A
Type of tree	Individual standing dead or down, can include landing slash left from previous harvest	Dead or blowdown salvage ²	Green or dying trees not meeting sawlog quality standards	Requested tree(s), generally 1-2 dead or down trees	Green trees or groups meeting sawlog quality standards
Sale size limit³	50 MBF	50 MBF ⁴	50 MBF	50 MBF	50 MBF
Example products⁵, (not limited to this list.)	Fuelwood (includes firewood, wood pellets, wood bricks)	Lumber and fuelwood	Fuelwood (includes firewood, wood pellets, wood bricks)	Lumber, cedar bolts, canoes, totem, cedar shakes, music wood	Lumber

¹ Incidental removal of green trees only for operational access, safety, or to remove trees facing imminent mortality in next 5 years from natural causes.

² Fuelwood includes firewood, wood pellets, and wood bricks.

³ The combination of all harvest along the roadside would not exceed 500 MBF per year.

⁴ Size is dependent on type of salvage opportunity but would not exceed 500 MBF per year.

⁵ In most cases, some processing will be done in the woods. The amount of in the woods processing will depend on the type of product produced and site conditions.

What Other Actions Could Meet The Same Need?

As an alternative means of meeting the demand for additional accessible timber and fuelwood through this project, the Forest Service would have to increase the small sales program and issue more firewood permits, conducting a separate NEPA analyses on each sale. This would cause an increased workload and longer delays, and thus may not adequately meet the need since the workforce on the Tongass has been decreased in response to lower budgets for the timber program. This option is the No-action Alternative, which is described below. Another means of meeting the demand for timber and fuelwood could be through larger-scale harvest programs such as roadside units from EISes. This could also result in delays due to the additional time it takes to complete an EIS and move through the process of appeals and possible litigation for these larger projects.

Table 1 displays the types of harvest that could occur each year, dependent on the need and request of prospective purchasers. Not all harvest types would necessarily occur each year.

What Would It Mean Not To Meet The Need?

Not meeting the need is defined by the No-action Alternative. Under the No-action Alternative, current management plans would continue to guide management of the project area. Current and ongoing management activities conducted as part of past environmental document decisions would continue to occur (i.e. precommercial thinning, road maintenance and timber harvest). In addition:

- Resource managers would be limited in their ability to provide a predictable and steady supply of salvage timber and fuelwood and green sawtimber to support local small operators and wood product industries.
- Resource managers would lose the opportunity to respond quickly to salvage timber opportunities and capture the economic value of the timber.
- There may continue to be conflicts between commercial and personal fuelwood gatherers due to increasing competition for a limited supply.
- There would not be the opportunity to support the local economy.
- The costs incurred in the individual NEPA analysis for small sales would be higher, since multiple analyses would be conducted.

Comparison of Alternatives

The direct, indirect, and cumulative effects of implementing either alternative would in most cases be similar, as described in the respective resource sections. There are little or no direct and indirect effects for the No-action Alternative. There are also little or no direct effects for the Proposed Action, due to the limited annual volume (not exceeding 500 MBF) of partial harvest and salvage harvest, spread across three islands. Indirect effects of the Proposed Action are expected to be minor and/or temporary.

Cumulative effects are also similar between the No-action Alternative and the Proposed Action. While other projects are planned in and near the WRD Roadside EA project area, this project contributes very little to any cumulative effects. Direct, indirect, and cumulative effects are compared for the No-action Alternative and the Proposed Action under the effects section of the resource analyses in this EA.

Table 2 - Comparison Table – Direct and Indirect Effects

Resource	No Action Alternative	Proposed Action
Aquatic	No effect	Little to no effect
Heritage	No effect	No effect
Invasive plant species	Existing activities involving road use could continue to spread invasive species to some degree in the project area, whether or not this project is implemented.	Slight increased risk of introducing and spreading invasive plant species in the project area; however, this project is not expected to have a significant effect on invasive species populations or the habitats affected by them, individually or cumulatively.
Botany: sensitive and rare plants	No effect	May adversely impact individuals, but is not likely to result in a loss of viability in the planning area, nor cause a trend toward Federal listing
Wildlife: migratory birds	Individuals would not be affected, or would be affected by natural circumstances. No measurable consequences to the individuals or populations are expected.	Harvest of nest trees used by migratory birds during the breeding season may result in lowered reproductive success for individuals; however, these effects are not expected to contribute to a loss of population viability on Tongass NF for any species.
Wildlife, MIS species: Alexander Archipelago wolf, American marten, black bear, brown bear, red squirrel, Sitka black-tailed deer, pink salmon, coho salmon, Dolly Varden char, cutthroat trout, endemic small mammals	Individuals would not be affected, or would be affected by natural circumstances. No measurable consequences to the individuals or populations are expected.	Animals such as deer or bears may be displaced during the duration of the activities. One or more individuals would be affected but the change would be small. Effects would not be expected to have any long-term effects on species or their habitats, or the natural processes sustaining them.
Wildlife, MIS species: bald eagle, mountain goat, river otter, Vancouver Canada goose	Individuals would not be affected, or would be affected by natural circumstances. No measurable consequences to the individuals or populations are expected.	Individuals would not be affected, or the action would affect an individual but the change would be so small that it would not be of any measurable or perceptible consequence to the individuals or populations.

Resource	No Action Alternative	Proposed Action
Wildlife: POG, coarse canopy and habitat connectivity	Change would be so small that it would not be of any measurable or perceptible consequence to individuals or populations.	One or more individuals would be affected but the change would be small. Effects would not be expected to have any long-term effects on species or their habitats, or the natural processes sustaining them.
Wildlife, sensitive species: Aleutian tern, dusky Canada goose, Island king salmon, Fish Creek chum salmon, northern pike, black oystercatcher, Kittlitz's murrelet	No effect (species are not present)	No effect (species are not present)
Wildlife, sensitive species: Queen Charlotte goshawk	Individuals would not be affected, or would be affected by natural circumstances. No measurable consequences to the individuals or populations are expected.	May impact individuals but not likely to cause a trend to Federal listing or a loss of viability
Subsistence: deer and fuelwood	Deer: No change in abundance and distribution of, access to and competition for deer. Firewood: Abundance of, access to, and competition for are likely to increase.	Deer: No change in abundance and distribution of, access to and competition for deer. Firewood: An improvement in availability of commercial firewood, and less competition for firewood.
Subsistence: other resources	No change in abundance and distribution of, access to and competition.	No change in abundance and distribution of, access to and competition.
Threatened or Endangered Species: Steller sea lion, humpback whale	Individuals would not be affected, or would be affected by natural circumstances. No measurable consequences to the individuals or populations are expected.	Not likely to adversely affect. Potential indirect effects could include disturbance due to increased boat or barge traffic. However, routes between islands where harvest may occur do not intersect any areas where these species are known to congregate.
Recreation	No effect	Potential temporary traffic delays or increased traffic, temporary noise associated with harvest activities in vicinity of active sale.
Karst	No effect	Little to no effect
Soils	No effect	Little to no effect: Some soil disturbance is expected from logging activities; the amount will not exceed the Regional soil quality standard.

Resource	No Action Alternative	Proposed Action
Wetlands	No effect	Little to no effect: Some ground disturbance is expected from logging activities which could alter hydrologic conditions. Timber harvest on wetlands is expected to result in minimal change to the canopy and associated hydrologic processes.

ENVIRONMENT AND EFFECTS

What are the Effects of the No Action and the Proposed Action?

This section displays the physical, biological, social and economic environments of the affected project area and the potential changes that may occur from implementing this project.

Much of the project area has been analyzed in other NEPA documents or will be included in future projects (Appendix 3). Where applicable, information from previous NEPA documents is incorporated into this analysis. The projects and activities listed were considered in the cumulative effects analysis for each resource.

The resource reports included the area within 1,320 feet from all project area roads. However, the Secretary has reserved the authority for decisions within 2001 roadless areas until a long-term roadless policy can be determined. Therefore, this project will only include the area 1,200 feet from the existing road, to be consistent with the roadless inventory. The effects as discussed in this EA would be the same or somewhat less than those disclosed in the resource reports.

Timber Harvest Management

Supply and Demand

Information from local small sale purchasers, and data collected from public meetings, the Wrangell Island Analysis, and Wrangell Ranger District small sale records generally support the desire and need for smaller roadside-based sales.

Small local timber operators in the Wrangell area are mostly independent and self-employed. These operators generally do not have year-round employees; rather, they hire one to five employees on an as-needed basis.

Through the small sales program on the Wrangell Ranger District since 1997, the district has offered and sold approximately 3 MMBF in 19 small salvage and green-tree sale offerings ranging in size from 5 to 662 MBF, indicating consistent demand. Small operators generally do not have a need for the quantity of wood offered in a larger timber sale, nor do they have the equipment or financial backing necessary to purchase one.

The Forest-wide demand for timber from the Tongass has been addressed in the 2008 Forest Plan, Appendix G. The annual market demand is calculated yearly and was 211 MMBF in FY 2010. A complete "Appendix A" has been included in the project record.

Firewood is also an important resource for Wrangell residents. Dead yellow-cedar is the most preferred type of firewood. There has been increasing public concern that commercial firewood cutters are competing with local residents for firewood. Despite the fact that local commercial firewood cutters sell firewood exclusively to Alaska residents, because it is a commercial enterprise, it is still not considered personal use.

Timber Economics

The main factors that influence the economic value of timber sales are logging systems, length of haul to the nearest manufacturing centers, road construction, and proposed timber management including quantity and quality of timber.

Yarding is the process of moving logs from the stump to a centralized landing area. The systems proposed to be used to bring logs to the landing area are ground-based, cable and helicopter. Selection of the systems used to harvest timber depends on many factors such as topography, access, slope and resource protection requirements.

Logging Systems

On-site ground reconnaissance following the guidelines in the Implementation Plan will determine that proposed logging systems provide the required resource protection measures to meet management objectives and desired conditions of each LUD. To insure that all management objectives are met, this project has developed a monitoring plan that will review some of the implemented harvest proposals for compliance with specified management objectives. Effects resulting from logging systems are also discussed in the Soil and the Wetlands resource sections.

Since all harvest activities in the project area are along existing road, conventional cable and ground-based yarding systems would primarily be the most economical and efficient logging methods used for harvesting timber in the project area. Depending on resource protection needs, requirements for partial- or full-log suspension could be required.

Helicopters may be used for yarding some harvest areas where conventional yarding systems may not be the most efficient system, or where factors such as topography, slope or other resource concerns dictate the use of helicopter systems. However, this system would require that the proposed harvest contain a species mix and composition with high commercial values and relatively high volume per acre. The majority of anticipated helicopter use would be to support on-site processing activities.

Compared to even-aged management, uneven-aged management prescriptions generally incur higher costs for harvesting timber due to the overall reduction in volume per acre and increased costs of yarding around residual trees. Generally, the higher amount of residual trees left in a stand, the higher the cost for harvesting of designated trees. However, removing higher-quality, more-valuable timber can offset the increased cost of harvesting designated trees.

Financial Efficiency Analysis

No financial efficiency analysis is required by Forest Service Handbook 2409.18. The projected value of this project is not anticipated to exceed \$100,000 because of the size of the sale offerings. Therefore, each sale will be appraised according to Forest Service Handbook direction.

Competition for Resources

Past, present, and future timber harvest projects in this area may have reduced opportunities for firewood gathering to some degree. However, much firewood gathering occurs in scrub timber and muskeg areas. Furthermore, roads built in association with past, present, and future timber sales have increased access to firewood-gathering locations. Recent and foreseeable future road closures associated with the Wrangell Ranger District Access and Travel Management Plan

(ATMP) will reduce this access over time. While concerns have been raised about competition between subsistence users and commercial firewood cutters, the intent of this project is to alleviate competition by providing alternate locations and sources for commercial operators.

The implementation of this project could affect abundance, distribution, and competition for fuelwood. Most local users do not travel to other islands to gather fuelwood. By focusing commercial firewood sales away from dead trees and/or away from Wrangell Island, the reduced competition could provide more plentiful fuelwood gathering opportunities for personal users.

At this time, however, restricting availability or access is not proposed in this project. Instead, allowing commercial permit holders to cut dying/green fuelwood trees, as proposed in this project, could increase the overall availability of fuelwood for both commercial and personal users.

Because there are no road changes authorized as part of this project, it will not affect access through opening or closing of roads.

On-site Log Processing

The Proposed Action includes on-site log processing in some areas. The type of sale, the products produced, individual purchaser preference, and environmental considerations will influence if and how much on-site processing will be permitted.

Fuelwood

Fuelwood processing involves felling (if trees are standing), yarding the designated trees to the road, cutting, and splitting the rounds into saleable-sized firewood. The effects from this type of processing are mostly sawdust and wood debris generated from the yarding, cutting, and splitting activities. Standard timber sale contract provisions require the purchaser to remove wood debris from ditches and the road surface.

Lumber

Sawlogs (green and salvage) are sawn into lumber either in the woods or at a designated location, such as a nearby rock pit. Processing in the woods is accomplished with portable type sawmills that are carried, skidded, or flown in by helicopter. Once the sawlogs are milled in the woods, the lumber products are carried, skidded, or flown out by helicopter to the road. The effects of on-site processing operations are mostly noise from the saws, sawdust accumulation, and log slab residue. Milling residues are scattered on-site for decomposition, burned in rock pits, or hauled away to an approved disposal area.

Music Wood and Shake Bolts

The on-site processing methods for both music billets and blocks and shake bolts are similar in nature. Typically, the tree will be felled and bucked to length using a chainsaw. The bucked sections are then split into billets, blocks, or bolts using hand tools such as mauls, wedges and froes. The split material is then hand carried, zip-lined, or flown out to the road using helicopter cargo nets. The effects from this type of processing would be sawdust accumulation and non-merchantable wood residue produced during the breakdown splitting.

Direct and Indirect Effects

Both alternatives have short- and long-term effects on timber supply and demand. Volume made available through implementation of the Proposed Action would contribute to meeting the local demand for timber in the short term.

No Action

This alternative represents no management actions at this time. Forest lands located elsewhere would need to be harvested to meet local market demand for timber and fuel/firewood. The economic value would not be captured through the removal of dead or dying trees. Sales to smaller operators may be delayed through the NEPA process.

Implementation of this alternative would not contribute to meeting the local demand for sawtimber and fuelwood, negatively affecting small operators and the public who may purchase fuelwood or cut their own firewood for home heating. Less readily available fuelwood could result in greater competition or more difficulty obtaining it.

Proposed Action

The Proposed Action would make timber available for harvest, would positively affect small operators, and would contribute to meeting the local demand for sawtimber and fuelwood. The timber offered would generally be sold as Special Salvage Timber Sales and Small Business Administration sales. This volume, up to 500 MBF per year, would help meet a portion of the small operators' estimated annual demand for timber. It would also increase the availability of firewood for personal use by allowing commercial harvest of green fuelwood, reducing competition between personal and commercial users for available dead and down wood.

Cumulative Effects

The long-term supply of timber would be minimally affected by the amount of suitable acres harvested during this entry into the project area. Implementation of the Proposed Action would result in a slight increase in suitable acres harvested over time in the project area. Due to the type of salvage and partial-cutting activities prescribed, and the variable levels and effects of natural disturbance events and damaging agents in the project area, some stands could potentially receive multiple intermediate treatments over the course of the rotation. Stands that receive intermediate treatments and retain higher percentages of the original stand structure would still function as productive old-growth forest and will remain as part of the suitable acres land base.

Conclusion

Implementation of the Proposed Action would benefit the public by making sawtimber and fuelwood available from the project area. Timber harvest would result in revenue for the Treasury and the support of local jobs. Allowing harvest along the existing road system in the project area would minimize logging costs by facilitating the use of less-expensive shovel and short-span yarding systems.

Silviculture

Vegetation within the project area is a mosaic of coniferous forest intermixed with alpine, muskeg, riparian, and shrubland plant communities. Hemlock and Sitka spruce forests occur on well-drained sites in this subsection. Mixed conifer forest types occupy areas where drainage is restricted. Open shrubby bogs and ferns occur on the wettest portions of the project area. The majority of the stands proposed for harvest under this EA are located along the lower-elevation transition zones between well-drained Western Hemlock/Sitka Spruce sites and restricted-drainage Mixed Conifer sites.

Direct and Indirect Effects

No Action

Disturbance processes would continue, including gap-phase, small-scale disturbance as well as stand-replacing wind-generated stand re-initiation. Some high wind-hazard stands are likely to experience large-scale stand-replacing events in the future, resulting in more structure in the early, even-aged stage of development. Other stands will likely experience moderate disturbance resulting in more two-aged structure. Forest growth and yield would not be maximized or improved. Forest health would not improve; insect damage, disease, and cedar decline are likely to continue and spread at their present levels and rates.

Proposed Action

The Wrangell Roadside project would result in annual harvest on approximately 0.004 to 0.08 percent of the original productive forestland on the three islands, depending on the regeneration method and harvest retention. (Productive forestland includes young stand size classes 1-3, as well as the old saw timber trees stand size class 4 and greater which constitute productive old growth (POG). Historically, all productive forestland was considered to be POG.)

The combination of even-aged and uneven-aged regeneration harvests in this alternative includes both the salvage of dead and dying trees, and green-tree harvest. Estimated harvest acreages were developed based on the number of acres required to achieve the 500 MBF harvest using even-aged and uneven-aged harvest.

Uneven-aged management is limited to the removal of up to 33 percent of the trees per acre in fuelwood sales which can improve forest health by harvesting diseased and insect damaged trees. Green sawtimber sales will use group selection or single-tree selection as uneven-aged harvest methods. Forest health concerns, including the removal of trees with disease, damage, or that face imminent mortality, can be used as factors in determining which trees to harvest.

Removal of trees in groups would result in small openings of 2 acres or less that would regenerate to healthy young-growth trees. Removal of trees dispersed throughout the stand would result in old trees interspersed with regeneration of younger trees. If all harvest in a year was uneven-aged, this would treat up to an estimated 239 acres annually, depending on how much volume is harvested. Uneven-aged harvested stands will retain stand structure and species composition at levels high enough to maintain function as productive old-growth and remain as part of the suitable land base.

Even-aged management will be used for salvage operations to remove dead standing or down, or dying trees, created by insect infestations, disease outbreaks, or windthrow. Incidental green

trees may also be removed for access, safety, operational feasibility, or to remove dying trees or trees facing imminent mortality due to natural disturbance processes. The primary reasons for prescribing even-aged harvest in this project are to minimize the occurrence of potentially adverse effects from windthrow, and to rehabilitate lands adversely affected by windthrow. This is estimated to treat up to 24 acres annually, if all harvest in a year was even-aged.

Additional blowdown would be minimized, to the extent practicable, by locating the boundary along the edges of natural openings, areas containing naturally windfirm trees, or in more-protected areas, such as small draws.

Species Composition Structure and Health

Given the amount of harvest applied over the project area, the overall post-harvest tree species composition on the islands would remain relatively the same as the pre-harvest overstory tree species composition.

Forest health and productivity would be improved by the removal of dead trees created by windthrown trees and insect damage, creating younger, healthier, faster-growing forests. The harvest openings will provide space for shade intolerant yellow-cedar to naturally regenerate and maintain the presence of healthy yellow-cedar in the project area. Forest growth, yield, and long-term soil productivity would be enhanced. The Proposed Action is consistent with the Forest Plan, management direction, and the National Forest Management Act (NFMA).

Cumulative Effects

The analysis area for cumulative effects consists of Wrangell, Etolin, and Zarembo Islands. Timber harvest first began in 1913 along the beach fringe and large-scale even-aged harvests along roads began in the 1960s. Currently, about 29,398 acres (or 12.3 percent) of the approximately 239,397 acres of productive forestland originally on the islands have been harvested and successfully regenerated with young-growth timber, including 1,796 acres in non-federal land ownerships.

Reasonably foreseeable future projects were determined by assessing those projects that are currently being implemented, such as a timber volume under contract, those projects that have NEPA decisions, and those projects with on-going NEPA analysis. This includes 11 NEPA projects involving timber harvest on the three islands. A State timber sale called the Zarembo Island Sale, near St. John's Harbor and consisting of approximately 420 acres of harvest, was sold and is planned to be logged on Zarembo Island in 2011. Other forest harvest activities include personal-use firewood cutting (dead trees only), permit-based commercial firewood cutting (dead trees only), and free-use green sawtimber program available to Alaska residents.

All of the past harvested stands on Wrangell, Etolin, and Zarembo Islands have been successfully regenerated. According to the Forest Service Activity Tracking System, by 2009 about 11,812 acres of young-growth precommercial thinning had occurred on the islands (including thinning for wildlife habitat improvement, research, or timber production), plus there have been 317 acres of young-growth pruning and 4,509 acres of tree planting on the three islands. Approximately 2,500 acres of precommercial thinning is planned for the next 5 years. The cumulative effects of past, present, and reasonably foreseeable future actions would have little effect on forest long-term yield and productivity, regeneration, or species composition.

Transportation

The existing Wrangell Ranger District forest road system is managed under the 2007 Wrangell Ranger District Access and Management Plan (ATMP). No additional roads will be constructed under the WRD Roadside Timber Sales EA.

Use on some roads may be authorized by a permit for management associated with this project, as directed in the Code of Federal Regulation [CFR] Title 36 Section 212.

Zarembo Island: The Zarembo Island road system is accessed by two log transfer facilities (LTFs) - one in St. John Harbor and the other in Deep Bay. Both LTFs serve the island's road system. Some roads are not included in the current Proposed Action since they are within the 2001 Roadless Rule inventory.

Etolin Island: The LTFs in Anita Bay would be used to access the Anita Bay road system. The proposed road construction for the Navy Timber Sale project area is not part of this project since these roads are only proposed and not constructed. The road system from the Honeymoon LTF on the north end of the island is not included since it is within the 2001 Roadless Rule inventory.

Wrangell Island: The Wrangell Island road system is connected to the community of Wrangell, including local sawmill operations. There are two LTFs located on Wrangell Island - Pats Creek and Earl West.

Maintenance

Maintenance and reconditioning of existing National Forest System (NFS) roads is an ongoing process that occurs on a periodic basis. Usually this road work is determined to fit the category of routine repair and maintenance of roads that do not individually or cumulatively have a significant effect on the quality of the human environment and may be categorically excluded, as directed in FSH 1909.15, Section 31.1b. The maintenance and reconditioning of NFS roads on the project area may occur before, during and after the project analysis and implementation. The timing of this work may coincide with this project's analysis but is not part of the Proposed Action. This work is done by the Forest Service or through separate service or public works contracts to reduce the backlog of deferred maintenance. Road maintenance is performed to comply with best management practices, maintain the existing infrastructure for the proposed timber sales or future harvest entries, and other National Forest management activities.

As timber is sold as part of this project, cost collections for maintenance and surface rock replacement (where applicable) will take place. The collections offset the cost of road maintenance due to timber hauled over the roads.

Direct and Indirect Effects

The Proposed Action does not consider changing the maintenance levels (ML) for any road. Nor does this project propose new road construction. Maintenance will continue to be performed, as needed, according to the district road maintenance plan.

Since the Forest Service is able to collect a reimbursement for maintenance, this project will not have an effect on the Forest Service's ability to maintain the roads within the analysis area.

On-site processing may occur as part of a timber sale. This may involve processing wood along the roadside, within the unit, or in a rock pit. Permit stipulations will govern the activities and

provide guidelines for a complete clean-up. This type of small-scale processing will not affect the transportation network or Forest Service maintenance costs.

Log Transfer Facilities

There are two basic methods of transferring logs to a mill site: hauling logs overland by trucks or hauling logs by water via an LTF. It is anticipated that logs harvested on Wrangell Island would be hauled overland. However, existing LTFs may be used to transport logs to mill sites in other areas. Logs on Etolin or Zarembo Islands may be transferred to a barge or water at an LTF and subsequently taken to a mill site or the LTF may be used to move already processed products if on-site processing occurs.

At the Anita Bay North LTF on Etolin Island, there is a proposal to widen the lower barge ramp and widen the roadway between the current parking lot (old campsite) and the Anita Bay North LTF. This will enable small operators to use the lower barge ramp for loading logs. The steep slope between the parking lot and LTF will be reduced to a more moderate slope, which will reduce the chances of cut-slope erosion. The design for this project is complete, but it is waiting for funding. This project will most likely be completed in the next few years but due to the present funding situation, it is impossible to predict exactly when the construction will occur. These changes may potentially have a positive effect on purchasers who are moving wood to their vessels.

The effects of using LTFs under this EA would be minimized due to existing permit regulations and monitoring requirements. Which, if any, LTFs are used would depend on the purchaser of the timber sale and where the timber would be processed and sold.

Cumulative Effects

The area considered for cumulative effects on the transportation system was the project area. The project area encompasses the road systems described in the existing condition. The transportation system for this project is multimodal; both roads and waterways would be used extensively for transportation.

A road-resurfacing project for the 6265 Road on Wrangell Island is expected to be completed by mid-summer 2011. The contractor for this project must allow traffic to pass through the construction zone. Although short delays may occur, this project will not affect potential timber management activities associated with the WRD Roadside EA.

A reconstruction project for a 4-mile section of the 6267 Road on Wrangell Island is expected to be completed by mid-summer 2011. The project would replace the failing wood-waste base with shot rock since the existing wood base is too weak in this road segment to support log haul in its current condition. Minor realignments may occur to reduce the amount of rock needed to reconstruct the road. This project will have a positive effect on potential management activities in this area by allowing future log haul after the reconstruction.

Other timber sales are occurring or will occur at the same time as potential sales resulting from the decision on this project. These sales will utilize existing roads and provide maintenance in accordance with use. These projects may be conducted at the same time as management activities associated with the WRD Roadside EA. Coordination may be necessary along the road system and at the LTFs if timber sales have concurrent operations. Any potential conflicts will be reconciled when the operators submit their operation plans.

The logging operations associated with this project will increase the road use, but not to the extent that they will have a significant effect on the existing road system. Timber sale contracts contain provisions that require the operator to maintain haul roads and post signage to alert other road users of their activity. No effect is anticipated on the transportation system due to these projects.

If LTFs are used, annual monitoring is required to maintain permits at all active LTF sites. As part of this monitoring, an underwater survey is conducted by divers to measure the amount of bark accumulation at the site. LTF permit monitoring results are filed with the Alaska Department of Environmental Conservation. Any discharge of bark into the water at an LTF site requires a National Pollution Discharge Elimination System (NPDES) permit. Dive surveys have been conducted and show that the permit requirements are being met at all sites. Since the potential quantity of wood moving over the LTFs as part of this project is much less than past timber sales, very minimal bark accumulation is expected.

Wildlife Species and Old Growth

The following section summarizes the effects of the proposed activities on threatened, endangered, candidate and proposed species (TES), Alaska Region sensitive species, management indicator species (MIS), and other species of concern that may occur in the analysis area. More information is available in the Wildlife resource report in the project record, including a summary of species and direct and indirect effects.

The effects to wildlife for this project are primarily based on timber harvest of productive old growth (POG)¹.

Direct and Indirect Effects

Threatened, Endangered, and Proposed Species (TES)

Both humpback whales - an endangered species, and Steller sea lions - a threatened species, occur in marine waters surrounding Etolin, Wrangell, and Zarembo Islands. No critical habitat has been designated for either of these species on Wrangell Ranger District. There are no terrestrial TES found in the project area. There will be no direct effects to threatened or endangered species as a result of this project since both of these species are marine mammals.

Proposed activities would not markedly increase marine disturbance or alter habitat that could affect the marine environment. Permittees and timber sale operators will be required to comply with the Marine Mammal Protection Act and Marine Mammal Viewing Guidelines (<http://www.fakr.noaa.gov/protectedresources/mmv/guide.htm>).

Potential indirect effects would include disturbance due to increased boat or barge traffic between points of harvest and locations where wood products are processed or sold. However, marine transits between islands where harvest may occur do not intersect any areas where these species are known to congregate such as sea lion haulouts.

A biological assessment and biological evaluation (BA/BE) was submitted to and reviewed by the National Oceanic and Atmospheric Administration (NOAA). On October 14, 2009, the

¹ Productive old growth (POG): Old-growth forest capable of producing at least 20 cubic feet of wood fiber per acre per year, or having greater than 8,000 board feet per acre.

NOAA concurred with the Forest Service determination that the Proposed Action “may affect, but is not likely to adversely affect” ESA-listed species or designated critical habitat. No determination was required by the USFWS since there are no terrestrial species over which they have jurisdiction present in the project area.

Sensitive Species, Management Indicator Species (MIS), and Other Species of Concern

Species that may be affected by the Proposed Action include those that are associated with old-growth habitat that may be altered or reduced as a result of this project. The only sensitive species likely to occur in the project area is northern goshawks; MIS likely to occur in the project area includes species such as deer, wolves, martens, bald eagles, black and brown bears, brown creepers, hairy woodpeckers, red-breasted sapsuckers, red squirrels, river otters, and Vancouver Canada geese. Other species of concern include other migratory birds, and endemic small mammals. Affected environment and habitat requirements are described in the Wildlife resource report.

Potential effects will consist mostly of short-term disturbances associated with harvest and processing and changes in habitat structure. As the specific locations of these impacts have yet to be identified, and because harvest is likely to be spread among 21 wildlife analysis areas (WAAs), it is very difficult to quantify the anticipated impacts. Animals such as deer or bears may be displaced during the duration of the activities. In some cases, harvest of nest trees used by migratory birds during the breeding season may result in lowered reproductive success for individuals. The upper limit of harvest will be 500 thousand board feet per year. If all harvest in a year was uneven-aged, this would treat up to an estimated 239 acres annually, depending on the percent volume removed. Changes in habitat structure will result in a loss of volume in productive old-growth stands and decrease in snow interception of the canopy where harvest occurs. There will be a reduction in snags adjacent to the existing open roads available to cavity-nesting birds or other wildlife dependent on decadent trees in the project area. However, adequate trees exist outside the project area to provide nesting and denning sites. These effects are not expected to contribute to a loss of population viability on Tongass NF for any species.

Productive Old Growth, Coarse Canopy, and Habitat Connectivity

POG within the beach fringe, riparian buffers and those areas determined to be unsuitable for commercial timber harvest, such as unstable slopes, form the matrix lands of the Conservation Strategy. Commercial timber harvest in these areas is not allowed or limited by the Forest Plan. Therefore, the Conservation Strategy will provide sufficient habitat for old-growth associated species to maintain population viability on the Tongass National Forest. The Forest Plan Legacy Standards and Guidelines will be applied as necessary in value comparison units (VCUs) 455 and 457 on Zarembo Island.

Direct and indirect effects include a potential increase in habitat fragmentation and changes in forest structure including a reduction in volume. However, considering that harvest will be limited to 500 MBF annually and that no individual green-tree sale would exceed 50 MBF, additional habitat fragmentation as a result of this project should be immeasurably small. In cases of salvage events, when a single sale may exceed 50 MBF, the actual habitat changes that result in fragmentation will have already occurred.

Harvest may contribute to further reductions in connectivity, particularly in areas where stands are subject to high winds and stands are unraveling. Important wildlife habitat connectivity areas have been identified in Appendix 1.

Coarse-canopy habitats are likely important for wildlife species dependent on large trees, such as brown creepers, hairy woodpeckers, and Keen's myotis. About 980 acres of the project area have coarse canopy (SD67). Harvest of coarse-canopy stands (defined as size/density class SD67) has been disproportionately high in the Etolin Island biogeographic province. Effects to coarse-canopy habitats will be considered on a case-by-case basis.

Cumulative Effects

This project will not contribute to cumulative effects for humpback whales (endangered species) and Steller sea lions (threatened species) because the permitted activities will occur in terrestrial habitats and will have minimal affects the marine environment. These effects are limited to barge and boat traffic. Cumulative effects for this resource would be the same as direct and indirect effects. Other projects that may affect these species have or will have consultation with NMFS prior to their implementation.

Some species may experience decreases in population in these areas if all of the projects listed in the cumulative effects section (Appendix 3) are implemented. Neither of the alternatives under consideration is likely to cause a trend toward federal listing or a loss of viability for any species under consideration.

Activities proposed in this project would not occur within non-development LUDs or change non-development LUD boundaries. The old-growth reserve system, as well as other non-development LUDs, the beach buffer, riparian buffers, and other retention mandated by Forest Plan Standards and Guidelines is assumed to maintain biodiversity across the Forest. Negligible cumulative effects could occur from natural causes such as blowdown.

Roughly 40 percent of the POG originally available in the project area has already been harvested. Further decreases in old-growth habitat and habitat quality are anticipated in association with other projects under development or already NEPA-cleared that occur on these islands. However, this project contributes very little to the cumulative effects expected to occur among all of the projects under consideration. Anticipated maximum annual acres affected would be approximately 0.5 percent of the project area annually. Upcoming projects will consider this project in their cumulative effects during their NEPA analyses, using more-specific information as it becomes available.

Subsistence

The subsistence resource identified for analysis in this project is deer. No other resources, including fisheries, shellfish, berries, or any other subsistence resource are anticipated to be affected by this project.

Direct and Indirect Effects

Deer are the most important subsistence wildlife resource potentially affected by this project. Minor reductions in volume associated with green tree harvests may reduce snow interception or change understory structure, but is not expected to result in changes in abundance or distribution. No roads will be constructed for this project nor are any existing roads proposed to be closed with this project, therefore there will be no changes in access to deer, or changes in competition to deer.

Cumulative Effects

While direct and indirect effects of this project alone are not expected to affect abundance and distribution, access to, or competition for deer as a subsistence resource, cumulative effects of this project when considered with past, present, and future timber harvest in this area may result in a restriction in subsistence opportunities. NEPA documentation for the Doughnut, Shady, Skipping Cow, Navy, and Backline Timber Sales all concluded that there would be a significant possibility of a significant restriction to subsistence use of deer as a result of cumulative effects according to the Forest Plan. The Forest Plan ROD (page 61) states, “based on [the subsistence analysis for the Forest Plan], implementation of the Forest Plan may result in a significant restriction to subsistence use of deer due to the potential effects of projects on the abundance and distribution of these resources and on competition for these resources”. In addition, the Wrangell District Access and Travel Management Plan (ATMP) authorizes the closure of many roads on WRD, and its NEPA analysis concluded a significant possibility of a significant restriction to subsistence use of terrestrial resources, including deer, as a result of a decrease in access.

ANILCA 810 Finding

Direct and indirect effects of this project alone are not expected to affect abundance and distribution, access to, or competition for deer as a subsistence resource, as stated above. Due to cumulative effects combined with other past, present, and reasonably foreseeable future actions, the alternatives (including the no action) under this project may result in a significant possibility of a significant restriction to subsistence use of deer due to the potential effects of projects on the abundance and distribution of deer and on competition for deer. This is consistent with the finding in the Forest Plan Record of Decision and the findings on Navy EIS and Baht EIS.

No other subsistence resources or uses are expected to be restricted as a result of this project or past, present, or foreseeable future projects. Significance determination for the ANILCA finding is not the same as NEPA significance.

Aquatics

This section describes project area aquatic resources and analyzes the effects of this timber sale project on these resources. For the purposes of this assessment, “aquatic resources” refers to overall watershed health, water quality, riparian and in-water habitats, and fisheries. This section will also cover marine habitats and animals near Forest Service facilities.

Freshwater Resources

This project would occur adjacent to the road systems on Etolin, Wrangell, and Zarembo Islands on the Wrangell Ranger District. Physical, biological, and management-related descriptions of these island environments can be found in their respective landscape assessments (Etolin 1998, Wrangell 2005, and Zarembo 2006) and will not be elaborated here.

There are currently 236 miles of open (i.e., legally accessible) and drivable roads on the three island systems. The project area includes 165 of these road miles. The Wrangell District is currently implementing its ATMP and, when fully implemented, will have fewer open miles than those previously stated in the landscape assessment. There are 12 watersheds on Etolin Island, 10 watersheds on Wrangell Island, and 15 watersheds on Zarembo Island affected by this project.

Etolin Island

Only the watersheds on the central portion of Etolin Island would be affected by this project. The southern one-third of the island lies within protected wilderness where timber sales are prohibited. The Etolin Island Landscape Assessment was completed in 2006 and provides a recent and adequate assessment of the island’s watersheds and aquatic resources. In addition, the 2009 Navy Timber Sales analysis provide a more thorough watershed and aquatic resource condition and risk assessment for a smaller set of island watersheds. Overall, these assessments/analyses do not point out any specific watersheds that may be of special concern with relation to additional timber sale development. In fact, all Etolin Island watersheds and aquatic resources appear to be functioning normally.

Wrangell Island

This project would mostly affect the watersheds on the southern two-thirds of Wrangell Island. Though the Wrangell Island Analysis (1998) is somewhat dated, between the information presented in that document and the analyses conducted for the Shady (2004) and Backline (2006) timber sales, most Wrangell Island watersheds and aquatic resources affected by the Roadside project have had recent condition assessments. McCormack Creek watershed was the only system identified in two of these documents as being potentially sensitive to additional development. The McCormack Creek Watershed Restoration Plan (2006) identified several items that would improve overall watershed condition and make the system less sensitive to further timber development. Several of these improvements (i.e., road closures) were made in 2008. Otherwise, the remaining Wrangell Island watersheds affected by this project appear to be functioning normally.

Zarembo Island

This project has the potential to affect most Zarembo Island watersheds because of the island’s extensive road system. The Zarembo Island Landscape Assessment (2005) and the Zarembo Island Watershed Restoration Plan (2007) comprehensively evaluate the status and needs of all

Zarembo watersheds and aquatic resources. In addition, the Skipping Cow (2000) and Baht (2007) timber sales provide additional analyses relevant to timber development in a large subset of island watersheds. Overall, these assessments/analyses do not point out any specific watersheds that may be of special concern with relation to additional timber sale development. In fact, most Zarembo Island watersheds and aquatic resources appear to be functioning normally.

Direct and Indirect Effects

The most notable results of logging activities affecting Southeast Alaska aquatic resources include short-term increases in turbidity from point- and non-point erosion sources, riparian and in-water habitat loss/degradation from riparian timber harvest and road construction; timber harvest- and road construction-induced landslides or mass wasting events; and impaired fish passage at poorly planned or constructed road crossings. Increased sedimentation and temperature are additional logging effects that can negatively affect aquatic resources but are generally far less pronounced in this region, because:

- Southeast Alaska is geologically young in comparison to other North American regions, which implies there is less mineral soil available that can lead to severe sedimentation problems,
- streams in this region are generally fast-flowing and have high annual discharges that effectively and regularly flush fine sediments out of the system, and,
- the high annual precipitation rates (snow and rain), dense vegetative cover, and temperate climate buffer area waters from the effects of solar radiation that lead to increased temperatures.

On a watershed scale, the effects to aquatic resources of removing a relatively small number of individual trees or salvaging timber from small blowdown or disease events adjacent to the road system would be virtually immeasurable. Furthermore, there would be little to no expected negative effects to aquatic resources on any of the islands for the following reasons:

- previous assessments and project analyses do not indicate areas or resources of special concern,
- there has been only minimal riparian logging in systems on these islands,
- there would be no new road construction,
- the Wrangell District has been proactive about maintaining its road systems, reducing the road inventory through storage projects, and improving fish passage at problematic crossings,
- the project's specifications greatly limit the scope and scale of effect to resources, and
- the annual proposed sale plan is subject to specialist review and recommendations prior to implementation. This plan will fully adhere to all Forest Plan Standards and Guidelines, and project-specific best management practices.

Effects to Fish Movement at Stream Crossings

There would be no effect to fish passage at stream crossings as a result of the Proposed Action, because no new road construction would be authorized. The existing road systems do contain

documented fish passage concerns that are called “red pipes”². They are cataloged in the Tongass National Forest Road Condition Survey database, and identified in Table 1 of the Aquatic resource report.

Recent work has been done to correct these problems. Many of the remaining structures are blocking only a short amount of upstream habitat or very small streams that would not support large fish populations. Though these structures are a priority issue for the Forest and District, they are not addressed as a part of this project. These structures are usually corrected or removed as part of a road maintenance and closure program, in conjunction with larger timber sales or when other funding is available.

Marine Resources

This project would authorize the use of LTFs to facilitate the movement of equipment to the islands’ road systems and remove wood material. Wood material could either be floated or loaded directly to a barge or boat for transport. These facilities are located at Starfish Cove (Anita Bay North and South) on Etolin Island; Earl West Cove (Venus Cove) and Pats Creek on Wrangell Island; and St. John Harbor and Deep Bay on Zarembo Island. An operator may choose to load/offload equipment and/or wood material at docks and ramps located at the marine access facility (MAF) at Roosevelt Harbor on Zarembo Island. Additional site-specific information on LTFs/MAFs can be found in the Backline (2006), Baht (2007), and Navy (2009) timber sales environmental analysis documents.

The LTFs are periodically monitored in conjunction with authorizing permit requirements and projected use usually associated with large-scale timber sales. State and Federal permits require dive surveys to measure bark deposition in the area around LTFs. Bark deposition must be less than 1 acre of continuous coverage 10 cm thick. This is the threshold assumed to have minimal detrimental effects to aquatic organisms. While several transect points measured had bark depths greater than 10 cm, no areas of continuous coverage exceeding 1 acre were found. The available information for these facilities suggests that bark deposition is below the threshold of concern (Table 3).

² A “red pipe” is a structure that cannot pass fish at all life stages and flows specified in the Aquatic Habitat Management agreement between the USFS and the State of Alaska.

Table 3 - Bark Deposition Levels at WRD MAFs

MAF	Bark Deposition	Surveyor/year
Starfish Cove North - Etolin	0.51 acre continuous coverage, <10 cm deep (additional 0.47 acre of discontinuous coverage)	Alaska Commercial Divers, 2000
Starfish Cove South - Etolin	0.78 acre continuous coverage, 0-70 cm deep (additional 0.13 acre of discontinuous coverage)	Alaska Commercial Divers, 2000
Earl West Cove - Wrangell	0.20 acre continuous coverage, 0-35 cm deep (site has less than 1 acre of measurable bottom surface due to deep irregular rock formations)	Craig's Dive Center, 2001
Pats Creek - Wrangell	0.33 acre continuous coverage, 1-50 cm deep	Alaska Commercial Divers, 2000
Deep Bay - Zarembo	Trace amounts, discontinuous coverage, <5 cm deep	Alaska Commercial Divers, 2000
St. John Harbor - Zarembo	0.40 acre continuous coverage, 0-25 cm deep (additional 1.3 acres of discontinuous coverage)	Craig's Dive Center, 2001

There would be very little to no effect to marine habitats as a result of implementing this project because:

- The available information indicates that bark deposition at MAF sites is not above thresholds of concern for marine habitats and/organisms.
- Operators would be required to follow contract stipulations and Log Transfer Facility Guidelines (Forest Plan Appendix G) that regulate MAFs to protect resources (e.g., fuel transfer, debris containment, etc).
- It is anticipated that most wood material would be loaded directly to a barge or boat for transport, which would greatly reduce the potential for wood debris to enter the water and foul habitats. If logs are placed in the water, the amount would be very limited for any given sale, due to the scope of this project.

Cumulative Effects

This project would likely overlap with other Forest Service timber sale projects and private personal use and firewood collection along the three island road systems. However, no significant negative cumulative effects to area aquatic resources are expected to occur as a result of implementing the project action alternative because:

- The project's small scale and effects would be distributed across a wide area over time. (Note: Though the total estimated affected area maximum for uneven-aged harvest is 239 acres, this harvest would consist of single-tree selection and would retain at least 67 percent of the stand area. It would be virtually impossible for all of this harvest to occur in a single watershed for this project.)
- There would be no new road construction.

- Stream buffers would be established based on stream class and channel type, as directed by the Forest Plan Standards and Guidelines, to protect and maintain water quality, riparian and aquatic habitat, and fish populations.
- Any planned deviations from Forest Plan Riparian Buffer Standards and Guidelines would necessitate a watershed analysis in which the scope of the analysis would be dependent upon the intensity of the action (see the Forest Plan, Appendix C for further explanation).
- The review of the annual proposed sale plan would provide an opportunity to examine the effects of actions proposed under this project in relation to other past, present, and reasonably foreseeable future activities and/or variations in environmental conditions (i.e., cumulative watershed effects).
- This project would contribute very little to potential wood debris in marine habitats.

Botany

No plant surveys have been specifically conducted in support of this project; however, surveys conducted in the past for other projects have coincided with the project area.

Rare Species

The Alaska Natural Heritage Program (ANHP) maintains a database of rare plant species in Alaska. Rare plants on the Tongass National Forest are defined by the Forest Plan as plants with potential conservation concerns on the Tongass. They may be common elsewhere; however, the edge of their range is known or suspected to be on the Tongass, or disjunct³ populations of the plant species occur on the Tongass.

Sensitive Species

Seventeen vascular plant species or subspecies and one lichen are designated as sensitive in the Alaska Region. A species is listed as sensitive when it has been determined that concerns exist for the species' continued viability in the region due to a combination of rarity and specific threats to population viability. Table 5 lists the Alaska Region sensitive plants (2009) that are known or suspected to occur in the Alaska Region.

Direct and Indirect Effects

The project proposes timber harvest, which could potentially contribute to a small increase in disturbed rare and sensitive plant habitat on Wrangell, Zarembo, and Etolin Islands.

Plants or their habitats can be negatively affected by timber harvest, or related activities. These effects can include:

- Crushed or buried plants or habitat, covering plants or soil with slash,
- Alterations of water flows in the soil and on the surface (hydrologic processes) leading to desiccation or drowning of plants,
- Changes in evapotranspiration leading to changes in available soil moisture levels,
- Intensified light penetration as overstory canopy is removed,

³ Disjunct - discontinuous or separated in time or space

- Decreased light penetration after canopy closure, or
- Decreased reproductive potential in some species by eliminating associated mycorrhizal fungi.

Since the exact location of harvest activities under the Proposed Action is unknown at this time, no prediction can be made of the magnitude of the direct or indirect effects on particular populations of rare or sensitive plants.

While the long-term effects of timber harvest on the rare and sensitive plants in our region have not been studied and remain uncertain, road building causes irreversible impacts on directly affected populations. This project will not have these effects since there is no new road construction.

Table 4 - Known Rare Plant Populations in the Project Area

Scientific Name ¹	Common Name	# of Populations
<i>Carex gynocrates</i> Wormsk ex Drejer	northern bog sedge	1
<i>Cypripedium montanum</i> Douglas ex.Lindl	mountain lady's slipper	1
<i>Galium kamtschaticum</i> Steller ex.Schult & Schult f.	northern bedstraw	2
<i>Glyceria leptostachya</i> Buckley	Davy mannagrass	1
<i>Hymenophyllum wrightii</i> Bosch	Wright's filmy fern	18
<i>Listera convallarioides</i> (Sw.) Nutt. ex Elliot	Broadlipped twayblade	6
<i>Malaxus paludosa</i> (L.) Sw.	bog adder's-mouth orchid	1
<i>Platanthera orbiculata</i> (Pursh) Lindl.	lesser roundleaved orchid	1

¹ Plant species that are considered Sensitive are shown in bold type

Table 5 - Effects to Alaska Region Sensitive Plants

Scientific name	Common Name	Summary of BA/BE Finding: No Action	Summary of BA/BE Finding: Proposed Action	Known/Suspected in Project Area
<i>Aphragmus eschscholtzianus</i> Andr. ex DC	Eschscholtz's little nightmare	No impact	No impact	No
<i>Botrychium spathulatum</i> W.H Wagner	Spathulate moonwort	No impact	No impact	Suspected
<i>Botrychium tunux</i> Stensvold & Farrar	Moosewort fern	No impact	No impact	No
<i>Botrychium yaaxudakeit</i> Stensvold & Farrar	Moonwort fern, no common name	No impact	No impact	No

Scientific name	Common Name	Summary of BA/BE Finding: No Action	Summary of BA/BE Finding: Proposed Action	Known/Suspected in Project Area
<i>Cirsium edule</i> Nutt	Edible thistle	No impact	No impact	Suspected
<i>Cochleara sessilifolia</i> Rollins	Sessileleaf scurvygrass	No impact	No impact	No
<i>Cypripedium guttatum</i> Sw.	Spotted lady's slipper	No impact	No impact	No
<i>Cypripedium montanum</i> Douglas ex Lindl.	Mountain lady's slipper	No impact	No impact	Known
<i>Cypripedium parviflorum</i> Salisb. var. <i>pubescens</i> (Willd.) Knight	Yellow lady's slipper	No impact	No impact	Suspected
<i>Ligusticum calderi</i> Mathias and Constance	Calder's lovage	No impact	May affect ¹	Suspected
<i>Lobaria amplissima</i> (authority not known)	Lichen, no common name	No impact	No impact	No
<i>Papaver alboroseum</i> Hultén	Pale poppy	No impact	No impact	No
<i>Piperia unalascensis</i> (Spreng.) Rydb.	Slender spire orchid	No impact	May affect ¹	Suspected
<i>Platanthera orbiculata</i> (Pursh) Lindl.	Lesser roundleaved rein orchid	No impact	No impact	Known
<i>Polystichum kruckebergii</i> W.H. Wagner	Kruckebergs hollyfern	No impact	No impact	No
<i>Romanzoffia unalascensis</i> Cham.	Alaska mistmaiden	No impact	No impact	No
<i>Sidalcea hendersonii</i> S. Watson	Henderson's checkermallow	No impact	No impact	No
<i>Tanacetum bipinnatum</i> L. Sch. Bip subsp. <i>huronense</i> (Nutt.) Breitung	Lake Huron tansy	No impact	No impact	No

¹ Full text of determination is "may adversely impact individuals, but not likely to result in a loss of viability on the Tongass National Forest, nor cause a trend toward federal listing."

Cumulative Effects

For this analysis, the cumulative effects area is the three islands - Wrangell, Zarembo, and Etolin - where harvest activities are planned. This area was chosen because an island is a natural, geographical boundary for the rare plants and their habitats known or suspected to occur on the island. An island environment limits influences on plant dispersal and pollination from other islands and the mainland. The cumulative effect to rare and sensitive plants is calculated in terms of the potential reduction in total productive old growth (POG) habitat on Wrangell, Etolin, and Zarembo Islands.

Before timber harvest on these islands, there were about 239,397 acres of POG on the three islands. Past harvest from 1913 to present removed trees from about 29,398 acres (about 12.3 percent) of the initial POG. Other potential timber projects (Appendix 3) would harvest additional POG.

Based on a range of 24-239 acres of annual harvest in this project, the maximum affected area of potential rare and sensitive plant habitat within POG would be up to 1/10 of 1 percent of the initial POG per year.

Other past effects in the cumulative effects analysis area, which would have adversely affected rare and sensitive plants include the presence of the city of Wrangell on Wrangell Island, roads, gravel pits, marine access facilities, hatchery support facilities and remote cabins and home sites.

Determination

There would be no effects to sensitive and rare plants for the No-action Alternative. There may be effects to six sensitive species in the Proposed Action because they could occur in the forested habitat. For those six species, the proposed activities may adversely impact individuals but are not likely to result in a loss of viability on the Tongass National Forest, nor cause a trend toward Federal listing.

Measures are listed in the implementation plan (Appendix 1) to mitigate or avoid effects to rare or sensitive plant populations, if found.

Invasive Plant Species

An invasive species is one whose introduction does or is likely to cause economic or environmental harm or harm to human health (Executive Order 13112). The Alaska Natural Heritage Program's 2007 Weed Ranking Project results were used to determine which plants qualify as invasive. The ranking process takes into account documentation of each plant species, including climatic comparison of Alaska's climates to climates where the plant is known to thrive, biological characteristics and dispersal ability of the plant, the plant's distribution, and feasibility of control. If a plant has not been ranked, the extent of invasiveness is based on general observations of plant behavior. The Tongass National Forest High Priority Invasive Plant Species List of priority species will be the focus for prevention activities. However, on a site-specific basis, other species may be of concern and warrant prevention practices.

Vectors are factors that aid the spread of invasive species. Roadside areas are at a highest risk of establishment of invasive species. Vectors include erosion control plantings on disturbed areas adjacent to roads and contaminated vehicles and heavy equipment. Road construction, which is

a primary vector in the spread of invasive plant species, is not proposed for this project. Road maintenance may be required for some of the proposed sales from this project. Road maintenance poses a risk of spreading invasive plants into uninfected areas if the equipment used goes from a weeded area to a weed-free area. Mobilization of motor vehicles, logging equipment or processing equipment from infested areas increases the risk of importing additional invasive plants. Increased traffic along the road has the potential to spread the existing weeds, as well as create new introductions of invasive plant species.

Invasive Plant Species in the Project Area

Non-native plant inventories of the area were conducted in 2006. An invasive plant risk assessment was completed for this project. Most surveys focused on the existing road systems on Zarembo, Etolin, and Wrangell Islands. The following is a brief description of the locations of the high-priority plants and plants of concern in the project.

Reed canary grass (*Phalaris arundinacea L.*): Reed canary grass is widespread along roads on Zarembo Island and Wrangell Island roads, and scarce on Etolin except for two road systems (51540 and 51720) where it was seeded for erosion control.

Hawkweeds (*Hieracium*): There is one known population of yellow hawkweed on Etolin Island, on Road 6544.

The roadsides around the City of Wrangell support a dense infestation of yellow hawkweed. There are five populations of yellow hawkweed (*Hieracium lachenalii*, and *Hieracium caespitosum*) on Wrangell Island along National Forest System Roads 6265 (two populations), 6270, 6299, and 50022.

Zarembo Island has a growing population of yellow hawkweed (*Hieracium lachenalii*) found in the summer of 2005, and a small population of orange hawkweed (*Hieracium aurantiacum*), on Road 6592.

Bull thistle (*Cirsium vulgare*): One small population is known on Wrangell Island, on Road 6277.

Oxeye daisy (*Leucanthemum vulgare*): Oxeye daisy (*Leucanthemum vulgare*) is found near the Anita Bay North LTF on Etolin Island and near the Roosevelt field camp on Zarembo Island.

Common dandelion (*Taraxacum officinale*): In recent years, common dandelion has become more widespread on the roads in the project area. Zarembo has the highest concentration, followed by Wrangell Island and Etolin Island.

Hairy cat's ear (*Hypochaeris radicata*): Hairy cat's ear is widespread (all three islands), persistent, and a difficult plant to eradicate. Its preferred habitat is reported as dry grassland, though it is found in the ditches along logging roads.

Marsh cudweed (*Gnaphalium uliginosum*): The only place marsh cudweed is known to occur is on the floor of two rock pits on Etolin Island, on Roads 6548 and 6545.

Wall lettuce (*Mycelis muralis*): Wall lettuce is found on Etolin Island in an old camp site near Anita Bay South LTF, and Zarembo Island along Road 6592.

Additional species are known in the vicinity, though they have not been found along roads considered for timber harvest. They include tansy ragwort (*Senecio jacobaea*), thistle (*Cirsium*

spp.), sowthistles (*Sonchus* spp.), Japanese knotweeds (*Polygonum* spp.), sweet clover (*Melilotus officinale*) and others.

Direct and Indirect Effects

No Action

The rate and possibility of spread of any invasive plants within the project area will not be altered from the current condition. Invasive plants may spread or increase their rate of spread regardless of whether this project is implemented.

Proposed Action

Implementation of the Proposed Action may result in a slight increased risk of introducing and spreading invasive plant species in the project area compared to the No-action Alternative. Because this project is programmatic in nature, it is not possible to determine the exact effects or site-specific mitigation. Appropriate mitigation will be determined and implemented with individual sales. Implementation of this project is not expected to have a significant effect on invasive species populations or the habitats affected by them, either individually or cumulatively.

Areas of timber harvest may experience some soil disturbance, facilitating the establishment of invasive plant species. Harvest in a closed-canopy forest will allow more light into the stand altering the vegetation composition, and generally make the stand more susceptible to invasion of invasive plants. Habitat is already altered where salvage harvest is proposed. Single-tree or group selection harvest for this project will maintain 67 percent of the stand structure. The only invasive plant species found in existing clearcuts are European mountain ash and reed canary grass.

On-site processing is expected to take place in areas with altered habitat. No alteration of native habitat is anticipated with on-site processing.

Based on examination of areas of recently harvested areas and young-growth forests in many parts of the Tongass National Forest, harvested areas are at a low risk for establishment of invasive plants due to the shading caused by rapid regrowth of understory vegetation and the development of a dense forest stand.

Cumulative Effects

The cumulative analysis area is the three islands on which harvest activities are proposed. Cumulative effects associated with this project include past, current, and reasonably foreseeable projects. Past projects have resulted in the introduction of non-native and invasive plants in the project area. Past, present, and future public recreation use, outfitter/guide and other commercial use, administrative use and road maintenance can also influence the risk of spread. In some areas, invasive species introduced along roads are spreading to other habitats. For example, reed canary grass seeded along roads on Zarembo has spread down into riparian areas along Meter Bight Creek. Current and future projects are less likely to contribute to the introduction and spread of invasive plants due to practices that will prevent spread and introduction. Because this project poses only a slight risk of introduction and spread of invasive plants, due to no road construction, it is not expected to contribute to invasive plant populations.

Inventoried Roadless Areas

Inventoried roadless areas that are adjacent to the project area are:

- West Zarembo (#235), East Zarembo (#236) and South Zarembo (#237);
- North Etolin (#232), South Etolin (#234) and Mosman (#233); and
- North Wrangell (#227), East Wrangell (#247), Central Wrangell (#289), South Wrangell (#229) and Southeast Wrangell (#290).

The project area considered during public scoping was within 1,320 feet of the existing roads on Wrangell, Zarembo and Etolin Islands within the Timber Production, Modified Landscape or Scenic Viewshed LUDs. This project area was used to analyze the potential effects in the resource reports. Some existing roads, or portions of roads, were not included if there are Forest Plan constraints such as beach fringe or if within a non-development LUD. With heightened concerns about the effects to roadless areas, the project area was modified to be within 1,200 feet of the road to be consistent with the roadless inventory. Also, roads that have been constructed since the 2001 Roadless Rule inventory are not being considered at this time. Currently, commercial timber harvest within the roadless rule inventory displayed in the Forest Service Roadless Area Conservation FEIS, Volume 2, (November 2000) would require approval by the Secretary of Agriculture, as outlined in Memorandum 1042-154 (May 2009) and Memorandum 1042-155 (May 2010). Memorandum 1042-155 shall remain in full force and effect for 1 year.

Because no new roads are being constructed for this project and no harvest will occur within these inventoried roadless areas, there will only be indirect effects of possible sights and sounds of any timber sales adjacent to the roadless areas. These effects would be minor and in addition to the current use by the public and for commercial use of the road system.

Cumulative Effects

The effects of timber harvest activities to the inventoried roadless areas were previously analyzed in the Baht EIS (2007), Skipping Cow EIS (2000), Navy EIS (2009), Backline EA (2005), Shady EA (2004), and Doughnut EA (2000). This project will not contribute to the cumulative direct effects.

Heritage

The Wrangell Roadside Timber project area, located in the central portion of the Tongass National Forest, lies within the traditional territory of the Wrangell or Stikine Tlingit as evidenced by a variety of sites including villages, seasonal campsites, fish traps and weirs, rock art, sacred and religious areas, and subsistence or resource gathering places. The Stikine Tlingit continue to recreate, hunt and gather on these lands today.

Archaeological Analysis and Survey

Since 1974, approximately 265 archaeological surveys of varying size and intensity have been conducted on Etolin, Wrangell, and Zarembo Islands with surveyed areas totaling over 5,800

acres and resulting in the documentation of approximately 170 sites. None of the documented archaeology sites is located within the project area boundaries.

The activities potentially authorized under the EA are addressed in our Programmatic Agreement with the Advisory Council on Historic Preservation and the Alaska State Historic Preservation Officer (USDA-FS 2002). The agreement recognizes that many of the undertakings this EA addresses have little to no potential to affect historic properties because of their nature, size, location within the low archaeological site sensitivity zone or location within areas that have previously been surveyed for cultural resources.

Direct, Indirect, and Cumulative Effects

Because potential ground disturbing activities are associated with this project and there are a few areas in the high archaeological site sensitivity zone, there is a small potential to affect previously undiscovered historic properties. A qualified archaeologist will review proposed harvest locations and follow the procedures for assessing information needs as stipulated in our Programmatic Agreement.

Recreation

This section discusses current recreation uses on Wrangell, Etolin, and Zarembo Islands, special use permits on these islands, and Wild and Scenic Rivers that may be affected by the implementation of this project.

Recreation Opportunity Spectrum (ROS)

The recreation opportunity spectrum (ROS) was developed by the Forest Service to help identify, quantify, and describe the variety of recreation settings available on National Forest System lands (Forest Plan, Appendix I, pages I-1 to I-8).

The entire project area is within the Roaded Modified ROS setting, where alterations to the natural environment dominate the landscape. No effects to ROS settings would be anticipated to occur with this project.

Direct and Indirect Effects for All Islands

A marine access facility (MAF) provides access from saltwater to the land, and can include such features as boat and/or floatplane docks, and ramps suitable for human access. A log transfer facility (LTF), however, is designed for log transfer to saltwater only. The direct effects could include issues with congestion at a LTF or MAF, and traffic along the roads. Additionally, roadside harvest may result in temporary delays in traffic, which could negatively affect recreation users on Zarembo Island roads. The Forest Service will communicate with the public about the planned activities and when and where to expect them to occur to mitigate these effects.

There may be a potential to indirectly affect those recreation sites found adjacent to, or within hearing distance the road system, and within the project area. Indirect effects might include noise associated with nearby roadside timber operations, and traffic flow issues getting to and from the recreation site. Those inventoried recreation places listed as potentially indirectly

affected will be examined if they are within a reasonable distance from a proposed roadside timber sale to identify mitigation that may reduce the effects.

If on-site processing of material is proposed in the individual sale requests, mitigation may include identifying processing areas that are not likely to be heard from recreation sites known to receive high use.

Effects should be minimal and of short duration due to the small amounts of timber expected to be removed from any one location. The Forest Service will communicate with the public about the planned activities and when and where to expect them to occur to mitigate these effects.

Additionally, some of the roadside campsites could benefit from the removal of both dead/dying and/or green trees to improve safety and enhance views as seen from these recreation places. Opportunities to improve views or remove potential hazard trees in conjunction with roadside sales will be considered in the timber sale proposals, if practicable.

Wrangell Island Recreation

Wrangell Island provides the highest concentration of recreation use on the Wrangell Ranger District. The road system maintained on the island provides access for a variety of recreational pursuits, from driving to backcountry hiking. Direct road access to many of the recreation sites on the island provides year-round recreation opportunities for the community of Wrangell and visitors. Commercial recreation uses include outfitting/transporting on the road system, hiking tours, road-based nature tours, freshwater fishing, picnicking and other remote recreation uses. Non-commercial recreation use includes many of the same activities by local residents, along with other activities such as cross-country skiing, snow machining, hunting, horseback riding, trapping, berry picking, and ATV use.

All roads within the project area are included within an inventoried recreation place. Wrangell Island roads receive a high amount of use due to their direct connection with Wrangell, providing access to recreation areas, and for pleasure driving.

Direct and Indirect Effects to Wrangell Island Inventoried Recreation Places

The Wrangell Roadside Timber Sales have the direct potential to affect all the roads within the project area, and the recreation use they receive. Direct effects could include delays of public traffic while individual sales are in progress. Communication to the public of when and where to expect traffic delays when sale operations are active will help mitigate these effects.

Table 6 displays the inventoried recreation places on Wrangell Island that may have direct effects with the implementation of the Proposed Action. The areas that may have indirect effects, such as an increase in noise or traffic, are also shown.

Table 6 - Wrangell Island Inventoried Recreation Places with Potential Effects

Rec # ¹	Inventoried Recreation Place	Direct Effects	Indirect Effects
22094.06	Earl West Marsh		X
22094.08	Forest Roads 6299 (Thoms Creek) and 6270 (Fools Inlet)	X	
22094.02	Highbush Lake		X
22094.03	Highbush Road (includes Road 50040, parking, trailhead and short trail to lake, and boat storage area)	X	
22100.00	Long Lake Road 6271, including Long Lake Trailhead Recreation Site, and the 0.6 mile Long Lake Trail	X	X
22094.07	Lower Salamander Campsites		X
22092.08	Mainline Road 6265 and spurs- Main Forest Roads between State Lands at McCormack Creek and Earl West Creek; including 6265 (Mainline), 6263 (Basin), 50024, 50050 (Salamander), and 50022 (Garnet)	X	
22092.04	Middle Ridge Cabin Site		X
22092.03	Nemo Point Road – Rec Place includes campsites listed below:	X	
	Nemo Information Site		X
	Yunshookuh Loop Campsite		X
	Three Sisters Viewpoint Campsite		X
	Anita Bay Overlook Campsite		X
	Highline Campsite		X
22092.04	Pats Valley Road System	X	
22094.10	Salamander Ridge Trail		X
22092.07	Thoms Lake Road – Road 6267 between 6265 junction and Turn Island Trailhead	X	
22107.00	Turn Island Saltwater Access Trail and Campsite		X
22094.01	Upper Salamander Campsite		X

¹The Recreation number corresponds to the GIS layer.

Etolin Island Recreation

There are two main road systems on Etolin Island: the Anita Bay road system that includes all roads accessed from the Starfish Cove marine access facility (MAF) and which would be used in this project, and the King George road system that includes all roads accessed from the Honeymoon MAF but would not be used for this project. Recreation use of the roads and docks is low compared to the Wrangell Island road system, as access requires transporting vehicles to the island by boat. Although some recreation use can be expected year-round, recreation use of the roads and docks generally centers on hunting activities in the fall.

On Etolin Island, there are three inventoried recreation areas identified near or partially within the project area: the shoreline areas near the head of Anita Bay, shoreline areas near the head of Burnett Inlet, and shoreline areas near the head of Mosman Inlet. Use of these areas are

dispersed, with Anita Bay receiving most use from people accessing the road system, while the areas near the heads of Mosman and Burnett Inlets are most often used for dispersed beach related recreation activities such as camping, beachcombing, and exploring.

Direct and Indirect Effects to Etolin Island Inventoried Recreation Places

This project has the potential to affect all the roads within the project area and the MAF at Starfish Cove directly. The direct effects could include issues with congestion at the LTF, and traffic along the roads. Additionally, roadside harvest may result in temporary delays in traffic, which could negatively affect recreation users on Etolin Island roads. These effects can be mitigated with public communication from the district to alert the public to activities that may affect their use of roads during certain times.

Table 7 displays the inventoried recreation places on Etolin Island that may have direct effects with the implementation of the Proposed Action. The areas that may have indirect effects, such as an increase in noise or traffic, are also shown.

Table 7 - Etolin Island Inventoried Recreation Places with Potential Effects

Rec #	Inventoried Recreation Place	Direct Effects	Indirect Effects
22088.00	Anita Bay road system – entire Forest Service road system originating from Starfish LTF	X	
22060.00	Head of Anita Bay		X
22062.00	Head of Burnett Inlet – shoreline east and west		X
22062.01	Head of Burnett Inlet roads – shoreline north and west	X	
22066.00	Mosman Inlet – shoreline at north end, locally known as Pump Creek		X
22061.00	Starfish Cove – including LTF	X	

Zarembo Island Recreation

Zarembo Island, west of Wrangell, provides for roaded recreation opportunities on the Wrangell Ranger District. Two marine access points, Roosevelt and St. John, provide docks and road access for the public. Zarembo Islands supports a Sitka black-tailed deer population, which provides guided and non-guided hunting opportunities to residents and out-of-state hunters. Recreation uses on Zarembo Island are dispersed, and currently there are no developed recreation facilities maintained for public use by the Wrangell Ranger District.

Table 8 displays the inventoried recreation places on Zarembo Island that may have direct effects with the implementation of the Proposed Action. The areas that may have indirect effects, such as an increase in noise or traffic, are also shown.

Table 8 - Potential for Effects to Zarembo Island Inventoried Recreation Places

Rec #	Inventoried Recreation Place	Direct Effects	Indirect Effects
22043.02	Beach Road – shoreline and roads on north side of Zarembo Island from State lands at St. John Harbor to Deep Bay	X	
22043.04	Interior Roads – maintained FS roads, interior to the island	X	
22043.08	Meter Bight – shoreline		X
22043.05	Roosevelt/Deep Bay – includes marine access point, uplands and roads around Deep Bay and Roosevelt, and FS administrative site	X	
22043.00	St. John – includes LTF, uplands, road around St. John Harbor, and FS administrative site	X	
22043.03	St. John State Land Right of Way – new in 2008, includes Forest Service mainline roads within State lands		X

The main road system on Zarembo Island is accessible by MAFs, the Roosevelt Harbor dock and the St. John Harbor dock. During the deer-hunting season, the island is a popular destination for Wrangell and Petersburg residents to pursue Sitka blacktail deer, and in some cases elk (by permit drawing). Both access points can become congested at times due to boats rafted together at the docks. At Roosevelt, personal vehicles can be stored for use during the hunting season, allowing residents to drive the roads to access higher-elevation hunting grounds easily. Recreation use of the roads and docks is low compared to the Wrangell Island road system, as access requires transporting vehicles to the island by boat. Although some recreation use can be expected year-round, recreation use of the roads and docks generally centers on hunting activities in the fall.

Direct and Indirect Effects to Zarembo Island Inventoried Recreation Places

The WRD Roadside Timber Sales, as proposed, have the potential to directly affect all the roads on Zarembo Island that are within the project area and the MAFs at St. John Harbor and Roosevelt Harbor. Additionally, roadside harvest may result in temporary delays in traffic, which could negatively affect recreation users. These effects can be mitigated with public communication from the district to alert the public to activities that may affect their use of roads during certain times.

Outfitter and Guide Use

On the Tongass National Forest, most outfitter and guide special use permits allow for dispersed use on vast areas of the National Forest, and many Tongass guides have authorization to use areas on Wrangell, Etolin, and Zarembo.

On Wrangell Island, 12 outfitter and guide companies reported use from 2004-2008. During that 5-year period, 6,622 clients were reported, an average of 1,324 clients/year.

On Etolin Island, nine outfitter and guide companies reported use on Etolin Island from 2004-2008. During that 5-year period, 3,507 clients were reported, an average of 701 clients/year.

On Zarembo Island, five outfitter and guide companies reported use on Zarembo road system

from 2004-2008. During that 5-year period, 99 clients were reported, an average of 20 clients/year.

Most of the destinations used by outfitter and guide clients are remote, and not usually associated with the road system, except for travel. Effects to outfitter and guides and their clients would depend on the types of activities they are seeking, and would be similar to those discussed above in the recreation places section.

Non-Recreation Land Use Permits

The Tongass National Forest authorizes a variety of non-recreation land use through special use permits. On Etolin Island, there are authorizations for a mariculture oyster farm, two communication sites, and the Burnett Hatchery. On Zarembo Island, there is an active mining claim just off the road system near St. John Harbor. The activities proposed for this project will not affect these special use authorizations because the permits are not within the project area.

On Wrangell Island, there is an authorization for the Tye power line crossing Wrangell Island. The Tye power line is the only special use permit with authorization of land use inside the project area. The Southeast Alaska Power Agency (SEAPA), formerly known as the Four Dam Pool Power Agency, holds a special use permit for the Tye power line, which includes approximately 23 miles of power line on Wrangell Island. The power line crosses the project area through three road sections: three crossings of the Old Hermit Road system (Roads 50051 and 50052), four crossings of the Salamander Ridge Road (Road 50050), and one crossing near Highbush Lake (Road 50041). Aside from requiring the normal safety precautions necessary when working around active power lines, none of the activities proposed in the WRD Roadside Timber Sales would negatively affect this special use authorization.

Wild and Scenic Rivers

Rivers on the Tongass National Forest were evaluated during 1997 Forest Plan revision for their eligibility and suitability for inclusion in the Wild and Scenic River System. This process resulted in the recommendation of river segments to be designated as wild and scenic rivers. There were four river segments on Wrangell and Etolin Islands that were considered for inclusion, but none were recommended. There were no rivers on Zarembo that were considered for inclusion in the Wild and Scenic River System. None of the activities proposed in the Roadside Timber Sales will affect these rivers' eligibility for inclusion in the Wild and Scenic River System, should they be considered for inclusion in the future.

Cumulative Effects

Cumulative effects for recreation are mostly related to increased harvest activity along road systems on all three islands. Several large timber harvest sales are in different stages of planning. This could result in increased traffic on roads and at some marine access facilities on Etolin and Zarembo Islands, developments that are also used for recreation by the public. Activities authorized under this project will affect roads, but the magnitude of this effect will depend on other active harvest operations using the same road systems and marine access facilities. The removal of trees expected with the project area will not result in cumulative effects to recreation resources, as the volume of removal will be small in size, unlikely to be noticed by the casual observer, and unlikely to negatively affect recreation users after harvest activities are complete.

Scenery

The Forest Plan provides standards and guidelines that include the designation of visual priority areas, such as travel routes and use areas. These areas were defined considering public input. These areas were identified as locations where scenic quality is an integral part of the landscape experience. They include land areas viewed while traveling on roads, trails, or marine routes (visual priority travel routes) and areas viewed from campgrounds, visitor centers, or permanent communities (use areas). The majority of the Wrangell Roadside project area is screened by foreground vegetation when viewed from most visual priority travel routes and use areas (VPRs).

A complete index of VPRs is listed in the Forest Plan, Appendix F. The Forest Plan includes the adoption of scenic integrity objectives (SIOs), which provide further direction and guidance for managing long-term desired future visual conditions of forest resources especially from those areas receiving the highest human use.

With the exception of areas around the town of Wrangell, other small settlements, and in areas of timber management, the majority of the landscape on Zarembo, Etolin, and Wrangell Islands shows very little human influence. Timber harvest has occurred on private lands and in many portions of National Forest System lands, beginning in the 1950s (or earlier) and continuing through the present. Road systems to support timber management have also been developed and are visible in many areas of the islands. Around the City of Wrangell, roads, buildings, and other structures are visible.

Direct and Indirect Effects

The proposed development activities will be seen intermittently from some VPRs. The proposed SIOs for much the project area are Moderate and Very Low⁴. The implementation of the Proposed Action will meet the Forest Plan Standards and Guidelines for scenery for the Timber Management, Modified Landscape and Scenic Viewshed LUDs.

The Proposed Action would contribute a small increase to scenery disturbance throughout the project area on Wrangell, Zarembo and Etolin Islands. The Proposed Action would have some adverse effects to scenery, but is unlikely to exceed standard and guidelines for scenery at any time.

Cumulative Effects

Cumulative effects consider the overall effects to scenery expected to result from past, present, and foreseeable future projects within and adjacent to the project area. These projects include land management activities such as timber harvest, road building and associated construction activities, and effects from projects on adjacent non-National Forest System lands.

At this time, the Proposed Action should slightly increase the cumulative effect of visual change as seen from VPRs. However, due to the minimal additional disturbance, the actions associated

⁴ Moderate SIO (M): Management and design activities will be subordinate to the landscape character of the area. Changes in the landscape may be evident to the casual observer but appear as natural occurrences when contrasted with the appearance of the surrounding landscape.

Very Low SIO (VL): Land management activities may dominate the characteristic landscape. Yet when viewed as background, should appear to be a natural occurrence.

with this proposal will be within Forest Plan Scenery Standards and Guidelines, and will meet all SIOs as described in the Forest Plan.

Soils

Soils provide the foundation for forest growth and ecosystem health; they can also cause detrimental effects to aquatic resources when transported into streams and rivers. Timber harvest and road building can affect the ability of soils to support the forest. Geomorphic processes in the forest include a variety of landslide types (mass wasting) and erosion of exposed soil (surface erosion). These processes occur naturally; however, timber harvest and logging roads can increase the frequency and magnitude of mass wasting and surface erosion.

Direct and Indirect Effects

Timber harvest may result in soil displacement, exposure, or puddling, which can reduce soil productivity. The degree of soil disturbance is related to the type of yarding that occurs within the harvest unit. The Proposed Action could include full- or partial-suspension harvest, or ground-based systems (shovel), depending on the site conditions. It is assumed that more displacement will occur in areas where partial-suspension yarding is used compared to areas where full-suspension yarding is used. Ground-based systems are expected to result in the highest amount of ground disturbance. Woody debris that is currently on the ground can reduce the effect of harvest activities on soils by providing a debris layer between the soil and harvested material. This mat of woody debris is commonly used to help support ground-based equipment, minimizing soil disturbance.

Some soil disturbance is an unavoidable consequence of timber harvest. Mitigation measures are applied to reduce disturbance, however, it is not possible to eliminate disturbance completely. The intent of Regional Soil Quality standards is to maintain soil productivity within acceptable parameters. A guideline of 15 percent reduction in inherent soil productivity is established as a threshold value for measurable or observable soil properties or conditions. The Proposed Action is not expected to reduce inherent soil productivity within the harvest unit beyond this threshold, because these guidelines can be met with use of appropriate yarding systems and unit layout.

Soil effects resulting from the Proposed Action would be reduced by adhering to the Soil Management Handbook Standards and Guidelines (1991), best management practices (BMPs) of the Soil and Water Conservation Handbook (2006), applicable soils direction included in the Forest Plan (Chapter 4 and Appendix C), and the application of erosion control provisions of the timber sale contract. These standards and guidelines, along with contractual provisions, include site-specific logging requirements such as full or partial suspension of logs, split yarding, and controlled felling. By following these requirements, the Proposed Action is expected to result in little to no effect to soil productivity.

On-site processing poses a risk for contamination of surface and subsurface soil and water resources from the spill of petroleum products. The risk and potential for effects is commensurate with the amount and scale of processing. Fuel spills would most likely happen with equipment malfunction, during the servicing or refueling of equipment, or during fuel transport. Effects would be minimized by locating the processing, service, and refueling sites well away from wetlands and stream channels, on a hardened surface such as road or rock pit,

transporting in approved containers and using properly maintained equipment. Soil and Water BMP 12.8 addresses fuel spill prevention; specific issues to address in the annual operating plans required by timber sale contracts include the following:

- Locate fuel storage areas in a manner to minimize the potential for contamination of surface and subsurface soil and water resources.
- Require a secondary means of containment for the entire contents of the largest single tank plus sufficient freeboard to allow for precipitation, per 40 CFR 112.

Contracts or permits will also require equipment operators to carry absorbent pads and require appropriate disposal methods for waste products.

On-site processing has the potential to generate accumulations of wood. Processing waste and bark waste will not be deposited in riparian areas or wetlands. In productive forests with well-drained soils, residual debris will be disbursed to prevent unnatural accumulations, as recommended by the soil scientist to maintain soil productivity according to the site conditions. Disposal on roads or in rock pits will be approved during the annual proposed sale plan. Stockpiling large volumes of wood and bark waste would be done in accordance with a disposal and monitoring plan developed after a thorough analysis of effects based on site conditions.

Cumulative Effects

At the stand level, no cumulative effects from timber or fuelwood harvest activities are anticipated.

At a project level, cumulative effects are viewed as the summation of the disturbance or potential soil disturbances in the project area. Activities resulting in cumulative effects on soil resources in the project area include past and future timber harvest, roads, and natural disturbances such as windthrow and landslides. Future timber harvest that follows Forest Plan Standards and Guidelines and implements BMPs is not expected to cause a cumulative negative effect to the soil resource. Road maintenance, as well as use, can lead to increased soil erosion; the amount is not quantified but is expected to be relatively low. Landslides and windthrow may negatively affect soil quality by accelerating soil erosion. The amount is not quantifiable but is expected to be relatively low. On-site log milling is not anticipated to affect soil resources.

Karst

Karst vulnerability categories are used to identify appropriate standards and guidelines. Vulnerability categories are based on the idea that some parts of a karst landscape are more sensitive than others to planned land uses. The differences in vulnerability or sensitivity of a particular system are typically a function of the extent of karst development, the openness of the karst system, and the sensitivity of other resources that benefit from the karst ground water systems.

The only area within the project area known to have karst is on Etolin Island. The karst is located along Roads 6542, 6545, 6538, 51009 and 6540 near Kindergarten Bay and north toward Quiet Inlet, and includes high-, moderate- and low-vulnerability karst lands along these existing roads. There is one known cave.

Direct and Indirect Effects

Under the current Forest Plan Standards and Guidelines, as clarified in Appendix H, no harvest will occur on high-vulnerability karst lands; thus, there will be no effects on those lands. Based on Forest Service inventories of karst lands in Southeast Alaska, of any karst lands found adjacent to existing road, 20-30 percent of the karst will likely be high vulnerability. These lands will be removed from consideration for timber harvest during the annual review process. In moderate-vulnerability karst lands, individual karst features will be buffered to maintain existing environmental condition around the features. Identification of appropriate practices and necessary mitigation during the annual project review process will prevent significant impairment of karst lands during implementation of projects.

Potential effects from on-site processing include leachate⁵ from large volumes of stockpiled wood waste and contamination from fuel associated with processing. On-site processing facilities could be located to prevent or minimize effects to karst lands.

Cumulative Effects

The cumulative effects area is all karst lands on Etolin, Wrangell, and Zarembo Islands as defined by the Forest Plan. Road construction, rock pit development and timber harvest have occurred on karst lands in the project area in the past. These activities may have affected karst systems by contributing sediment or interrupting hydrologic systems. Implementation of current standards and guidelines is expected to minimize the potential to affect karst lands.

Wetlands

Wetlands are defined as “those areas that are inundated or saturated by surface or groundwater with a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil condition”, per CFR Title 40 Section 230.41. They are plentiful in Southeast Alaska, especially in areas with gentle terrain, where roads are constructed. The high precipitation in the areas contributes to their abundance.

A variety of wetland types are found in the project area. The most common wetlands are open muskegs, scrub forest/muskeg complex, and forested wetlands. Less common but more important biologically are lacustrine wetlands associated with ponds and lakes, riverine wetlands associated with streams, and estuarine systems along the coast. Wetlands are valued for their intrinsic properties as well as the goods produced by them. Aesthetics, recreational use, timber harvest, and plant and wildlife habitat are examples of some of the values associated with wetlands. Wetlands functions include flood moderation, ground water exchange, and reduction of runoff and sedimentation.

For this project, it is anticipated that commercial timber harvest will only occur on forested wetlands that meet suitable criteria as described in Appendix A of the Forest Plan. The predominant effect of timber harvest activities on wetlands is from road building; however, no road building is proposed in this project. Equipment operation also affects wetlands, since

⁵ Leachate is a solution formed by downward percolating ground water dissolving soluble materials from the by-products of on-site processing.

wetlands have low bearing strength, making them highly susceptible to permanent alteration due to both off-road recreation vehicles and logging equipment. Harvesting timber on forested wetlands temporarily changes the hydrology of the site. A temporary increase in soil moisture is expected until transpiration and interception is reestablished. In wetlands, tree growth is impeded due to wetness, and the increased wetness associated with timber harvest further impedes growth.

On-site processing, which is included in the Proposed Action, has the potential to affect wetlands. Detrimental activities associated with processing can include the deposit of by-product in wetlands, and filling wetlands to create a processing site. Leaving limbs and tops from trees cut in forested wetlands would not be detrimental. However, deposition of limbs and tops from trees cut elsewhere, and stockpiled in a wetland would likely be considered an adverse effect on the wetland.

Direct and Indirect Effects

Yarding disturbance is expected to be the primary and longest-lasting effect to wetlands in this project, since no road building is proposed. Heavy equipment operating in wetlands with low bearing strength can cause long-term alteration of the wetland. Typically, waste wood or slash is placed as a mat to increase bearing strength, preventing the equipment from creating excessive rutting or craters when equipment is sunk.

Timber harvest on wetlands is expected to be a partial harvest in most areas, which is expected to result in minimal change to the canopy, and associated hydrologic processes.

Potential effects from onsite processing can include leachate from large volumes of stockpiled wood waste and contamination from fuel associated with processing. Onsite processing facilities will be located to prevent or minimize affecting wetlands.

Cumulative Effects

This project will overlap with other Forest Service timber sale/road construction projects and private firewood collection along the three island road systems. No significant negative cumulative effects to wetland resources are expected to occur as a result of implementing the project action alternative because:

- There will be no road construction.
- The projects' specifications greatly limit the scope and scale of effect.
- On-site log milling is not anticipated to occur in wetlands.

What Mitigation and Monitoring Is Necessary For This Project?

Many of the effects to various resources are reduced or avoided through Forest Plan Standards and Guidelines including the best management practices which meet the requirements of the Clean Water Act. Any additional mitigation measures would be identified during the development of timber sale proposals for the annual sale plan.

Monitoring will be conducted using the Forest Plan Monitoring and Evaluation Plan (Forest Plan, Chapter 6). Where applicable, timber sales from this project will be included as the part of the sampled units for monitoring. In addition, the following project-level monitoring is included:

Heritage - Following harvest activities, a Forest Service archaeologist will visit a sample of harvest areas to assess the nature of ground disturbance and verify the presence or absence of cultural resources.

Vegetation - All of the areas proposed for timber harvest are expected to meet the requirements of the National Forest Management Act regulations (certified as restocked within 5 years of harvest). Regeneration (stocking) surveys will be conducted on all harvest units after the fourth full growing season following the completion of logging. All harvested areas are expected to be naturally stocked and certified by this time. Monitoring of previous harvesting on the Wrangell Ranger District shows a 100 percent regeneration success rate.

Wildlife - Following harvest activities, a Forest Service biologist will visit a sample of harvest areas to assess the nature of effects on wildlife species.

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APPENDIX 1

WRANGELL ROADSIDE TIMBER SALES EA IMPLEMENTATION PLAN

Appendix 1

Wrangell Roadside Timber Sales EA Implementation Plan

This implementation plan provides direction for the site-specific resource review of each potential timber sale proposed under the decision for the Wrangell Roadside District Roadside EA.

If any resource concern for a proposed sale cannot be successfully mitigated or does not conform to the Forest Plan Standards and Guidelines, the proposed timber sale would not be implemented under this EA, and a separate NEPA analysis would be required.

The effects to various resources are reduced or avoided through the use of Forest Plan Standards and Guidelines including the best management practices which meet the requirements of the Clean Water Act. Additional mitigation measures may be identified during the development of timber sale proposals for the annual sale plan.

Monitoring will be conducted using the Forest Plan Monitoring and Evaluation Plan (Forest Plan, Chapter 6). Where applicable, timber sales from this project will be included as the part of the sampled units for monitoring.

Annual Sale Plan

The annual proposed sale plan will be generated from the individual timber harvest proposals received from the public and timber operators. The specific location, sale type, volume in MBF, logging systems and silviculture prescription for each timber sale will be established for each proposal. Each proposal will go through an interdisciplinary environmental review. A Timber Sale Proposal for each sale will be prepared (Exhibit 1) with a map and a unit card narrative. Resource concerns and applicable Forest Plan Standards and Guidelines, best management practices (BMPs), and specific mitigation measures will be identified on the unit card narrative.

The individual sale proposals will be incorporated into an annual proposed sale plan with a brief narrative for each sale and a summary sheet of all sale proposals with acres, volume, type of sale and whether requested by a purchaser and other comments. These proposals will be reviewed and approved by the Wrangell District Ranger, who will determine which sales will be offered that year. The District Ranger will also determine the level of additional environmental review necessary.

Throughout the year, local operators may locate desired timber for purchase and approach the Forest Service with a proposal. Any timber sale proposals or requests that fall within the guidelines of this plan that occur after the annual sale plan has been completed for that fiscal year will be either incorporated into the plan for the next fiscal year, or if time and personnel allow, follow the same procedures as the current year's proposal.

Environmental Review

The environmental review will be interdisciplinary and may include the following if applicable.

Timber/Silviculture

A silvicultural prescription will be added to the sale folder. Harvest must be documented and updated in appropriate TIM, FACTS and GIS databases, including vegetation databases with corrections for volume remaining. The appropriate harvest method will be assessed to minimize ground and vegetation disturbance. Proposals will be assessed to ensure green-up and regeneration requirements are met.

All of the areas proposed for timber harvest are expected to meet the requirements of the National Forest Management Act regulations (certified as restocked within 5 years of harvest). Regeneration (stocking) surveys will be conducted on all harvest units after the fourth full growing season following the completion of logging. All harvested areas are expected to be naturally stocked and certified by this time. Monitoring of previous harvesting on the Wrangell Ranger District shows a 100 percent regeneration success rate.

Transportation

Roads not open to the public through the District Travel Management Plan may be authorized by a permit for management associated with an individual timber sale (CFR Title 36 Section 212). Harvest activities will be designed to avoid impacting the public and to limit impacts to the road surface and drainage structures.

Wildlife Species

The most current information on raptor nests and wolf dens and associated buffers will be assessed. Also, any survey information within development LUDs for threatened/endangered, sensitive/proposed species, and sensitive, MIS, and other species identified for protection in the Forest Plan will be assessed.

The most current versions of the Alaska Region sensitive species list and Tongass National Forest MIS list will be used in the assessment.

Any occurrence of raptors, wolves, or great blue herons, or any previously undiscovered individuals of endangered, threatened, or sensitive species, their sign, or key habitats for any MIS or other species prior to or during the implementation of this project will be evaluated to assess the need for additional avoidance or mitigation measures.

Any proposals within ½ mile of trumpeter swan wintering habitats, located at Pats Lake and Thoms Lake on Wrangell Island will require additional analysis.

Following harvest activities, a Forest Service biologist will visit a sample of harvest areas to assess the nature of effects on wildlife species.

Old-growth Wildlife Habitat and Connectivity

Cumulative impacts will be assessed if the timber sale is within a coarse canopy stand (SDM 67 as determined by the GIS size density layer) or if proposals occur within the following locations where concerns for wildlife habitat connectivity have been identified.

On Etolin Island, important wildlife habitat connectivity areas include:

- Road 6540 from milepost (MP) 0.00 to 3.69, from 6.18 to 6.37 (right side only), from 6.18 to 6.76, from 6.76 to 6.93 (right side only - this section also has some slivers of harvestable area on the right side of the road, and slivers of deferred harvest on the left side that were ignored), and from 8.90 to 9.63 (right side only)
- Road 6547 from MP 0.00 to 0.89 (entire length of the road)
- Road 6548 from MP 0.00 to 0.67 (entire length of the road)
- Road 51720 from MP 0.00 to 1.47

On Wrangell Island, wildlife habitat connectivity areas include:

- Road 6270 from MP 0.13 to 1.18
- Road 50016 from MP 0.00 to 0.15
- Road 50022 from MP 0.44 to 2.05

On Zarembo Island, wildlife habitat connectivity areas include:

- Road 6590 from MP 37.43 to 37.82
- Road 6592 from MP 3.72 to 4.01

The Forest Plan includes a requirement for legacy trees for VCU 4550 and 4570 on Zarembo Island. Salvage logging of legacy trees that were left in the harvest of the original logging systems/transportation unit is generally prohibited unless the rationale is clearly documented and the effects are clearly neutral or an improvement (Forest Plan page 4-90).

Subsistence

Areas that are heavily used for subsistence hunting of deer should be identified to ensure that hunter and operator safety is considered during timber harvest.

Aquatics

All streams will be identified by stream class and channel type during on-site inspections or using GIS data. If additional streams are found that are not on GIS, these streams will be added based on 2008 Forest Plan, Channel Type – Appendix D. Riparian management areas consisting of no-harvest and RAW buffers will follow Forest Plan Standards and Guidelines pp. 4-50 to 4-53. See also FSH 2090.21 (2001) Chapter 10, Section 12.

Botany and Invasive Plants

The most current information on rare, sensitive, and invasive plants will be used to assess the proposals to evaluate the need for additional avoidance or mitigation measures. The most current versions of the Alaska Region Sensitive species list and Tongass National Forest rare plant list will be used. The Tongass National Forest High Priority Invasive Plant Species List of priority species will be used to assess invasive plants.

Any occurrence of previously undiscovered rare or sensitive plants at any time before or during implementation of this project will be evaluated to assess the need for additional avoidance or mitigation measures.

Timber sale proposals will include site-specific practices that need to be implemented to prevent the introduction and spread of invasive plants. This will include road maintenance activities associated with individual sales. Management considerations and mitigation will be noted on the

unit card narrative. However, on a site-specific basis, other species may be of concern and warrant prevention practices.

The 2008 Tongass Forest Plan Invasive Species Standards and Guidelines (page 4-22) and 2007 Tongass NF Invasive Plant Management Supplement provide policy for minimizing spread of invasive species. The Tongass National Forest has a standard seed mix and fertilizer application rate that is compatible with invasive plant policy.

Possible mitigation measures include:

- The use of hay or straw bales for erosion control shall be avoided. Weed-free jute matting, synthetic sediment fence or other weed-free materials will be used where necessary.
- To prevent the spread of existing species, it may be necessary to eradicate them prior to operating in the area. Known species in the project area include reed canary grass, hawkweeds, bull thistle, oxeye daisy, common dandelion, hairy cats' ear, and wall lettuce. If any known species exist that may become involved in the harvesting or transport for an individual sale proposal this will be noted on the unit card narrative.

Heritage

Locations of the timber sale proposals will be reviewed each year for the determination of any known heritage sites. Since potential ground-disturbing activities are associated with this project and there are a few areas in the high archeological site sensitivity zone, a qualified archeologist will review proposed harvest locations, including an existing data search for known historic properties and previous surveys. Additional field survey needs may be identified. If no survey is needed, the project may proceed and the rationale for the determination will be documented and tracked in the corporate database. If a survey is needed, standards and guidelines for the conduct of field surveys as defined in the Programmatic Agreement with the Advisory Council on Historic Preservation and the Alaska State Historic Preservation Officer will be followed.

Following harvest activities, a sample of harvest areas will be assessed to verify the presence or absence of cultural resources.

Recreation

If a timber sale proposal is located adjacent to a recreation site or on a route to a recreation site, this should be noted on the unit card narrative along with any actions needed to minimize impacts to the users. Possible recommendations to minimize the effects to users and to increase safe operations may be additional signing, prohibition of operational work on weekends or during certain times of the year and notification through the Recreation and Roads report on KSTK (local radio station), along with public notices in the *Wrangell Sentinel* (local newspaper).

The possibility of temporary wood processing on site will be determined and noted on the unit card narrative. If proposed work has the potential to disrupt users at a recreation use area through dust and/or noise, alternate sites will be identified and will become part of the sale proposal.

In identifying proposals, especially on Wrangell Island, there may be instances when removal of trees can improve a recreation site or travel route by improving the safety of the site, improving sight distance along a road or opening up views from those locations. These opportunities should be coordinated with the recreation management staff.

Scenery

The Visual Priority Travel Routes and Use Areas are designated in the 2008 Forest Plan and will be noted on the unit card narrative.

Soils

During field review, if any slopes are over 72 percent or if wetlands are present, it will be noted on the unit card narrative. A soil scientist will need to conduct an on-site evaluation of any proposed harvest area over 72 percent to determine if the slopes are stable for the proposed harvest. (Forest Plan page 4-65.)

Appropriate mitigation and design measures will be applied to avoid significant adverse effects to the soil resources. Seeding may be used to ensure that ground cover is established in a timely manner to reduce soil erosion. If seeding cannot be completed prior to September 15, or appears unsuccessful by that time, other erosion control measures must be applied to disturbed areas near surface waters before heavy fall rains and frost. Ensure that the current Tongass National Forest erosion control seed mix is used.

Appropriate logging systems will be required to ensure that harvest will result in minimal ground disturbance.

Wetlands

Using field review, GIS soils information, and the National Wetland Inventory data, possible wetlands requiring protection will be identified on the unit card. Appropriate protection measures to avoid adverse effects will be included on the unit card, in accordance with the Forest Plan Wetlands Standards and Guidelines, page 4-88. Contract provisions that may be included are:

- Trees felled into muskegs or other non-forested (non-commercial) wetlands shall be removed by suspension cable or other low-impact yarding systems.
- In forested wetlands, shovel or other logging/yarding equipment will be supported by slash to minimize disturbance. Material used to construct mats for equipment operation will be dispersed after use.
- Prior to discharging material into wetlands, the site will be approved to ensure that wetland functions are protected.

Timber sale proposals will be reviewed to assess impacts on high-value wetlands. This includes fens near karst, dome bogs, and other wetlands that are providing a special habitat such as the Earl West marsh, and Salamander marsh along the 50500 Road.

Karst

The only area within the project area known to have karst is on Etolin Island. The karst is located along Roads 6542, 6545, 6538, 51009 and 6540 near Kindergarten Bay and north toward Quiet Inlet, and includes high-, moderate- and low-vulnerability karst lands along these existing roads. There is one known cave. (See Navy Final EIS 2009.)

The latest karst information will be obtained and any possibility of karst will be noted on the unit card narrative. The unit card narrative will include a description of any specific needs to mitigate concerns to karst lands. These may include:

- A windfirm, no-harvest buffer for loosing streams.

-
- Resurgent streams will be protected to protect and maintain the environment surrounding the springs and the quality of the waters flowing from them.
 - Measures will be taken to reduce erosion and sediment transport from the road surface and cut-slopes in karst lands.
 - Suspension requirements will protect surface soil and vegetation and disturbance would be minimal.
 - Water will not be diverted to or from karst features.
 - By-products from on-site processing will not be scattered on land underlain by karst.
 - By-products from on-site processing will be placed where leachate will not run off onto karst lands.

Process for Consideration of New Information

In the event that there is new information or changed direction for any resource occurs during the implementation of the decision on Wrangell Ranger District Roadside EA, the following Forest Service direction from Forest Service Handbook (FSH) 1909.15, section 18.1 will be used to evaluate the previous analysis:

- If new information or changed circumstances relating to the environmental impacts of a proposed action come to the attention of the responsible official after a decision has been made and prior to completion of the approved program or project, the responsible official should review the information carefully to determine its importance. Consideration should be given to whether or not the new information or changed circumstances are within the scope and range of effects considered in the original analysis.
- Based on further direction in FSH 1909.15 section 18, after interdisciplinary review and consideration of the changed circumstances or the new information, the responsible official may determine whether or not a correction, supplement, or revision to the EA is necessary. If a supplemented or revised EA and FONSI is completed, a new decision notice would be issued, or, documentation that the original decision is to remain in effect and unchanged, following direction in FSH 1909, chapter 40.
- If a sale is already under contract and new information arises, the direction to evaluate whether changes need to be made to the contract, in Forest Service Handbook (FSH) 1909.15, Tongass National Forest Supplement, TNF 1909.15-2009-1.

Instructions: Below is an example of a Unit Card narrative with some of the information that may be necessary. More information may be needed depending on the proposal.

Exhibit 1
TIMBER SALE PROJECT PROPOSAL
Wrangell Ranger District
FY 20XX

<Name of Timber Sale> <Location – which island>			
Preparer:		Date:	Approved: Date:
Plan to be Offered:		Sold: Y / N	Purchaser:
LUD:	Type of Sale: Commercial Fuelwood (Green / Dead), Microsale, or Salvage Sawtimber	Total Unit Acres:	Net Harvest Volume MBF:
VCU: TM Compartment:	Logging Systems:	Harvest Acres:	Species:
Stand Number(s):	Photo Number:		
SILVICULTURE:			
<p><u>Existing Stand Condition:</u> Describe stand species composition of overstory trees and advanced regeneration, quantity of advanced regeneration, residual tree windfirmness, and physical health and condition of residual trees (any insect and diseases, blowdown, etc).</p> <p><u>Silvicultural Prescription:</u> Complete RX needs to be prepared by a certified silviculturist and placed in the sale folder.</p> <p><u>Reference:</u> Forest Plan Standards and Guidelines p. 4-15</p>			
LOGGING:			
<p>Describe any specifics needed – partial /full suspension.</p> <p><u>Reference:</u> Forest Plan Standards and Guidelines p. 4-70</p>			
TRANSPORTATION/ACCESS:			
<p>What roads will be used for access? Note LTF, if needed. What is status of road according to the Wrangell RD Access Travel Management Plan? Is permit required in accordance with CFR Title 36 Section 212?</p> <p><u>Reference:</u> Forest Plan Standards and Guidelines p. 4-80</p>			
FISH/WATERSHED: Describe any streams and protection needed as shown on the map. (GIS layer)			
<u>Reference:</u> Forest Plan Standards and Guidelines p. 4-9 (fish)			
WILDLIFE: Were any raptor nests known or observed? Any raptors seen in the area?			
GIS data, or information gathered from persons familiar with the harvest area.			
<u>Reference:</u> Forest Plan Standards and Guidelines p. 4-89 (wildlife) and p. 4-68 (subsistence)			
SOILS/WETLANDS: Presence of slopes >72%. Presence of wetland soils. (GIS wetland layer, Site visit)			
<u>Reference:</u> Forest Plan Standards and Guidelines p. 4-64 (soils) and p. 4-88 (wetlands)			
RECREATION: Is sale located near on the route to an inventoried recreation site? (Recreation Sites GIS layer, Wrangell Island Map)			
<u>Reference:</u> Forest Plan Standards and Guidelines p. 4-43			
SCENERY: Is sale located along a Visual Travel Priority Route? (Forest Plan, Appendix F)			
<u>Reference:</u> Forest Plan Standards and Guidelines p. 4-56			
HERITAGE RESOURCES: Contact archaeologist.			
<u>Reference:</u> Forest Plan Standards and Guidelines p. 4-16			
LANDS: Is the sale adjacent to other owner ship? Any SUPs nearby? Powerline?			
<u>Reference:</u> Forest Plan Standards and Guidelines p. 4-27			
GEOLOGY/KARST: Any karst known in the area?			
<u>Reference:</u> Forest Plan Standards and Guidelines p. 4-23			
BOTANY: Any sensitive, rare or invasive plants known in the area? (GIS botany layers)			
<u>Reference:</u> Forest Plan Standards and Guidelines p. 4-41 (plants) and p. 4-22 (invasive species)			

Sale Area Map

Map needs to have:

- unit boundary
- roads and road numbers
- streams by stream class
- north arrow
- legend
- scale
- date

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APPENDIX 2

ESSENTIAL FISH HABITAT

Appendix 2

Essential Fish Habitat

Essential Fish Habitat (EFH) is the water and substrate necessary for fish spawning, breeding, feeding, or growth to maturity. The marine EFH in Alaska includes estuarine and marine areas from tidally submerged habitat to the 200-mile exclusive economic zone (EEZ). The freshwater EFH includes streams, rivers, lakes, ponds, wetlands and other bodies of water currently and historically accessible to salmon. EFH for Pacific salmon recognizes six critical life history stages: (1) spawning and incubation of eggs, (2) juvenile rearing, (3) winter and summer rearing during freshwater residency, (4) juvenile migration between freshwater and estuarine rearing habitats, (5) marine residency of immature and maturing adults, and (6) adult spawning migration. Habitat requirements within these periods can differ significantly, and any modification of the habitat within these periods can adversely affect EFH.

Assessment

Section 305(b) (2) of the Magnuson-Stevens Fishery Conservation and Management Act states that all federal agencies must consult the National Marine Fisheries Service (NMFS) for actions or proposed actions that may adversely affect Essential Fish Habitat. The Act promotes the protection of EFH through review, assessment, and mitigation of activities that may adversely affect these habitats. On August 25, 2000 the Forest Service, Alaska Region, and NMFS came to an agreement on how consultation will be accomplished in Alaska.

This Wrangell Roadside Timber Sales Environmental Assessment (WRD Roadside EA) satisfies the consultation requirements by providing a description and assessment of EFH in the project area, a description of the proposed project and its potential effects on these habitats, and a description of the mitigation measures that would be implemented to protect these habitats. The formal consultation starts when NMFS receives a copy of the Environmental Assessment with the EFH Assessment. NMFS may then respond in writing as to whether it concurs with the findings of the assessment or make conservation recommendations. The Forest Service must respond to any recommendations made by NMFS within 30 days. For specific information on the location and the actions under consideration, please refer to the EA.

The project area includes areas adjacent to the open road systems on Etohin, Wrangell, and Zarembo Islands of the Wrangell Ranger District, which is part of the Tongass National Forest. The streams and lakes within the project area support a variety of anadromous and resident fish species. Anadromous species that spawn in freshwater streams or lakes in the project area include pink salmon (*Oncorhynchus gorbuscha*), chum salmon (*O. keta*), coho salmon (*O. kisutch*), coastal cutthroat trout (*O. clarkii*), steelhead (rainbow) trout (*O. mykiss*), and Dolly Varden char (*Salvelinus malma*). The project area also supports resident populations coastal cutthroat trout (*O. clarki*), Dolly Varden char (*Salvelinus malma*), and non-game fish species including sculpin (*Cottus spp.*) and three-spined stickleback (*Gasterosteus aculeatus*).

The analysis area supports a large amount of EFH and includes all of the freshwaters that intersect or lie adjacent to the open road systems. These waters are cataloged in Tongass National Forest GIS library.

This project would authorize the use of marine access facilities (MAFs) to facilitate the movement of equipment to the island road systems and remove wood material. Wood material could either be floated or loaded directly to a barge or boat for transport. These facilities are located at Starfish Cove on Etolin Island, Earl West Cove and Pats Creek on Wrangell Island, and St. John Harbor and Roosevelt Harbor on Zarembo Island. The available information for these facilities suggests that effects to marine environments due to past or current usage are within acceptable limits of bark accumulation, the principle affecting agent, set forth by State and Federal regulations. It is uncertain exactly what plant and animal species are present at these locations, but certainly eelgrass, various kelps, invertebrates, fish, birds, and marine mammals that are locally common to Southeast Alaska marine waters could be present either annually or seasonally.

Potential effects on freshwater EFH from harvesting timber as part of this project may include increased peak flows and increased sediment delivery, which may reduce downstream habitat quality for salmon. Potential changes in physical habitat may include reduced pool volume due to filling from sedimentation and changes in substrate composition. Pool water volume is important to the rearing and over-wintering of juvenile fish. Increases in fine sediment in the substrate can reduce survival of salmon eggs and change the assemblages of aquatic insects used by fish for food. Potential effects to marine EFH may include deposition of wood debris that can smother aquatic organisms or the accidental spill of fuel during equipment transfer that can kill marine life.

The effects of harvesting in individual watersheds on freshwater aquatic resources under this EA are expected to be undetectable. This is due to the wide distribution and infrequency of natural disturbance events that generate salvage opportunities, the application of Riparian Area Standards and Guidelines, and the project's proposal to remove primarily dead and down timber and a limited amount of single-tree selection green timber. Furthermore, review of the annual proposed sale plan would provide the opportunity to modify any project activities to protect freshwater resources. The current integrity of riparian areas and streams would be maintained in the project area. Implementation of this project is not expected to increase significantly the cumulative effects on watersheds, water quality, and/or associated fish species and habitat.

The effects of using MAFs on marine resources under this EA are expected to be undetectable because movement of wood material at these facilities would be limited and there is a low likelihood that logs would be floated with any project activities. Furthermore, review of the annual proposed sale plan would provide the opportunity to modify any project activities to protect marine resources. The current integrity of marine habitats would be maintained in the project area. Implementation of this project would not be expected to increase significantly the cumulative effects on marine habitats or organisms.

Determination

The Forest Service determines that the Wrangell Roadside Timber Sales project "may adversely affect Essential Fish Habitat" because the project entails ground-disturbing actions (i.e., timber harvest) in watersheds that contain anadromous species, and log hauling would occur on existing roads that cross anadromous fish streams. In addition, the project would authorize the use of marine transfer facilities.

The Tongass Land and Resource Management Plan (Forest Plan) provides specific guidance in the form of standards and guidelines. Riparian Standards and Guidelines were specifically

developed through a collaborative effort involving lead watershed and fisheries scientists from Federal and State (Alaska Department of Fish and Game) agencies. Forest-wide standards, guidelines, and best management practices – developed to meet water quality standards, and to protect and enhance watershed processes and fish habitat – are believed to be sufficient to protect EFH.

The Forest Service will ensure that adverse effects to freshwater EFH would be minimized for the following reasons:

- management activities would occur outside of EFH;
- no-harvest aquatic habitat buffers would be delineated prior to any harvest activities according to Forest Plan Standards and Guidelines to protect these habitats;
- in areas where windthrow occurred or may occur, buffer widths on Class I, II and III streams would be increased, and additional trees would be left standing to insure resistance to windthrow; and
- best management practices would be implemented to protect water quality and aquatic habitat for all freshwaters affected by the project.

There would be very little or no adverse effects to marine EFH as a result of implementing this project because:

- operators would be required to follow contract stipulations and Log Transfer Facilities Guidelines (Forest Plan, Appendix G) that regulate MAFs to protect resources (e.g., fuel transfer, debris containment, etc);
- the scope and scale of this project suggests that very little wood material, if any, would be floated for any given sale; and,
- it is anticipated that most wood material would be loaded directly to a barge or boat for transport, which would greatly reduce the potential for wood debris to enter the water and foul habitats.

Additional effects to EFH are likely to occur only from unforeseen events. A copy of this EFH assessment and WRD Roadside EA were given to NMFS per agreement, and the Forest Service will continue the consultation process.

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APPENDIX 3

PAST, PRESENT, AND REASONABLY FORESEEABLE PROJECTS

Appendix 3 Past, Present, and Reasonably Foreseeable Projects

Past, Present, and Reasonably Foreseeable Projects Included in Cumulative Effects Analysis

Island	Project/Activity Name (Decision Year)	VCU(s)	Planned Harvest Acres ¹	NEPA Volume (MBF) ¹	NFS Road Miles ¹	Temp Road Miles ¹
Zarembo	Skipping Cow EIS (2000)	0458, 0459	906	19,000	10.7	3.9
	Baht EIS ROD (2007 & 2008)	0456, 0457, 0458, 0459	1,255	43,500	5.9	8.8
	Zarembo EIS (2013)	0456, 0457, 0458, 0460	unknown	40,000	unknown	unknown
	Mining Exploration	unknown	N/A	N/A	N/A	N/A
	Meter Bight Fishway Repair CE (2009)	0459	N/A	N/A	N/A	N/A
	St. John Creek Fishway Retrofit CE (2008)	0457	N/A	N/A	N/A	N/A
Wrangell	Doughnut EA (2000)	0475, 0476, 0477	350	4,900	1.4	0
	Backline EA (2005)	0476, 0477, 0478, 0479	471	11,800	0	1
	Shady EA (2004)	0478, 0480, 0504, 0505	240	4,630	0	0.6
	Wrangell Island Project EIS (2012)	0475, 0476, 0478, 0479, 0480, 0504, 0505	7,489	91,000	21	10
	Middle Ridge cabin const. and use (2009)	0477	N/A	N/A	N/A	N/A
Etolin	Navy EIS (2009) ²	0464, 0465, 0466, 0467, 0468	5,434	73,000	8.1	8.8
	Porcupine Salvage CE (2004)	0465, 0467	26	700	0	0
	Fishtrap Salvage CE (2005)	0464	240	200	0	0
	North Etolin Roadside Salvage CE (2008)	0462	250	250	0	0
District-wide (Wrangell, Etolin, and Zarembo Islands)	Wrangell Outfitter/ Guide EA 2010	varies	N/A	N/A	N/A	N/A
	Private and commercial firewood	varies	N/A	N/A	N/A	N/A
	Free use	varies	N/A	N/A	N/A	N/A
	NFS road maintenance	varies	N/A	N/A	N/A	N/A

¹ Figures are estimates

² Decision reversed, a new ROD is projected for 2011

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APPENDIX 4

RESPONSE TO COMMENTS

Appendix 4 Response to Comments

Appendix 4 includes the comment letters we received on the Wrangell Roadside Timber Sales EA, and the Forest Service responses.

The Forest Service received three letters commenting on the EA: from the public, from an organization, and from the State of Alaska. We have considered the issues raised in each letter and offer responses, below. Most of the comments have been addressed in the EA, as noted in the Forest Service's responses. Other comments requested clarification of procedures presented in the EA, also presented in the responses, below.

Individual comments within each letter have been numbered. Comments are also summarized in the numbered Forest Service responses below each letter to help the reader correlate the response with the original letter.

Untitled
Comments on Alaska's Tongass

*Not all small mills can store [50 M B F] unless they can do like the last timber sales that I have seen happen , take the cream then come back latter, if they come back at all.

* I would like to see some smaller sales , like 20 M B F or 25 M B F and or selective logging like free use. * If large sales do like they

C-1

have and leave 50 M B F laying at the side of the road that could be used as fuelwood , then it should be removed within a given time , leaving all this fuelwood lay there like it has been only makes this fuelwood worthless . [90 to 120 days] after that this wood starts to take on water then goes to punk.

C-2

* I do not see where the commercial fuelwood cutters have the same stipulations as commercial loggers , that goes for logging across wetlands , cleaning up the road, warning devices ect. ect .

C-3

* I have proposed dead standing sales several time over the past years, nothing has ever happened , if this is the time to do it again, then I am proposing it now !

C-4

* small sales should not have to be cabel logged , I cannot aford a yarder .

C-5

Jim Colier



P O 966

Wrg Ak

12 /13 /2010

* RED ALDER SALE

RECEIVED

DEC 17 2010

Page 1

WRANGELL RANGER
DISTRICT

Forest Service Response to Jim Colier Comments:

C-1

Offer smaller sales, like 20-25 MBF, and/or selective logging like Free Use.

Response: (EA p. 12-13; 14) This project will offer a variety of salvage sale, fuelwood, small sales and microsals opportunities; size will depend on purchaser request, up to 50 MBF per sale. Potential purchasers may propose alder, as well as other species, for a sale.

C-2

Do not allow fuelwood material to sit and deteriorate on side of road, rendering it worthless as firewood.

Response: Contract provisions will specify utilization and removal of wood, including timeframes for removal.

C-3

Have the same requirements for commercial fuelwood cutters as commercial loggers – logging protocol, cleanup, and signage.

Response: (EA p. 21; 27) Standard timber sale contract provisions require cleanup, maintaining haul roads, and posting appropriate signage.

C-4

Be sure public is aware of opportunity and protocol to propose dead standing and other sales.

Response: (EA p. 12; A1-1) Prospective purchasers/local operators may locate desired timber within the project area for purchase and make proposals for sales to the FS. The public can contact the Wrangell Ranger District for information on upcoming sales. The individual timber sales will be advertised using a competitive bidding process.

C-5

Small sales should not have to be cable logged; some operators cannot afford a yarder.

Response: (EA p. 20; 49) Logging systems would include shovel, cable, or helicopter yarding, depending on site conditions. All harvest areas are along existing road. Prospective purchasers can select desired timber within the project area and work with Forest Service personnel to propose a sale based on their operating capabilities.

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES
OFFICE OF PROJECT MANAGEMENT AND PERMITTING

SEAN PARNELL, Governor

550 W. 7TH AVENUE, SUITE 1400
ANCHORAGE, ALASKA 99501
PH: (907) 269-8431 / FAX: (907) 334-8918
ed.fogels@alaska.gov

December 27th, 2010

Mr. Robert Dalrymple
Wrangell District Ranger
PO Box 51
Wrangell, AK 99929-0051

RE: Wrangell District Roadside Timber Sales EA

Mr. Dalrymple,

This letter contains the State of Alaska's comments on the Wrangell District Roadside Timber Sales Environmental Assessment (EA). The comments were compiled from the Department of Natural Resources (Division of Forestry), the Department of Fish and Game (Habitat Division coordinating for the Department), and the Department of Environmental Conservation.

As a general comment, the EA excludes "2001 inventoried roadless areas with existing roads" from the project area. We ask for the inclusion into the project area of all the existing roads within development LUDs based on the 2008 Forest Plan.

AK-1

Specific comments from the Department of Environmental Conservation and the Department of Fish and Game follow.

DEPARTMENT OF ENVIRONMENTAL CONSERVATION, FOREST PRACTICES PROGRAM

The Department of Environmental Conservation has reviewed the Environmental Assessment (EA) for the U.S. Forest Service's proposed Wrangell Ranger District Roadside Timber Sales project. Specifically, this project proposes salvage harvesting of up to 500 MBF of dead, down, and dying timber along with a minor amount of standing green trees using single tree or group selection harvest prescriptions. Harvesting would occur within 1,200 feet of either side of existing roads on Wrangell, Etolin, and Zarembo

"Develop, Conserve, and Enhance Natural Resources for Present and Future Alaskans."

Islands, and no new road construction would be required to complete the project. In addition, no harvesting would occur within inventoried roadless areas, the beach or estuary fringe, riparian management areas, on unstable slopes, or other areas where commercial timber harvesting is not allowed under the Forest Plan standards and guidelines. Existing log transfer facilities, including those at St. John Harbor and Deep Bay on Zarembo Island, Anita Bay on Etolin Island, and Pats Creek and Earl West Cove on Wrangell Island, could be used to transport logs from the project areas. The specific locations of the actual timber sales have not been identified but would be determined based on proposals made by prospective purchasers or Forest Service personnel.

Per 11 AAC 112.250, the activities described in the EA for this project are consistent with the Alaska Coastal Management Program (ACMP) under the terms of the Tongass National Forest General Consistency Determination (GCD) issued on December 4, 2006. Timber harvest activities under the scope of this GCD have been determined to meet or exceed the standards of the Alaska Forest & Resources Practices Act and Regulations. Although this project is consistent with the ACMP, we recommend that harvested timber be directionally felled and yarded away from all Class IV and other streams that are not protected by the Process Group standards and guidelines. In addition, logging shovels and other mechanized equipment should avoid crossing these streams to minimize the potential for sedimentation and to prevent impacts to the banks and beds of the streams.

AK-2

If you have any questions on DEC’s comments, please contact Kevin Hanley at 465-5364.

DEPARTMENT OF FISH AND GAME

The Alaska Department of Fish and Game (ADF&G) reviewed the U.S. Forest Service’s (USFS) Environmental Assessment (EA) and preliminary Finding of No Significant Impacts (FONSI) for the proposed Wrangell Ranger District Roadside Timber Sales project. Please consider the following comments for inclusion in the consolidated State comments for this project.

Proposed Action

The Proposed Action would authorize harvest of up to 500,000 board feet (500 MBF) of fuelwood and sawtimber per year, depending on demand from the public and local operators, within 1,200 feet on either side of existing open roads on Wrangell, Etolin, and Zarembo Islands. Harvest would only occur in Timber Production, Modified Landscape, and Scenic Viewshed Land Use Designations (LUDs). No harvest would be authorized in the beach or estuary fringe, riparian management areas, unstable slopes or other areas where commercial harvest is not allowed by the Forest Plan Standards and Guidelines, or in 2001 inventoried roadless areas. No road construction would be authorized under this decision.

Five sale types will be used to implement the Proposed Action: commercial dead/down firewood, salvage sawtimber, commercial green fuelwood, microsale, and green sawtimber sales. With the exception of salvage sawtimber sales, which will depend on

the type of the salvage opportunity, and commercial green fuelwood sales, which will use a partial cut prescription with 67% retention, each individual sale will use a single-tree selection prescription and not exceed 50 MBF. In addition to single-tree selection, the green sawtimber sales will use a group selection prescription in some situations, but limit openings to a maximum of two acres. The USFS estimates a maximum of 239 acres of uneven-aged management or 24 acres of even-aged management within the project area annually; assuming all harvest in a year was conducted by a single management approach.

Comments and Recommendations

The EA/FONSI failed to adequately describe how harvest units authorized under this decision would be spaced from one another to maintain the over-all intent of the decision while assuring impacts to fish and wildlife resources remain insignificant over time. ADF&G recommends that the USFS include such a discussion in their final decision document, and describe what steps will be taken to site individual harvest units throughout the project area to avoid, minimize, or mitigate significant adverse impacts to fish and wildlife resources; cumulative or otherwise.

AK-3

Including salvage sales in the Proposed Action indicates some locations within the project area are prone to windthrow. Therefore, ADF&G recommends implementing Reasonable Assurance of Windfirmness (RAW) buffers whenever even-aged management prescriptions are authorized in units adjacent to Riparian Management Areas (RMAs). RAW buffers will mitigate the risk of windthrow impacts to adjacent RMAs, which perform important ecological functions and provide services to fish and wildlife populations.

AK-4

Due to the documented high level of previous clear-cut harvest in the McCormack Creek watershed, ADF&G recommends that the USFS not authorize green sawtimber sales using the group selection prescription in this watershed. Limiting the creation of new openings in the McCormack Creek watershed will avoid contributing to the existing fragmented forest condition in that area.

AK-5

The narrow landform between Anita Bay and Bumett Inlet serves as the only terrestrial migration corridor for wildlife moving between North and South Etolin Island. This area contains a high amount of natural non-forest and scrub forest lands, and very little high-volume old-growth that is not already protected by standards and guidelines (beach and riparian buffers) and an existing goshawk nest buffer (Navy Timber Sale ROD, 2009). However, given the importance of this “pinch point” to wildlife migration across Etolin Island, ADF&G recommends that green sawtimber and commercial green fuelwood sales not be authorized in this area to preserve the existing forest canopy, which facilitate wildlife movement.

AK-6

The Implementation Plan (Appendix A) identifies wildlife habitat connectivity areas adjacent to various segments of nine roads within the project area. ADF&G recommends that green sawtimber and commercial green fuelwood sales not be authorized in these corridors to preserve the existing forest canopy, which facilitate wildlife movement.

AK-7

The EA states that “[b]ased on a range of 24-239 acres of annual harvest in this project, the maximum affected area of potential rare and sensitive plant habitat within POG would be up to

1/10 of 1 percent of the initial POG per year” (EA, page 38). Initial productive old growth (POG) was estimated to be 252,961 acres across all three islands combined. In the case of coarse canopy (SD67) habitat, however, the analysis estimates the existing acreage only within the project area; about 980 acres (EA, page 29). Using the same evaluation approach based on a range of 24-239 acres of annual harvest in the project area, the maximum affected area of coarse canopy habitat (within the project area) would be up to 24 percent annually. Due to this potentially significant effect to the limited existing coarse canopy habitat within the project area, and its importance to old growth associated species, ADF&G recommends that harvest within coarse canopy habitat not be authorized under this decision.

AK-8

Additional Information

The analysis of potential effects to coarse canopy and POG forest stands from the Proposed Action is discussed in various sections of the EA/FONSI; however, these stands are not depicted on a map. ADF&G requests the USFS include a map(s) in the final decision document that depicts the POG and coarse canopy stands within the project area.

AK-9

The Cumulative Effects analysis within the Wildlife Species and Old-growth section of the EA states (EA, page 29),

Roughly 40 percent of the POG originally available in the project area has already been harvested. Further decreases in old-growth habitat and habitat quality are anticipated in association with other projects under development or already NEPA-cleared that occur on these islands. However, this project contributes very little to the cumulative effects expected to occur among all of the projects under consideration. Anticipated maximum annual acres affected would be approximately 0.5 percent of the project area annually.

ADF&G requests that the above cumulative effects analysis also provide an estimate of the anticipated maximum annual percent change to the **remaining POG within the project area** from implementing the Proposed Action.

AK-10

Additionally, ADF&G requests that the EA clearly state the size of the project area (in acres). The section titled “What is Being Proposed With This Project” (page 1) describes the project area in terms of percentage of suitable and available commercial forest lands rather than describing the total project area.

AK-11

If you have any questions or need further information on the ADF&G comments, please contact Kyle Moselle at (907) 465-4287 or kyle.moselle@alaska.gov.

Thank you very much for the opportunity to comment on the Wrangell Ranger District Roadside Timber Sales project. If you have any questions, you can reach me at 907-269-8423.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ed Fogels', is centered on the page. The signature is stylized with loops and a long horizontal stroke extending to the left.

Ed Fogels
Deputy Commissioner

eCc: Tongass State Team

Forest Service Response to Alaska State Department of Natural Resources OPMP Comments:

AK-1

Include all existing roads in development LUDs (including those in roadless areas) as per the 2008 Forest Plan in the available project area.

Response: (EA p. 19, 41) The Secretary of Agriculture has reserved authority for decisions in 2001 roadless until long-term policy can be determined. To make the project compatible with the roadless policy, the project area was revised to include the area 1,200 feet (rather than 1,320 feet) from existing roads, and to not enter other inventoried roadless areas.

AK-2

Directionally fell timber and yard timber away from Class IV and other streams not covered by Process Group Standards and Guidelines. Do not allow shovels or other equipment to cross Class IV and other streams, to protect banks and beds.

Response: (EA p. 49) Contractual provisions including full or partial suspension requirements, split yarding, and controlled felling will be applied on a site-specific basis. Use of shovel yarding will depend on site conditions.

(EA p. 49; 59-60; A2-2) Following soil standards and guidelines and BMPs assures water quality and aquatic habitat protection; integrity of riparian areas will be maintained.

AK-3

Ensure that cumulative effects due to adjacent harvest units do not result in significant effects to fish and wildlife over time. How will harvest units be sited to avoid significant effects to fish and wildlife?

Response: (EA p. 28) For salvage sales (i.e. blowdown), the actual habitat changes that result in fragmentation will have already occurred. No individual green-tree sale would exceed 50 MBF, and additional habitat fragmentation as a result of this project should be immeasurably small.

Green tree sales using either individual tree marking or group selection will only harvest a small percentage of a given stand for each sale. If group selection harvest is used, the individual openings will not exceed 2 acres in size and will be distributed in the stand to minimize fragmentation.

AK-4

Apply RAW buffers to even-aged units adjacent to riparian management areas.

Response: (EA p. 23-24) Even-aged harvest in this project is intended to minimize the occurrence of potentially adverse effects from windthrow, and to rehabilitate lands adversely affected by windthrow. Additional blowdown would be minimized, to the extent practicable, by locating the boundary along the edges of natural openings, areas containing naturally windfirm trees, or in more-protected areas, such as small draws. (EA p. A1-3) Riparian management areas consisting of no-harvest and RAW buffers will follow Forest Plan Standards and Guidelines pp. 4-50 to 4-53.

AK-5

Avoid green sawtimber sales using group selection in McCormack Creek watershed.

Response: (EA p. 31) McCormack Creek watershed is already identified as potentially sensitive to additional development, and restoration measures such as road closures and

culvert removals have taken place. Any harvest prescription within this watershed would take into account previous harvest and potential additional effects.

AK-6

Do not authorize green sawtimber or green fuelwood sales in the Anita Bay “pinch point” area to preserve connectivity in this area.

Response: (EA p. A1-2 and 3) This area has already been identified as important for connectivity (Etolin Island roads 6540, 6547, 6548). Any green tree harvest in connectivity areas will be done in a manner that considers the importance of these areas as wildlife corridors.

AK-7

Do not authorize green sawtimber or green fuelwood sales in other wildlife habitat connectivity areas identified in segments of nine roads in the EA, to preserve connectivity in these areas.

Response: (EA p. A1-2 and 3) As stated regarding the Anita Bay "pinch point", these areas have also been identified as important for wildlife connectivity. We are planning to manage these areas over time and with harvest prescriptions that will maintain the overall connectivity.

AK-8

The maximum affected area of coarse canopy habitat (within the project area) would be up to 24 percent annually. Recommends that harvest in coarse canopy habitat not be authorized.

Response: (EA p. 28-29; 34; A1-2) The EA recognizes the importance of POG and coarse canopy. The 239 maximum annual acres of harvest scenario is an estimate of how many overall acres would be required to reach the annual maximum volume of 500 MBF if all harvest was single-tree selection, which retains the structure of the stand (EA p. 23). Even-aged management, on the other hand, would be prescribed for salvage (dead/down) harvest areas; an all-even-aged scenario would affect about 24 acres annually. The “maximum affected area of coarse canopy” assumes an unrealistic scenario of all 500 MBF being green timber harvested from only coarse canopy areas, which (at 980 acres, EA p. 29) comprise only about 2 percent of the project area. By contrast, this project is designed to provide primarily salvage opportunities of dead/down timber for commercial firewood operators as well as some single-tree green sawlog selection for microsals and small sales. The green tree harvest in Alternative 2 would be distributed throughout the analysis area and specific harvest prescriptions will address impacts to wildlife habitat condition.

AK-9

Provide maps that show POG and coarse canopy stands in project area.

Response: (Project records #0122, 0123, 0124) Maps showing POG, and POG corridors island-wide (including the project area) for Wrangell, Etolin, and Zarembo Islands are in the project record (wildlife folder). Coarse canopy is included in the POG areas.

AK-10

Provide an estimate of the anticipated maximum annual percent change to remaining POG within the project area from implementing the proposed action.

Response: (EA p. 23; 29) The EA (p. 29) and the wildlife resource report state, "Anticipated maximum annual acres affected would be approximately 0.5 percent of the

[overall] project area annually." The wildlife resource report also states: "Quantitative analyses of reductions in timber volume and effects to productive old growth (POG) habitats would not be meaningful for this project since the exact location and harvest prescriptions that will be used for this project are not known at this time."

Uneven-aged harvested stands will retain stand structure and species composition at levels high enough to maintain function as productive old-growth and remain as part of the suitable land base.

AK-11

State the size, in acres, of the project area.

Response: (Project record #0151) 44,425 project area acres.



SEACC



December 23, 2010

SENT VIA EMAIL: comments-alaska-tongass-wrangell@fs.fed.us

Robert Dalrymple, District Ranger
Wrangell District Ranger
PO Box 51
Wrangell, AK 99929-0051

re: Wrangell RD Roadside EA

Dear Ranger Dalrymple:

The following comments are submitted on behalf of the Southeast Alaska Conservation Council (SEACC) and Wrangell Resource Council (WRC) on the Wrangell Ranger District Roadside Timber Sales Environmental Assessment (EA). The proposed action would authorize the salvage of dead, dying or down fuel wood and sawtimber resulting from natural disturbance, as well as permit the logging of small quantities of green fuel wood and green sawtimber. Together, the combined volume would not exceed 500,000 board feet (MBF) per year, up to 5 years. All the logging would occur within 1200 feet of existing roads and would be confined to lands allocated to development Land Use Designations (LUDs) in the 2008 Tongass Land Management Plan.

SEACC and WRC support the proposed action because it provides small, local operators with the opportunity to obtain microsals, small salvage sales, and commercial firewood cutting permits from the existing road base on Wrangell, Zarembo and Etolin Islands. We agree that this proposal fits into the Transition Framework announced by the Forest Service in May 2010 and it also takes a logical step forward in providing a variety of small business opportunities in Wrangell. We encourage the Forest Service to fully integrate all its programs into the Transition Framework. For example, in evaluating the cumulative effects of the proposed action, the EA states (at p.24) that approximately 2,500 acres of precommercial thinning is planned in the next 5 years. The EA goes on (at p.30) to remind both the public and decision-maker that the Wrangell District Access and Travel Plan (ATMP) authorized the closure of some roads on the Wrangell District. We urge the Forest Service to prioritize sale opportunities and precommercial thinning projects off roads planned for closure early in this 5 year plan to maximize efficiency, job creation, and evaluate the potential to combine some of the proposed thinning projects with small fuel wood or sawtimber sales under a stewardship contract.

S-1

We back the design criteria (EA at p.12-13) prescribed for all logging activities under the proposed action. We note that there may be inconsistencies between the design criteria applicable to salvage of dead, dying and down trees and the stated criteria applicable to all logging. While the design criteria limits all logging to development LUDs and prohibits logging within beach or estuary fringe, riparian management areas, high vulnerability karst, unstable slopes, or in 2001 Inventoried Roadless Areas, the standards and guidelines referenced for salvage logging (EA at p. 13) provide an exception for salvage cutting in limited circumstances

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on lands otherwise unsuitable for timber production. Please explain whether the more restrictive project-specific design criteria proposed in the EA for all logging activities authorized under the proposed action supersedes the referenced general standard and guideline as it applies to salvage logging in non-development LUDs. In the alternative, we recommend specifically limiting the applicability of the referenced standard and guideline (TIMS.VII) to parts A, B and E.

S-2

In discussing the effects of the proposal on timber supply and demand, the EA notes (at p.19) that "[d]ead yellow-cedar is the most preferred type of firewood." Given the length of time the quality of yellow-cedar wood lasts, we hope this statement refers only to the non-merchantable portions of a dead tree. Please clarify.

S-3

Please explain why the figures used to describe the current condition of productive old growth on the three islands in the project area (at p.24) differs from those reported in the cumulative effects analysis (p.39).

S-4

Finally, we did not see any discussion in the EA about what monitoring is proposed for activities approved under this proposed action. For example, Appendix 1 identifies "important wildlife habitat connectivity areas" on each of the three islands in the project area. What monitoring does the Forest Service intend to conduct to evaluate the impact of approved logging activities on these areas? How much further reduction in connectivity is possible before these high value stands unravel and wildlife resources, and the commercial, sport and subsistence uses of those resources, are significantly impacted? What standard will the wildlife biologist use for evaluating these potential effects on a case-by-case basis?

S-5

We are encouraged by the Forest Service's ongoing discussions on how to develop diverse economic opportunities that support ecological and community health --such as forest restoration, renewable energy, commercial fisheries, subsistence, and recreation. This project is a small step in that direction. In the coming years, we would be pleased to work with you to identify and promote other opportunities to bring environmentally sustainable jobs to Wrangell. We believe there are opportunities in this region to enhance recreation infrastructure for local use, attract visitors, and provide jobs in the woods through restoration and thinning.

Thank you for the opportunity to comment on the proposed project. If you have any questions, don't hesitate to contact us.

Best Regards,

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SEACC Community Organizer

Stephen Todd
President
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Forest Service Response to SEACC Comments:

S-1

Prioritize sales and thinning projects on the roads planned for closure under the ATMP.

Response: (EA p. A1-2) Use of roads that are closed may be authorized by permit for management of a timber sale. Future sales that are part of this decision will be prioritized along road systems that are being considered for road closure as identified in the ATMP.

S-2

Explain whether salvage will be allowed in non-development LUDs per salvage standards and guidelines. Please limit salvage S&Gs to parts A, B, and E of the FP. EA is unclear at pp. 12-13.

Response: (EA p. 12-13) While the Forest Plan Salvage Standards and Guidelines (p. 4-73) allow salvage in non-development LUDs, harvest (including salvage sales) that would be authorized under this EA only includes development LUDs. Therefore, part C of the Salvage Harvest Standards and Guidelines, regarding salvage in non-development LUDs, will not apply. This has been clarified in the EA. Any salvage harvest plans in non-development LUDS will be considered and analyzed in a separate NEPA document.

S-3

Does “dead AYC for fuelwood” refer only to unmerchantable portions of dead AYC, or could it include potential sawlog material? Explain.

Response: (EA p. 19) Dead yellow cedar has traditionally been the most sought-after fuelwood for both personal and commercial firewood cutters. This is primarily because of its lower moisture content and ability to cure more rapidly than western hemlock. Much of the dead yellow cedar that is cut for firewood is not considered to be merchantable sawlog due to sap rot and sun checking that often extends several inches into the tree bole.

S-4

Explain the discrepancy in the “productive forestland” figures shown in the silviculture section, and the “POG” figures shown in the botany section.

Response: (EA p. 24, 38) Productive forestland and productive old growth (POG) are not synonymous terms, although historically (pre-harvest), all productive forestland was considered to be POG for this analysis. Productive forestland includes young growth of stand size classes 1-3, as well as older saw timber stand size classes 4 and greater. The stand size classes 1-3 may be the result of timber management, or natural occurrence such as a stand-replacing wind event. It includes forested areas containing timber volumes of greater than or equal to 8,000 net board feet/acre or having the potential to achieve this volume and capable of maintaining that volume (producing 20 cu. ft/acre/year of industrial wood or having a site index of 40 or higher).

Productive old growth (POG) includes only stand size classes 4 and greater and is old-growth forest capable of producing at least 20 cubic feet of wood fiber per acre per year, or having greater than 8,000 board feet per acre (Forest Plan p. 7-29).

The acres of historic productive forestland and historic POG were rerun using the Forest Activity Tracking system database (FACTS). The productive forestland and productive old growth (POG) acreage figures were updated to read approximately 239,397 acres of pre-harvest POG, of which approximately 29,398 acres have been harvested.

S-5

a) What monitoring will the FS conduct to evaluate impact of logging in "important wildlife connectivity areas"?

Response: (EA p. 53) Forest Plan Monitoring and Evaluation Plan (FP Ch. 6). In addition to FP monitoring, Forest Service sale administration personnel monitor each sale. Each sale could potentially be selected at random for the FP annual monitoring program. In addition, following harvest activities, a Forest Service biologist will visit a sample of harvest areas to assess the nature of effects on wildlife species.

b) How much connectivity reduction in “high-value stands” is possible before wildlife, and human use thereof, is significantly affected?

Response: EA p. 28 states “Added fragmentation should be immeasurably small, thus this project does not cause significant impacts.” The EA Appendix 1, Implementation Plan, recognizes and identifies several areas on all three islands important to wildlife habitat connectivity, and states that cumulative impacts will be assessed if any timber sale proposals are located in these areas.

c) What standard will wildlife biologist use to assess potential effects on a case-by-case basis?

Response: (EA p. A1-3; A1-8) Forest Plan Wildlife Standards and Guidelines pp. 4-89 to 91 outlines standards for connectivity.

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