USDA

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Department of
Agriculture

Forest Service

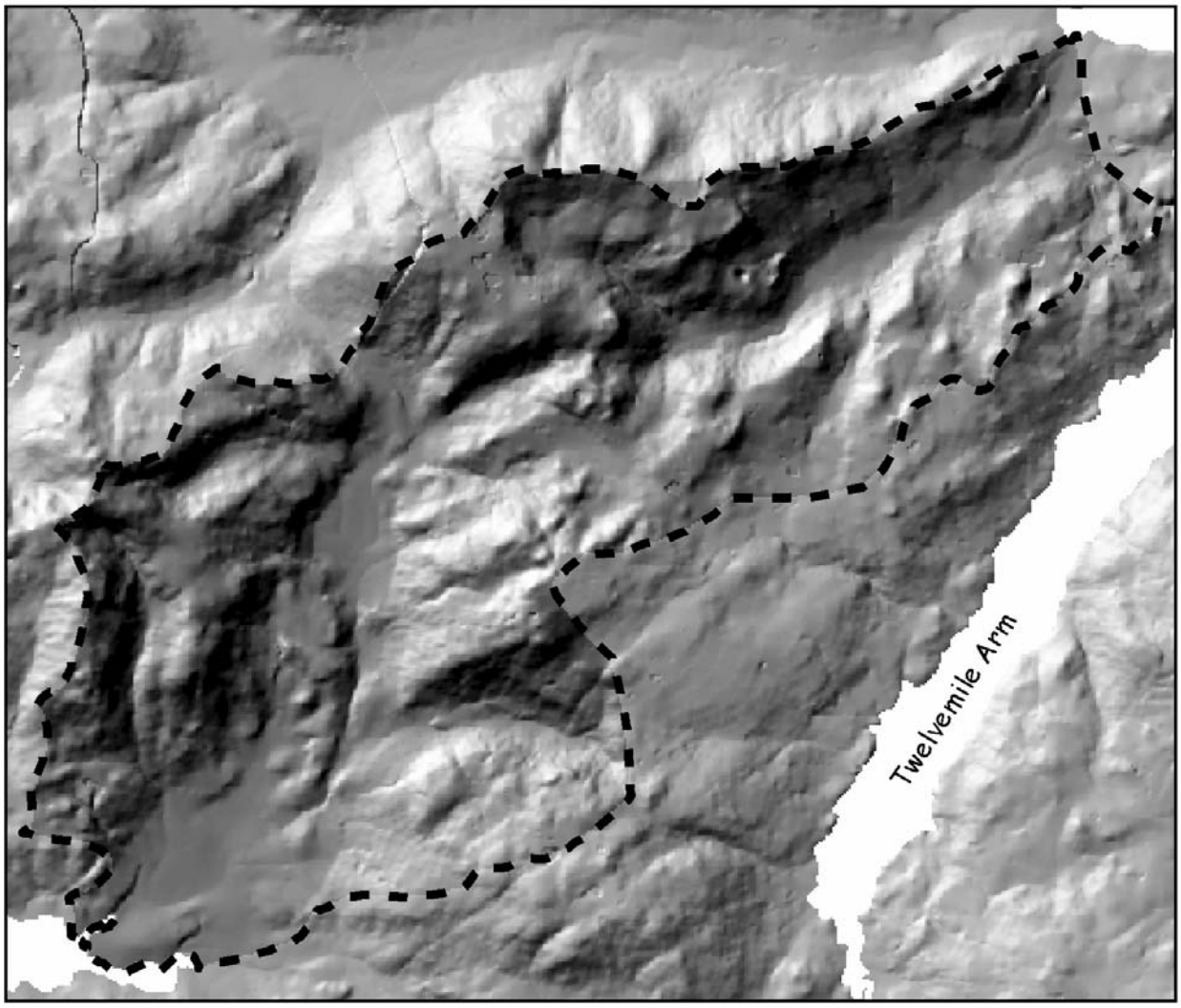
Tongass National
Forest

R10-MB-610

June 2007

Soda Nick
Small Timber Sales

Decision Notice and
Finding of No Significant Impact



USDA United States Department of Agriculture | Forest Service | Alaska Region, Tongass National Forest, Craig Ranger District | P.O. Box 500, Craig, AK 99921-9998, Phone: (907) 826-3271, Fax: (907) 826-2972

File Code: 1950-1
Date: June 4, 2007

Dear Planning Participant:

Enclosed is your copy of the Decision Notice (DN) and Finding of No Significant Impact (FONSI) for the Soda Nick Small Timber Sales Environmental Assessment (EA), Craig Ranger District, Tongass National Forest. This Decision Notice documents my decision to select Alternative 3, and the factors considered in reaching my decision. Information concerning implementation of this decision and appeal rights are included in the Decision Notice.

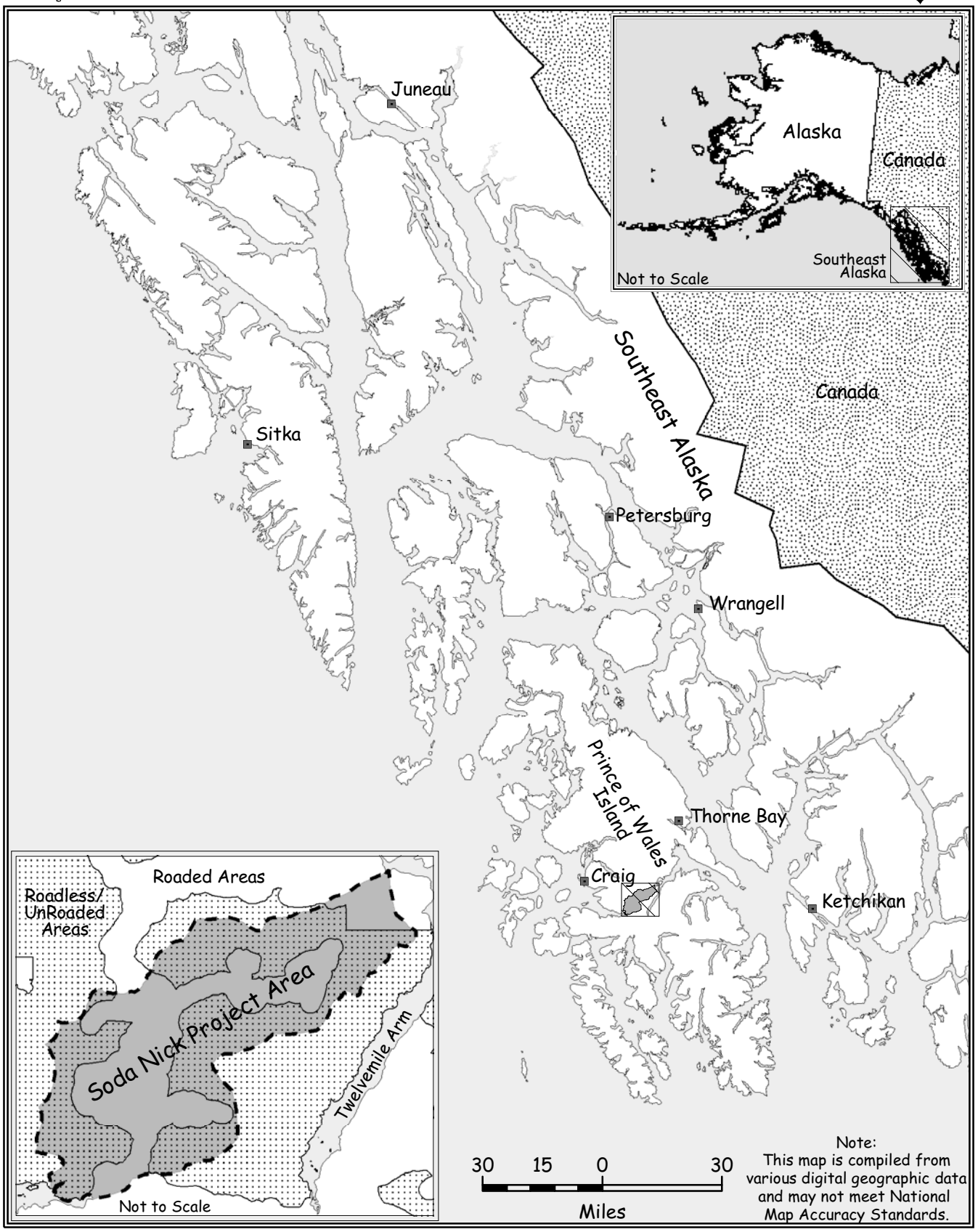
Copies of the Decision Notice and FONSI have been mailed to those who requested to remain on the mailing list for this project. Additional copies may be obtained by contacting the Craig Ranger District at (907) 826-3271.

I want to thank those who took time to review this project, submit comments, and participate in the Project Scoping meeting and Subsistence hearings. Your involvement throughout this project has been important to me.

Sincerely,

GREGORY M. KILLINGER
District Ranger

Soda Nick EA Vicinity Map



Note:
This map is compiled from various digital geographic data and may not meet National Map Accuracy Standards.

DECISION NOTICE and FINDING OF NO SIGNIFICANT IMPACT
for the
Soda Nick Small Timber Sales EA
USDA Forest Service
Tongass National Forest
Craig Ranger District

This Decision Notice (DN) documents my decision to select and implement Alternative 3 of the Soda Nick Small Timber Sales Environmental Assessment (EA). It includes factors and rationale considered in reaching my choice among the Alternatives presented in the Environmental Assessment. This Decision Notice also contains a brief summary of the environmental analysis completed for this project, and information concerning the right to Administrative Review of this decision. The Environmental Assessment completed for this project is incorporated by reference in this decision document and is the basis for the Finding of No Significant Impact (FONSI) beginning on page 8.

The FONSI shows my conclusions why Alternative 3 of the Soda Nick Small Timber Sales Environmental Assessment is not a major federal action which will have a significant effect on the human environment, and therefore does not require the preparation of an Environmental Impact Statement.

Eight sets of comments were received on the EA. The major points in the comments are presented within this Decision Notice. Complete responses are located in Appendix 2 of this document.

PROJECT LOCATION

The Soda Nick Project Area encompasses approximately 17,126 acres of National Forest System Lands, located on the Craig Ranger District, Prince of Wales Island, Tongass National Forest, in Southeast Alaska (see Map 1).

- Approximately 15 miles southeast of Craig, Alaska and 45 miles northwest of Ketchikan, Alaska.
- In Townships 74 and 75 South, Range 83 East, Copper River Meridian.
- Within Value Comparison Units (VCU) 6220 and 6240, and includes parts of WAAs 1317 and 1332, as designated by the Alaska Department of Fish and Game.
- Within the following Land Use Designations (LUDs):
  Timber Production (8,011 acres)
  Modified Landscape (1,553 acres)
  Scenic Viewshed (1,494 acres)
  Old-growth Reserve (6,068 acres)
  Non-National Forest Service lands (798 acres)

PURPOSE AND NEED

The project is designed to provide timber sales suitable for timber purchasers that need small amounts of timber volume over a period of time. The project would be designed to contribute to employment in the logging, milling, and transport industries for Southeast Alaska and Prince of Wales Island. A demand for small timber sales that offer opportunities suitable for smaller size businesses exists on Prince of Wales Island. Wood products harvested from small sales contribute to a wide range of natural resource employment opportunities and value-added wood products. The project is consistent with the Tongass National Forest Land and Resource Management Plan (Forest Plan) direction and the Tongass Timber Reform Act.

DECISION

Based on the Environmental Assessment (EA) completed for this project (Table 1, Summary Comparison of Alternatives for Soda Nick page 5), the Finding of No Significant Impact herein (page 8), and comments received during the 30 day public review of the EA, it is my decision to select Alternative 3, hereafter referred to as the Selected Alternative. The Selected Alternative will harvest an estimated 3.9 Million Board Feet (MMBF) of saw timber on about 257 acres using cable and helicopter logging methods (see Appendix 1 maps for specific harvest locations). Approximately 0.5 miles of temporary road will be built to facilitate logging.

RATIONALE FOR THE DECISION

I have thoroughly reviewed the Soda Nick EA, the unit and road cards, the comments and response to comments, to weigh and balance my decision. Alternative 3:

- Is not a major action that will have a significant effect on the human environment and therefore does not require the preparation of an Environmental Impact Statement (FONSI page 8);
- Meets the purpose and need;
- Best resolves the issues of economics and construction of National Forest System (NFS) roads, by having the best timber economics and builds no new NFS roads;
- Best contributes to the timber industry in Southeast Alaska, by providing more timber, jobs, and income for communities on the verge of losing their timber processing infrastructure; with acceptable, non-significant resource effects;
- Meets Forest Plan Standards and Guidelines, and all other applicable laws and regulations; and
- Includes no new National Forest System roads to be constructed. Half of the acreage harvested would use even-aged management, and the other half uneven-aged management.

PUBLIC INVOLVEMENT

As part of the EA process, information about the project and its likely environmental effects is distributed to communities and agencies, followed by consultation with representatives of the same groups. Consultation provides a mechanism to address issues of concern at the local level. The following is a list of public involvement and consultation activities that occurred.

- April 2004 – Soda Nick Timber Sale was placed on Schedule of Proposed Actions.
- August 2005 – Approximately 400 scoping letters were mailed to federal and state agencies; municipal offices; businesses; organizations; and individuals who had previously shown interest in USDA Forest Service projects within the vicinity of Craig, Alaska. A total of 24 responses to this mailing were received.
- July 2006 – Subsistence hearings were held on Wednesday, July 19, 2006, at Craig City Hall, and on Thursday, July 20, at Hydaburg City Hall. There were two attendees at the Craig hearing and five attendees at the Hydaburg hearing. No oral testimony was given at either hearing, and one written comment was submitted at the Hydaburg hearing.
- October 2006 – Public Notice of Availability for the Soda Nick EA was published in the *Ketchikan Daily News*.
- November 2006 – Eight sets of public comments were received on the Soda Nick EA.

Public Comments

Eight letters were received during the EA 30-day comment period from the following individuals or groups, and are summarized below:

- Joe Donohue, ACMP Project Specialist, State of Alaska DNR
- Mark Minnillo, Area Habitat Biologist, State of Alaska DNR, Office of Habitat Management and Permitting, Prince of Wales Area Office
- B. Sachau, Florham Park, NJ
- Gabriel Scott, Alaska Field Representative, Cascadia Wildlands Project
- Eric Muench, Chairman, Dixon Entrance Chapter, Alaska Society of American Foresters
- Dave Sherman, Grassroots Organizer, Southeast Alaska Conservation Council
- George Woodbury, Wrangell, AK
- Larry Edwards, Greenpeace, Corrie Bosman, Sitka Conservation Council, Mark Rorick, Juneau Group of the Sierra Club, and Gregory Vickery, Tongass Conservation Society

Most comments favored small sales; in general comments addressed the following topics:

- Timber economics;
- Deer model concerns and impacts to wildlife;
- Effects of new roads on wildlife;
- Landslide potential from new harvest units;
- Repairing blocked fish passage at existing stream crossings;
- Opposition to all logging;
- Appropriateness of helicopter units in a small sales project;
- Improving the project timber economics;
- Importance of small sales to mills on Prince of Wales Island,
- Creation of jobs via restoration, rather than through timber harvest;
- Restoration-only alternative that qualifies for consideration in open road density calculations; timing of road closures;
- Alternatives with helicopter logging does not meet the Purpose and Need;
- Climate change affects habitat; carbon trade-offs; and old-growth connectivity;

A Forest Service response to Soda Nick Small Timber Sales Environmental Assessment can be found in Appendix 2 of this document. I have considered all these comments in making my decision to select Alternative 3.

Public Comments on 9th Circuit Ruling on Timber Demand Analysis

A few comments suggested that the 9th Circuit Court ruling should stop all timber harvest on the Tongass until a new analysis of timber demand amends the Forest Plan. I disagree. While the Court did require a more-thorough look at the timber sale demand analysis, it did not deny the current need for timber from this sale. The timber associated with this sale is needed because the Southeast Alaska economy is on the verge of losing one or more mills from the lack of available timber, regardless of the demand level associated with that demand analysis. This sale will help maintain a supply of wood to an industry that provides economic diversity to the local and regional economies.

Tribal Consultation

The following is a list of Tribal involvement and consultation activities:

- The Craig District Ranger sent letters to Craig Community Association, Klawock Cooperative Association, Hydaburg Cooperative association, Organized Village of Kasaan, Ketchikan Indian Community, the Central Council of Tlingit and Haida Indian Tribes of Alaska, Shaan Seet Inc., Klawock Heenya Corp., Haida Corp., Kavilco and Sealaska Corporation on August 15, 2005, specifically describing the Soda Nick Project proposal and requesting consultation on issues and concerns.
- On October 24, 2005 letters were sent to all Tribal governments and ANCSA corporations on Prince of Wales Island (Craig Community Association, Klawock Cooperative Association, Hydaburg Cooperative association, Organized Village of Kasaan, Shaan Seet Inc., Klawock Heenya Corp., Haida Corp., and Kavilco) describing all projects planned on the Craig and Thorne Bay Ranger Districts for the coming year. In the consultation letters the District Ranger offered to meet face-to-face with Tribal and corporate leaders and representatives and to provide additional information about the project.
- Craig Ranger District specialists attended tribal council meetings in Craig and Klawock to explain Soda Nick and other planned projects.
- In February and March 2006 a second round of letters was sent to the same organizations and Forest Service representatives attended Tribal council meetings in Craig, Klawock, and Hydaburg.

No concerns about the Soda Nick EA were expressed at any of these meetings and no written comments were received.

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ISSUES & ALTERNATIVES

Issues

Two key issues were derived from project scoping: (1) Construct No New National Forest System Roads (NFS); and (2) Consider Economics and Feasibility of Harvest Units for Small Sales.

Alternatives Considered in Detail

The EA describes the effects of one no-action alternative and three action alternatives for harvesting timber and associated road construction. The alternatives were developed to meet the Purpose and Need for the Soda Nick project and respond to the issues identified during the scoping process, while meeting Forest Plan Standards and Guidelines and all applicable A common theme in all alternatives is the avoidance of timber harvest and road construction within Inventoried Roadless Areas. Future options for continued management along the existing road system and possible entry into adjacent Inventoried Roadless Areas have been maintained in all alternatives. In each action alternative, temporary roads would be closed, and natural drainage patterns restored following harvest. Table 1 below displays effects of each Alternative.

Table 1—Summary Comparison of Alternatives for Soda Nick

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Total Acres of new Harvest	0	257	257	179
Cable Logged	0	179	167	179
Helicopter Logged	0	78	90	0
Silvicultural Prescriptions				
Even-aged Clearcuts	0	179	125	179
Two-aged Clearcuts	0	78	132	0
Volume Estimated (MMBF)	0	4.0	3.9	3.0
New NFS Roads (miles)	0	0.8	0	0.8
Temporary Roads (miles)	0	0.5	0.5	0.5
Total Road Construction (miles)	0	1.3	0.5	1.3
Open Road Density (miles/square mile) by:	Existing	No change in the current open road density would be caused by the roads proposed in Alternative 2-4. All new roads would be closed or decommissioned following one season of firewood gathering after timber harvest activities have been completed.		
Project Area	0.4			
WAA 1317	0.8			
WAA 1332	0.3			
Road Construction Costs	0	$227,000	$46,000	$227,000
Average Expected Bid Rate per 1000 Board Feet (MBF)*	0	$120	$143	$134
Watershed Disturbance**	Existing			
Indian Creek	7.4%	7.5%	7.5%	7.5%
Trocadero Creek	8.2%	10.4%	10.4%	9.8%
Detrimental Soil Conditions***	2.8%	2.9%	2.8%	2.8%
Wetlands Impacted	55 acres	56 acres	55 acres	56 acres
Potential Sediment Sources	Existing	Additional	Additional	Additional
Stream Crossings (number)		Proposed	Proposed	Proposed
Class I	6	0	0	0
Class II	21	0	0	0

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Class III	37	2	0	2
Class IV	17	10	0	10
Total	81	12	0	12
Productive Old-growth	Existing			
VCU 6220	8,653 acres	8,624 acres remain		
VCU 6240	5,498 acres	5,315 acres remain		
Deer Habitat Capability	# of Deer****	Reduction is less than 1% for all alternatives.		
WAA 1317	1,489	1,488	1,488	1,488
WAA 1332	3,316	3,305	3,305	3,305
Deer Density by WAA (deer/square mile)	Deer/mi²			
WAA 1317	14	14	14	14
WAA 1332	25	25	25	25
High Value Marten Habitat	Existing			
VCU 6220	4,218 acres	4,190	4,190	4,190
VCU 6240	2,593 acres	2,473	2,473	2,509
Threatened, Endangered, Sensitive, Proposed Species of Concern	No Change	May adversely impact individuals but not likely to lose viability or result in trend toward federal listing.		
Subsistence	No Change	No anticipated restriction		
Heritage	No Change	No anticipated effects – SHPO concurs		
Viewshed Disturbance	No Change	All alternatives meet visual quality objectives		
Seen Acres in Project Area	1,476 acres = 8.2 %	1,732 acres = 9.7 %	1,732 acres = 9.7%	1,655 acres = 9.2 %
Recreation	Dispersed Use	No change in ROS, sites adjacent to the area may see or hear timber harvest for short periods of time.		
Roadless and Wilderness	Nothing proposed in roadless – no wilderness nearby			
Lands and Minerals	No current activity – powerline would be protected			

* Past timber sales have generally averaged about two CCF (hundred cubic feet) for every MBF (1,000 board feet) scaled.

** Watershed disturbances are those that efffect watershed hydraulic functioning or water quality by a force that results in change in the structure and composition of the watershed through natural events such as flood, avalanche or human caused events (c.f. FP page 7-10).

*** Detrimental Soil Disturbances are those conditions where established threshold values for soil properties are exceeded and result in significant change.

**** A theoretical number of deer the area is capable of supporting.

Alternative 3 (Selected Alternative)

The Selected Alternative will harvest 10 units without constructing any new NFS roads. It will build one half mile of temporary road, which will be closed following harvest. It will use a short-span cable system to log 108 acres, a long-span cable system to log 35 acres, a shovel system to log 17 acres, and helicopter to log 97 acres, for a total of 257 harvest acres. Harvest volume is estimated at 3,954 MBF.

How the Selected Alternative responds to the following issues identified in the EA:

Construct No New NFS Roads

The Selected Alternative best resolves this issue by building no new NFS roads.

Timber Economics & Small Sales Harvest Feasibility

The Selected Alternative resolves this issue in two ways: 1) It provides the best overall economics, the most direct income (see EA Table 4, page 12) and highest average indicated bid price of the three action alternatives; 2) The logging systems prescribed are appropriate for the ground conditions and are feasible for small sales harvest, even though there are 90 acres of helicopter harvest. The helicopter units can be offered contractually as timber subject to agreement, which would allow the operator to purchase, or not purchase those units, depending on market conditions. Reasons for including helicopter units in a small sales project were given in the EA (pages 11 and 12).

Other Alternatives Considered in Detail

Alternative 1: The no-action alternative would not move the project area towards the desired future condition for the Project Area, as described in the Forest Plan. There would be no new timber harvest or road construction. It does not preclude timber harvest from previous projects or from the project area at some time in the future. This alternative would not contribute income or jobs to the local economy. Water quality and fish habitat would be subject to naturally occurring processes and effects of past management activities. The existing stands of timber would continue to provide wildlife travel corridors. Connectivity between stands would be maintained at the current level, subject to naturally occurring disturbances. Future options for continued management along the existing road system are maintained.

Alternative 2: Proposed harvest of 10 units, but would build 0.8 miles of NFS road, as well as 0.5 miles of temporary road, which would be closed following harvest. It proposed a short-span cable system to log 112 acres, a long-span cable system to log 50 acres, a shovel system to log 17 acres, and helicopter to log 78 acres, for a total of 257 harvest acres. Harvest volume was estimated at about 4 MMBF. Alternative 2 did not resolve the issue of no new NFS roads. It did, however, produce an economical sale.

Alternative 4: Proposed harvest of 9 units, and would also build 0.8 miles of NFS road, as well as 0.5 miles of temporary road, which would be closed following harvest. It proposed a short-span cable system to log 112 acres, a long-span cable system to log 50 acres, a shovel system to log 17 acres, for a total of 257 harvest acres. It did not propose any harvest using helicopters. Harvest volume was estimated at about 3 MMBF.

Alternative 4 also did not resolve the issue of new NFS roads. It also produced an economical sale; more so than Alternative 2, but less than the Selected Alternative.

Alternatives Considered but Eliminated from Further Review

The following alternatives were considered but eliminated from further review, as described on pages 5 and 6 of the EA:

- Larger unit pool and more volume
- Mitigate scenery concerns
- Mitigate watershed concerns
- No harvest in Roadless Areas

Finding of No Significant Impact (FONSI)

I have reviewed the Soda Nick Small Sales Environmental Assessment (EA), incorporated herein by reference using the context and intensity criteria, as identified in the Council of Environmental Quality regulations for the National Environmental Policy Act (40 CFR 1508.*27*).

(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.

Context: (a) Soda Nick Small Sales EA Alternative 3 will build about 0.5 mile of temporary road.

Intensity: While ground disturbing activities including road building proposed in the Soda Nick EA Alternative 3 may have effects of a limited scale (as discussed on pages 9 and 10 of the EA), no "significant" impact would occur in the project area or on adjacent National Forest System lands. No new NFS roads would be constructed under the Selected Alternative. Temporary roads constructed by this Alternative would be stabilized, water barred and returned to a more natural state after the firewood gathering period (1 to 3 years).

I have determined that there are no "significant" impacts beneficial or adverse; based on the evidence found in the Selected Alternative which builds 0.5 miles of temporary road because:

- This proposed action would not change open road density from the existing condition, since 0.5 mile of road would be constructed as temporary roads and would then be put back to a natural condition. Therefore, no "significant" impact would occur to hydrology, fish and wildlife i.e., deer and wolves (EA page 10);

- No harvest activities occur within roadless areas (EA page 47);

- The amount of temporary road construction in common wetland types for the Selected Alternative (0.04 acre in Indian Creek subwatershed and 0.18 acre in Trocadero Creek watershed) is considered negligible (EA, page 26);

- No significant effects on fish passage or fish habitat are anticipated (EA, page 26) in the Selected Alternative because the proposed 0.5 miles of temporary road crosses no Class I, II, III, or IV streams (see EA table 15).

Context: b) the Selected Alternative will harvest 257 acres of timber.

Intensity: Ground disturbing activities are proposed including timber harvest, and the Selected Alternative would have effects of a limited scale, as 125 acres would be harvested and converted to even-age management, with about 240 acres of reserves deferred from harvest to meet multiple objectives. Another approximately 132 acres would be converted to two-age management with about 50 percent or more of the original stand basal area retained in trees dispersed across the harvest area. The proposed harvests would mimic a larger scale less frequent disturbance event. Small scale disturbance events would be less common in these stands after treatment. Harvest would regenerate into vigorously growing second-growth forests with reduced levels of insect and disease activity. Trees that remain after two-age harvest treatments (residual trees) would primarily be healthy trees that can respond to additional growing space in the stand and grow to become the overstory canopy in the future. New regeneration would also occur beneath these residual trees creating a second layer of forest canopy. All previously harvested stands in the project area (1,635 acres) have been certified as regenerated and contain species compositions similar to old-growth forests on similar sites. All are growing vigorously. Some stands have been thinned to reduce stocking and increase the growth rate. Others would be scheduled for thinning as funds become available. Twenty small timber firms are currently operating on Prince of Wales Island and make a contribution to local economy on the Island. The majority of these firms process timber from Federal Lands and depend on that timber to keep their mills running.

The Soda Nick EA describes the effects that are both beneficial (contribution to local economy) and adverse (change in habitat). While these effects are important to consider, they are not effects in either context or intensity that warrant an EIS for the Soda Nick Project.

I have determined that there would be no "significant" impacts either beneficial or adverse by implementing the Selected Alternative, based on the evidence found in the Soda Nick Small Timber Sales EA due to 257 acres of timber harvest because:

- There is a vigorous recovery of harvested stands in and adjacent to the project area (EA page 16);

- This project is favorable to small local operators and mill owners interested in small sales because of proximity of the project area to their mills; species proposed for harvest; smaller size units; and the limited road construction required to access units. All qualified timber purchasers could bid on the resulting timber offerings; however, off-island operators would incur increased costs of barging or rafting timber to their location. Local timber operators are the most likely purchasers (EA page 11);

- Water quality turbidity standards would not be exceeded by the Selected Alternative (EA page 20). No sediment concern related to landslides is anticipated that is associated with the proposed timber harvest, therefore no "significant" impacts to water turbidity would likely occur;

- Cumulative increase in watershed disturbance is well under the 20 percent threshold established in the Tongass Forest Plan for the Selected Alternative (EA page 21);

- No measurable effects on fish habitat are expected in any of the alternatives because of the required Class I and II RMA buffers. Additionally, providing feathering of RAW buffers where necessary to Class III stream channels (EA, page 30), will provide wind firmness to these buffers where blow down is likely to occur. Therefore no "significant" impacts to fish habitat would occur due to timber harvest;

- No "significant" impairment to soil productivity is anticipated from the Selected Alternative (EA page 23); therefore no "significant" impacts to soils are expected by implementing Selected Alternative;

- Landslides are a natural process in the project area. However, areas of steep unstable soils were eliminated from proposed harvest units during harvest unit reconnaissance. (EA page 23). Therefore, no "significant" impact from landslide activity due to timber harvest is expected;

- In both Wildlife Analysis Areas (WAA) that encompass the project area, the Selected Alternative would have no "significant" impact to Sitka Black-tail deer (EA page 35), because this project would cause a less than one percent decline in the deer habitat capability.

- I have determined that implementing the Selected Alternative of the EA is not likely to result in a loss of viability for Queen Charlotte goshawk in the project area because no nests were found during surveys (EA page 38), and Forest Plan Standards and Guidelines will protect any nests if discovered. Additionally, since the application of Marten Standards and Guidelines protects goshawk habitat there would be no "significant" impact to the Queen Charlotte goshawk.

(2) The degree to which the proposed action affects public health or safety.

Context and Intensity: Based on the evidence found in the EA (EA pages 6-48); I have determined that no "significant" impact would occur to the public health and safety;

(3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.

Context: The proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.

Intensity: All but four planned timber units lie within low sensitivity zones for cultural resources, indicating that they have a low potential to contain cultural resources. This determination was made on the basis of slope, elevation, and absence of known historic properties (EA page 43). The remaining four units fall in high sensitivity areas for cultural resources. These units, although located on fairly steep slopes, are situated at lower elevations closer to sea level or border anadromous fish streams.

Based on the evidence found in the EA, I have determined that there are no "significant" impacts on historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, ecologically critical areas, based on the evidence found in the Soda Nick Small Timber Sales EA because:

- No historic properties are located within the area of potential effects for the project (EA page 43);
- All units are recommended for clearance based on pedestrian reconnaissance and limited survey of each area added to a search of existing archaeological data, which concluded that no historic properties are located within the area of potential effects for the project. Therefore, the Selected Alternative would have no "significant" impact to districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places (EA, page 42-43). The Alaska State Historic Preservation Office has concurred with this finding of no impact;
- The Selected Alternative proposes the construction of 0.5 mile of temporary road and crosses no Class I, II, III, or IV streams (see EA Table 15, page 28), therefore no "significant" impacts to fish or fish habitat would occur due to building roads;
- No "significant" effects on wetlands are expected by implementing the Selected Alternative because of the size and feathering of riparian buffers (EA, page 30), and no harvest of riparian areas along Class I, II or III streams would occur under the Selected Alternative. The amount of temporary road construction in common wetland types for the Selected Alternative (0.04 acre in Indian Creek subwatershed and 0.18 acre in Trocadero Creek watershed) is negligible (EA, page 26); Therefore, no "significant" impacts to wetlands or floodplains would occur due to timber harvest;
- The Selected Alternative would not result in human occupancy within the floodplains (EA, page 21). Therefore, no "significant" impact to floodplains would result from implementing the Selected Alternative.

(4) The degree to which the effects on the quality of the human environment are likely to be highly controversial.

Context and Intensity: The effect on the quality of the human environment is not likely to be highly controversial. While there is controversy over timber harvest of old-growth structure in Southeast Alaska in general, the Forest Plan Standards and Guidelines and Forest Plan Land Use Designations that will be met in this project, meet or exceed levels which assure adequate areas of old-growth structure are maintained on a landscape level (EA page 16). This indicates harvest can occur without significant environmental effects.

Therefore, I have determined that there are no "significant" impacts based on the evidence found in the Soda Nick Small Timber Sales 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.

Context and Intensity: Effects described in the EA have been analyzed with a reasonable degree of certainty; based on this analysis I have determined no unique or unknown risk is involved with this project, therefore there is no "significant" impact due to uncertainty or a unique of unknown risk (EA pages 6-48).

(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.

Context and Intensity: I have determined the Selected Alternative would set no precedent for future action with "significant" impacts (EA page 7-8), 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.

Context and Intensity: I have determined the Selected Alternative actions have individually insignificant impacts and cumulatively insignificant impacts (EA page 7-8) as they relate to past, present, and reasonably foreseeable actions.

(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.

Context and Intensity: The Selected Alternative as analyzed in the Soda Nick Small Timber Sales EA (pages 42 and 43) will not adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places; nor will the action cause the loss or destruction of "significant" scientific, cultural, or, historical resources. Additionally, the Alaska State Historic Preservation Officer has concurred, under Section 106 of the National Historic Preservation Act, that no historic properties will be affected by implementation of the Soda Nick EA.

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 may 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.

Context and Intensity: There are no listed species or critical habitat in the project area or in areas adjacent to the project area, as no marine environment is included in the Soda Nick Project area. (EA page 37).

Therefore 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 findings which follow show that the selected Alternative 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.

Findings Required by Laws and Regulations

1997 Tongass Land and Resource Management Plan as Amended (Forest Plan)

Context and Intensity: This decision is consistent with the Forest Plan and all project alternatives complied with the Tongass Land and Resource Management Plan as amended. This project incorporates all applicable Forest Plan Standards and Guidelines and management prescriptions and complies with Forest Plan goals and objectives. 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 Soda Nick project ensures compliance at the project level.

Therefore, I have found the Soda Nick Selected Alternative consistent with the Forest Plan.

National Forest Management Act

Context: 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 clearcutting as the optimal method of harvesting, if used, and specific authorizations to create openings over 100 acres in size. Specific information and rationale used to develop unit prescriptions is located in the planning record.

Clearcutting as the Optimal Method of Harvesting

The Forest Plan (4-96 to 4-97) gives guidance on when to use even-aged management. Clearcutting (an even-aged method) is used in this project to preclude or minimize windthrow, insects and disease, logging damage to residual trees or other factors affecting forest health. Information for use of this harvest method is shown in the silvicultural prescriptions, which are part of the project planning record. Where used, this prescription has been deemed optimal related to site-specific considerations as described above.

Intensity: Harvest Openings Over 100 Acres in Size: There are no harvest openings over 100 acres proposed for this project (see Appendix 1, Unit Cards).

Therefore, I have found the Soda Nick selected Alternative 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

Context and Intensity: The Selected Alternative is not anticipated to have a direct, indirect or cumulative effect on any threatened and endangered species in or outside the project area (EA page 37). Consultations with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service have been conducted and these agencies have concurred: that the proposed project is not likely to affect any threatened or endangered species. A Biological Evaluation has been completed for this action which indicates that no federally listed threatened or endangered species will be affected by this activity.

Therefore, I conclude no significant effects would occur to threatened and endangered species.

Tongass Timber Reform Act

Context and Intensity: 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 conclude no significant effects would occur to riparian areas because these buffers will be applied.

National Historic Preservation Act

Context and Intensity: 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 (termed "historic properties"). A Forest Service archeologist has reviewed this project and we have made a determination of "No Historic Properties Affected," in the area of potential effects for the proposed project.

Therefore, I conclude no significant effects would occur to historic resources.

Federal Cave Resource Protection Act

Context and Intensity: There are no known caves or rocks associated with karst formation, including limestone and dolomite, found within the project area. Forest Plan Karst and Caves Standards and Guidelines would be applied should any karst resources be found.

Therefore, I conclude no significant effects would occur to Karst or Caves.

Alaska National Interest Lands Conservation Act (ANILCA)

Context and Intensity: Subsistence hearings were held in Craig and Hydaburg (EA page 3). An ANILCA Section 810 subsistence evaluation was conducted. I have determined that no significant restrictions on subsistence resources are expected based on the Environmental Assessment (page 42).

Therefore, I have found the Soda Nick selected Alternative consistent with ANILCA.

Clean Water Act

Context and Intensity: Congress intended the Clean Water Act of 1972 (Public Law 92-500) as amended in 1977 (Public Law 95-217) and 1987 (Public Law 100-4) to protect and improve the quality of water resources and maintain their beneficial uses. Section 313 of the Clean Water Act and Executive Order 12088 of January 23, 1987 address Federal agency compliance and consistency with water pollution control mandates.

Agencies must be consistent with requirements that apply to "any governmental entity" or private person. Compliance is to be in line with "all Federal, State, interstate, and local requirements, administrative authority, and process and sanctions respecting the control and abatement of water pollution."

The Clean Water Act (Sections 208 and 319) recognized the need for control strategies for nonpoint source pollution. The National Nonpoint Source Policy (December 12, 1984), the Forest Service Nonpoint Strategy (January 29, 1985), and the USDA Nonpoint Source Water Quality Policy (December 5, 1986) provide a protection and improvement emphasis for soil and water resources and water-related beneficial uses. Soil and water conservation practices, in the form of Best Management Practices (BMPs), were recognized as the primary control mechanisms for nonpoint source pollution on National Forest System lands. The Environmental Protection Agency supports this perspective in their guidance, "Nonpoint Source Controls and Water Quality Standards" (August 19, 1987).

The Forest Service must apply Best Management Practices that are consistent with the Alaska Forest Resources and Practices Regulations to achieve Alaska Water Quality Standards. The site-specific application of BMPs, with a monitoring and feedback mechanism, is the approved strategy for controlling nonpoint source pollution as defined by Alaska's Nonpoint Source Pollution Control Strategy (October 2000). In 1997, The State approved the BMPs in the Forest Service's Soil and Water Conservation Handbook (FSH Handbook 2509.22, October 1996) as consistent with the Alaska Forest Resources and Practices Regulations. This Handbook is incorporated into the Tongass Land and Resource Management Plan.

A discharge of dredge or fill material from normal silviculture activities such as harvesting for the production of forest products is exempt from Section 404 permitting requirements in waters of the United States, including wetlands (404(f)(1)(A). Forest roads qualify for this exemption only if they are constructed and maintained in accordance with best management practices to assure that flow and circulation patterns and chemical and biological characteristics of the waters are not impaired (404)(f)(1)(E). The BMPs that must be followed are specified in 33 CFR 323.4 (a). These specific BMPs have been incorporated into the Forest Service's Soil and Water Conservation Handbook under BMP 12.5. Because the Selected Alternative will apply Best Management Practices.

Therefore, I have determined that no significant impact to water quality would be expected to occur from this project.

Clean Air Act

Context and Intensity: Emissions anticipated from the implementation of the Selected Alternative will be 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 project.

Coastal Zone Management Act

Context and Intensity: Under the Coastal Zone Management Act (CZMA) of 1972, as

amended, 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). Such "consistency determinations" are made by the Forest Service and are reviewed by the State of Alaska as required by the CZMA.

Under the Alaska Forest Resources and Practices Act (AFRPA) of 1979 (as amended), Forest Service timber harvest projects satisfy the CZMA consistency requirement if the Forest Plan and all related Standards and Guidelines applicable to the project provide no less resource protection than the AFRPA requires for timber harvest projects on State land; except, the AFRPA specifies a different minimum riparian standard for federal projects than for State projects.

The Forest Service has determined that the Soda Nick project does not affect the coastal zone and that Forest Plan Standards and Guidelines and mitigation measures applicable to the Soda Nick project meet or exceed the requirements of the State of Alaska Forest Resources and Practices Act.

I have determined therefore, the project is consistent, to the maximum extent practicable, with the enforceable policies of the Alaska Coastal Management Program. Copies of this determination and supporting information were provided to the State of Alaska, Department of Program Management and Permitting, for review as required by the CZMA. The State has concurred with the Forest Service's determination in their letter dated November 17, 2006.

Magnuson-Stevens Fishery Conservation and Management Act

Context and Intensity: 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, defined as the waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. Essential Fish Habitat (EFH) includes streams, rivers, lakes, ponds, wetlands and other bodies of water currently and historically accessible to anadromous fish, as well as estuarine, intertidal, and marine waters. The potential effects of EFH are discussed in the EA on page 31. No harvest units lie adjacent to EFH, and all harvest units employ no-harvest buffers according to Forest Plan Standards and Guidelines. No-harvest buffers would minimize the potential adverse effect to downstream Essential Fish Habitat. NMFS has made no conservation recommendations to the Soda Nick EA. NMFS was sent a copy of the EA in October of 2006.

Because no harvest units lie adjacent to EFH, and all harvest has no-harvest buffers; 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 (see unit cards for specific application of BMPs for each unit).

Executive Order 11988

Context and Intensity: 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.

I have concluded that No "significant" impacts to wetlands or floodplains will occur due to timber harvest (EA page 21).

Executive Order 11990

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

Intensity: The amount of road construction in common wetland types for the Selected Alternative (0.04 acre in Indian Creek subwatershed and 0.18 acre in Trocadero Creek watershed) is considered negligible (EA, page 26). Therefore, effects to wetlands are minimized through the application of specific BMPs.

No Measurable effects on fish habitat are expected in any of the alternatives because of the size and feathering of riparian buffers (EA, page 30), therefore no "significant" impacts to fish habitat or wetlands would occur due to timber harvest;

Executive Order 12898

Context and Intensity: 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.

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

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

Intensity: 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 (see unit cards for specific application of BMPs for each unit). Post-project road closures could limit to foot-traffic or permitted all-terrain vehicle (ATV) access to some recreational fishing opportunities.

Therefore, any adverse effects to recreational fishing opportunities will be insignificant.

Executive Order 13007

Context and Intensity: 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. Where appropriate, agencies shall maintain the confidentiality of sacred sites. Based on consultations with the appropriate Indian Tribes (see page 4) I have determined this project will not affect the integrity of any sacred sites or limit access to any sacred sites.

Therefore, based on the Environmental Assessment and the findings displayed previously, there are no violations of Federal, State, or local environmental law associated with this action.

Conclusion

Consequently, based on the Environmental Assessment and the findings displayed in sections 1 through 10 above, I have determined: the Soda Nick Small Timber Sales Selected Alternative is not a major action that will have a significant effect on the human environment, as identified in the Council of Environmental Quality regulations for the National Environmental Policy Act (40 CFR 1508.27), and therefore does not require the preparation of an Environmental Impact Statement.

IMPLEMENTATION DATE

Implementation of decisions made by the District Ranger, which are subject to appeal pursuant to 36 CFR part 215, may occur on, but not before, five 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 *Ketchikan Daily News*, published in Ketchikan, Alaska.

RIGHT TO APPEAL

This decision is subject to administrative review (appeal) pursuant to 36 CFR Part 215. Individuals or non-federal organizations who submitted written comments during the 30-day comment period or provided comments or otherwise expressed interest in this particular action prior to the close of the comment period specified at 36 CFR Part 215.6 may appeal this decision.

The Notice of Appeal, including attachments, must be filed (regular mail, fax, e-mail, express delivery or messenger service) with the Appeal Deciding Officer, listed below, at the correct location within 45 calendar days of publication of notice of this decision in the *Ketchikan Daily News*, 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. Those wishing to appeal this decision should not rely upon dates or timeframe information provided by any other source.

The notice of appeal must be in writing, meet the appeal content requirements at 215.14 and be filed with the Appeal Deciding Officer:

Forrest Cole, Forest Supervisor

Federal Building – 648 Mission Street

Ketchikan, Alaska 99901-6591

(907) 225-3101 (phone)

(907) 228-6215 (fax)

appeals-alaska-tongass@fs.fed.us (email)

It is the responsibility of those who appeal a decision to provide the Appeal Deciding Officer with sufficient written evidence and rationale to show why the decision should be changed or reversed.

Individuals or non-federal organizations who submitted written comments or otherwise expressed interest in this particular action during the comment period specified have standing to appeal this decision.

The written Notice of Appeal must:

- State that the document is a Notice of Appeal filed pursuant to 36 CFR Part 215;
- Your name, address, and, if possible, telephone number;
- Identify the decision document by title and subject, date of the decision, and name and title of the Responsible Official;
- Identify the specific change(s) in the decision that the appellant seeks or portion of the decision to which the appellant objects;
- State how the Responsible Official's decision fails to consider comments previously provided, during the comment period specified in 36 CFR 215 and, if applicable, how the appellant believes the decision violates law, regulation or policy.

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

Hand delivered appeals will be accepted at the Forest Supervisor's Office, Ketchikan, Alaska, during normal business hours (8:00 a.m. through 4:30 p.m.), Monday through Friday, excluding holidays.

CONTACT PERSON

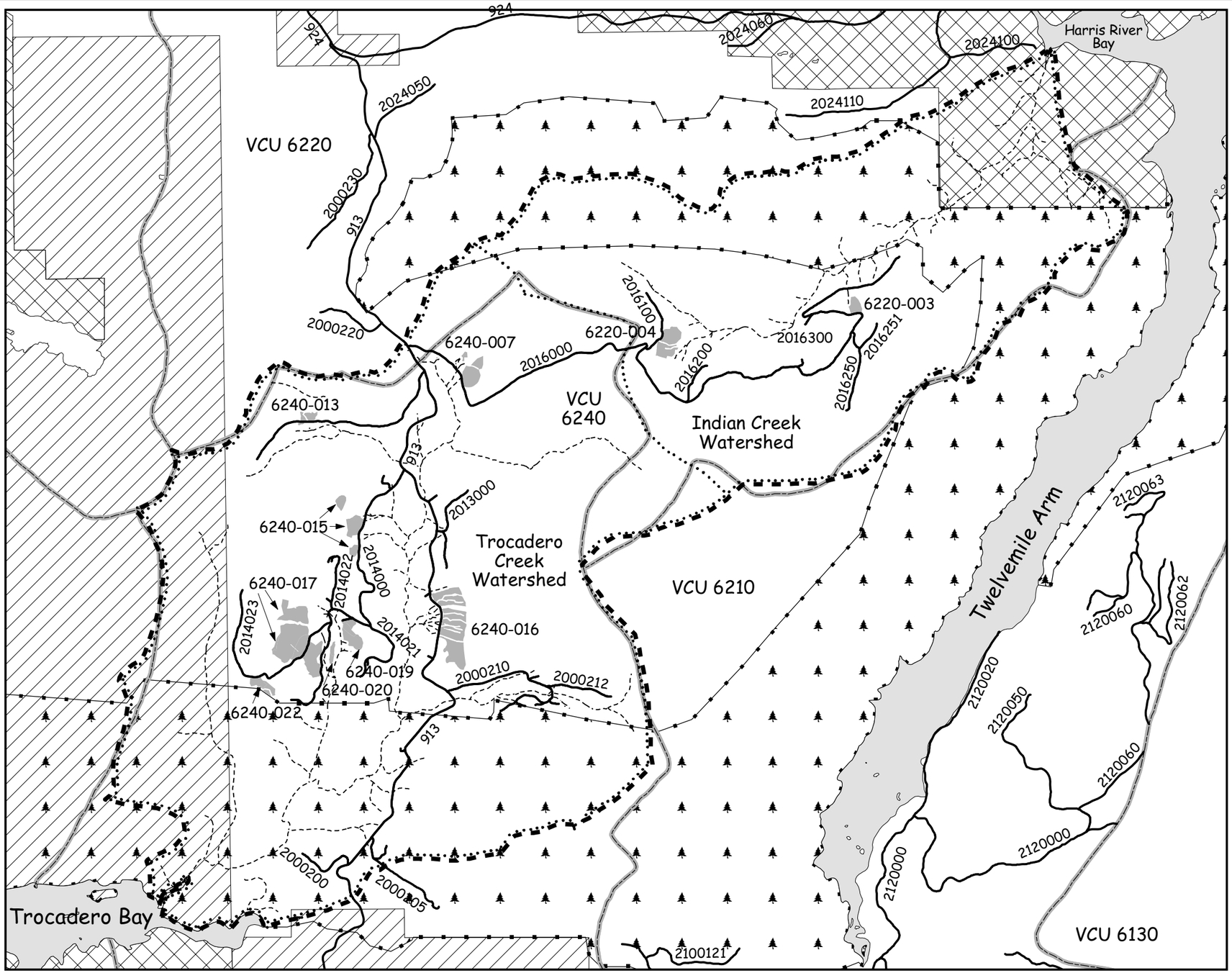
For additional information concerning this decision, contact Greg Killinger, District Ranger, at the Craig Ranger District, P.O. Box 500, (physical address 900 9th St.), Craig, AK 99921, or call (907) 826-3271.

Greg Killinger 6/5/07

GREG. KILLINGER DATE
Craig District Ranger

Distribution

- Legal Notice, *Ketchikan Daily News*
- Respondents during the 30-day comment period
- Persons requesting a copy of this decision



N
W E
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Soda Nick EA
Selected Alternative

- Project Boundary
- Watershed Boundary
- VCU Boundary
- Saltwater
- Private Lands
- Encumbered National Forest Land
- TLMP Old Growth Habitat Reserve
- Decision Units
- Existing NFS Roads
- Stream Classes I & II

FOREST SERVICE U.S. DEPARTMENT OF AGRICULTURE

1 0.5 0 1

Miles

Note: This map is compiled from various digital geographic data and may not meet National Map Accuracy Standards.

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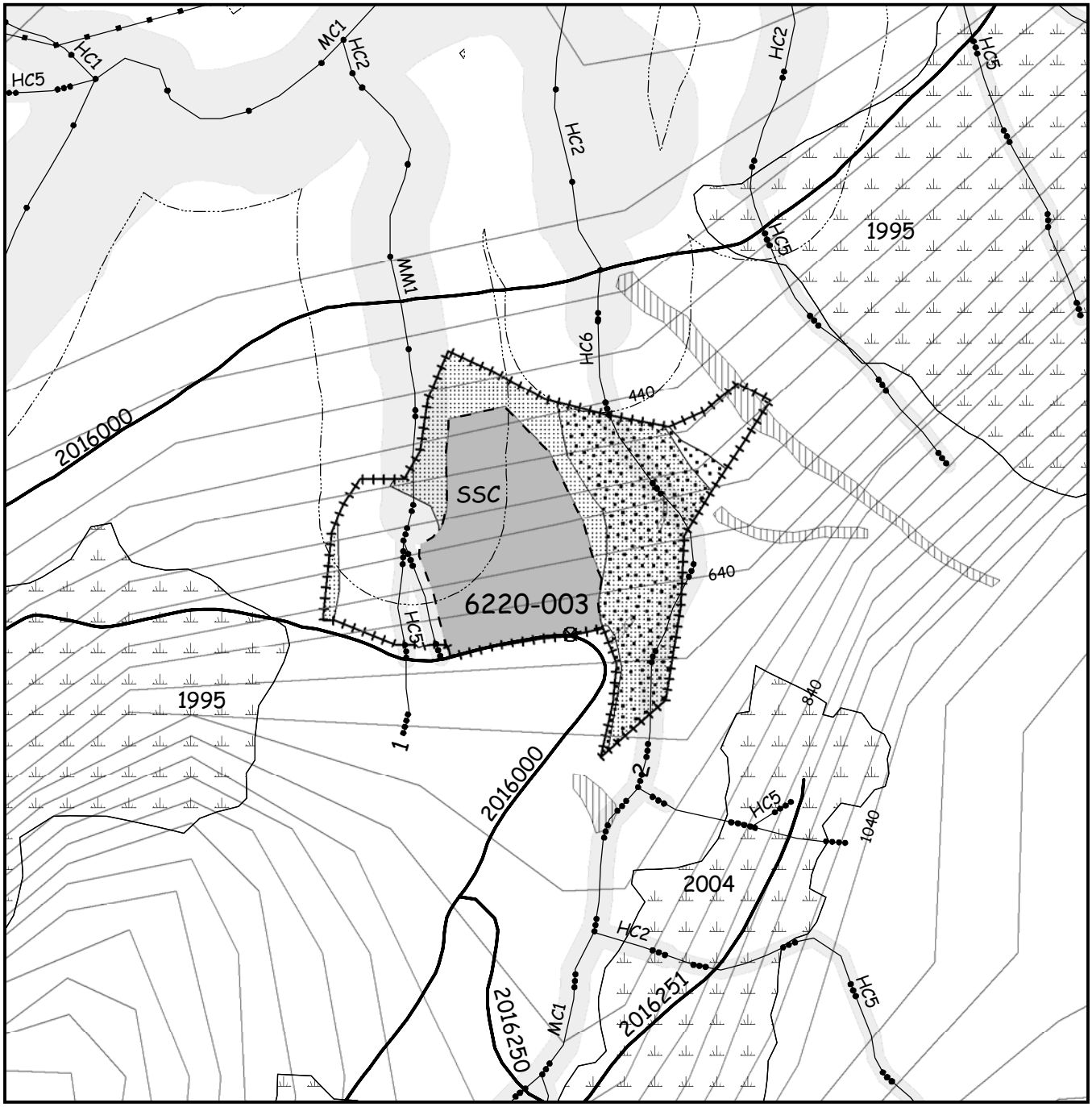
Appendix 1 — Unit Cards

Soda Nick EA Unit No. 6220-003 Selected Alternative



Project Boundary
Existing Temporary Roads
Existing NFS & Private Roads
Managed Stand
Old Growth Habitat Reserve
Marten Habitat
Analysis Area (LSTA)

Class I Stream
Class II Stream
Class III Stream
Class IV Stream
300-Ft Reference
40-Ft Contour
RMA Buffer

Decision Unit 6220-003
Other Decision Units
Landings
New Temporary Roads
Unsuitable Slopes
Landslide
Lakes

* Unshaded areas within analysis area: see resource reports for logging system or environmental concerns.

500 250 0 500
Feet

Note: This map is compiled from various digital geographic data and may not meet National Map Accuracy Standards.

6220-003 Unit Card – Soda Nick Decision

Unit Acres: 21.2	Harvest Acres: 7.5	Estimated Volume: 182.25 MBF
Road #: None	Logging System: SSC	

The following mitigation measures either are in unit design or would be applied during project implementation.

SUMMARY of RESOURCE CONSIDERATIONS and RECOMMENDATIONS

SILVICULTURE/TIMBER – Cable yarding areas: Even-age management, clearcut harvest of entire proposed alternative unit. Standards and guides require 4.5 acres of high value marten habitat be maintained within the original LSTA boundary. In this alternative 8.97 acres of high value marten habitat has already been deferred for other resources between the LSTA unit boundary and the proposed alternative boundary. No additional reserves are required within the planned harvest area. Reserve areas are required to be tracked and held uncut for the rotation of the harvest unit or approximately 120 years. Natural regeneration is expected to be abundant. Apply RAW zone to stream buffers as specified under Fisheries/Watershed. RAW zones are determined through an interdisciplinary process.

TRANSPORTATION – Unit is accessed from existing road 2016000.

SOILS/ WETLANDS - The unit is upland with inclusions of less than 50 percent forested wetland. Karta soils are present in this unit on slopes less than 55 percent. Uphill yarding with a minimum requirement of partial suspension would meet resource objectives (BMP 12.5, 13.9, 13.10, 13.11, and 13.14). Due to a deep notch, landslides, and high landslide prone soils identified during unit reconnaissance, over 6 acres of original unit 6220-003 was not considered for timber harvest (BMP 13.5 and 12.6). One Class III stream with deep incision and two smaller Class III streams for protection (see Fish/Watershed section, BMP 12.6a and 13.16).

FISHERIES /WATERSHED - Stream 1 (west edge of unit): Class II HC5 section: Install 100 ft no-cut RMA buffer; Class III HC6 section (including both forks): Install side-slope break no-cut RMA buffers plus RAW buffer on east side of channels. Stream 2 (east side of unit): Class II HC2 section: Install 100 ft no-cut RMA buffer; Class III HC6 section: RMA plus additional acreage adjacent to RMA has been deleted from harvest due to soils concerns. All streams: Implement BMPs 12.6, 12.6a., 13.9, and 13.16.

WILDLIFE - No concerns. All applicable wildlife standards and guidelines would be met. This unit requires at least 4.5 acres of high value marten habitat be retained within the unit boundary to meet the 30% retention requirement. Currently, 8.97 acres have been deferred. This deferral also meets the requirement for goshawk retention.

BOTANY - No botany concerns in this unit.

GEOLOGY/MINERALS - No mining claims exist within this unit.

LANDS - S27; T 0740s; R 0830e - No land encumbrances or special use permits exist within this unit.

RECREATION - No developed recreation sites exist in this unit. Unit 003 is not visible from One Duck trail or shelter. Harvest activities may be heard from One Duck trail and shelter, but they would be intermittent and over a short time period.

HERITAGE - The unit lies in low sensitivity area for heritage resources. Units survey in 1992 lie adjacent to this unit. No known historic properties are located within the area of potential effects. No concerns.

SUMMARY of RESOURCE CONSIDERATIONS and RECOMMENDATIONS

SCENERY - Visual management objective for this unit is Maximum Modification. The unit is not seen from any Visual Priority Travel Route or Use area.

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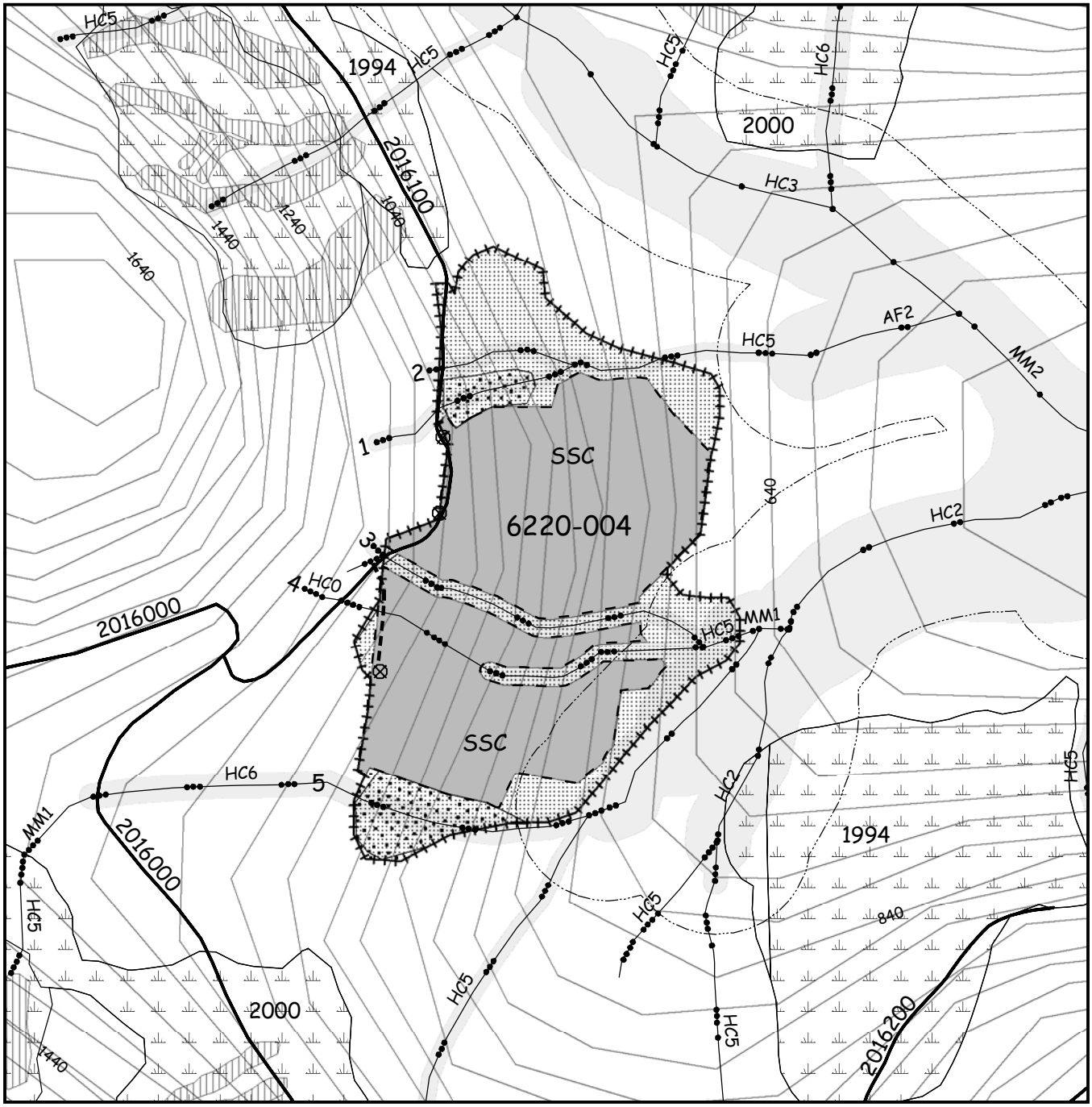
Soda Nick EA Unit No. 6220-004 Selected Alternative



Project Boundary
Existing Temporary Roads
Existing NFS & Private Roads
Managed Stand
Old Growth Habitat Reserve
Marten Habitat
Analysis Area (LSTA)

* Unshaded areas within analysis area: see resource reports for logging system or environmental concerns.

Class I Stream
Class II Stream
Class III Stream
Class IV Stream
300-Ft Reference
40-Ft Contour
RMA Buffer

500 250 0 500
Feet

Decision Unit 6220-004
Other Decision Units
Landings
New Temporary Roads
Unsuitable Slopes
Landslide
Lakes

Note: This map is compiled from various digital geographic data and may not meet National Map Accuracy Standards.

6220-004 Unit Card – Soda Nick Decision

Unit Acres: 36	Harvest Acres: 22.5	Estimated Volume: 407.25 MBF
Road #: Temporary	Logging System: SSC	

The following mitigation measures either are in unit design or would be applied during project implementation.

SUMMARY of RESOURCE CONSIDERATIONS and RECOMMENDATIONS

SILVICULTURE/TIMBER - Cable yarding areas: Even-age management, clearcut harvest of entire proposed alternative unit. Standards and guides require 10.4 acres of high value marten habitat be maintained within the original LSTA boundary. In this alternative 12.4 acres of high value marten habitat has already been deferred for other resources between the LSTA(Logging Systems Transportation) unit boundary and the proposed alternative boundary. No additional reserves are required within the planned harvest area. Reserve areas are required to be tracked and held uncut for the rotation of the harvest unit or approximately 120 years. Natural regeneration is expected to be abundant. Apply RAW zone to stream buffers as specified under Fisheries/Watershed. RAW zones are determined through an interdisciplinary process.

TRANSPORTATION - Unit is accessed from existing road 2016100. A temporary road about 0.1 miles in length would access the SW portion.

SOILS/ WETLANDS - An emergent short sedge muskeg less than 1 acre is located in the southwestern portion of the unit. Unit consists mostly of Tolstoi soils on slopes up to a 65 percent gradient. A small landslide originated from blowdown is located in the middle of the unit. Partial suspension is required across the unit (BMP 12.5 and 13.9). Three Class III streams and nearly 3 acres of unstable soils in the northwest and southwest portion of the original unit identified during field reconnaissance were not considered for timber harvest and implemented in slope break buffers (see Fish/Watershed section, BMP 13.5 and 12.6).

FISHERIES/WATERSHED - Stream 1 (north across northern portion of unit) – Class III HC5: Install side-slope break no-cut RMA buffer along channel and RAW buffer along south side only. Stream 2 (north tributary of Stream 1) – Class III HC5: Install side-slope break no-cut RMA buffer and RAW buffer along both sides of channel. Stream 3 – Class III HC5: Install side-slope break no-cut RMA buffer (no RAW buffer required). Stream 4 (south tributary of Stream 3) – Class III HC5 section: Install side-slope break no-cut RMA buffer (no RAW buffer required); Class IV HC5 section: split yarding or full/partial suspension required. Stream 5 (flows from southeast edge) – Class II HC6 section: Install 100 ft no-cut RMA buffer; Class III HC6 section: Install side-slope break no-cut RMA buffer along channel and RAW buffer along north side of channel). All streams: Implement BMPs 12.6, 12.6a, 13.9, and 13.16.

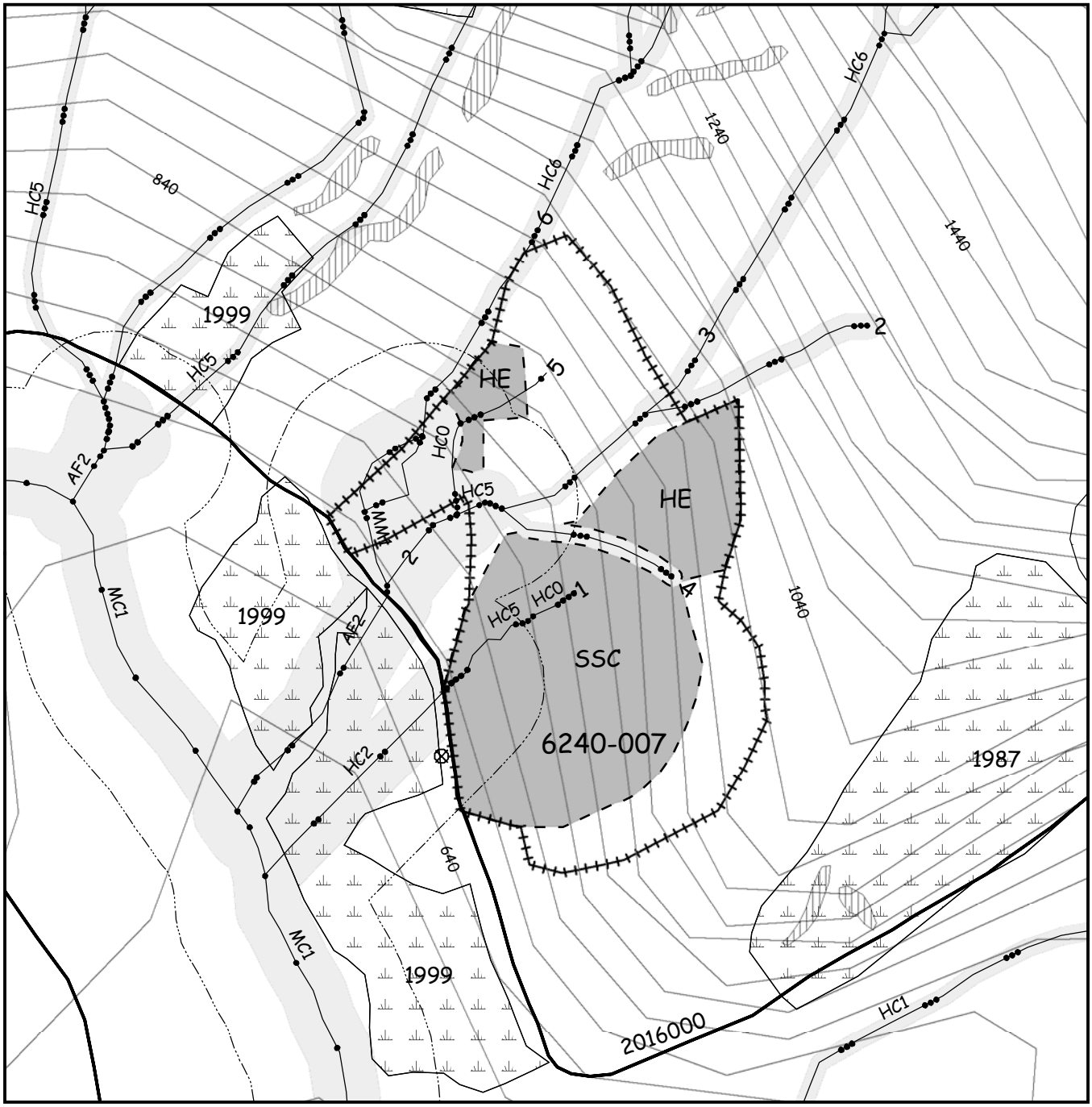
WILDLIFE - No concerns. All applicable wildlife standards and guidelines would be met. This unit requires at least 10.4 acres of high value marten habitat be retained within the unit boundary to meet the 30% retention requirement. An additional .2 acres of retention is required to meet the number of trees greater than 20” dbh requirement. Currently, 12.4 acres have been deferred. This deferral also meets the requirement for goshawk retention.

BOTANY - No botany concerns in this unit.

GEOLOGY/MINERALS – No mining claims within this unit.

LANDS - S 27; T 0740s; R 0830e; No land encumbrances or special use permits within this unit.

Soda Nick EA Unit No. 6240-007 Selected Alternative



Project Boundary
Existing Temporary Roads
Existing NFS & Private Roads
Managed Stand
Old Growth Habitat Reserve
Marten Habitat
Analysis Area (LSTA)

Class I Stream
Class II Stream
Class III Stream
Class IV Stream
300-Ft Reference
40-Ft Contour
RMA Buffer

Decision Unit 6240-007
Other Decision Units
Landings
New Temporary Roads
Unsuitable Slopes
Landslide
Lakes

* Unshaded areas within analysis area: see resource reports for logging system or environmental concerns.

500 250 0 500
Feet

Note: This map is compiled from various digital geographic data and may not meet National Map Accuracy Standards.

6240-007 –Unit Card – Soda Nick Decision

Unit Acres: 37.2	Harvest Acres: 19.0	Estimated Volume: 271.35 MBF
Road #: 2016400	Logging System: SSC/HE	

The following mitigation measures either are in unit design or would be applied during project implementation.

SUMMARY of RESOURCE CONSIDERATIONS and RECOMMENDATIONS

SILVICULTURE/TIMBER - Cable and yarding areas: Even-age management, clearcut harvest of entire proposed alternative unit. No high value marten habitat occurred in the LSTA boundary. No reserves are required. Natural regeneration is expected to be abundant. Apply RAW zone to stream buffers as specified under Fisheries/Watershed. RAW zones are determined through an interdisciplinary process.

Helicopter yarding areas: Two-age management, partial cut harvest. Harvest trees of all species, 24" DBH and larger. Maintain any low timber quality, rough, high value wildlife trees greater than 24" DBH where logging safety regulations allow. No additional requirements for RAW buffers.

TRANSPORTATION – New construction in alternatives 2 and 4 would access this unit. See road card for road 2016400.

SOILS/ WETLANDS - Approximately 1.5 acres of forested wetlands are located in this unit. About 1 acre was not considered for timber harvest due to uneconomical timber. This unit consists mostly of upland mineral soils. Partial suspension and helicopter logging would meet resource concerns (BMP 12.5 and 13.9).

FISHERIES/WATERSHED - Stream 1 (flows from southwest edge) – Class IV HC5 section: No buffer required; Class IV HC0 section: No buffer required. Stream 2 – Class II AF2 section: Install 140 ft no-cut RMA buffer; Class II HC5 section: Install 100 ft no-cut RMA buffer; Class III HC5 section: Install side-slope break no-cut RMA buffer; Class III HC6 section: Install side-slope break no-cut RMA buffer. Stream 3 (northeast tributary of Stream 2) – Class III HC6: Exterior to proposed harvest unit boundary. Stream 4 (southeast tributary of Stream 2) – Class III HC5: Install side-slope break no-cut RMA buffer along channel and RAW on south side of channel. Stream 5 (north tributary of Stream 2): Class IV HC0: No buffer required. Stream 6 (northwest tributary of Stream 2): Class II MM1 section (including side-channel): Install 120 ft no-cut RMA buffer; Class II HC3 section: Install 100 ft no-cut RMA buffer; Class III HC6 section: Install side-slope break no-cut RMA buffer along channel and RAW buffer on south side of channel only. All streams: Implement BMPs 12.6, 12.6a, 13.9, and 13.16.

WILDLIFE - No concerns. All applicable wildlife standards and guidelines would be met. No high value marten habitat exists in this unit. In this unit 45% of the original unit acreage has been deferred for other resource concerns. These other deferrals meet the standard and guideline for goshawk requirements.

BOTANY - No botany concerns in this unit.

GEOLOGY/MINERALS - No mining claims exist within this unit.

LANDS - S28-29; T 0740s; R0830e No land encumbrances or special use permits exist within this unit.

RECREATION - This unit is not within a developed recreation area. This unit is not visible from One Duck trail or shelter. Sounds of timber harvests may be heard from the One Duck trail and shelter, however these sounds would be intermittent and of a short duration. Unlikely that recreation experiences would be affected by harvesting this unit.

SUMMARY of RESOURCE CONSIDERATIONS and RECOMMENDATIONS

HERITAGE - The unit lies in low sensitivity area for heritage resources on steep slopes at elevations between 800 and 1100 feet asl. No known historic properties are located within the area of potential effects. No concerns.

SCENERY - No Concern, visual management objective for this unit is Maximum Modification. The upper extent of the unit may be seen intermittently from Highway 913 (Hydaburg Highway). Management activities would be well within Forest Standard and Guidelines for Scenery.

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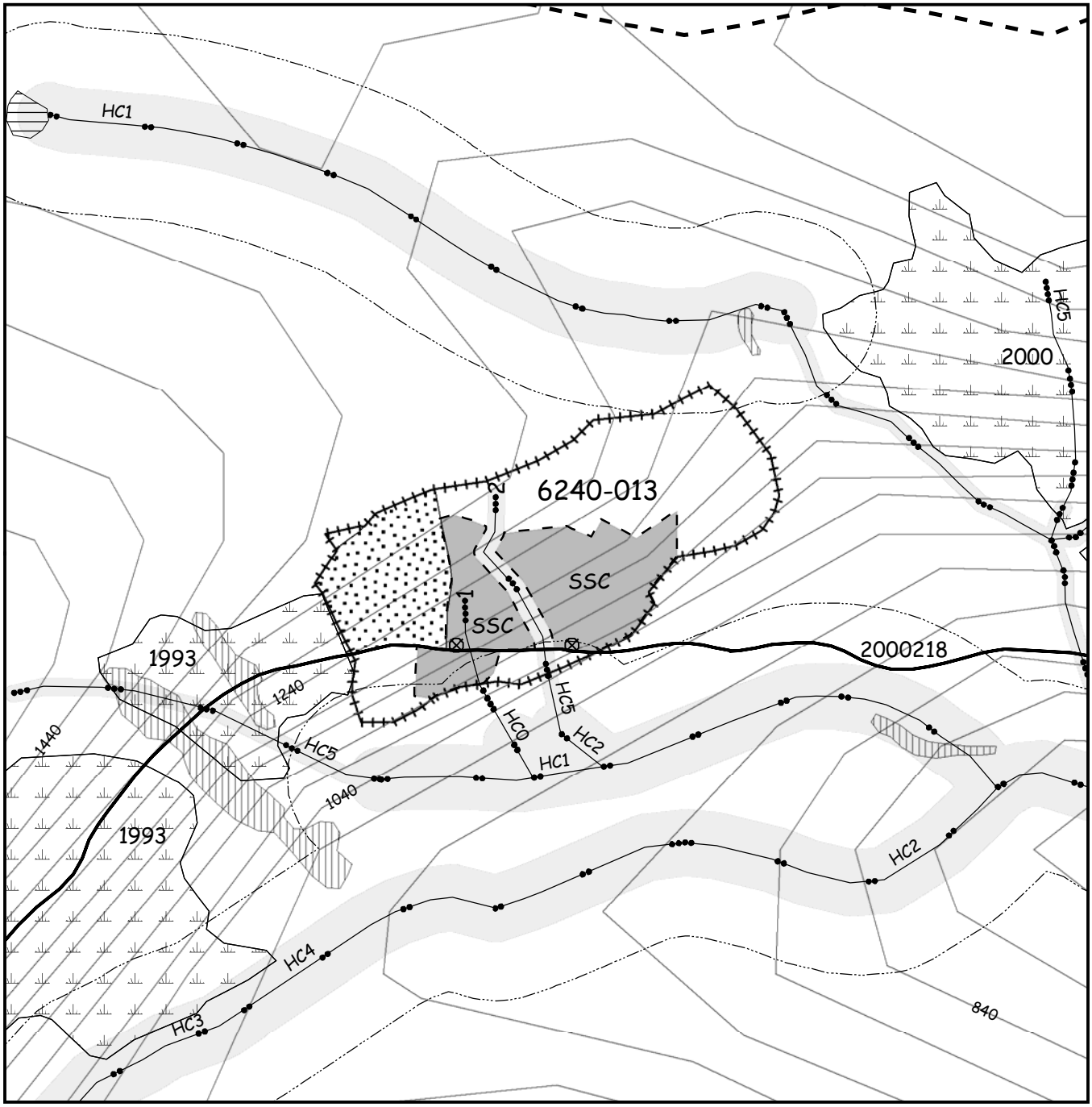
Soda Nick EA Unit No. 6240-013 Selected Alternative



Project Boundary
Existing Temporary Roads
Existing NFS & Private Roads
Managed Stand
Old Growth Habitat Reserve
Marten Habitat
Analysis Area (LSTA)

Class I Stream
Class II Stream
Class III Stream
Class IV Stream
300-Ft Reference
40-Ft Contour
RMA Buffer

Decision Unit 6240-013
Other Decision Units
Landings
New Temporary Roads
Unsuitable Slopes
Landslide
Lakes

* Unshaded areas within analysis area: see resource reports for logging system or environmental concerns.

500 250 0 500
Feet

Note: This map is compiled from various digital geographic data and may not meet National Map Accuracy Standards.

6240-013 Unit Card – Soda Nick Decision

Unit Acres: 20	Harvest Acres: 6.3	Estimated Volume: 70.56 MBF
Road #: None	Logging System: SSC	

The following mitigation measures either are in unit design or would be applied during project implementation.

SUMMARY of RESOURCE CONSIDERATIONS and RECOMMENDATIONS

SILVICULTURE/TIMBER - Cable yarding areas: Even-age management, clearcut harvest of entire proposed alternative unit. No high value marten habitat occurred in the LSTA boundary. No reserves are required. Natural regeneration is expected to be abundant. Apply RAW zone to stream buffers as specified under Fisheries/Watershed. RAW zones are determined through an interdisciplinary process.

TRANSPORTATION – Unit is accessed from existing road 2000218.

SOILS/ WETLANDS - In the northeastern portion of the unit, at least 2 acres of forested wetland and emergent sedge wetlands exist. The majority of the unit contains upland shallow mineral soils. Slopes ranging from 60% to greater than 72% were observed during field reconnaissance. The planned unit configuration contains approximately 5 acres of slopes >72%. At least four of these acres are within a reserve area, leaving 1 acre within the proposed harvest area (BMP 13.5). Partial suspension would meet soil stability and wetland concerns (BMP 12.5 and 13.9). In the northern section of the unit above the steep slopes, partial cutting is recommended for soil stability (BMP 13.9).

FISHERIES/WATERSHED - Stream 1 (inside western 1/3 of unit) – Class IV HC0: No buffer required. Split yard or full/partial suspension. Stream 2 – Class III HC5: Install side-slope break no-cut RMA buffer along channel and RAW buffer on east side of stream. All streams: Implement BMPs 12.6, 12.6a, 13.9, and 13.16.

WILDLIFE - No concerns. All applicable wildlife standards and guidelines would be met. No high value marten habitat exists in this unit. In this unit 67% of the original unit acreage has been deferred for other resource concerns. These other deferrals meet the standard and guideline for goshawk requirements.

BOTANY - No botany concerns. This unit was surveyed on 5 August 2005. No senstive plants were documented.

GEOLOGY/MINERALS - No mining claims exist within this unit.

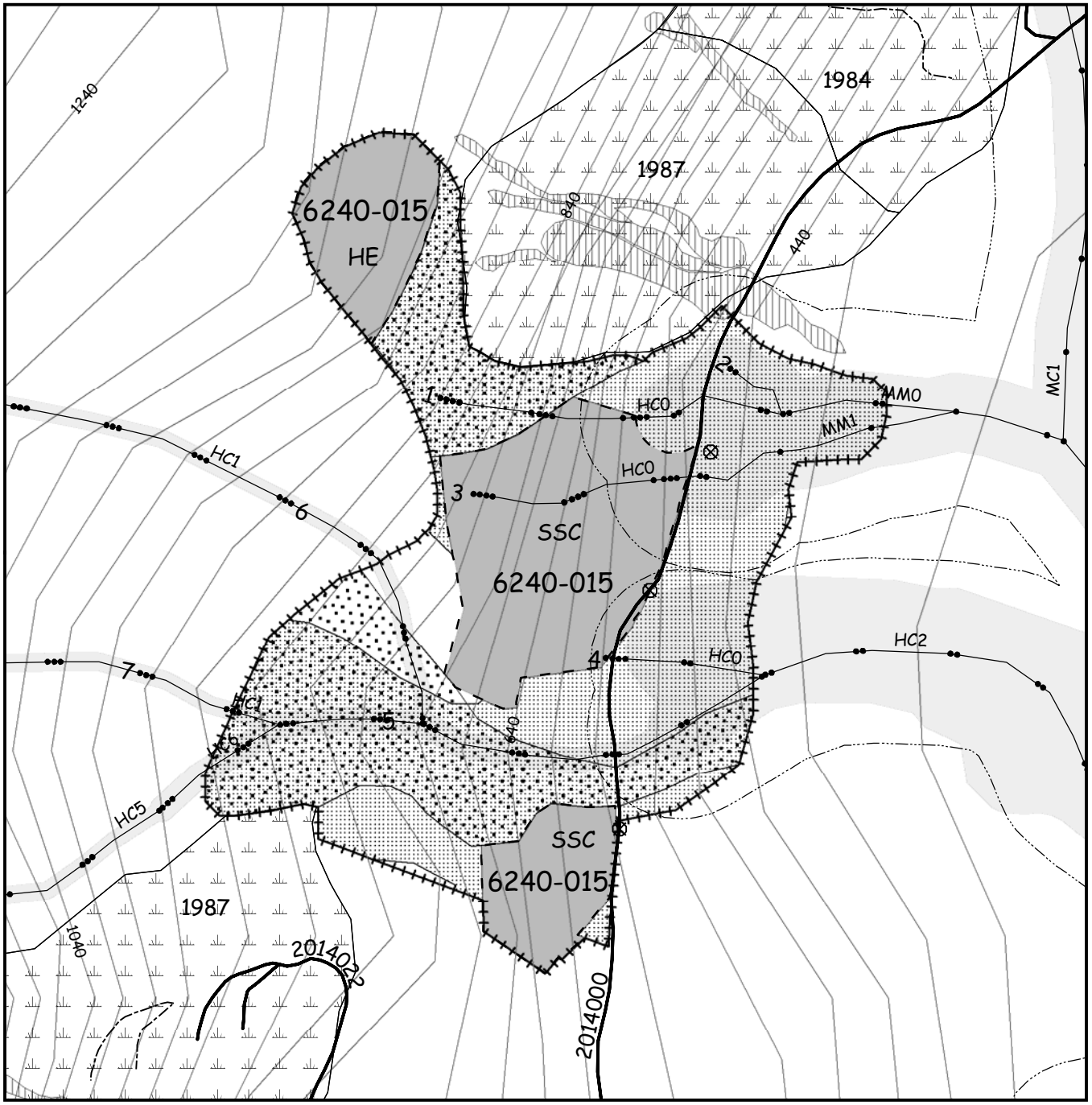
LANDS - S31; T 0740s; R 0830e No land encumbrances or special use permits exist within this unit.

RECREATION - This unit is not within a developed recreation area. This unit is not visible from One Duck trail or shelter. Sounds of timber harvests may be heard from the One Duck trail and shelter, however these sounds would be intermittent and of a short duration. Unlikely that recreation experiences would be affected by harvesting this unit.

HERITAGE - The unit lies in low sensitivity area for heritage resources on steep slopes at elevations between 1000 and 1300 feet asl. No known historic properties are located within the area of potential effects. No concerns.

SCENERY - No Concern, visual management objectives for this unit is Maximum Modification. The unit would not be seen from any Visual Priority Travel Routes or Use Areas. Management activities would be well within Forest Standard and Guidelines for Scenery.

Soda Nick EA Unit No. 6240-015 Selected Alternative



Project Boundary
Existing Temporary Roads
Existing NFS & Private Roads
Managed Stand
Old Growth Habitat Reserve
Marten Habitat
Analysis Area (LSTA)

Class I Stream
Class II Stream
Class III Stream
Class IV Stream
300-Ft Reference
40-Ft Contour
RMA Buffer

Decision Unit 6240-015
Other Decision Units
Landings
New Temporary Roads
Unsuitable Slopes
Landslide
Lakes

500 250 0 500
Feet

* Unshaded areas within analysis area: see resource reports for logging system or environmental concerns.

Note: This map is compiled from various digital geographic data and may not meet National Map Accuracy Standards.

6240-015- Unit Card – Soda Nick Decision

Unit Acres: 63.7	Harvest Acres: 21.0	Estimated Volume: 312.37 MBF
Road #: None	Logging System: SSC, HE	

The following mitigation measures either are in unit design or would be applied during project implementation.

SUMMARY of RESOURCE CONSIDERATIONS and RECOMMENDATIONS

SILVICULTURE/TIMBER - Cable yarding areas: Even-age management, clearcut harvest of entire proposed alternative unit. Standards and guides require 18.5 acres of high value marten habitat be maintained within the original LSTA boundary. In this alternative 29.15 acres of high value marten habitat has already been deferred for other resources between the LSTA unit boundary and the proposed alternative boundary. No additional reserves are required within the planned harvest area. Reserve areas are required to be tracked and held uncut for the rotation of the harvest unit or approximately 120 years. Natural regeneration is expected to be abundant. Apply RAW zone to stream buffers as specified under Fisheries/Watershed. RAW zones are determined through an interdisciplinary process.

Helicopter yarding areas: Two-age management, partial cut harvest. Harvest trees of all species, 24" DBH and larger. Maintain any low timber quality, rough, high value wildlife trees greater than 24" DBH where logging safety regulations allow. No additional requirements for RAW buffers.

TRANSPORTATION – Unit is accessed from existing road 2014000.

SOILS/ WETLANDS – The unit has approximately 5 acres of forested wetland and emergent sedge complexes. The remainder is upland with mineral soils. Many streams dissect this unit see Fish/Watershed section. Slopes range from 40% to greater than 72%; however, the slopes greater than 72% have not been considered for timber harvest or were incorporated into nearly 21 acres of reserve area (see Fish/ Watershed BMP 12.6a and 13.16). Helicopter logging is required for the isolated timber in the northern tip of the unit to protect soil stability (BMP 13.9). A minimum of partial suspension is recommended to meet soil and wetland protection needs in the rest of the unit (BMP 12.5 and 13.9). Unit 15 was reconfigured following reconnaissance to avoid the high landslide potential area, four landslides, and shallow saturated soils on slopes greater than 72% (BMP 13.2 and 13.5).

FISHERIES/WATERSHED - Stream 1 (northern-most stream) – Class II MM1 section: Install 120 ft no-cut RMA buffer; Class II HC0 section: Install 100 ft no-cut RMA buffer; Class IV HC0: No buffer required. Stream 2 (northern tributary of Stream 1) – Class II MM0: Install 120 ft no-cut RMA buffer. Stream 3 – Class I MM1 section: Install 120 ft no-cut RMA buffer; Class II MM1 section: Install 120 ft no-cut RMA buffer; Class IV HC0 section: No buffer required. Stream 4 (bisects southern portion of unit and is lower northern tributary of Stream 5) – Class II HC0 section: Install 100 ft no-cut RMA buffer; Class IV HC0: No buffer required. Stream 5 (southern-most stream) – Class II HC2 section: Install 100 ft no-cut RMA buffer; Class III HC6: Install side-slope break no-cut RMA buffer and RAW buffer on both sides of channel. Stream 6 (northwest mid-unit tributary of Stream 5) – Class III HC1: Install side-slope break no-cut RMA buffer along channel and RAW buffer on east side of channel. Stream 7 (western-most tributary of stream 5) – Class III HC1: Install side-slope break no-cut RMA buffer and RAW buffer on both sides of channel. A minimum of partial suspension is required within unit. All streams: Implement BMPs 12.6, 12.6a, 13.9, and 13.16.

SUMMARY of RESOURCE CONSIDERATIONS and RECOMMENDATIONS

WILDLIFE - No concerns. All applicable wildlife standards and guidelines would be met. This unit requires at least 18.5 acres of high value marten habitat be retained within the unit boundary to meet the 30% retention. An additional 3.9 acres of retention is required to meet the # of trees greater than 20" DBH marten standard and guide requirement. Currently 29.15 acres have been deferred. This deferral also meets the requirement for goshawk retention.

BOTANY - No botany concerns. This unit was surveyed on 31 August 2005. No sensitive plants were found.

GEOLOGY/MINERALS - No mining claims exist within this unit.

LANDS - S5-6, S31-32; T 0740s, T 0750s; R 0830e No land encumbrances or special use permits exist within this unit.

RECREATION - This unit is not within a developed recreation area. This unit is not visible from One Duck trail or shelter. Unlikely that recreation experiences would be affected by harvesting this unit.

HERITAGE - The unit lies in low sensitivity area for heritage resources on steep slopes at elevations between 500 and 900 feet asl. Limited survey of the northern portion of the unit was conducted. No historic properties are located within the area of potential effects. No concerns.

SCENERY - No Concern, visual management objectives for this unit is Maximum Modification. The unit would be seen intermittently along Highway 913 (Hydaburg Highway) from middleground distant zone. Management activities would be within Forest Standard and Guidelines for Scenery. Reduce visual contrast with adjacent areas by using clear cutting with reserve trees as noted in the harvest prescription.

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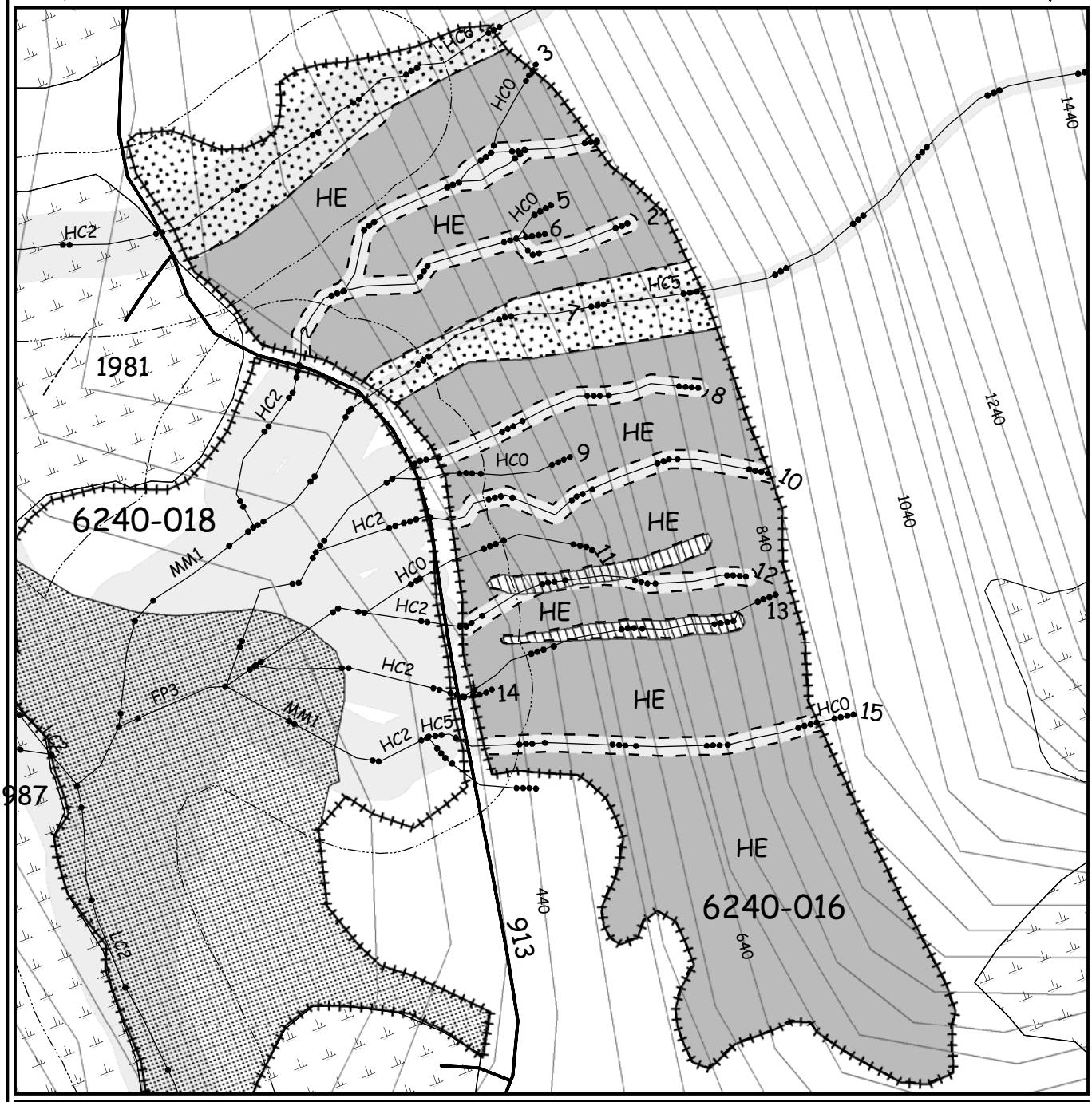
Soda Nick EA Unit No. 6240-016 Selected Alternative



Project Boundary
Existing Temporary Roads
Existing NFS & Private Roads
Managed Stand
Old Growth Habitat Reserve
Marten Habitat
Analysis Area (LSTA)

Class I Stream
Class II Stream
Class III Stream
Class IV Stream
300-Ft Reference
40-Ft Contour
RMA Buffer

Decision Unit 6240-016
Other Decision Units
Landings
New Temporary Roads
Unsuitable Slopes
Landslide
Lakes

500 250 0 500
Feet

* Unshaded areas within analysis area: see resource reports for logging system or environmental concerns.

Note: This map is compiled from various digital geographic data and may not meet National Map Accuracy Standards.

6240-016 Unit Card – Soda Nick EA

Unit Acres: 84.4	Harvest Acres: 61.8	Estimated Volume: 818.47 MBF
Road #: None	Logging System: HE	

The following mitigation measures either are in unit design or would be applied during project implementation.

SUMMARY of RESOURCE CONSIDERATIONS and RECOMMENDATIONS

SILVICULTURE/TIMBER - Helicopter yarding: Two-age management, partial cut harvest. Maintain approximately 50% basal area to meet retention VQO. Harvest Sitka spruce, Western Redcedar and Alaska cedar, 24" DBH and larger. Maintain any low timber quality, rough, high value wildlife trees greater than 24" DBH where logging safety regulations allow. No additional requirements for RAW buffers. Marten standards and guides would be met within the harvest matrix by the partial cut.

Natural regeneration, no further harvest in the stand for the rotation of approximately 120 years.

TRANSPORTATION – Four different routes were investigated for this unit. Constraints due to visuals, roadless area #534, and economics eliminated a road from each alternative.

SOILS/ WETLANDS – Forested wetlands occur in complex with upland soils throughout unit 16. The soils are wet and slopes range from 35 to 65%. Two landslides are located in the unit. Approximately 11 acres were not considered for timber harvest due to stream and soil concerns (BMP 13.5). Helicopter logging would meet soil and wetland resource concerns (BMP 12.5 and 13.9). Many streams are located in this unit (see Fish/ Watershed, BMP 12.6a and 13.16).

FISHERIES/WATERSHED - Stream 1 (northern-most stream) – Class II HC2 section: Install 100 ft no-cut RMA buffer; Class II HC6 section: Install 100 ft no-cut RMA buffer; Class III HC6 section: Install side-slope break no-cut RMA buffer along channel and 50 ft RAW on south side of channel. Stream 2 – Class III HC5 (includes side-channel segment): Install side-slope break no-cut RMA buffer. Stream 3 (northeast tributary of Stream 2) – Class IV HC0: No buffer required. Stream 4 (southern tributary of Stream 2) – Class III HC5: Install side-slope break no-cut RMA buffer. Stream 5 (northeast tributary of Stream 4) – Class IV HC0: No buffer required. Stream 6 (southeast tributary of Stream 4) – Class IV HC0: No buffer required. Stream 7 – Class III HC5: Install side-slope break no-cut RMA buffer. Stream 8 – Class III HC5: Install side-slope break no-cut RMA buffer. Stream 9 – Class IV HC0: No buffer required. Stream 10 – Class III HC5: Install side-slope break no-cut RMA buffer. Stream 11 - Class IV HC0: No buffer required. Stream 12 – Class III HC5: Install side-slope break no-cut RMA buffer. Stream 13 - Class III HC5 section: Install side-slope break no-cut RMA buffer; Class IV HC0: No buffer required. Stream 14 - Class IV HC0: No buffer required. Stream 15 – Class III HC5 section: Install side-slope break no-cut RMA buffer; Class IV HC0 section: No buffer required. All streams: Implement BMPs 12.6, 12.6a, 13.9, and 13.16.

WILDLIFE - No concerns. All applicable wildlife standards and guidelines would be met. This unit requires at least 10.5 acres of high value marten habitat be retained within the unit boundary to meet the 30% retention requirement. Currently, 8.23 acres have been deferred. However this unit is planned for helicopter harvest in all alternatives and retention requirements for marten would be met. This deferral also meets the requirement for goshawk retention.

BOTANY - No botany concerns. This unit was surveyed on 31 April 2005. No sensitive plants were found.

GEOLOGY/MINERALS - No mining claims exist within this unit.

SUMMARY of RESOURCE CONSIDERATIONS and RECOMMENDATIONS

LANDS - S4-5, S8-9; T 0750s; R 0830e – No land encumbrances or special use permits exist within this unit.

RECREATION - This unit is not within a developed recreation area. Unlikely that recreation experiences would be affected by harvesting this unit.

HERITAGE - The unit lies in low sensitivity area for heritage resources on steep slopes at elevations between 400 and 900 feet asl. Limited pedestrian survey was conducted. 15 modern culturally modified trees were noted. No known historic properties are located within the area of potential effects. No concerns.

SCENERY - No Concern, visual management objectives for this unit is Retention as seen from Foreground distant zone along Highway 913 (Hydaburg Highway). Management activities would be within Forest Standard and Guidelines for Scenery as a result of careful harvest prescription - helicopter yarding, two-age management, partial cut harvest with approximately 50% basal area retention. Roadside Cleanup: Provide for roadside cleanup of ground-disturbing activities within project area as needed, (VIS11-II). Ensure management activities are indiscernible to casual forest observer after harvest within VQO Retention areas.

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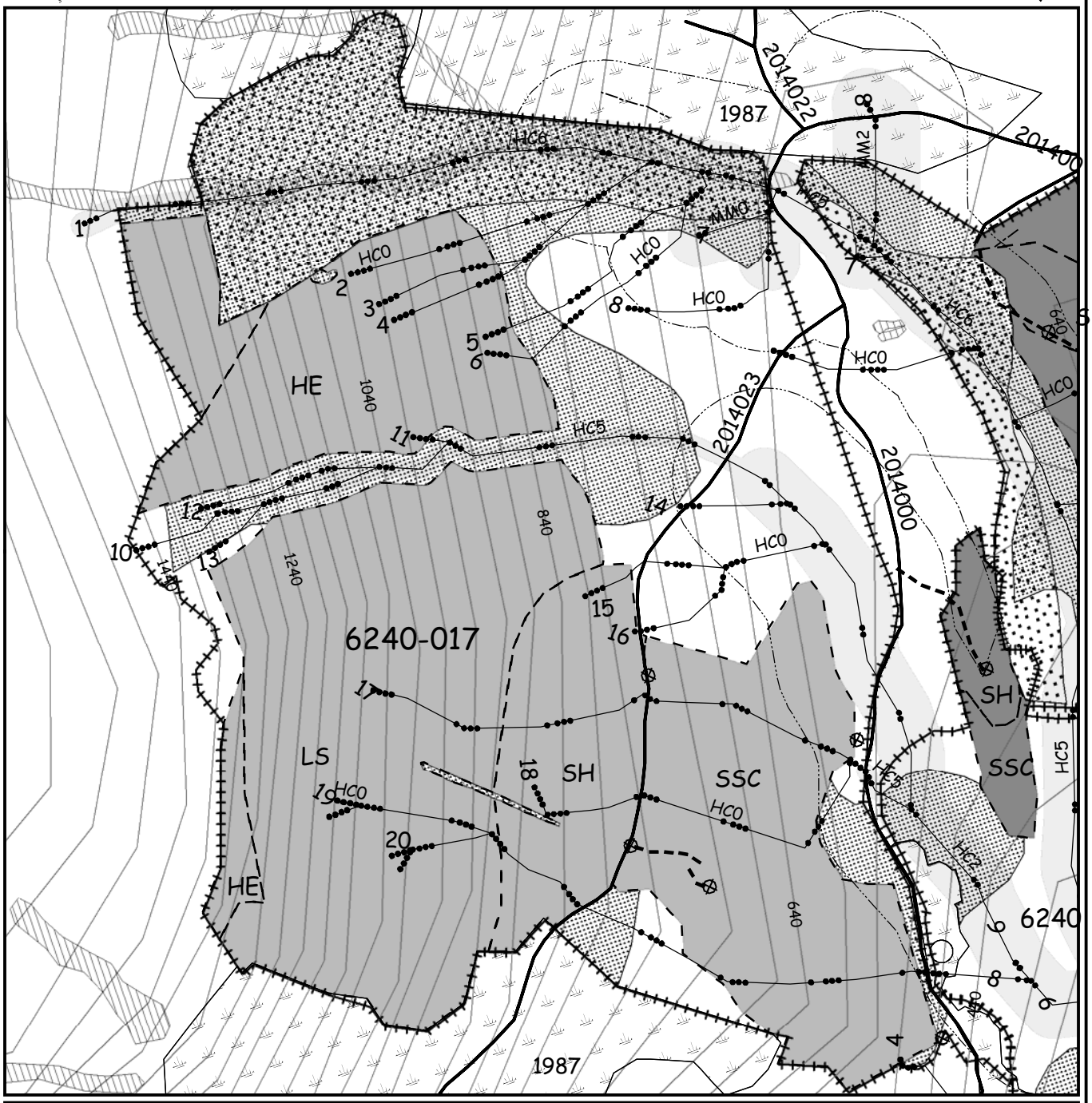
Soda Nick EA Unit No. 6240-017 Selected Alternative



Project Boundary
Existing Temporary Roads
Existing NFS & Private Roads
Managed Stand
Old Growth Habitat Reserve
Marten Habitat
Analysis Area (LSTA)

* Unshaded areas within analysis area: see resource reports for logging system or environmental concerns.

Class I Stream
Class II Stream
Class III Stream
Class IV Stream
300-Ft Reference
40-Ft Contour
RMA Buffer

500 250 0 500
Feet

Decision Unit 6240-017
Other Decision Units
Landings
New Temporary Roads
Unsuitable Slopes
Landslide
Lakes

Note: This map is compiled from various digital geographic data and may not meet National Map Accuracy Standards.

6240-017- Alternative 3 Unit Card – Soda Nick Decision

Unit Acres: 147.3	Harvest Acres: 87.6	Estimated Volume: 1498.97 MBF
Road #: 2014026	Logging System: LSC, SSC, SH, HE	

The following mitigation measures either are in unit design or would be applied during project implementation.

SUMMARY of RESOURCE CONSIDERATIONS and RECOMMENDATIONS

SILVICULTURE/TIMBER - Cable and shovel yarding areas: Even-age management, clearcut harvest of entire proposed alternative unit. Standards and guides require 28.9 acres of high value marten habitat be maintained within the original LSTA boundary. In this alternative 29.7 acres of high value marten habitat has already been deferred for other resources between the LSTA unit boundary and the proposed alternative boundary. No additional reserves are required within the planned harvest area. Reserve areas are required to be tracked and held uncut for the rotation of the harvest unit or approximately 120 years. Natural regeneration is expected to be abundant. Apply RAW zone to stream buffers as specified under Fisheries/Watershed. RAW zones are determined through an interdisciplinary process.

Helicopter yarding areas: Two-age management, partial cut harvest. Harvest trees of all species, 24" DBH and larger. Maintain any low timber quality, rough, high value wildlife trees greater than 24" DBH where logging safety regulations allow. No additional requirements for RAW buffers.

TRANSPORTATION - New construction in alternatives 2 and 4 would access this unit. See road card for road 2014026. A temporary road about 0.1 miles in length would access the unit below existing road 2014023.

SOILS/ WETLANDS – Approximately 23 acres of the unit are emergent sedge and forested wetlands. These wetlands occur intermittently in ¼ acre pockets throughout the top eastern section of the unit. Emergent sedge/scrub wetlands occur throughout the lower elevations of the unit. The rest of the unit consists of uplands with mineral soils. Unit 17 has been reconfigured following reconnaissance to avoid these wetland areas (BMP 12.5 and 13.2). Slopes range from 30 to 90%, with an average of a 50% gradient. Approximately 17 acres in the northern portion of the unit has been deleted from the unit to avoid steep slopes, landslides, and an area of high landslide potential (BMP 13.5). A small landslide located in the southern half of the unit has led to sediment impacts in a Class III stream and is included in a stream buffer to minimize further sedimentation (see Fish/Watershed section BMP 12.6a, 13.5, and 13.16). Four acres of slopes are greater than 72% located in the middle of unit. Partial suspension is required to protect wetlands and soils throughout the unit (BMP 12.5, 13.9, 13.11, and 13.14).

SUMMARY of RESOURCE CONSIDERATIONS and RECOMMENDATIONS

FISHERIES/WATERSHED - Stream 1 (northern-most boundary) – Class II HC5 section: Install 100 ft no-cut RMA buffer; Class II HC6 section: Install 100 ft no-cut RMA buffer; Class III HC6 section: Install side-slope break no-cut RMA buffer along channel and RAW buffer on south side of channel. Stream 2 (southwest tributary of Stream 1) – Class IV HC0: No buffer required. Stream 3 (tributary of Stream 2) – Class IV HC0: No buffer required. Stream 4 (tributary of Stream 3) – Class IV HC0: No buffer required. Stream 5 (tributary of Stream 1) – Class IV HC0: No buffer required. Stream 6 (tributary of Stream 5) – Class IV HC0: No buffer required. Stream 7 (tributary of Stream 8) – Class II MM0: Install 120 ft no-cut RMA buffer. Stream 8 (tributary of Stream 1) – Class II MM0 section: Install 120 ft no-cut RMA buffer; Class IV HC0 section: No buffer required. Stream 9 – Class IV HC0: No buffer required. Stream 10 – Class II HC2 section: Install 100 ft no-cut RMA buffer; Class III HC5 section: Install side-slope break no-cut RMA buffer and RAW buffer on south side of channel; Class IV HC0 section: No buffer required. Stream 11 (northern tributary of Stream 10) – Class IV HC5: No buffer required. Stream 12 (northwest tributary of Stream 10) – Class III HC5 section: Install side-slope break no-cut RMA buffer; Class IV HC0 section: No buffer required. Stream 13 (southwest-most tributary of Stream 10) – Class IV HC0: No buffer required. Streams 14-17 (tributaries of Stream 10) – Class IV HC0: No buffer required. Stream 18 (tributary of Stream 17) – Class IV HC0 section: No buffer required; Class III HC0 section (landslide impacts): Install side-slope break no-cut RMA buffer and RAW. Also refer to Soils section for buffer around landslide (BMP 13.5). Stream 19 – Class IV HC0: No buffer required. Stream 20 (at southern unit boundary) – Class IV HC0: No buffer required. All streams: Implement BMPs 12.6, 12.6a, 13.9, and 13.16. Fall timber away from stream channels.A minimum of partial suspension is required.

WILDLIFE - No concerns. All applicable wildlife standards and guidelines would be met. This unit requires at least 28.9 acres of high value marten habitat be retained within the unit boundary to meet the 30% retention. An additional 4.5 acres of retention is required to meet the # of trees greater than 20” DBH marten standard and guide requirement. Currently, 29.7 acres have been deferred. This deferral also meets the requirement for goshawk retention.

BOTANY - No botany concerns. This unit was surveyed on 22 July 2004. No sensitive plants were found.

GEOLOGY/MINERALS - No mining claims exist within this unit.

LANDS - S6-7; T 0750s; R 0830e - No land encumbrances or special use permits exist in this unit.

RECREATION - This unit is not within a developed recreation area. Unlikely that recreation experiences would be affected by harvesting this unit.

HERITAGE - The unit lies in low sensitivity area for heritage resources on steep slopes at elevations between 500 and 1400 feet asl. No known historic properties are located within the area of potential effects. No concerns.

SCENERY - No Concern, visual management objectives for this unit is Maximum Modification. Reduce visual contrast with adjacent areas by using clear cutting with reserve trees and RAW buffers as noted in the harvest prescriptions. The unit would be seen intermittently along Highway 913 (Hydaburg Highway) from middleground distant zone. Management activities would be within Forest Standard and Guidelines for both direct and cumulative affects. Adjacent past harvest units would continue to regenerate toward old growth characteristics. Natural regeneration is expected to be abundant.

SUMMARY of RESOURCE CONSIDERATIONS and RECOMMENDATIONS

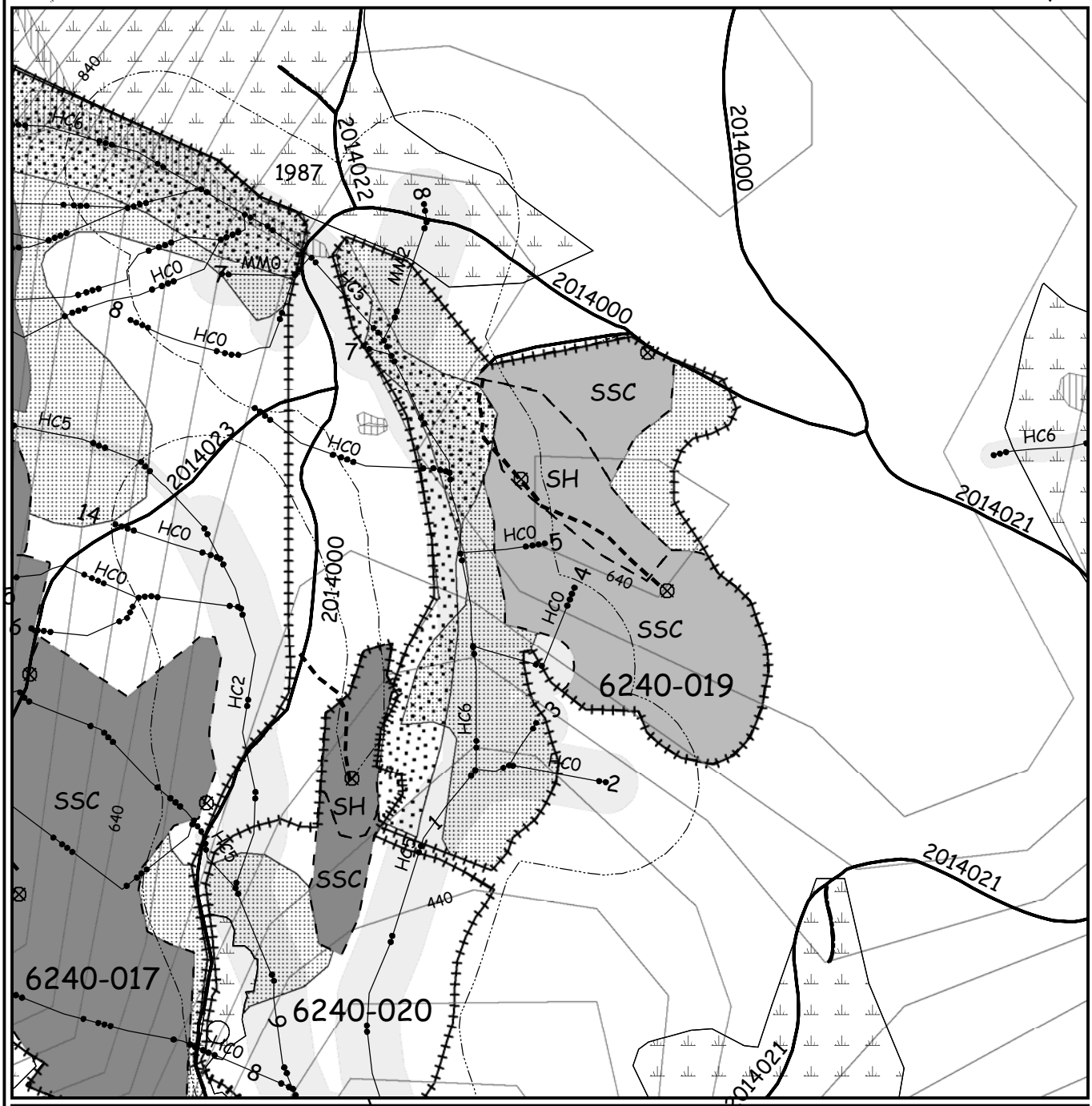
LANDS - S4-5, S8-9; T 0750s; R 0830e – No land encumbrances or special use permits exist within this unit.

RECREATION - This unit is not within a developed recreation area. Unlikely that recreation experiences would be affected by harvesting this unit.

HERITAGE - The unit lies in low sensitivity area for heritage resources on steep slopes at elevations between 400 and 900 feet asl. Limited pedestrian survey was conducted. 15 modern culturally modified trees were noted. No known historic properties are located within the area of potential effects. No concerns.

SCENERY - No Concern, visual management objectives for this unit is Retention as seen from Foreground distant zone along Highway 913 (Hydaburg Highway). Management activities would be within Forest Standard and Guidelines for Scenery as a result of careful harvest prescription - helicopter yarding, two-age management, partial cut harvest with approximately 50% basal area retention. Roadside Cleanup: Provide for roadside cleanup of ground-disturbing activities within project area as needed, (VIS11-II). Ensure management activities are indiscernible to casual forest observer after harvest within VQO Retention areas.

Soda Nick EA Unit No. 6240-019 Selected Alternative



* Unshaded areas within analysis area: see resource reports for logging system or environmental concerns.

Note: This map is compiled from various digital geographic data and may not meet National Map Accuracy Standards.

6240-019 Unit Card – Soda Nick Decision

Unit Acres: 35.4	Harvest Acres: 17.1	Estimated Volume: 165.87 MBF
Road #: Temporary	Logging System: SSC, SH	

The following mitigation measures either are in unit design or would be applied during project implementation.

SUMMARY of RESOURCE CONSIDERATIONS and RECOMMENDATIONS

SILVICULTURE/TIMBER - Cable and shovel yarding areas: Even-age management, clearcut harvest of entire proposed alternative unit. Standards and guides require 13.2 acres of high value marten habitat be maintained within the original LSTA boundary. In this alternative 17.7 acres of high value marten habitat has already been deferred for other resources between the LSTA unit boundary and the proposed alternative boundary. No additional reserves are required within the planned harvest area. Reserve areas are required to be tracked and held uncut for the rotation of the harvest unit or approximately 120 years. Natural regeneration is expected to be abundant. Apply RAW zone to stream buffers as specified under Fisheries/Watershed. RAW zones are determined through an interdisciplinary process.

TRANSPORTATION - A temporary road about 0.2 miles in length would access this unit.

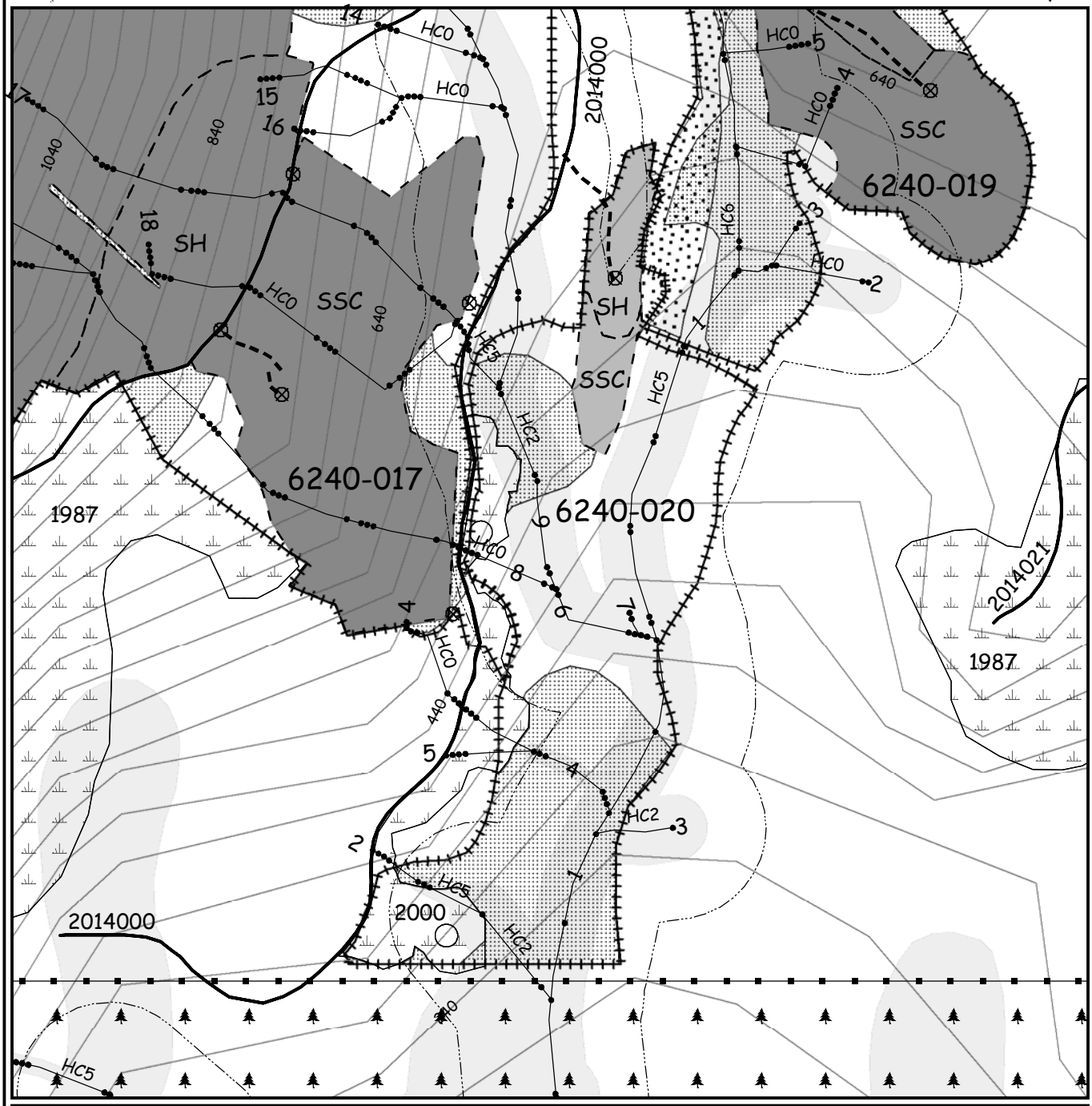
SOILS/ WETLANDS – Most of unit 19 consists of well drained soils on slopes les than 65 percent gradient. About 4 acres of forested wetland and emergent sedge are included in the southeastern portion of the unit. Unit 19 was modified following reconnaissance to exclude 7 acres of non-commercial forested wetland and emergent sedge wetlands and to include the steep slope riparian are in the buffer on the Class II stream on the west side of the unit (BMPs 13.5, 12.6 and 12.6a) Partial suspension would meet soil and wetland objectives on the remainder of the unit. (BMP 12.5 and 13.9). Two small landslides are located on steep slopes in the riparian area on the Class II stream. Both slides and the steep slopes are included in the stream buffer (BMP 12.6a, 13.16).

FISHERIES/WATERSHED - Stream 1 (runs through west side of unit) – Class II HC5 sections: Install 100 ft no-cut RMA buffer; Class II HC6 section: Install 100 ft no-cut RMA buffer. Also refer to additional Soils deletions due to landslides along portions of Stream 1 (BMP 13.5). Stream 2 (southeast tributary of Stream 1) – Class II HC0: Install 100 ft no-cut RMA buffer. Stream 3 (tributary of Stream 2) – Class II HC0: Install 100 ft no-cut RMA buffer. Stream 4 (east tributary of Stream 1) – Class II HC0 section: Install 100 ft no-cut RMA buffer; Class IV HC0 section: Split yarding or full/partial suspension required. Stream 5 (east tributary of Stream 1) – Class IV HC0: Split yarding or full/partial suspension required. Stream 6 (west tributary of Stream 1) – Class IV HC0: Split yarding or full/partial suspension required. Stream 7 (west tributary of Stream 1) – Class II MM0: Install 120 ft no-cut RMA buffer. Stream 8 (northeast tributary of Stream 1) – Class II MM2: Install 120 ft no-cut RMA buffer. All streams: Implement BMPs 12.6, 12.6a, 13.9, and 13.16. Upon completion of unit harvest, restore natural drainage patterns by installing waterbars as necessary (BMP 13.16). Seed and fertilize disturbed soils (BMP 12.17). Streams 1, 2, and 3 are not within the currently proposed harvest boundary.

WILDLIFE - No concerns. All applicable wildlife standards and guidelines would be met. This unit requires at least 13.2 acres of high value marten habitat be retained within the unit boundary to meet the 30% retention. An additional 4.2 acres of retention is required to meet the # of trees greater than 20” DBH marten standard and guide requirement. Currently, 17.7 acres have been deferred. This deferral also meets the requirement for goshawk retention.

BOTANY - No botany concerns. This unit was surveyed on 11 August 2004. No sensitive plants were found.

Soda Nick EA Unit No. 6240-020 Selected Alternative



Project Boundary
Existing Temporary Roads
Existing NFS & Private Roads
Managed Stand
Old Growth Habitat Reserve
Marten Habitat
Analysis Area (LSTA)

Class I Stream
Class II Stream
Class III Stream
Class IV Stream
300-Ft Reference
40-Ft Contour
RMA Buffer

Decision Unit 6240-020
Other Decision Units
Landings
New Temporary Roads
Unsuitable Slopes
Landslide
Lakes

* Unshaded areas within analysis area: see resource reports for logging system or environmental concerns.

500 250 0 500
Feet

Note: This map is compiled from various digital geographic data and may not meet National Map Accuracy Standards.

6240-020 Unit Card – Soda Nick Decision

Unit Acres: 34.4	Harvest Acres: 3.7	Estimated Volume: 67.34 MBF
Road #: Temporary	Logging System: SSC, SH	

The following mitigation measures either are in unit design or would be applied during project implementation.

SUMMARY of RESOURCE CONSIDERATIONS and RECOMMENDATIONS

SILVICULTURE/TIMBER - Cable and shovel yarding areas: Even-age management, clearcut harvest of entire proposed alternative unit. Standards and guides require 3.7 acres of high value marten habitat be maintained within the original LSTA boundary. In this alternative 12.2 acres of high value marten habitat has already been deferred for other resources between the LSTA unit boundary and the proposed alternative boundary. No additional reserves are required within the planned harvest area. Reserve areas are required to be tracked and held uncut for the rotation of the harvest unit or approximately 120 years. Natural regeneration is expected to be abundant. Apply RAW zone to stream buffers as specified under Fisheries/Watershed. RAW zones are determined through an interdisciplinary process.

TRANSPORTATION - A temporary road about 0.1 miles in length would access this unit.

SOILS/ WETLANDS - Unit 20 consists of Forested wetlands interspersed with better drained soils. Slopes are less than 50%. Partial suspension on steeper slopes and shovel yarding on slopes less than 20 percent would meet resource concerns (BMPs 12.5, 13.9, 13.10, 13.11, and 13.14).

FISHERIES/WATERSHED - Stream 1 (runs through middle of LSTA boundary) – Class I MC1 section: Install 120 ft no-cut RMA buffer; Class II HC5 section: Install 100 ft no-cut RMA buffer. Stream 2 (west tributary of Stream 1) – Class I HC2 section: Install 100 ft no-cut RMA buffer; Class III HC5 section: Install side-slope break no-cut RMA buffer plus RAW buffer; Class IV HC5 section: Split yard and full/partial suspension required. Stream 3 (east tributary of Stream 1) – Class I HC2: Install 100 ft no-cut RMA buffer. Stream 4 (west tributary of Stream 1) – Class II MM1 section: Install 120 ft no-cut RMA buffer; Class III HC5 section: Install side-slope break no-cut RMA buffer plus RAW buffer; Class IV HC5: Split yard and full/partial suspension required. Stream 5 (tributary of Stream 4) – Class IV HC5: Split yard and full/partial suspension required. Stream 6 (tributary of Stream 1) – Class II HC2: Install 100 ft no-cut RMA buffer. Stream 7 (tributary of Stream 6) – Class II HC0: Install 100 ft no-cut RMA buffer. Stream 8 (western tributary of Stream 6) – Class IV HC0: Split yard and full/partial suspension required. Stream 9 (northwest tributary of Stream 6) – Class III HC5: Install side-slope break no-cut RMA buffer. All streams: Implement BMPs 12.6, 12.6a, 13.9, and 13.16. A minimum of partial suspension is required. Upon completion of unit harvest and related fire wood permit collection, remove and restore natural drainage patterns by removing road fill from channels and installing water bars as necessary (BMP 13.16). Seed and fertilize disturbed soil adjacent to streams (BMP 12.17).

WILDLIFE - No concerns. All applicable wildlife standards and guidelines would be met. This unit requires at least 3.7 acres of high value marten habitat be retained within the unit boundary to meet the 30% retention requirement. Currently, 12.2 acres have been deferred. This deferral also meets the requirement for goshawk retention.

BOTANY - No botany concerns. This unit was surveyed on 11 August 2004. No sensitive plants were found.

GEOLOGY/MINERALS - No mining claims exist within this unit.

LANDS - S7; T 0750s; R 0830e - No land encumbrances or special use permits exist within this unit.

RECREATION - This unit is not within a developed recreation area. Unlikely that recreation experiences would be affected by harvesting this unit.

HERITAGE - The unit lies in low sensitivity area for heritage resources on steep slopes at elevations between 350 and 500 feet asl. No known historic properties are located within the area of potential effects. No concerns.

SCENERY - No Concern, visual management objectives for this unit is Maximum Modification. Reduce visual contrast with adjacent areas by using clear cutting with reserve trees and RAW buffers as noted in the harvest prescriptions. The unit may potentially be seen intermittently along Highway 913 (Hydaburg Highway) from middleground distant zone. Management activities would be within Forest Standard and Guidelines for both direct and cumulative affects. Natural regeneration is expected to be abundant.

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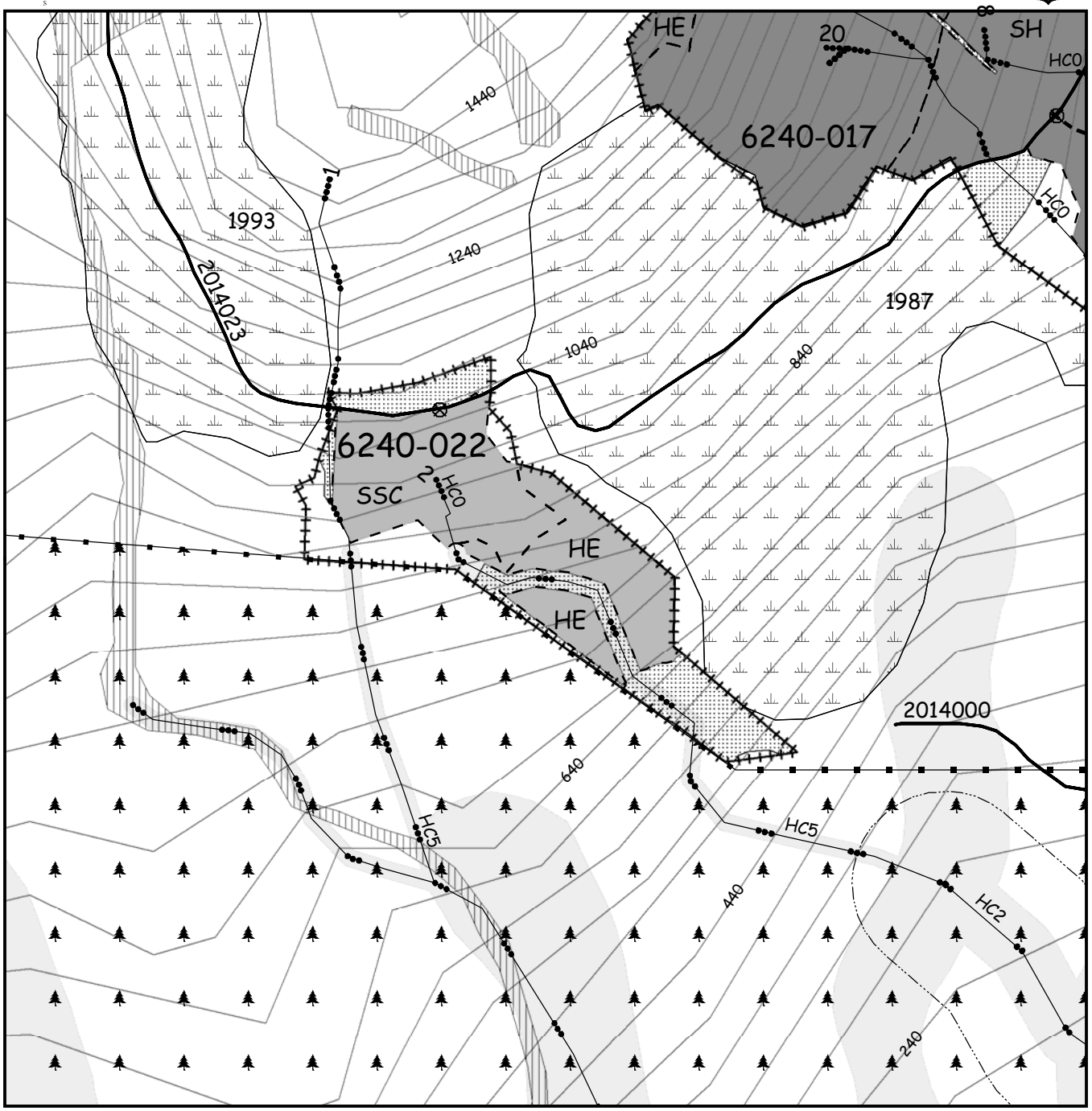
Soda Nick EA Unit No. 6240-022 Selected Alternative



Project Boundary
Existing Temporary Roads
Existing NFS & Private Roads
Managed Stand
Old Growth Habitat Reserve
Marten Habitat
Analysis Area (LSTA)

* Unshaded areas within analysis area: see resource reports for logging system or environmental concerns.

Class I Stream
Class II Stream
Class III Stream
Class IV Stream
300-Ft Reference
40-Ft Contour
RMA Buffer

500 250 0 500
Feet

Decision Unit 6240-022
Other Decision Units
Landings
New Temporary Roads
Unsuitable Slopes
Landslide
Lakes

Note: This map is compiled from various digital geographic data and may not meet National Map Accuracy Standards.

6240-022- Unit Card – Soda Nick EA

Unit Acres: 16.4	Harvest Acres: 10.1	Estimated Volume: 159.44 MBF
Road #: None	Logging System: SSC, HE	Alternatives: 2, 3

The following mitigation measures either are in unit design or would be applied during project implementation.

SUMMARY of RESOURCE CONSIDERATIONS and RECOMMENDATIONS

SILVICULTURE/TIMBER - Cable yarding areas: Even-age management, clearcut harvest of entire proposed alternative unit. Standards and guides require 3.9 acres of high value marten habitat be maintained within the original LSTA boundary. In this alternative 4.25 acres of high value marten habitat has already been deferred for other resources between the LSTA unit boundary and the proposed alternative boundary. No additional reserves are required within the planned harvest area. Reserve areas are required to be tracked and held uncut for the rotation of the harvest unit or approximately 120 years. Natural regeneration is expected to be abundant. For required RAW buffers, from the slope break of the stream channel requiring protection to within 50 feet of the stream channel slope break apply a no cut buffer. Within a zone from 50 feet to 100 feet away from the stream channel slope break, partial cut retaining 50 percent of the original basal area. Mark trees to achieve a tapering effect to the stand edge rather than an abrupt change. Do this by first leaving large diameter, rough, high wildlife value trees; and then live intermediate trees; followed by merchantable understory trees until the basal area retention target is met.

Helicopter yarding areas: Two-age management, partial cut harvest. Harvest trees of all species, 24” DBH and larger. Maintain any low timber quality, rough, high value wildlife trees greater than 24” DBH where logging safety regulations allow. No additional requirements for RAW buffers.

TRANSPORTATION – Unit is accessed off existing road 2014023.

SOILS/ WETLANDS - Unit 22 consists of upland soils mixed with small inclusions of forested wetlands. Slopes are less than 50%. Partial suspension would meet soils and wetlands objectives (BMPs 12.5 and 13.9). One Class IV to Class III stream for protection (see Fish/Watershed section, BMP 13.16).

FISHERIES/WATERSHED - Stream 1 (west unit boundary) – Class III HC5 section: Install side-slope break no-cut RMA buffer; Class IV HC5 section: No buffer required. Stream 2 – Class III HC5 section: Install side-slope break no-cut RMA buffer (RAW not required due to partial harvest); Class IV HC0: No buffer required. Fall timber away from stream channels. A minimum of partial suspension is requied. All streams: Implement BMPs 12.6, 12.6a, 13.9, and 13.16.

WILDLIFE - No concerns. All applicable wildlife standards and guidelines would be met. This unit requires at least 3.9 acres of high value marten habitat be retained within the unit boundary to meet the 30% retention requirement. Currently, 4.25 acres have been deferred. This deferrel also meets the requirement for goshawk retention.

BOTANY - No botany concerns.

GEOLOGY/MINERALS - No mining claims exist within this unit.

LANDS - S7; T 0750s; R 0830e - No land encumbrances or special use permits exist within this unit.

RECREATION - This unit is not within a developed recreation area. This unit may be visible from Trocadero Picnic Area and Overlook. The Overlook was designed to view successions of timber growth, so harvest of this unit is unlikely to have a negative effect on recreation visitors.

SUMMARY of RESOURCE CONSIDERATIONS and RECOMMENDATIONS

HERITAGE - The unit lies in low sensitivity area for heritage resources on steep slopes at elevation above 100 feet asl. No known historic properties are located within the area of potential effects. No concerns.

SCENERY - No concern. Visual management objective for this unit is Maximum Modification. Reduce visual contrast with adjacent areas by using clear cutting with reserve trees and RAW buffers as noted in harvest prescriptions. The unit would be seen intermittently along Highway 913 (Hydaburg Highway) from middleground distant zone. Management activities would be within Forest Standards and Guidelines for both direct and cumulative effects. Adjacent past harvest units would continue to regenerate toward old-growth characteritics. Natural regeneration is expected to be abundant.

Appendix 2

Response to EA Comments

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Alaska Coastal Management Program (ACMP)

The Alaska Department of Natural Resources (DNR) Alaska Coastal Management Program (ACMP) had a number of comments:

> **ACMP-WL-1:** *"Important wildlife habitat" was described in the August 26, 1996, State TLMP comments, and includes, but is not limited to, concentration areas for feeding, denning, resting, travel, breeding, rearing, molting, spawning, wintering, and birthing, and areas used by species in a population decline or that are environmentally sensitive. Riparian areas are important wildlife habitat for feeding, nesting, molting, travel, and denning, as well as routes for maintaining connectivity among the upper reaches of watersheds.*

Forest Service—Response: We agree that riparian areas are important to wildlife for feeding, nesting, molting travel, and denning. These areas are also important for maintaining travel corridors. Forest Plan standards and guidelines for riparian areas are included on pages 53 through 72.

> **ACMP-WL-2:** *Because of the extensive fragmentation of the project area from previous harvest and resultant concerns for long-term deer population levels, we question whether this sale as proposed fully conforms to TLMP criteria, standards, and guidelines and whether it is consistent to the maximum extent practicable with the state Forest Practices Act and ACMP standards (e.g., AS 41.17.060(c) (7)) to make allowances for important wildlife habitat.*

FS—Response: There are no specified thresholds for connectivity in the Forest Plan, except for between medium and large reserves. While the travel corridor areas in the Soda Nick project area may not be completely intact they do appear to be providing some connection. The stream buffers in place for the current proposed project as well as the regeneration of the old harvest activity provide travel corridors as well as cover. Also the acres deferred for marten and goshawk standards and guidelines will provide some degree connectivity between habitats.

Alaska Coastal Management Program (ACMP)—Concurrence November 17, 2006

Alaska Coastal Management Program (ACMP).
RE: Soda Nick Small Timber Sales EA
State ID No. AK 0611-04J
Proposed Consistency Response—Concurrence

The Office of Project Management and Permitting (OPMP) is currently coordinating the State's review of the "Soda Nick Small Timber Sales Environmental Assessment" and federal consistency determination distributed by the USDA Forest Service for consistency with the Alaska Coastal Management Program (ACMP). The proposed project area is located in the vicinity of the community of Craig, Alaska, on Prince of Wales Island in Southeast Alaska.

Based upon review by the Alaska Departments of Environmental Conservation and Natural Resources, OPMP has developed the enclosed proposed consistency response, in which the State proposed to concur with ACMP constancy determination that was submitted by the U.S. Forest Service, that the project is consistent with the ACMP and affected coastal District's enforceable policies, to the maximum extent practicable.

By copy of this letter, I am informing the U.S. Army Corps of Engineers and State review participants of OPMP's proposed finding. If you have any questions, please contact me at 907-465-4664 or email Joe_donohue@dnr.state.ak.us.

Alaska Department of Natural Resources, Office of Habitat Management and Permitting

The Alaska Department of Natural Resources (DNR) Office of Habitat Management and Permitting (OHMP) had a number of comments:

> **DNR/OHMP:** *OHMP recommends that the Forest Service consider restoring full fish passage at all deficient stream crossings located on the portions of the existing, non-Department of Transportation, system roads which would be used for the timber sale.*

FS—Response: Many of the "red pipes" (culverts that block fish passage) identified within the project area contain minimal fish habitat upstream from the existing fish passage barriers. As a result the existing "red pipes" are not currently scheduled for replacement in the project area.

The culverts meet the standards for timber sale contract use because they provide for access to the timber sale areas. The culverts do not meet present day fish passage requirements so are thus designated red pipes. There is nothing in Timber Sale contracts that require existing roads to meet the new standards. If a culvert were to structurally fail prior to or during the sale activities the new installation would conform to the new standards.

For several years the Forest Service has been partnering with EPA, ACOE, NMFS and numerous state agencies in an effort to identify and prioritize the over 2000 stream crossing culverts that do not meet the present day protocols for fish passage. Until that prioritization is complete the consensus of the partners is to not randomly expend funds on replacement unless there was a structural failure and roads had to be kept open.

> **DNR/OHMP:** *OHMP is of the opinion that helicopter harvest methods and harvest units to support these methods (units 6240-007, 6240-015, and 6240-016) should not be considered for the timber sale.*

FS—Response: Units 6240-007, 6240-015, and 6240-017 in Alternatives 2 and 3 have units which contain small areas of helicopter logging. In the current market, it is likely that helicopter logging will be subject to agreement in the timber sale contracts. This means that the purchaser has the option of dropping these areas if they are not economical.

> **DNR/OHMP:** *Unit 6240-016 contains a considerable amount of wetlands and is located on steep, unstable soils as evidenced by previous landslides. Harvest of this unit is likely to result in additional slides having the potential to negatively impact water quality and downstream fish habitat.*

FS—Response: Unit 6240-016 was evaluated individually to estimate site-specific impacts and determine appropriate measures to minimize soil erosion and water quality degradation. The harvest unit design incorporates site-specific information and field verification in order to consider: (1) stream channel protection; (2) potential slope

instability and erosion hazard; (3) size and shape of unit; (4) landform characteristics; (5) road and skid trail network; (6) logging system design; (7) relative risk of wind throw; (8) wetland protection; and (9) Karst area protection.

Two soil scientists reviewed unit 6240-016 and both identified the unit as suitable with partial harvest helicopter logging. Helicopter logging and 50% partial retention would reduce soil disturbance and protect potentially unstable soils and wetlands. Where adverse water quality, soil productivity impacts, or undesirable stream flows are likely to result, the harvest unit designs are modified or special mitigation measures identified. Best Management Practices (BMP's) are applied to protect soil, wetland, fish, and watershed resources (see unit cards).

Where adverse water quality, soil productivity impacts, or undesirable stream flows are likely to result, the harvest unit designs are modified or special mitigation measures identified (BMP 13.2, 2006 FSH 2509.22 page 40).

Based on these factors the selected Alternative is not likely to result in additional land slides.

> **DNR/OHMP:** *Construction of additional roads in the project area is also a concern under the Alaska Coastal Management Program (ACMP). Road networks can lead to negative effects on wildlife populations as a result of increased access and increased secondary effects such as non-point source sediment loads in surface waters.*

FS—Response: Resulting road densities for the Soda Nick project area are below the Forest Plan recommended .7 to 1.0 miles per square mile, even with the Indian Creek road (2016 Road) open. The Forest Plan recommends that road densities be maintained between .7 mi/mi^2 and 1.0 mi/mi^2 to maintain viable wolf populations (Forest Plan, 1997, p. 4-116). The designation of a road as a temporary road or National Forest System Road is not based on the presence of or accessibility by resident . If some type of control is necessary (e.g., fish timing, bridge construction, survey and design, timing for wildlife, access for future management activities), then the road is placed in National Forest System Road status.

Temporary roads were not included in the road density calculations for wildlife as they are closed at the end of the project.

The road densities at the end of the project will be unchanged in WAA 1317 and only increase .01 mi/mi^2 in WAA 1332. This final density is below the range for road densities that is listed in the Forest Plan as recommended to maintain healthy wolf populations.

Where adverse water quality impacts related to road systems are likely to develop erosion control plans for roads will be the responsibility of the contractor to develop and have approved by the Contracting Officer in order to minimize or mitigate erosion, sedimentation, and resulting water quality degradation prior to the initiation of construction and maintenance activities. (BMP 14.5, 2006 FSH 2509.22 page 63).

To maximize effectiveness, erosion control measures must be applied, in place, and functioning prior to heavy runoff periods (October through April) thereby reducing

potential non-point source sediment loads in surface waters. Potential alternatives include:

- Reestablish vegetation on exposed soils by seeding, mulching, and fertilization
- Physically protect road surface from erosion or modify the road surface. topography to reduce erosion by use of gravel on road surfaces, riprap, erosion mats, and terracing on cuts, fills, and ditches as appropriate. Placement of water bars on uncompleted roads to reduce sedimentation.
- Physically inhibit the transport of sediments to stream channels by use of slash filter windthrows, baled straw in ditches or below slopes, silt fences, and catch basins at culvert inlets. Sediment basins with slash filter windthrows may be utilized in drainages where fish passage is not required.
- Reducing soil disturbance near stream channels by placing large culverts (greater than 24 inches) in live streams prior to construction. Temporary pipes should not be installed unless sedimentation can be minimized during installation, use, and removal.
- Even with full implementation of BMPs, it is recognized that some construction practices may result in "degradation" of water quality. A short term (less than 48 hours) departure from turbidity standards is allowed for construction activities.

DNR/OHMP: *Riparian areas are important wildlife habitat for feeding, nesting, molting, travel, and denning, as well as routes for maintaining connectivity among the upper reaches of watersheds.*

FS—Response: The riparian areas are important to wildlife for feeding, nesting, molting travel, and denning. These areas are also important for maintaining travel corridors. Forest Plan standards and guidelines for riparian areas are included on pages 53 through 72. This project will adhere to all standards and guidelines.

DNR/OHMP: *Because of the extensive fragmentation of the project area from previous harvest and resultant concerns for long-term deer population levels, we question whether this sale as proposed fully conforms to TLMP criteria, standards, and guidelines and whether it is consistent to the maximum extent practicable with the state Forest Practices Act and ACMP standards (e.g., AS 41.17.060(c)(7)) to make allowances for important wildlife habitat.*

FS—Response: There are no specified thresholds for connectivity in the Forest Plan, except for between medium and large reserves. While the travel corridor areas in the Soda Nick project area may not be completely intact they provide connection. The stream buffers in place for the current proposed project as well as the regeneration of the old harvest activity provide travel corridors as well as cover. Also the acres deferred for marten and goshawk standards and guidelines will provide connectivity between habitats.

Therefore, the selected Alternative will meet TLMP criteria, standards and guidelines and that it is consistent with the Alaska Forest Practices Act and ACMP standards.

Cascadia Wildlands Project

Gabriel Scott for Cascadia Wildlands Project replies to the Soda Nick Small Timber Sales EA in the following manner:

Cascadia Wildlands Project: *Alternatives that prescribe helicopter yarding fail to meet the Purpose and Need, "to provide timber sales suitable for timber purchasers that need small amounts of timber volume over a period of time." Helicopter yarding is outrageously expensive and requires very high capital, which dependably excludes small operators. There is no small, local helicopter logging company. I know of no small operator in Alaska who uses helicopter yarding.*

FS—Response: Alternatives 2 and 3 contain areas with helicopter yarding. It is probable that helicopter yarding will be subject to agreement in the timber sale contracts which means that the purchaser has the option of dropping these areas if they are not economical.

Additionally, the project's purpose and need is designed to contribute to employment in the logging and transport industries for Southeast Alaska and Prince of Wales Island (EA p.1); these small operators would stand to benefit from helicopter logging.

Local small operators on Prince of Wales Island employ helicopters if the economics are favorable. We will include a clause in our timber sale contracts that allow the operator the option of declining designated helicopter units, at their discretion, depending on market conditions. This is beneficial to both parties, in that it protects the operator if the market drops, and increases revenue to the government if the market rises. The selected Alternative and the helicopter component would allow this flexibility to operators and the government in this sale.

> **Cascadia Wildlands Project:** *Second, job creation is the purpose of this project, not cutting down trees. There are much more efficient and much less damaging ways to achieve jobs. One reasonable alternative would be to invest the same money that is being put into this timber sale, and spend it on the backlog of pre-commercial and commercial thinning, and road maintenance chores. Such restoration projects would improve old-growth habitat, subsistence opportunities, and small, local timber businesses.*

FS—Response: Job creation is not the purpose of this project. The purpose or objective of this project is to provide timber from Forest Plan Land Use Designation areas which have been created to supply a need for small sales timber volume by local mills. Meeting this need does help sustain employment in this local industry. It may also create some new jobs, either directly or indirectly.

We agree that there are a number of ways to create jobs, while accomplishing other needed work on the forest. However, we are not allowed to use money assigned for one project on another project and such a concept would not make a viable alternative to this project.

> **Cascadia Wildlands Project:** *Please dismiss Alternative 2 and Alternative 3 as not meeting the Purpose and Need, and re-analyze this project with a more inclusive approach to reasonable alternatives. We would enthusiastically support a restoration alternative. It is unclear from the EA whether there really is a need for this project. What operators need how much volume? I encourage the Forest Service talking directly with local mill operators and getting solid numbers, and including that information in NEPA analysis.*

FS—Response: There is no rationale why Alternatives 2 and 3 does not satisfy the Purpose and Need of this project or that Alternative 4 does. Therefore, we cannot respond to this statement. A restoration Alternative would not meet the project Purpose and Need, as explained above under the response to job creation.

We establish the local timber need through interaction with our local timber industry. The Forest Service has a long-standing record of talking to local operators about their mill capacities, species utilized, products produced, logging systems typically utilized, etc. This interaction has occurred over the years through meetings at both POW District offices, recent island-wide collaborative stewardship meetings, and the ongoing island-wide forest products task force meetings.

> **Cascadia Wildlands Project:** *There is near-universal support for small Tongass logging operations. Please don't threaten those operators by tying their timber supply up with that of larger operations. Thank you for making firewood available. Please make it available also during the life of the sale. If possible, it may be smart to haul firewood out to enable earlier road closures.*

FS—Response: This project was designed for the small sales operator, as described in the project Purpose and Need. We are happy to make firewood opportunities available. We will provide for firewood access as much as possible, while adhering to the timber sale contract specifications.

> **Cascadia Wildlands Project:** *Why is it necessary to build any roads for this project? Why are there no alternative approaches to transportation management? Please consider and adopt an alternative that doesn't require any new roads.*

FS—Response: Alternative 3 is designed to avoid the construction of any new National Forest System roads. In this alternative, units that would have been accessed by new NFS road construction would be harvested by helicopter. About 4 segments of temporary road totaling 0.5 miles would be constructed to optimize unit access. Temporary roads are for short term use and are less expensive to construct and maintain than system roads.

The road construction and maintenance proposed in this project responds to Forest Plan goals and objectives to protect water, soil, fish, and other resources. The amount of road construction when combined with other roads Forest wide is within Forest Plan guidelines.

> **Cascadia Wildlands Project:** *Where is the Transportation/ Roads Analysis, as required under 36 CFR 212, and FSM at 7712? The corollary to junking the roadless rule ought to be rational management of the existing road system. It seems the least you could do. Comprehensive and coherent Transportation Analysis is particularly relevant for a project such as this, where cumulative*

impacts will otherwise go unaddressed, and where the project is so intimately tied in with transportation decisions. The EA does mention that the POW Access and Travel Management Plan EA is under development, as it has been for quite some time, and mentions a few of the proposed actions in it. This is not adequate. We haven't seen even a draft EA for POW transportation. It strikes me that if timber sale NEPA documents can be completed on time, then the transportation plan could be too.

FS—Response: A roads analysis for all maintenance level one and two roads on Craig and Thorne Bay Ranger Districts was completed in 2005. This analysis includes the Soda Nick project area roads and the EA tiers to this analysis. In addition a transportation resource report has been completed for the Soda Nick project. Both documents can be found in the project record.

Cascadia Wildlands Project: *I strongly dispute the approach taken to road effects, which is to pretend that they don't exist. The EA concludes that 1.3 miles of road construction will not increase the amount of roads. That is patently absurd and you know it. There are many flaws with this approach:*

- *Road maintenance and decommissioning may not be done. The Forest Service has an abysmal record of upkeep for logging roads.*

FS—Response: Where needed road maintenance will be required on roads used for any timber sale—the decommissioning of temporary roads is a requirement of any timber sale. It is true that the maintenance budget for roads has been steadily decreasing. This is one reason for storing and decommissioning roads. Stored roads do not require the maintenance that open drivable roads require.

- *Road density will increase from the perspective of wolves. Of particular note, at the Ketchikan TLMP review, Person (2006) clarified that the model showing effects of road density on wolves, which is the basis of TLMP Standards & Guidelines, did not discriminate between open and closed roads.*

FS—Response: Forest Plan direction is to use open road density to consider reducing wolf mortality where it has been determined through analysis that road access has been proven to significantly contributed to wolf mortality (Forest Plan p. 4-116). Please see response to AGD&G-WL-1 (page 1).

- *Road density will certainly increase during project implementation.*

FS—Response: This is correct; the road density will increase during project implementation, however it will remain below the threshold recommended in the Forest Plan. Please see response to ADG&G-WL-1 or CWP-WL-1.

- *Even closed roads are used for hunting, trapping, and have watershed impacts. This is especially true in the mid-short term, before vegetation has been allowed to grow back, thus closing the road.*

FS—Response: Forest Plan direction is to use open road density to consider reducing wolf mortality where it has been determined through analysis that road access has been

proven to significantly contributed to wolf mortality (Forest Plan p. 4-116). Please see response to ADF&G-WL-1, CWP-WL-1 and CWP-WL-2.

- *Closed, or stored roads are highly unlikely to ever get maintenance funding, making them more susceptible than average to erosion and failure concerns.*

FS—Response: We disagree; an objective of storing roads is to eliminate the need for annual maintenance. Storage activities include the following: remove or bypass all drainage structures to restore natural drainage patterns; add water bars as needed to control runoff; and revegetate. This is intended to be the primary maintenance strategy applied on intermittent use roads during their closure cycle. In this strategy, bridges and culverts on live streams are completely removed to restore natural drainage patterns. Cross drains and ditch relief culverts will be bypassed with deep water bars but left in place to minimize the cost of reusing these roads in the future. Due to the isolated nature of the road system, which makes maintenance costly and difficult, and their infrequency of use; storage is the most appropriate strategy for these roads. Maintenance Level 1, closure and basic custodial maintenance, is assigned. Storage eliminates car and truck use, and discourages use by other motor vehicles. This level of maintenance is synonymous with FRPA closed roads.

- *Even temporary roads degrade watersheds.*

FS—Response: We disagree, in accordance with BMP 14.24 and the 1997 Forest Plan (page 4-107) the temporary roads are constructed for a specific short term purpose, normally less than 1 year. Following the need for these roads the direction is to promptly rehabilitate temporary roads in accordance with erosion control and stabilization measures prescribed in the project plan. Effective obliteration is achieved by blocking access, removing all culverts and bridges, and restoring the natural surface and subsurface drainage patterns.

> **Cascadia Wildlands Project:** *The EA seems to leave the door open to additional hidden public costs of roading this sale where it says, "reconditioning of NFS roads in the project area may be implemented before, during, and after the environmental analysis." (p.9) To meet NEPA's mandate, and just for the sake to rational planning, this EA should consider all road work that would be connected to this project.*

FS—Response: Again, we disagree, maintenance and reconditioning of existing National Forest System Roads is an ongoing process that occurs on a periodic basis. Normally this kind of road work is determined to fit the category of routine repair and maintenance of roads which does not individually or cumulatively have a significant effect on the quality of the human environment and may be categorically excluded from documentation in an EIS or an EA unless scoping indicates extraordinary circumstances (FSH 1909.15, 31.12 #4). This work is done through separate service contracts to reduce the backlog of deferred maintenance, recondition roads to comply with best management practices, or maintain the existing infrastructure. The roads proposed for use in the EA require very little or no road work to make them suitable for log haul. The road surfaces are clear of vegetation and can readily be driven on. The extent of road work needed may be roadside brushing

which occurs on a rotating schedule throughout the Prince of Wales road system and ditch cleaning.

> **Cascadia Wildlands Project:** *I am especially disturbed that the Forest Service continues to treat deer habitat capability model numbers as expressions of the actual population of deer available to subsistence hunters. That use of the model is scientifically baseless, yet the EA doesn't even explain that this is not the intended use of the model.*

FS—Response: The deer model used for the Soda Nick project is the one that we are directed to use by the Forest Plan. Please see pages 3-365 thru 3-368 of the Forest Plan.

> **Cascadia Wildlands Project:** *The cumulative harvest and roading in Indian and Trocadero watersheds is a significant concern. A restoration-only alternative would better protect these resources.*

FS—Response: During the field reviews of potential harvest units and related road systems the Hydrology, Soils, and Fish field team identified a number of potential restoration projects which were addressed in Appendix A of the Hydrology Report. These projects include: Forest Roads 2016000, 2014000, 2014023, and 2000218. Work in these projects includes improvement of drainage systems, cleaning ditches, unplugging culverts, and seeding failed sideslopes. Plans are to implement these projects as funding becomes available. At this date and time (portions of) Forest Roads 2014000 and 2014023 are currently funded for storm-proofing.

Greenpeace, Juneau Group of the Sierra Club, Tongass Conservation Society, and Sitka Conservation Society

Larry Edwards for Greenpeace replies to the Soda Nick Small timber Sales EA in the following manner:

> **Greenpeace:** *Some of the issues raised in these comments are ones that the Forest Service commonly refuses to address at the project level, saying that they are Forest Plan level concerns only. We reject all such assertions because the National Environmental Policy Act (NEPA) requires disclosure of relevant facts and the full and fair discussion of significant issues. Also, NEPA's requirement of a hard look at project alternatives (including the no-action alternative) cannot be fulfilled without addressing all significant issues. Higher level direction (in Forest Plan or from a higher management level of the agency) does not excuse the planning team or district ranger from fulfilling the requirements of NEPA.*

FS—Response: Your comment has been noted. We disagree with the assessment that NEPA requirements have not been fulfilled. We typically go through many document check points and reviews, such as the Alaska Regional NEPA Joint Review Team process, in order to ensure our compliance with all applicable laws. Members of the Alaska Regional NEPA Joint Review Team assisted in the preparation of this document.

> **Greenpeace:** *The two alternatives include helicopter yarding. Helicopter yarding generally requires a sale of 3 mmbf or more to absorb the cost of mobilization (EA p. 13), yet that volume is three-quarters the total volume each of those two alternatives would provide. Clearly, these alternatives are not*

reasonable given the objective of the project, and they should have been eliminated from detailed study. These alternatives may be suitable for the large purchaser on Prince of Wales Island (Viking Lumber), but are unsuited to the smaller purchasers the project is supposedly intended to benefit.

FS—Response: The Selected Alternative contains areas with helicopter logging. It is probable that helicopter logging will be subject to agreement in the timber sale contracts which means that the small operator has the option of dropping these areas if they are not economical. Because of the past history of local operators using helicopters on POW, the selected Alternative, meets the stated purpose and need.

Additionally, the project's purpose and need is designed to contribute to employment in the logging and transport industries for Southeast Alaska and Prince of Wales Island (EA p.1); these small operators would stand to benefit no matter what the size of the purchaser, large or small.

Greenpeace: *The EA attempts to explain the incongruity by saying that helicopter units are included "in case a helicopter opportunity presents itself or a market change occurs. " (EA p. 13) No such potential opportunities were identified in the EA, and if they do exist they should be apparent (but are not) in the analyses of cumulative impacts to the various resources of concern. Further, if such potential opportunities do exist, it is necessary to explain in the EA how they might be of use to the smaller purchasers on Prince of Wales Island, who the project is claimed to benefit. Similarly, it is necessary to explain how a market change might make helicopter yarding viable for such purchasers. The claimed justification for including alternatives with helicopter yarding has no merit unless scenarios with high likelihood can be put forth that demonstrate how helicopter yarding can be feasible for the smaller purchasers. We note further that the cost of the combined road construction and helicopter costs for the three action alternatives (2, 3, and 4) are, respectively: $162, $132, and $75 per thousand board feet. The latter figure is most suited to the smaller operators on Prince of Wales Island. It appears that based on these costs, as well as the other considerations above concerning helicopter mobilization, that only Alternative 4 is suited to the stated purpose and need of the project. We believe that providing only one alternative that satisfies the purpose and need(Alternative-4) is not sufficient to meet the requirements of NEPA's hard look at impacts and alternatives, alternatives being "the heart" of environmental analysis. A new EA is needed that drops the two incompatible alternatives and includes additional reasonable alternatives.*

FS—Response: Alternatives are designed in part as a means to compare harvesting timber using different logging systems. Some logging systems are less likely than others, but none the less they serve as useful tools for comparison.

Units 6240-007, 6240-015, and 6240-017 in the selected alternative have units which contain small areas of helicopter logging. It is probable that helicopter logging will be subject to agreement in the timber sale contracts which means that the small operator has the option of dropping these areas if they are not economical.

We maintain that small sales can include some helicopter logging, and all alternative meet the Purpose and Need. It has been well documented that our local small operators will employ helicopters if the economics are favorable. We can include a clause in our timber sale contracts that allow the operator the option to purchase or not any designated helicopter units, at their discretion, depending on market conditions. This is beneficial to both parties, in that it protects the operator if the market drops, and increases revenue to the government if the market rises.

> **Greenpeace:** *The Alaska Department of Fish & Game recently advised the Forest Service that: "Vol Strata may incorrectly identify some high volume forest stands important for ecosystem function but classes 6 and 7 generally indicate important coarse canopy stands. For deer and other wildlife it would actually be better to use the old Tim Type classification (which is what the deer model was first based on)" for wildlife analysis until the new size-density dataset is available for use. (ADF &G 2006, parenthetical comment original.) This is consistent with the findings of statistical analysis of forest structure and forest volume by Caouette et al. (2000). While the later Doerr et al. (2005) reached an opposite conclusion and is often relied upon by the Forest Service, we believe such reliance is deeply flawed by the paper's limited geographic scope, the particulars of habitat loss in the study area, and the paper's failure to investigate the stark contrast between its results and those of Caouette et al. (2000), which the study nonetheless cites. Vol Strata bears no correlation to habitat structure. Caouette et al.*

FS—Response: Volume Classes were ruled inappropriate for the analysis of deer habitat because it was not designed to accomplish that kind of analysis (U.S. District Court for the District of Alaska, 1994). Current Forest direction (Cole 2005) is to use volume classes 6 and 7 to represent coarse canopy forest.

VOLSTRATA is statistically valid and Timtype is not.

Caouette et al. (2000) provided a statistically valid approach for use in determining volume through the strata approach. Caouette et al. (2000) went further and stated: "Timber volume information and associated maps have been widely used in the Tongass National Forest for land-use planning and timber and wildlife management. Although considerable effort has been expended to improve timber volume maps, little has been done to evaluate the suitability of timber volume as a descriptor of forest character. We established a rough indicator of forest structure that uses trees per acre and quadratic mean diameter to examine the relation between timber volume and forest structure. Results indicated that timber volume and forest structure are not interchangeable attributes. Results also indicated that the original photo-interpreted timber volume stratification did not always capture differences in timber volume but may have captured differences in forest structure. The recently revised timber volume stratification provides more reliable timber volume information, but it sacrifices structural information in the process.

> **Greenpeace:** *The analysis of impact to coarse canopy forest conceals a significant impact. The conclusion in the EA there is "not a significant effect" on coarse canopy forest is based on the shallowest of analysis and is untrue. The EA dismisses a 6% loss of existing coarse canopy forest in VCU 624 as*

insignificant because it results in only an additional 2% loss on the basis of the original amount of such forest in the VCU. (EA p. 39) The resulting cumulative loss is a very significant 69%, and we contend that increasing the already extraordinary amount of loss of coarse canopy forest by taking 6% of the remainder is unjustifiable. 6% is itself a significant loss – more than one acre in 20 – and the cumulative loss is tremendous. The EA justifies increasing the already significant amount of destruction by saying that in VCU 624 "the deer density is 25 deer per square mile," which is above the 18 deer per square mile recommended threshold. " (EA p. 39) That is the only justification that was given, and there are several substantial flaws with it. (1) The analysis and justification consider only deer, yet coarse canopy forest is also import to other wildlife species. The impact of the very high cumulative removal of such forest must be evaluated for all affected species, including birds and small mammals. (2) The effect on any endemic species likely to be present must be given special attention. (3) The deer density in the VCU is not known, and the references to18 and 25 deer per square mile are in fact references to habitat capability. The existing statements are misleading and reflect an inadequate understanding of what the deer model results mean. (4) The 25 deer per square mile habitat capability is an erroneous figure because it is based on incorrect use of the "deer multiplier. " As explained elsewhere in these comments, the figure should be 19 deer per square mile, which is barely more than the Forest Plan standard and guideline of 18 deer per square mile. (5) The deer model computes habitat capability only for average winters. In a severe winter coarse canopy forest can be expected to be even more important, yet the EA does not consider that at all even though the already extraordinary loss of such habitat will be increased. (6) The deer model used (the1997 deer model) is based on the Vol Strata dataset, which makes no distinction for coarse canopy forest – part of the reason it is not correlated to habitat quality. Thereby, in dismissing the loss of coarse canopy forest as insignificant, the EA has done so on the basis of a model that is blind to the value of coarse canopy forest to deer. The cumulative loss of 47% of the coarse canopy forest in VCU is also very significant, and the discussion above applies to that VCU also. The EA is deficient in not discussing the impact to that VCU and to the two VCUs collectively.

FS—Response: A) There is no standard and guideline threshold for coarse canopy in the Forest Plan.

At the Interagency conservation strategy review meeting in April 2006 it was decided that in summary that the Forest Plan represents a balanced plan with an acceptable level of risk for ensuring continued species viability. The system of reserves serves multiple conservation purposes and is intended to provide the amount and distribution of habitat maintain viable populations of all old growth associated species after 100 years of Forest Plan implementation, in addition to meeting NFMA requirements (Interagency Conservation Strategy Review: An Assessment of New Information Since 1997. April 10-14, 2006. p.9).

1) Sitka black-tailed deer are the only species for which there is a specific threshold standard and guideline set in the current Forest Plan. Other old growth associated species

such as flying squirrels, brown creepers and red-breasted sapsuckers would be expected to decline in direct proportion to the amount of productive old growth lost. As the table below shows that is estimated to be less than one percent for both VCUs.

FS Response TABLE 1—POG acres by VCU

VCU	1954 POG acres	Current POG acres	% change	Post project POG acres	% change from current	Total % change
622	12,888	8,653	-33%	8,624	<1%	-34%
624	9,752	5,498	-44%	5,315	<1%	-45%

2) The current Forest Plan does include any specific standards and guidelines for endemic mammals for islands the size of Prince of Wales (Forest Plan 1997 p. 4-119 and 4-120).

3) VCUs are not the appropriate scale at which to run the deer model. It is to be run at the WAA scale or larger. 4) ADF&G (Person et al. 1997) requested that the Forest Service use 100 deer per mi² for the best deer habitat instead of the 125 deer per mi² predicted in the model runs and not apply the 36 percent reduction to that figure. This was first discussed in the 2000 Tongass National Forest Annual Monitoring and Evaluation Report released in April 2001.

5) The deer model used is the one currently approved for analysis and you are correct it does use the average winter in its calculations. The deer habitat capability model incorporates the effects of varying winter snow levels by assigning lower habitat suitability indices to areas with higher average winter snow depths. There is some uncertainty in predicting weather patterns in the Alexander Archipelago. If a severe winter occurs some deer may be lost, but viable populations will be maintained across the Tongass National Forest, as projected in the Forest Plan EIS. Additionally, the Forest Service projects that in Wildlife Analysis Areas with greater than 18 deer per square mile (Person et al. 1996, Person et al. 1997, Person 2001), there will be enough deer to keep a healthy wolf population and provide sufficient numbers of deer for human consumption. The Forest Service uses the deer model (DeGayner 2001) to make these predictions (DeGayner 1995, Cole 2005).

6) See response to Green Peace-(1) page 12.

B) The table below shows the estimated loss of coarse canopy acres by VCU. VCU 622 will have an estimated loss of less than 1 percent as a result of the proposed action. It also shows the estimated resulting total loss for the two VCUs combined. There is no standard and guideline threshold for coarse canopy in the Forest Plan.

FS Response TABLE 2—Course Canopy Harvest (Volume 6/7)

VCU	1954 acres	Current acres	% change	Post project acres	% change from current	Total % change
622	8,815	4,695	-47%	4,667 (-28 acres)	<1%	-47%
624	6,311	2,063	-67%	1,948 (-115acres)	-6%	-70%
Total	15,126	6,758	-55%	6,615	-2%	-56%

The cumulative impact of coarse canopy forest loss was not fully disclosed. The EA does not disclose the cumulative amount of coarse canopy loss that can be expected from future projects in or adjacent the WAAs of the analysis area, in addition to losses from this project and past logging. Also the section "Cumulative Summary of Wildlife" (EA p. 40) simply reiterates one statistic regarding coarse canopy for only one VCU, but contains no analysis of to what degree that amount of loss can be expected to affect wildlife. "Analysis" means much more than calculating and disclosing the most basic of statistics – it means determining how the ecosystem may be affected. The loss of coarse canopy is not the end effect – the end effects are what will happen to wildlife and (for some species) how that will affect subsistence.

FS—Response: The Forest Service has no foreseeable actions in this area. Harvest on State of Alaska lands by the Alaska Department of Forestry is possible in the project area. Three areas adjacent to Indian Creek have been identified for potential harvest in 2009. Access to these harvest areas would need further investigation. The Soda Nick EA does disclose the cumulative impact of coarse canopy loss. Table 26 on page 39 of the EA shows the amount of coarse canopy estimated to be in each VCU in 1954, current estimated acres and post project acres. See response to Green Peace-(2) page 13.

A) See response to Green Peace — (2) and (3) page 13, for discussion on coarse canopy. Old growth associated species such as flying squirrels, brown creepers and red-breasted sapsuckers would be expected to decline in direct proportion to the amount of productive old growth (POG) harvested. The table below shows that the proposed action will result in an estimated loss of less than 1 percent loss of POG in the project area.

B) Effects to subsistence species, such as deer, are disclosed in the Soda Nick EA.

FS Response TABLE 3—Acres of POG by VCU

VCU	1954 POG acres	Current POG acres	% change	Post project POG acres	% change from current	Total % change
622	12,888	8,653	-33%	8,624	<1%	-34%
624	9,752	5,498	-44%	5,315	<1%	-45%
Total	22,640	14,151	-37%	13,939	-1%	-38%

Greenpeace: *The Section "Conversion of Old Growth Forest Structure" Is Unrelated To That Topic The section "Conversion of Old Growth Forest Structure" (EA pp. 14-16) is not at all about forest structure. The title should be changed to something concerning "Silvicultural systems. "*

FS—Response: The section is intended to show the reader how the harvest prescriptions for each alternative would affect old growth forest structure in the project area. Areas proposed for management would be converted from predominantly uneven-aged structure (old growth) to either even-aged or two-aged structure in the proportions shown in Table 8 of the EA (EA p.15).

Greenpeace: *The Eventual Effect of Past Logging on Habitat Structure Is Inadequately Described. The date that each previously logged unit the analysis area WAAs need to be shown in the EA. Although dates are shown on the unit*

card maps, the scale is too large and the overall picture too fragmented to convey the history of the area. Analysis of impacts to wildlife needs to be based on the expected year of post-project canopy closure (appx. 2040), a critical factor that is not discussed at all in the EA. For example, Table-21 (p. 34) shows "post-project" effects, not post canopy closure effects.

FS—Response: As stated the dates are shown on the unit card maps, this is adequate.

Greenpeace: *Climate Change Effects On Habitat Were Ignored. Climate change can be expected to have a profound impact on the project area and Prince of Wales Island generally. Climate-caused habitat loss will be in addition to whatever habitat loss will have occurred as a result of logging or other development. Increasing storm frequency and intensity (Juday et al. 1998) and significantly increased precipitation November through January (Salathe 2006) have been predicted. Salathe (pers. comm.) has provided further November to January details for Southeast Alaska in the years2050-2100, relevant to this project: "There is a 15% (precipitation)increase indicated over the whole of SE Alaska. These results cannot really refine the geographic distribution much better. In terms of absolute numbers, the change will be largest in the areas already wettest, which is the south part of your domain."*

FS—Response: Listing the effects of a predicted climate change would, at best, be speculation on our part. This Agency has been tasked with using the best available science, rather than speculation, to draw conclusions and make recommendations. While we do agree, of course, that a shift in climate will likely affect some elements of our forested ecosystems, we have no reason to assume that all effects would be undesirable.

Greenpeace: *The expected increased wetness is a significant factor for two reasons. (1) The likelihoods windthrow (large or small scale), stem snap, and mass wasting increase with increasing soil moisture. Because the wet season is expected to get wetter, more old-growth habitat loss can be expected than has been experienced in recent history. The EA has not even taken habitat losses at the historic rate into account in assessing impacts to wildlife, much less the increased rates of loss. The potential for losses is apparent from Harris (1999), a paper that does not itself consider climate change but which establishes historic regime risks for Prince of Wales Island. (2) Even though the climate of the island can be expected to warm, the future regime of increased fall/winter moisture should be expected at times to produce extreme (by historic standards) snow falls, when moist oceanic air encounters cold continental air. As one example of the implications, the deer model does not take such snowfalls into account, or even ones that are severe by historical standards. Climate change must be considered as part of the cumulative impacts of this project, but that was not done in the EA.*

FS—Response: The Soda Nick EA does take the effects of past harvest (historic habitat loss) into account in the document. This is shown in the tables displaying the cumulative effects to the productive old growth and to the deer. Both of these show the estimated numbers or acres that were available in 1954, currently and the effects of the proposed project.

The deer habitat capability model incorporates the effects of varying winter snow levels by assigning lower habitat suitability indices to areas with higher average winter snow depths. There is some uncertainty in predicting weather patterns in the Alexander Archipelago. If a severe weather pattern occurs again, like it did in the early 1970's, it will likely cause similar die-offs. In the event of another severe, persistent, deep snow year, there may be deer die-offs in both harvested and unharvested stands of timber. Some deer may be lost, but viable populations will be maintained across the Tongass National Forest, as projected in the Forest Plan EIS.

> **Greenpeace:** *Several of the proposed units have connectivity problems and, despite the mitigation suggested in the EA, they should be dropped. These are units 622-03, 622-04, 624-015, and624-016. The project area abuts an important Prince of Wales Island pinch point, between the heads of Trocadero Bay and Twelve mile Arm. The pinch point is not even mentioned in the EA or wildlife report. Although the pinch point is spanned by an old-growth reserve, it is one (as discussed more fully below) that does not meet TLMP Appendix-K criteria because it is long and narrow. Connectivity in the project area matrix may therefore be of heightened importance. The EA is deficient in not assessing the situation, which will differ from* species *to species.*

FS—Response: Landscape connectivity between large and medium reserves is required in the Forest Plan (Forest Plan 1997 p. 4-120). There is no specific standard and guideline set in the Forest Plan that requires travel corridor connectivity between other areas. The changes made in the units between original planned unit boundaries and the unit boundaries now planned with acres being dropped or deferred maintains travel access routes.

A definition was given for what the matrix includes: riparian buffers, beach and estuary buffers, high sensitivity soil buffers, plus everything else outside of OGRs. (Interagency Conservation Strategy Review: An Assessment of New Information Since 1997. April 10-14, 2006. p. 45).

The coarse filter component to the TLMP is the old-growth strategy which divides the Forest into reserves (protected lands including non-development land use designations (LUDs) and old growth reserves) and matrix lands (timber management lands, beach and riparian buffers, and other non-harvest lands). To date, approximately 84 percent of the old-growth existing in 1954 has been protected: 3.6 million acres of old growth in reserves and 1 million acres of old growth in the matrix. Ninety percent of the existing old-growth is protected (Interagency Conservation Strategy Review: An Assessment of New Information Since 1997. April 10-14, 2006. p. 9).

Within the matrix: 1,000 foot beach buffers, riparian habitat buffers, and "other" lands unsuitable for harvest (e.g., unstable slopes, forested wetlands, etc) are protected. Fifty-seven percent of 1954 matrix old growth is protected (1.04 million acres) (Interagency Conservation Strategy Review: An Assessment of New Information Since 1997. April 10-14, 2006. p. 9). Connectivity across the forest is maintained through the 1,000 foot beach buffers, PACFISH riparian habitat buffers, and small old growth reserves (some are specifically configured to enhance landscape connectivity) (Interagency Conservation

Strategy Review: An Assessment of New Information Since 1997. April 10-14, 2006. p. 9).

Functional connectivity varies widely among reserves. At a local level, small reserves are likely connected with immediate matrix, though they may be at risk of isolation at a larger scale (e.g., within the reserve network). Therefore, in intensively managed landscapes it remains unclear if metapopulation viability can be achieved through dispersal among subpopulations in OGRs. Consequently, sustaining viable populations of flying squirrels may depend on the number, distribution, and quality of large habitat reserves that sustain independent populations (Interagency Conservation Strategy Review: An Assessment of New Information Since 1997. April 10-14, 2006. p. 55).

The purpose of the old-growth reserve network is to maintain well-distributed and viable populations of organisms. The matrix serves a connectivity function (riparian and beach fringe; he noted half of the old growth in it is not scheduled for harvest) and also includes managed timber producing stands. (Interagency Conservation Strategy Review: An Assessment of New Information Since 1997. April 10-14, 2006. p. 94).

Information on the specific units mentioned in your comment is included below.

Unit 622-003 is in between two previously harvested units both cut in 1995. There is currently a travel corridor here between Indian Creek and higher elevation habitat to the south. Cutting proposed unit 622-003 would basically cut make this travel corridor into two smaller ones. The narrow corridors remaining on both sides of this unit are due to acres that are dropped or deferred. These acres will provide access between the higher elevation habitat to the south and Indian Creek to the north. Retention in this unit to meet marten standards and guidelines will provide some access as well.

Unit 622-004 is similarly located between previously harvested units. The unit to the north is a very narrow strip of harvested timber and may not really block travel between Indian Creek and the higher elevations. Harvesting unit 622-004 will create a more narrow corridor; however acres deferred for marten and goshawk standards and guidelines will help to mitigate this effect. There is narrow travel corridor at the extreme upper end of the watershed.

Unit 624-015

Planned unit 624-015 is directly in between previously harvested units. Unit -015 however is being proposed as individual islands of harvest, thus the area will continue to provide travel access routes between the areas of proposed harvest. These old units were cut in 1987.

Unit 624-016

The only other area where travel corridors may be a concern is in the area of planned unit 624-016. The effect of this unit is mitigated due to the fact that is planned for helicopter harvest in all alternatives (with 50 percent retention). The portion of the unit that was originally planned on the west side of the Hydaburg road has all been deferred.

A) You are correct in pointing out the proposed sale area is near a narrow point on Prince of Wales Island; however it was not identified as an actual pinch point in the Forest Plan (p. 3-425).

B) It is also true that the area is surrounded to the east and south by a medium reserve. The medium OGR as currently mapped in the Forest Plan is below the required total acres as well as the acres for both POG and high volume POG; however when the mapped medium OGR acres are combined with adjacent small OGR in VCU 622 the acreage requirements are met. The total contiguous acres in OGRs (the small and medium combined) are shown in the table below.

The combined reserve at its narrowest point is an estimated 2500 feet across.

C) Connectivity is required between medium and large old growth reserves. This requirement is met. See response above (GP-WL-8) for more information on corridors remaining both between and within specific proposed harvest units mentioned in your comment. The next large or medium reserve to the southwest is approximately 3 miles away, the one to the south is about 4 miles, to the east about 1 mile and it is approximately 4 miles to the north to the Karta wilderness.

The Forest Plan represents a balanced plan with an acceptable level of risk for ensuring continued species viability. The reserve network serves multiple conservation purposes and is intended to provide the amount and distribution of habitat to maintain viable populations of all old-growth associated species after 100 years of TLMP implementation, in addition to meeting NFMA requirements (Interagency Conservation Strategy Review: An Assessment of New Information Since 1997; April 10-14, 2006. p.9).

FS Response TABLE 4— Acres in Medium Reserve when combined with adjacent small reserve

VCU	Current mapped Total ac	Current mapped POG ac	Current mapped high vol POG ac
621b*	5501	2301	771
622	4075	1730	986
624	5354	1548	735
625	2515	1215	343
Total	17,445 (+7,445)	6,794 (+1794)	2,835 (+335)
Required acres	10,000	5,000	2,500

* The acres in 621a are included in the medium called 12 Mile East.

Greenpeace: *The EA does not consider all of the criteria of Forest Plan Appendix-K in discussing the adequacy of the old growth reserves in the analysis area. The second criteria listed in Appendix-K, that "Reserves should be more circular rather than linear in shape to maximize the amount of interior (secure from the effects of forest edge) forest habitat," was not mentioned in the EA. The effect of the slender proportions of the combined medium reserve was not evaluated, and allowance was not made for reduced effectiveness in assessing various project impacts on the various species. We believe in light of the compromised reserve design that extreme caution must be exercised in evaluating impacts to species of concern, especially regarding fragmentation, connectivity, and interior forest conditions. Because the design of the reserve is necessarily less than idea[l] for several reasons (see Dillman 2006 Report and Brockman et*

al. 2002) and the heavily logged condition of the analysis area (USFWS, 2005), the biological function of the matrix in the analysis area is a critical concern.

FS—Response: The OGR as mapped in the Forest Plan does include areas of high value deer winter range, potential goshawk and murrelet nesting habitat, and at least portions of the largest remaining contiguous blocks of old growth within the watersheds. The criteria to which you are referring to that says the OGRs should be more circular rather than linear, it is not a requirement for the OGRs to be circular (Forest Plan Appendix K p. K-1). The combined reserve at its narrowest point is an estimated 2500 feet across.

A definition was given for what the matrix includes: riparian buffers, beach and estuary buffers, high sensitivity soil buffers, plus everything else outside of OGRs. (Interagency Conservation Strategy Review: An Assessment of New Information Since 1997. April 10-14, 2006. p. 45).

The coarse filter component to the TLMP is the old-growth strategy which divides the Forest into reserves (protected lands including non-development land use designations (LUDs) and old growth reserves) and matrix lands (timber management lands, beach and riparian buffers, and other non-harvest lands). To date, approximately 84 percent of the old-growth existing in 1954 has been protected: 3.6 million acres of old growth in reserves and 1 million acres of old growth in the matrix. Ninety percent of the existing old-growth is protected (Interagency Conservation Strategy Review: An Assessment of New Information Since 1997. April 10-14, 2006. p. 9).

Within the matrix: 1,000 foot beach buffers, riparian habitat buffers, and "other" lands unsuitable for harvest (e.g., unstable slopes, forested wetlands, etc) are protected. Fifty-seven percent of 1954 matrix old growth is protected (1.04 million acres) (Interagency Conservation Strategy Review: An Assessment of New Information Since 1997. April 10-14, 2006. p. 9).

Connectivity across the forest is maintained through the 1,000 foot beach buffers, PACFISH riparian habitat buffers, and small old growth reserves (some are specifically configured to enhance landscape connectivity) (Interagency Conservation Strategy Review: An Assessment of New Information Since 1997. April 10-14, 2006. p. 9).

Functional connectivity varies widely among reserves. At a local level, small reserves are likely connected with immediate matrix, though they may be at risk of isolation at a larger scale (e.g., within the reserve network). Therefore, in intensively managed landscapes it remains unclear if metapopulation viability can be achieved through dispersal among subpopulations in OGRs. Consequently, sustaining viable populations of flying squirrels may depend on the number, distribution, and quality of large habitat reserves that sustain independent populations. (Interagency Conservation Strategy Review: An Assessment of New Information Since 1997. April 10-14, 2006. p. 55).

The purpose of the old-growth reserve network is to maintain well-distributed and viable populations of organisms. The matrix serves a connectivity function (riparian and beach fringe; he noted half of the old growth in it is not scheduled for harvest) and also includes managed timber producing stands. (Interagency Conservation Strategy Review: An Assessment of New Information Since 1997. April 10-14, 2006. p. 94).

Greenpeace: *The EA and the project's wildlife report (Dillman 2006) rely heavily if not entirely on the 1997 Forest Plan deer model to assess impacts to deer, wolves, 11 and subsistence deer hunting. The two documents have applied the deer model incorrectly and they fail to disclose or discuss the shortcomings of the model and the data it based on. The Forest Service is well aware of the controversies over these points, yet has failed to disclose and to fully and fairly discuss them in the EA. Therefore the EA does not comply with NEPA generally, and more particularly with the court's findings in Lands Council v. Powell. (379 F. 3d 738, 9th Cir. 2004)Among this project's failures regarding the deer model are: 1. Deer Multiplier Used Incorrectly. The EA and project wildlife report (Dillman 2006) failed to disclose how the 100 deer per square mile multiplier was applied to the results of the deer model, by not specifying to which HSI (habitat suitability index) value in the deer model the multiplier was applied. We believe, however, that the multiplier was applied to the model's HSI of 1. 0, as has been the standard practice of the Tongass National Forest for many years. The multiplier was derived (on the basis of field studies) to be applied to the deer model's HIS for best quality habitat. The derivation was for the Suring et al. (1992) deer model, which had a best quality HSI of 1. 0. The Forest Service, however, is using the multiplier in the 1997Forest Plan deer model, which has a best quality HSI of 1. 3. The Forest Service should therefore be applying the multiplier to the current model's HSI of 1. 3, not to an HSI of 1. 0 as has been done. (ADF&G 2006, and pers. comm. with Dave Person 2005) Derivation of the multiplier is in Person et al. (1997). Labeling of the x-axis of Figure A-1 in that paper, with a maximum HSI of 1. 0, is proof that the derivation was for the Suring deer model, not the current model. Because the current model has a maximum HSI of 1. 3, it is apparent from examination of the paper that its recommendation of a multiplier of 100 deer/sq-mile "for an HSI of 1" can be applied directly to the Suring model but not the current model. Because the Forest Service has not calculated an equivalent multiplier for use in the current model, in the EA and wildlife report deer habitat capabilities (deer density carrying capacity)has been over-estimated by about one-third (and impacts correspondingly under-estimated). The error must be corrected, affects analyses for wolves and subsistence, and requires issuance of a supplemental EA.*

FS—Response: The Forest Service did apply a multiplier of 100 deer per square mile and an HSI value of 1.3 when running the deer model for the Soda Nick EA.

Greenpeace: *2. Model used with false precision. At best the deer model results have a precision of two significant digits, the number of digits to which HSI scores are presented in the HSI table that is the core of the model. Nonetheless, the EA and the project wildlife report generally often present modeled habitat capabilities to four significant digits, meaning down to the individual deer. For example: the 3108 deer shown in row one, column one of EA Table 22. As another example there is this statement: "Additional harvest in Soda Nick reduces the theoretical number of deer the habitat is capable of supporting by only one deer. " (EA p. 35) The corresponding table on page 57 of the wildlife report shows model results to five significant digits, which is habitat capability precise to tenths of deer. Such false precision regarding impacts to deer is rife in the EA*

and the wildlife report, exaggerates the usefulness of the model, and misleads the decision maker and the public. If the model's true precision of two significant digits (at best) is inadequate for providing results that are useful for certain project analyses, that is simply an indication the model is the wrong tool for the job. Applications of the model that exaggerate its inherent precision are, simply put, illegitimate.

FS—Response: The wildlife models used on the Tongass National Forest were designed to address effects of proposed activities, not animal numbers (DeGayner 1992), in order to compare alternatives. Starfield and Bleloch describe why we model: "A model is any representation of abstraction of a system or process. We build models because they help us to (1) define our problems, (2) organize our thoughts, (3) understand our data, (4) communicate and test that understanding, and (5) make predictions. A model is therefore an intellectual tool (Starfield and Bleloch 1991 p.1)." The term "worst-case scenario" is intended to describe the amount of deer habitat that would be harvested if all harvest units were clearcut. In some partial harvest units, the effects to deer may be less than that predicted by the model. The model is a very simple device to help us make decisions in a complex world. Additionally, we use the information we gathered while in the project area to augment the model outputs. State and Federal agencies have requested the model runs so they can better analyze our information. They understand the shortcomings of the models and accept them for what they are and what they predict. The deer model results are useful for comparing alternatives. The table below, which is from the wildlife resource report, was carried out to the tenth of a deer. This was done to show the minimal impact to deer as a result of this project.

FS Response TABLE 5—Deer Habitat Capability by WAA

WAA	1954	2006	% change	Post Project	% change from current	Total % change
1317	3108.0	1488.7	-52%	1487.5 (-1.2 deer)	-<1%	-52%
1332	3864.8	3316.6	-14%	3305.8 (-10.8 deer)	-<1%	-14%

Note also that the accuracy of the model is a separate matter from its inherent degree of precision, and that the model's accuracy is not high.

Greenpeace: *2 Accuracy is a matter of how close model results are to the true situation. Think of precision as being how tightly grouped bullet holes are on a target and accuracy as how close the grouping is to the bulls eye. In using the deer model, the Forest Service has greatly exaggerated both the precision and the accuracy of the model and has failed to disclose the model's degrees of accuracy and precision and its related shortcomings. (Lands Council v. Powell)*

FS—Response: The deer model used for the Soda Nick project is the one that we are directed to use by the Forest Plan. See pages 3-365 thru 3-368 of the Forest Plan. See response to GP-WL-13.

Greenpeace: *3. Habitat Capability Insufficient, Lower Than Claimed. We have applied corrections for the above described incorrect use of the deer mulitiplier and*

the false precision that are imbued in Forest Service habitat capability estimates, and produced the following revised rough estimates:

***Greenpeace Table 1**. Corrected Habitat Capability (as Deer/Sq-Mile)*

WAA	Year = 1954	Year = 2006	Post Project	Canopy closure
1317	21	11	11	??
1332	22	19	19	??

***Greenpeace Table 2** Corrected habitat Capability (as Deer/Sq-Mile)*

WAA	Year = 1954	Year = 2006	Post Project	Canopy closure
1317	2300	1100	1100	??
1332	2900	2500	2500	??

Numbers in these tables correspond to the Forest Services erroneous estimates on EA pages 34, 35, and 41 and project wildlife report pages 25, 40, 44, 57, and 59 and perhaps other pages. Table 1 relates to whether the Soda Nick project is consistent with the Forest Plan's standard and guideline of providing a habitat capability of at least 18 deer/sq-mile to support subsistence hunting and wolves. Table 2 relates to considerations in the EA and wildlife report of whether an adequate deer population will remain to satisfy subsistence hunting needs.

Table 1 shows a substantially large shortfall (nearly 40%) in meeting the Forest Plan standard and guideline in WAA 1317. For WAA 1332, the EA (pp. 34, 35) and wildlife report (pp. 44, 45, 60) claim the current and post-project deer density capabilities to be "well above" the Forest Plan standard and guideline of 18 deer/sq-mile. However, at 19 deer/sq-mile the corrected capability for WAA1332 is barely above the Forest Plan's prescription. The fact and the consequences of the barely adequate WAA 1332 being adjacent to the highly deficient WAA 1317 need a "hard look" in a Supplemental-EA. The EA and the wildlife report considered the two WAAs independently of each other. We calculate roughly that the combined habitat capability of WAAs 1317 and 1332 is 15 deer/sq-mile, which is significantly below the Forest Plan standard and guideline. Table 2 shows corrections to habitat capability figures in the EA and wildlife report that were expressed as carrying capacity in number of deer. The EA and the project wildlife report used such numbers (erroneously higher ones) to judge whether the deer population will be adequate to meet needs of subsistence and sport hunters. We have made these corrections simply to point out the Forest Service's misapplication of the deer multiplier. However, the more important consideration is the Alaska Department of Fish & Game's assertion that using the model to calculate deer numbers in this way is improper. The deer model should "not (be) used to estimate project effects on subsistence deer hunting, a purpose for which the deer model is completely unsatisfactory. " (ADF&G 2006, speaking of timber projects generally, not this one in particular)

FS—Response: A) The deer model used for the Soda Nick project is the one that we are directed to use by the Forest Plan. See pages 3-365 thru 3-368 of the Forest Plan. The deer model was run correctly. As a response to your comment the deer model was rerun

at the biogeographic province level as well as for the two WAAs that are in the project area. The following table shows the results we obtained.

FS Response TABLE 5—Deer per Square Mile

	1954	**Present**	**Post Project**	**End of Rotation**
WAA 1317	28	14	14	13*
WAA 1332	29	25	25	15*
Province	39	27	27	26

* From Appendix 12 to Appendix N, p. 1 1997 Forest Plan

This table indicates that the deer density numbers are adequate at the biogeographic province level to maintain both wolf predation and subsistence hunters.

B) The deer model was run correctly for the Soda Nick EA.

C) The deer numbers in WAA 1332 do meet or exceed the recommended threshold as stated in the Forest Plan. When the deer density is calculated at the biogeographic province level, the entire northern portion of Prince of Wales Island, the deer densities also meet or exceed the recommended threshold of 18 deer per square mile as stated in the Forest Plan.

D) The combined WAAs have a deer density that meets or exceeds the recommended threshold for deer as stated in the Forest Plan.

> **Greenpeace:** *4. Ecosystem Non-Linearity Not Disclosed. In ecosystems where there is predation on deer, the general loss in deer numbers caused by habitat loss is disproportionately greater than the amount of habitat loss. (Person 2001) Therefore, the loss in deer habitat capability due to the additional habitat loss this project would cause in its already heavily impacted WAAs can be expected to be greater than the model (if otherwise properly used) suggests. This was not disclosed, much less fully and fairly discussed and taken into account in the EA and the wildlife report. This NEPA compliance failure was made despite the Forest Service being well aware of this issue, from comments on many other projects.*

FS—Response: The deer model used for the Soda Nick project is the one that we are directed to use by the Forest Plan. See pages 3-365 thru 3-368 of the Forest Plan. This model includes a reduction for predation. The Soda Nick EA discloses the estimated habitat losses (reduction in POG, coarse canopy and high value deer winter range).

> **Greenpeace:** *5. Shortcomings in Model Data Not Disclosed. The current deer model is based on the Vol Strata dataset, which is uncorrelated to habitat quality. (Caouette et al. 2000). Accordingly, the Alaska Department of Fish & Game has requested that the TimTyp dataset be used for wildlife analysis instead, until the new size-density dataset is available for use, and noted that the original (Suring et al 1992) deer model uses that dataset. (ADF&G 2006)The failure of the EA to disclose this request and the shortcoming of reliance on the Vol Strata data is contrary to the requirements of NEPA. (Lands Council v Powell) Further, corrective action is needed by using the Suring model either in place of or in addition to the current model in performing analysis for this project.*

FS—Response: A) Volume Classes were ruled inappropriate for the analysis of deer habitat because it was not designed to accomplish that kind of analysis (U.S. District Court for the District of Alaska, 1994). Caouette et al. (2000) provided a statistically valid approach for use in determining volume through the strata approach. Caouette et al. (2000) went further and stated: "Timber volume information and associated maps have been widely used in the Tongass National Forest for land-use planning and timber and wildlife management. Although considerable effort has been expended to improve timber volume maps, little has been done to evaluate the suitability of timber volume as a descriptor of forest character. We established a rough indicator of forest structure that uses trees per acre and quadratic mean diameter to examine the relation between timber volume and forest structure. Results indicated that timber volume and forest structure are not interchangeable attributes. Results also indicated that the original photo-interpreted timber volume stratification did not always capture differences in timber volume but may have captured differences in forest structure. The recently revised timber volume stratification provides more reliable timber volume information, but it sacrifices structural information in the process."

B) The deer model used for the Soda Nick project is the one that we are directed to use by the Forest Plan. See pages 3-365 thru 3-368 of the Forest Plan. The deer model was run correctly.

> **Greenpeace:** *6. Other Model Shortcomings Not Disclosed. Shortcomings are well documented for both the Suring and Forest Plan deer models specifically and this type of model generally. (Gillingham1997; Marcot 1997; Hanley 1997; Robertson 1997; Ford 1995; Nichols 1996; Person 2001;and Kiester & Eckhardt 1994, including individual peer reviews therein.) These shortcomings have been consistently controversial for many years on the Tongass National Forest. (See timber sale comments and appeals too numerous to mention by Greenpeace, other NGOs, and individuals.) Nonetheless, the Forest Service has dodged entirely these shortcomings and the issue that they must be disclosed and taken into account in NEPA documents and project planning. The Soda Nick EA is no exception to this disregard for the requirement of NEPA to disclose and fully and fairly discuss the shortcomings of models. (Lands Council v. Powell) A supplemental EA is needed to correct that deficiency. We believe the nature of the shortcomings is such that the deer-related analyses in the EA tend to under-estimate impacts. Briefly, shortcomings of the model include inability to account for habitat patch size, juxtaposition and degree of connectivity among habitat patches, severe winters, and other important factors.*

FS—Response: The Forest Plan on page 3-367 discusses how the modeling process occurred. As part of the Forest Plan process, a panel of experts was convened to make recommendations on all wildlife analyses. The wildlife specialist for the Forest Plan designed a new HSI model for use in these analyses. The panel of experts made changes to this model to better reflect new information. The new model (DeGayner 1996) was presented to the Interagency Deer Habitat Workshop where representatives of the Fish and Wildlife Service, Alaska Department of Fish and Game and other Forest Service Biologists. This workshop reviewed all aspects of the deer model presented in the RSDEIS of the Forest Plan and adjusted the model coefficients so that model outputs

better represented information from independent data sets such as deer harvest levels and deer pellet group transects. The participants increased the influence of predators on habitat scores, lowered the habitat values of second growth and increased the maximum carrying capacity estimates. The Forest Plan used a 36 percent reduction in the modeled deer numbers whenever wolves were present. ADF&G (Person et al. 1997) requested that the Forest Service use 100 deer per mi² for the best deer habitat instead of the 125 deer per mi² predicted in the model runs and not apply the 36 percent reduction to that figure. This was first discussed in the 2000 Tongass National Forest Annual Monitoring and Evaluation Report released in April 2001.

> **Greenpeace:** *7. Summary & Conclusion. Modeling errors need to be corrected; the Suring model needs to be employed in order to model from the most reliable available dataset; model and data shortcomings must be disclosed; and allowances need to be made in the analysis for factors the model does not take into account.*

FS—Response: As part of the Forest Plan process, a panel of experts convened to make recommendations on all wildlife analyses. The wildlife specialist for the Forest Plan designed a new HSI model for use in these analyses. The panel of experts made changes to this model to better reflect new information. The new model (DeGayner 1996) was presented to the Interagency Deer Habitat Workshop where representatives of the Fish and Wildlife Service, Alaska Department of Fish and Game and other Forest Service Biologists. This workshop reviewed all aspects of the deer model presented in the RSDEIS of the Forest Plan and adjusted the model coefficients so that model outputs better represented information from independent data sets such as deer harvest levels and deer pellet group transects. The participants increased the influence of predators on habitat scores, lowered the habitat values of second growth and increased the maximum carrying capacity estimates. The Forest Plan used a 36 percent reduction in the modeled deer numbers whenever wolves were present. ADF&G (Person et al. 1997) requested that the Forest Service use 100 deer per mi² for the best deer habitat instead of the 125 deer per mi² predicted in the model runs and not apply the 36 percent reduction to that figure. This was first discussed in the 2000 Tongass National Forest Annual Monitoring and Evaluation Report released in April 2001.

> **Greenpeace:** *The assessment of impact to wolves is not reliable. 1. Road Density Improperly Considered. The EA and the wildlife report compare past, present, and future deer habitat capability (supportable deer density) to the Forest Plan's standard and guideline of providing a habitat capability of 18 deer per square mile to provide for wolves and deer hunting. The conclusions of the Forest Service's various such analyses for this project are that the standard is satisfied; however, they are based on the improper use of the deer multiplier that we have already described. Total road density, not open road density, needs to be considered but was not addressed at all in the EA. (See Person et al. 1996, Person et al. 1997, and Person 2006). The evaluation of project impact on wolves is erroneous because total road density was not considered and because the analysis of effects on deer habitat capability were made improperly and underestimate the impact to this primary wolf prey species.*

FS—Response: The road density in WAA 1317 will increase as a result of the proposed action. The road density in this WAA will remain at .44 miles per square mile (with the Indian Creek road closed). The road density in this WAA will remain at .52 miles per square for the period of time that the Indian Creek road is open. Both of these densities are below the recommended road density threshold in the Forest Plan. The road density in WAA 1332 will increase from .18 miles per square mile to .19 miles per square mile as a result of the proposed action. For the time period that the Indian Creek road is open the road density in this WAA is calculated to be .20 miles per square mile. This density will increase to .21 as a result of the Soda Nick EA. Both of these densities are below the recommended road density threshold in the Forest Plan. The Forest Plan recommends an open road density of 0.7 - 1.0 mi/mi^2 to protect wolf population viability (Forest Plan 4-116).

FS Response TABLE 6—Road Density by WAA for Forest Service Roads only, Indian Creek Road (2016) closed and below 1200 feet in elevation

WAA	Current density	Soda Nick	Resulting road Density
1317	.44	0	.44
1332	.18	.01	.19

FS Response TABLE 7—Road Density by WAA for Forest Service Roads only and Indian Creek Road (2016) OPEN and below 1200 feet in elevation

WAA	Current density	Soda Nick	Resulting road Density
1317	.52	0	.52
1332	.20	.01	.21

The road densities at the end of the project will be unchanged in WAA 1317 and only increase .01 mi/mi^2 in WAA 1332. This final density is within the range for road densities that is listed in the Forest Plan as recommended to maintain healthy wolf populations.

> **Greenpeace:** *2. Impact to Primary Prey (Deer) Improperly Considered. When deficiencies in the Forest Service's use of the deer model are corrected (as discussed above) the habitat capabilities (as deer density) for deer of WAAs 1317 and 1332 respectively are far below (11 deer/sq-mile)and barely above (19 deer/sq-mile) the Forest Plan standard and guideline of providing capability of 18 deer/sq-mile. The combined land area weighted average capability of the two WAAs is significantly below the standard and guideline. In stark contrast, the EA and the wildlife report did not considered the WAAs in combination their erroneous use of the model mislead the decision maker and public into believing there is no significant impact. In addition, shortcomings in the deer model and the dataset it relies upon have not been disclosed or taken into account, and are likely to have caused an over-estimation of habitat capability and a corresponding under-estimation of project impacts and cumulative impacts. (Lands Council v Powell) The habitat capabilities we have presented in the paragraph above are optimistic, not realistic.*

FS—Response: The deer model used for the Soda Nick project is the one that we are directed to use by the Forest Plan. See pages 3-365 thru 3-368 of the Forest Plan. The Forest Service uses the Wildlife Analysis Area (WAA) or multiple WAAs associated with the project area to assess the effects of deer habitat capability on wolves (Forest

Plan, p. 4-116). The use of the deer model at the project-scale was identified as a concern (Item 04-7) identified in the Forest Plan 5-year review and is being further refined. The estimated number for deer per square mile at the biogeographic province scale is 18 deer per square mile, the Forest Plan threshold for deer to meet the need for both hunters and predators.

> **Greenpeace:** *The analysis of impact to marten is incomplete and unacceptable because the marten habitat capability model was not utilized. Work by Flynn et al. (2006), presented at the September 2006 annual conference of The Wildlife Society, needs to be taken into account. They suggest that "large old-growth reserves near the minimum size and habitat composition requirements would not support (the) 25females" that are needed. "Particularly in population with poor food availability, OGRs may need to be larger or more of the matrix managed as marten habitat. " The EA does not show where the nearest large old-growth reserves are located nor assess their adequacy or possible implications for matrix needs in the project area.*

FS—Response: The current Forest Plan (1997) does not require that we utilize the habitat capability model for marten (Forest Plan p. 4-118 and 4-119). Habitat requirements for high risk bio-geographic provinces, which include the Soda Nick Project Area, have been applied.

> **Greenpeace:** *Retention in Unit 16 is not adequate for marten. Unit 16 is a helicopter unit with retention of 50% of basal area, which the Silviculture/Timber section of the unit card prescribes to meet the VQO (visual quality objective). The unit card also notes the requirement for 30% retention to provide for marten; however, this requirement is not mentioned in the Silviculture/Timber section of the unit card. Although the two requirements are both important; the effective means to achieve them are not the same. To be effective for mitigating visual impacts the distribution of retention throughout the unit should be uniform, but to be effective for marten habitat the retention should be in clumps that are not located at the unit boundary (i.e., .peninsulas or blocks of retention that extend into the heart of the unit and connect to the boundary are best). The unit card does not specify how retention should be configured, yet this is a critical consideration in whether and which objectives would be satisfied. We believe Unit 16 should be dropped because the VQO and the marten standard cannot both be met. If Unit 16 is not dropped, the 10.5 acres of required marten retention should be in no-cut clumps within the unit, and the two-age 50% retention prescription should be applied to the remainder of the unit. Blind stream buffer corridors should be avoided by continuing the corridors to the top boundary of the unit, in consideration for wolf prey species.*

FS—Response: We believe that the 50 percent retention left in this unit will meet the 30 percent retention requirement for marten habitat. The marten standards and guidelines on page 4-119 of the Forest Plan say that for VCUs in higher risk provinces where over 33 percent of the original POG has been harvested (or will be as a result of the proposed project) should apply silvicultural methods to maintain 30 percent canopy retention. The remaining trees should be uniformly distributed throughout the stand but may be clumped for operational concerns or ecological opportunities.

> **Greenpeace:** *The Prince of Wales Island complex is an important center for endemism, especially for small mammals. (Cook et al. 2006) Similar concerns have been raised in Smith (2005) and Smith & Zollner (2005). Small mammals were given inadequate consideration in the EA and wildlife report. A full discussion of small mammal issues is needed, beginning with a review of important information in the above papers. Significance of the Trocadero/Twelvemile pinch point and the project area's relationship to the pinch point need to be assessed in relation to small mammals.*

FS—Response: The current Forest Plan does include any requirements for endemic small mammals for islands the size of Prince of Wales (Forest Plan 1997 p. 4-119 and 4-120). The current Forest Plan does include any requirements for endemic small mammals for islands the size of Prince of Wales (Forest Plan 1997 p. 4-119 and 4-120).

> **Greenpeace:** *The EA is incomplete and NEPA has not been satisfied because goshawk surveys have not been completed for all units. (Dillman 2006, p. 15)*

FS—Response: Not all units met the habitat criteria for goshawks, such as slope and elevation.

> **Greenpeace:** *The EA is incomplete and NEPA has not been satisfied because for the Marbled murrelet, species of concern, no surveys were conducted. Because the project area and the areas surrounding it have been very heavily impacted by past logging, it is critical that survey data be available to help in assessing cumulative impacts, including this project, to murrelets. (Dillman 2006, p. 39)*

FS—Response: The current Forest Plan (1997) does not require that marbled murrelet surveys be conducted prior to harvest activity (Forest Plan p. 4-117).

> **Greenpeace:** *1. Eliminate & Replace Illegitimate Analysis. The EA and the project wildlife report use the deer model to estimate the number of deer available to hunters, and compare that to hunter demand. As already discussed, this is not a legitimate use of the model. (ADF&G 2006) A Supplemental EA is necessary to replace sections of this EA that rely on this illegitimate method for assessing impacts to subsistence and sport hunting with a different means of analysis.*

FS—Response: It has been estimated that a deer population at carrying capacity could support an annual harvest of up to 10 percent of the winter carrying capacity (Forest Plan p. 3-361). The 1997 Forest Plan estimated that the deer harvest in WAA 1317 was at about 7 percent of the estimated habitat capability. In WAA 1332 the estimated deer harvest was at 3 percent of the calculated habitat capability (Forest Plan p. 3-377)

> **Greenpeace:** *2. Correct Erroneous Analysis. The Forest Plan has established a standard and guideline of18 deer/sq-mile as the minimum habitat capability required in order to assure that the needs of hunters and wolves are met. Errors were made in applying the deer model for estimating habitat capabilities of the two project WAAs, and the combined habitat capability of the two WAAs was not considered. Our corrections of the modeling errors show that WAA1317 falls far short (at 11 deer/sq-mile) of the Forest Plan standard and guideline and WAAs1317 and 1332 combined fall significantly short (at 15 deer/sq-mile).*

FS—Response: The model was run correctly for the Soda Nick EA. The combined WAAs have a deer density that meets or exceeds the recommended threshold for deer as stated in the Forest Plan. When the deer density is calculated at the biogeographic province level, the entire northern portion of Prince of Wales Island, the deer densities also meet or exceed the recommended threshold of 18 deer per square mile as stated in the Forest Plan.

> **Greenpeace:** *3. Consider Deer Model & Data Shortcomings. In addition to making those corrections, shortcomings in the deer model and the data it is based upon must be disclosed and taken into account. (Lands Council v. Powell)The subsistence analysis is inadequate in every respect. Our analysis shows significant existing and cumulative impacts, and therefore an environmental* impact statement is clearly needed for this project.

FS—Response: Please previous responses to Greenpeace's comments for discussion of the shortcomings of the deer model.

> **Greenpeace**: *Areas within LSTA boundaries that were excluded from logging because of steep (>72%) slope should not be counted toward marten or goshawk habitat retention because of the heightened risk of losing the habitat in a landslide. Unit cards say that "reserve areas" (retention) must be tracked and held uncut for 124 years; however, the unit cards to do not explicitly state what is retention and what is not. Presumably it is the area between the original LSTA boundary and the proposed unit boundary; but whatever it is needs to be presented for each unit in clear language that refers to the unit map. In addition, the EA and the project decision need to explain in a prominently how the retention will be tracked and how loss of required retention will be avoided in the event of unit changes during layout.*

FS—Response: The TPIT Clarifications for Martin & Goshawk Standards and Guidelines (p.2) allows these areas to be counted for deferral, if all data at the time of LSTA development indicated the area in question was suitable and available for timber harvest.

The areas proposed for retention or deferral are clearly designated on the Unit Card Legend as Marten Habitat, and shaded accordingly on each Unit Card Map.

It is standard practice is to track these areas, as we would any other attribute we want to keep track of, through GIS.

> **Greenpeace:** *Of the three action alternatives considered in detail, two do not satisfy the project's purpose and need of providing for small timber purchasers on the island. Only one action alternative might be considered a reasonable alternative, and therefore there is no range of alternatives in the EA. A new EA is needed to present a true range of alternatives to the public for comment, and for a comparative hard look at alternatives.*

FS—Response: We strongly disagree and have addressed this in our response to the Purpose and Need section of the Cascadia Wildlands comment letter.

> **Greenpeace:** *The timber volumes yields shown in the Alternatives section (EA pp 4-7) are net volumes for saw logs only. The gross volumes that will be cut*

(whether or not recovered), including utility volume, must be shown. The volume for which recovery is optional or not anticipated must be disclosed.

FS—Response: An estimated 5.7 million board feet (mmbf) of total timber will net approximately 4 mmbf of sawtimber.

Greenpeace: *Consider the carbon dioxide "costs" of the alternatives, because the need for a significant reduction in national carbon dioxide emissions is apparent, to lessen eventual climate change. The carbon emissions accounted for should include those from all aspects of the project including administration, road construction, yarding, hauling, and transport to final markets.*

FS—Response: This is addressed in an earlier response.

Greenpeace: *Conclusion: Because WAA 1317 individually and WAAs 1317 and 1332 in combination do not presently meet the Forest Plan standard and guideline of providing a habitat capability of at least 18deer/sq-mile and because the means for reasonably estimating impacts to deer, subsistence, and wolves are complex, an environmental impact statement is necessary for this project. Significance of the impacts is not simply a matter of incremental changes in impacts due to this project but also of the cumulative impact. Even if the Forest Service decides not to prepare an environmental impact statement, a Supplemental EA is necessary to correct the errors and deficiencies we have identified. The Soda Nick project is not ripe for a decision. Although we have stated the need for a Supplemental EA in several places in these comments, what is really needed is a full environmental impact statement (EIS). Several of the issues a sufficiently complex that an EA does not fit the bill. We request an EIS.*

FS—Response: The Forest Service uses the Wildlife Analysis Area (WAA) or multiple WAAs associated with the project area to assess the effects of deer habitat capability on wolves (Forest Plan, p. 4-116). The use of the deer model at the project-scale was identified as a concern (Item 04-7) identified in the Forest Plan 5-year review and is being further refined. The estimated number for deer per square mile at the biogeographic province scale is 18 deer per square mile, the Forest Plan threshold for deer to meet the need for both hunters and predators. Table 3-112 in the Forest Plan (p. 3-377) shows that the estimated deer harvest as a percent of the habitat capability is only 7 percent for WAA 1317 and only 3 percent for WAA 1332.

B. Sachau
15 Elm St
Florham Park, NJ 07932

B. Sachau: *I oppose all logging, which causes erosion, global warming and wildlife and bird decimation. This plan is not for a "small" amount at all. That is a lie - this is a major decimation plan and is a massive taking. I think animal protection groups needs to be brought into plans here instead of blacklisting them. I see no reason why you blacklist and fail to reach out to animal protection groups. This must change. Logging kills fish and water quality. This is simply another bush assault on the environment. his policy of appointing lobbyists from industry to head public agencies is a scam on the American taxpayers, who have*

been paying taxes for years to protect these areas. The assault on the environment under the bush administration is horrible. This plan is exactly that. it must be defeated. Open space created by God does not exist for this kind of raping.

FS—Response: The proposed timber harvest units are individually evaluated to estimate site-specific impacts to determine appropriate measures to minimize soil erosion and water quality degradation. Harvest unit design incorporates site-specific information and field verification in order to consider: (1) stream channel protection; (2) potential slope instability and erosion hazard; (3) size and shape of unit; (4) landform characteristics; (5) road and skid trail network; (6) logging system design; (7) relative risk of wind throw; (8) wetland protection; and (9) Karst area protection.

Where adverse water quality, soil productivity impacts, or undesirable stream flows are likely to result, the harvest unit designs are modified or special mitigation measures identified (BMP 13.2, 2006 FSH 2509.22 page 40).

Our project mailing list has over 400 recipients. We do not exclude anyone who requests to be included on the list.

The other points appear to be non-project-specific statements.

Alaska Society of American Foresters, Dixon Entrance Chapter
RE: Soda Nick Small Timber Sales Environmental Assessment
Eric Muench, Chairman

Alaska Society of American Foresters: *We believe that Alternative 2 should be implemented with the change noted below. National Forest timber availability has been below planning levels and a serious constraint on the local mills on Prince of Wales Island. This alternative provides the highest volume.*

FS—Response: Timber offered lately has been below the ASQ allowed under TLMP. It is correct that Alternative 2 proposes the highest volume (4,032 mbf), but not significantly more than Alternative 3, which estimates only 78 mbf less (3,954mbf).

Alaska Society of American Foresters: *We appreciate the frank discussion of helicopter options in the Timber Sale Economics section. We have a concern that almost one third of the acreage in this alternative requires helicopter yarding which is so expensive that it can ruin the economic viability of an operation if markets drop even slightly from appraisal values of the evaluation. However, the ability to offer the subject timber in smaller sales as opportunities arise justifies its inclusion. Alternative 4, which eliminates helicopter, also lowers the volume too much. Alternative 3, which minimizes roads and maximizes helicopter dependence, appears economically unjustified.*

FS—Response: Alternatives are designed in part as a means to evaluate harvesting timber using different logging systems and may appear economically unjustified, but none the less they are included as part of the NEPA process and as a basis for comparison. In this case, all alternatives appraised positive using NEAT.

Alternative 3 actually has the best economics of the action alternatives, both in estimated revenue to the government and estimated direct income for the operator.

> **Alaska Society of American Foresters:** *All except the no action alternative appear to meet Forest Plan guidelines. However we would like to see less emphasis on visual quality objectives. This appears to have had the greatest impact on unit 16. As one of the largest it accounts for a significant source of volume. A temporary road location further up the slope (as outlined under "Transportation" on the card) to permit uphill yarding away from the highway should be done. This could also solve the inevitable problem of finding a suitable helicopter log landing area with safety for the public. The Hydaburg Road does travel through a development LUD that is an essential part of the timber base acreage. As such a clearcut or obvious partial cut area should* not be considered unacceptable.

FS—Response: Unit 16 is within Scenic Viewshed Land Use Designation (LUD). According the Forest Plan Standard and Guidelines the Visual Quality Objective (VQO) to be maintained in this unit is Retention. Under Retention management activities are not to be visually evident to the observer. (Forest Plan, p 4-76) Unit 16 was extensively analyzed in order to determine the maximum harvestable volume of timber within the parameters set under current Tongass National Forest Land and Resource Management Plan Standard and Guidelines. All harvest management options, including clearcut and partial cut were considered. Large clearcuts and partial cuts with uphill yarding would exceed VQO retention. The proposed action maximizes the amount of harvestable timber available in the unit. The proposed action will meet Forest Plan Standard and Guidelines for Retention Visual Quality Objective.

Southeast Alaska Conservation Council (SEACC)
Dave Sherman

> **SEACC:** *The maps provided by the Forest Service in the EA are insufficient. Although the map for Alternative 1 (Existing Condition) provides a lot of information, the other alternative maps are less informative. For example, the alternative maps must indicate where proposed clearcuts are in relation to existing clearcuts. In order for the public to make detailed and meaningful comments on this proposed timber sale, the maps provided must give the public, and other decision-makers, adequate information.*

FS—Response: The readability and usefulness of our project maps are as important to us as our readers. We make every effort to improve them and appreciate any suggestions for improvement. In this case, we felt there was too much information to display legibly on one map.

> **SEACC:** *The agency's reference to 4 mmbf throughout the document is misleading. Nowhere is there any indication about how much total timber will need to be cut in order to obtain that amount of sawlog timber. This is a gross disservice to the public, who may be misled into believing that only 4 mmbf will be cut in this timber sale. If the Forest Service is serious about informing the pubic about what they are permitting to occur on our National Forests, they must let us know how much total timber will be cut as a result of a timber sale.*

FS—Response: An estimated 5.7 million board feet (mmbf) of total timber will net approximately 4 mmbf of sawtimber.

> **SEACC:** *The road effects summary (EA p. 8) talks about open road density only. Roads that have been closed are often used for purposes other than vehicle traffic, such as trapping and hunting. Nowhere is there an examination of this potential impact. This is a disservice to those who rely on hunting and trapping for subsistence and other uses, and makes it difficult to accurately gauge the impacts of increased road density in the project area. We expect a more full examination of road density to be a part of any proposed timber sale.*

FS—Response: Forest Plan direction is to use open road density to consider reducing wolf mortality where it has been determined through analysis that road access has been proven to significantly contributed to wolf mortality (Forest Plan p. 4-116).

> **SEACC:** *Throughout the EA the Forest Service states that the roads constructed as a result of this project will be closed after one year to allow for firewood collecting (EA p. 25, 41), yet on page 21 of the EA it states that these roads "may remain open for up to three years" (EA p. 21). Please make it clear whether these roads will remain open for one year or up to three.*

FS—Response: To clarify: Roads constructed by this project would remain open for three years from the beginning of the timber sale contract (EA p.21), and closed one year after sale completion (PP.25 & 41).

> **SEACC:** *The Forest Service readily admits that their past management activities are directly responsible for current problems in the project area (EA p. 30). The Forest Service is also ready to spend taxpayer dollars creating additional problems in the area by continuing to log in these impacted watersheds. How can the agency claim to be managing for multiple use if they are so willing to sacrifice the fishery resource in order to continue to log old growth forests? The significant impacts that the 19 "red pipes" have on the fishery resource can not be ignored, especially given that the Forest Service is looking to install 12 more stream crossings in the proposed alternative. The Forest Service must manage for all the resources of the forest, rather than merely the timber resource.*

FS—Response: Currently "red pipe" replacements are not scheduled in the project area. The existing culverts meet the standards for timber sale contract use because they provide for access to the timber sale and meet the design criteria even though they may not meet the current standards for fish passage. If a culvert were to structurally fail prior to or during the timber sale activities, the new installation would conform to the new standards, including fish passage.

For several years the Forest Service has been partnering with EPA, ACOE, NMFS and numerous state agencies in an effort to identify and prioritize the stream crossing culverts that do not meet the present day protocols for fish passage. Until that prioritization is complete, the consensus of the partners is to not randomly expend funds on replacement unless there was a structural failure and roads had to be kept open. Many of the "red pipes" identified within the project area contain minimal fish habitat upstream and may not be a high priority to replace.

No alternatives under this project would reduce the number of stream miles presently available to fish because no new Class I or II stream crossings are proposed in any of the alternatives. The proposed stream crossings associated with new road construction are over Class III and IV streams.

> **SEACC:** *The helicopter units are a significant concern. Although the Forest Service admits that "helicopter yarding generally requires significant volume (approximately 3 mmbf) to amortize the cost of mobilization and set up" (EA p. 13), the Soda Nick EA has helicopter units of considerably smaller size. For example, unit 6240-007, in the Proposed Alternative, has a very small helicopter unit in the northern portion of the unit. The same is true for units 6240-015 and 6240-017 in the Proposed Alternative. The helicopter portion of these units should be dropped for economic purposes.*

FS—Response: A prospective purchaser would likely bid in such a way that these small areas are included with other, larger helicopter units to improve sale economics. Additionally, the timber sale contracts may include provisions that would allow these small helicopter areas within these units to be subject to agreement. This means the purchaser has the option of dropping these areas if they are not economical.

> **SEACC:** *Given that both "VCU 6220 and 6240 are considered primary salmon producers according to the ADF&G" (EA p. 26), it seems irresponsible to select the alternative that creates the greatest soil disturbance. The area is known to be important to local sports fishermen, and this project may adversely affect essential fish habitat in the area. Stating that "organic debris that may enter streams during harvest or construction activities would be cleared after timber harvest is complete" (EA p. 28) is insufficient. What exactly is meant by "organic debris"? Isn't large woody debris important for creation of salmon habitat? How will the "organic debris" be removed? How will it be paid for?*

FS—Response: Alternative 3, the selected alternative, does have the highest soil disturbance of all the alternatives. The soil disturbance levels of the project area would increase by 0.08% with implementation of the selected alternative. These soil disturbance levels are considered minimal and meet Region 10 Soil Quality Standards.

Debris refers to large unmerchantable pieces, root wads or large accumulations of slash resulting from falling or yarding, including timber, which restrict natural water flow, adversely affect water quality or have potential for debris flow. It is the responsibility of the contractor's responsibility to pay for and to remove this debris from Class IV streams to a stable location above high water mark before the yarder leaves the unit or upon completion of seasonal logging activities in the unit, whichever comes first. Effects of not removing this introduced debris could include jeopardizing downstream culverts due to plugging, drainage alterations resulting in increased sediment delivery, and/or decreased channel stability. Existing natural stable debris is to be left undisturbed.

Large wood is indeed important for creation of salmon habitat and is critical in many streams for maintaining habitat cover and complexity for salmonids as well as for aquatic invertebrates that provide an important food source for fish.

> **SEACC:** *Units 6240-007 and 6240-015 should be modified as per Alternative 4 (dropping the helicopter units).*

FS—Response: This has been discussed thoroughly in other responses about helicopter yarding.

> **SEACC:** *As currently designed, unit 6240-017 is a very expensive unit. Even in Alternative 4, the "economic alternative," the unit would require 4 different logging systems in order to log approximately half the volume offered in the project. This unit needs to be broken into more manageable units in order to be approachable by the local, small volume operators.*

FS—Response: Any qualified purchaser may subcontract the logging and break up this unit into more manageable units approachable by the local, small volume operators.

The logging systems listed are what the planning team deemed feasible and may not reflect the harvest system used. The purchaser has some flexibility when it comes to harvesting as long as the resource concerns are met. For example, shovel logging may be done with the shovel that's generally on site for all cable logging systems. A long span system may be used to harvest the short span portions of a unit. Maximizing equipment can help reduce the number of logging systems and increase the sale economics, again as long as resource concerns are met.

> **SEACC:** *We recommend that the Forest Service select Alternative 4. It provides over 3 mmbf of sawlog timber in a more economical and least detrimental manner. Although this alternative would not alleviate all the problems associated with continued logging in an area already heavily impacted by previous logging, it would reduce those impacts.*

FS—Response: Alternative 3 is the most economical alternative overall (has highest) direct income for the purchaser, and return to the government.

It is unclear what the commenter means by "least detrimental", and to what resource detriment refers to.

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> *The proposed alternative for the Soda Nick timber Sale has a low profit and risk (3-4%) This can be improved by making the roads temporary and dropping the Helicopter logging. The sale is $70 deficit. See attached appraisal.*

FS—Response: Alternative 3 has only temporary roads and if prospective bidders find the helicopter portions unprofitable, they can elect not to purchase them under the timber subject to agreement clause.

The values of all alternatives may fluctuate with the market and costs. The final appraisal will be done using more accurate cruise data and the current appraisal bulletin data.

Although we strive to prepare economically viable alternatives, they may show negative values during the planning process to show the trade-offs between logging systems. In this case, all alternatives appraised positive using NEAT.

The 2006 Appropriations bill does not allow the Tongass to offer sales that appraise negative, unlike the other National Forests. If the decision is to harvest timber from this project, any sale offered will need to appraise positive.

The definition of a temporary road is a road necessary for emergency operations or authorized by contract, permit, lease, or other written authorization that is not a forest road and that is not included in a transportation atlas. The designation of a road as a temporary road or National Forest System Road is not based strictly on economics. If some type of control is necessary (e.g., fish timing, bridge construction, survey and design, timing for wildlife, access for future management activities), then the road is placed in National Forest System Road status.

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