

State of Alaska
Department of Natural Resources
Division of Forestry
Southeast Area - Haines State Forest



Draft Forest Land Use Plan

BABY BROWN TIMBER SALE

NSE – 1549

November 2016

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I. Introduction

Project File Number: NSE - 1549

Division of Forestry Office: Haines

Haines Forester: Gregory J Palmieri

Forest Practices Geographic Region (AS 41.17.950): One

This Forest Land Use Plan (FLUP) covers proposed forest operations for the first operational period of the Baby Brown Timber Sale. The Baby Brown Timber Sale will harvest approximately 20 MMBF of Sitka Spruce and Western Hemlock timber in ten harvest units from 855 acres within the timber sale area. This FLUP describes the two harvest units proposed for harvest following successful contract award in the immediate operational season. These two harvest units are located on 137 acres adjacent to Glacier Creek approximately 37 miles Northwest of Haines. Additional FLUP documents will be developed for the remaining proposed harvest units in this timber sale and they will be distributed for agency and public review. This FLUP, and all subsequent FLUPs for this sale, are intended to provide the best available information regarding the proposed harvest of timber, and management of other non-timber uses in compliance with AS 38.05.112 and AS 41.17.060, and must be adopted by the Department of Natural Resources (DNR) before the proposed activity can occur.

This Draft Forest Land Use Plan is for timber sale(s) which have been determined to be in the best interest of the state pursuant to AS 38.05.035 (e) and 38.05.945; FBIF, Baby Brown Timber Sale/NSE – 1549, March 15, 2015. This FLUP does not determine whether or not to access and sell timber within the timber sale area, nor the method of sale. Those decisions have been made previously in the March 15, 2015 Best Interest Finding and are not appealable under this FLUP. The Final Best Interest Finding and Decision for the Baby Brown Timber Sale may be found at: <https://aws.state.ak.us/OnlinePublicNotices/Notices/View.aspx?id=176038>

The BIF was administratively appealed to the Commissioner of Natural Resources on April 6, 2015. The decision was reviewed by the Commissioner and affirmed on October 6, 2015.

The public and agencies are invited to comment on specific requirements for harvest, access, and reforestation operations in this draft FLUP. Objections or comments pertaining to the draft FLUP must be received in writing by the Division of Forestry (DOF) Haines State Forest Office by **4:00pm on January 5, 2017** in order to ensure consideration for review. Comments should be mailed to the State of Alaska, Division of Forestry, P.O. Box 263 Haines, AK 99827 or by email to greg.palmieri@alaska.gov. For more information you may contact Greg Palmieri/Haines State Forest Office/907-766-2120. To be eligible to appeal the final decision, a person must have provided written comment by **4:00pm on January 5, 2017**.

After public and agency review of the draft FLUP, the DOF will review comments, make changes as appropriate, and issue a final FLUP. A person affected by the final decision who provided timely written comment or public hearing testimony on the preliminary decision may appeal it, in accordance with 11 AAC 02.

This timber sale is designed to be consistent with the management intent of the following documents:

Haines State Forest Management Plan (Rev. 2002)

Chilkat Bald Eagle Preserve Management Plan (Rev. 2002)

The administrative record for this sale is maintained at the Division of Forestry Southeast Area, Haines State Forest Office filed as NSE - 1549.

A. Legal Description (see also map in Appendix A): This FLUP addresses the first two units of the Baby Brown Timber Sale offered in the first operational period for the sale on approximately 137 acres located within a portion of Sections 25, 36 T28S R53E and Section 30 T28S R54E, C.R.M.

B. Operational Period: May 1, 2017 – December 1, 2017

C. Timber Disposal

Timber will be sold and will have a contract administrated by the State.

D. Objectives and Summary

1. To follow the Department of Natural Resources (DNR) constitutional mandate to encourage the development of the State's renewable resources, making them available for maximum use consistent with the public interest. Sustain and promote a healthy, long-term timber industry in the state, through providing a secure source of timber for harvest while protecting other resources such as fish and wildlife.
2. To help the State's economy by providing royalties to the state in the form of stumpage receipts, as well as contributions to local economies through wages, purchases, jobs and business.
3. To improve forest growth and vigor by harvesting and replacing mature or over mature forest stands with regenerating stands, while protecting and maintaining other resource values. The actions authorized under this decision will follow the constitutional mandate of sustained yield and shall adhere to multiple use management as described in the Haines State Forest Management Plan (HSFMP).

II. Affected Land Owners/Jurisdictions

	Activity on ownership:	Access	Harvest	Written Representative Approval
A. State				
<input checked="" type="checkbox"/>	Haines State Forest	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Other state land managed by DNR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	University of Alaska	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Mental Health Trust	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	School Trust	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Other Land Ownership				
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Land Owner: _____

Land Owner Representative: _____

III. Harvest Methods, Silvicultural Actions, and Management of Non-timber Resources

Forest operations will be designed to:

- Protect fish habitat and water quality in compliance with the best management practices in 11 AAC 95.260-.370,
- Manage for the other land uses and activities identified in AS 41.17.060 and the Best Interest Finding for this timber sale, and
- Result in the sustained yield of timber and maintenance of site productivity in compliance with AS 41.17.060(c) and 11 AAC 95 .375-.390.

Harvest and Silvicultural Methods:

The harvest and silvicultural methods are attached to this document in Appendix B.

A. Timber Stand Description and History

The timber is predominately composed of mature and over mature Hemlock/Spruce stands on high productive sites within the Haines State Forest. The acres in this sale area have been identified as available for timber harvest as a primary use in the Haines State Forest Management Plan. Historically, some stands between Glacier and Porcupine Creeks in the sale area have been harvested in the early 1900’s as a result of development to support mining activity in that area.

The two harvest units addressed in this FLUP include timber ranging from 100 to 250 years old (HSF Inventories, 1965/1985/2012).

B. Timber Harvest Activities

Timber Harvest Activities are displayed in Table 1.

Table 1. Timber Harvest Activities

Unit ID	Acres	Topography	Silvicultural Action	Logging Method
01	52	Broken Hillside/Flat Areas	Partial Cut	Ground-based/Cable
02	85	Broken Hillside	Partial Cut	Ground-based/Cable

C. Site Preparation

Site preparation will not be necessary. There will be sufficient residual stocking, or because there will be sufficient soil disturbance by logging during the summer to forego scarification. If logging activity continues into winter months when more than 12 inches of snow coverage occurs across a harvest unit, subsequent seasonal scarification is required according to the timber sale contract.

D. Reforestation:

Reforestation requirements for these harvest units will be met through natural regeneration of Sitka Spruce and Western Hemlock. Based on prior harvest experience in the adjacent area, reforestation is projected to naturally occur under the prescription proposed.

E. Slash Abatement

Potential for insect infestations caused by slash accumulations exists as these harvest debris piles will provide available hosting material for Spruce bark beetles (*Dendroctonus Rufipennis*) identified as damaging to live trees when present in high numbers. Slash abatement for controlling infestations will be implemented as required by 11AAC 95.370.

Lop and scatter slash; accumulations will be kept to less than 3 feet in height.

F. Timber Harvest—Surface Water Protection:

There are no known anadromous classified streams in the harvest units or within 300 feet of the harvest units addressed in this FLUP.

Surface waters were reviewed by the Department of Fish and Game:

- During the timber sale planning process
- During the agency review conducted for the Best Interest Finding for this sale
- During the drafting of this Forest Land Use Plan
- Stream Crossings (Title 16) Permits are needed per ADF&G Division of Habitat

Surface waters listed were reviewed by the Department of Environmental Conservation:

- During the timber sale planning process
- During the agency review conducted for the Best Interest Finding for this sale

During the drafting of this Forest Land Use Plan
 Non-classified surface waters are subject to applicable BMPs in 11 AAC 95.

G. Wildlife Habitat:

Wildlife species and allowances for their important habitats were addressed in writing by the Department of Fish & Game during the Best Interest Finding review.

Wildlife species and allowances for their important habitats were addressed in writing by the Department of Fish & Game during the drafting of this Forest Land Use Plan.

Silvicultural practices to be applied to minimize impacts to wildlife habitat or wildlife management:

Timber retention - concentrations of timber surrounding harvest units, or interspersed within harvest units to provide cover.

Snag Retention- snags or isolated trees left for cavity nesting species.

Large Woody Debris – concentrations of downed timber or logging debris interspersed within harvest units to provide cover left on site.

Other actions

H. Cultural and Historical Resource Protection:

No artifacts have been reported within the Harvest Units or road locations in the project area(s).

I. Other Resources Affected by Timber Harvest and Management

During the Public Review Process of the Baby Brown timber sale BIF the DOF received comments referring to the possible view of harvest areas from the Haines Highway.

Table 5. Other Affected Resources/ Areas of Concern.

Impacted Resource	Reviewing Agency	Impact/ Mitigation Actions
Scenic	DOF	Retention of standing trees in units and distribution of remaining timber around designated units.

IV. Roads and Crossing Structures

A. Road Design, Construction, and Maintenance:

Roads will be designed, constructed, and maintained to prevent significant adverse impacts on water quality and fish habitat (AS 41.17.060(b) (5)), and site productivity (AS 41.17.060(c) (5)). Roads will comply with the best management practices in the Forest Resources and Practices Regulations (11 AAC 95.285 – 95.335)

Road construction will follow guidelines described in the contract and HSFMP. Region One forest road construction standards will be used (See Appendix B2).

Roads or other means required for the access and removal of this timber from the harvest area(s) or unit(s) are listed in Table 6.

Table 6. Road Construction and Use

Road ID	Harvest Unit	Road Miles	Road Type	Maximum Grade	Constructed by	Maintained by
Spur 1	Unit 1	0.37	Secondary	10%	Purchaser	Purchaser
Spur 1	Unit 2	0.32	Primary	15%	Purchaser	Purchaser
Spur 2	Unit 2	0.2	Secondary	10%	Purchaser	Purchaser

**Note: Roads must be less than 20% grade per 8 AAC 61.1060 Additional Logging Standards*

B. Side Slopes / Mass Wasting:

For slopes over 50%, identify indicators of unstable areas (landslide scars, jack-strawed trees, gullied or dissected slopes, high density of streams or zero-order basins, or evidence of soil creep). Attach location specific road design that potentially mitigates identified areas of unstable soils.

Maximum percent side slopes: 50%

- There are no slopes >50%
- There are no indicators of unstable areas where roads will be constructed
- Indicators of unstable areas were identified and will be mitigated by actions indicated below.
 - Full benching will be constructed to help ensure slope stability
 - Full benching is not required for roads in this project
 - End hauling will be implemented to help ensure slope stability
 - End hauling is not necessary for roads in this project.

Are you removing or replacing drainage structures? YES NO

General Erosion Control:

- grass seeding erosion control mats wattle Other: Water bars
- not applicable

C. Crossing Structures:

- No crossing structures are needed within the project area.
- Crossing structures will be placed along access roads as described in the table below:

Table 7. Required Drainage and Crossing Structures on Known Surface Waters

Road	Mile / Station	Diameter Culvert	Bridge Type: -Log Stringer -Fabricated -Ice	AS 41.17.950 Stream Classification	Fish & Game AWC Number	Duration of crossing structure in place
U – 1 Spur	17+34	18”x30’				Unit Access
U – 2 Main Line	6+44	18”x40’				permanent
U – 2 Main Line	13+80	18”x40’				permanent

D. Road Closure:

Roads constructed for the timber sale that are left open will be subject to maintenance standards under 11 AAC 95. 315. Otherwise, roads constructed for the timber sale will be closed, subject to standards under 11 AAC 95.320.

Table 8. Road Closures

Road ID	Unit	All Season/Winter	Estimated Closure Date	Projected Road Use after Timber Harvest
Spur 1	One	All season	December 2012	Silviculture
Spur 2	Two	All season	December 2021	Silviculture

E. Material Extraction:

There will be no material extraction sites in the project area.

Material extraction for road construction and associated overburden disposal will be located outside of riparian areas and muskegs. Material extraction and disposal will be located by the purchaser operating plan, in a manner that prevents runoff from entering surface waters. Material extraction will be approved by DOF prior to use. Material sites will be incidental and adjacent to the road construction. Pit sites are projected to be less than 1 acre and will be stabilized upon completion of road building operations.

Other:

F. Other Resources Affected by-Roads or Material Extraction:

List resources other than water, habitat or cultural resources potentially impacted by road construction, and indicate how impacts will be mitigated. Other affected resources could be, but are not limited to mining claims, scenic areas, recreational trails, etc.

Table 9. Other Affected Resources

Impacted Resource	Reviewing Agency	Impact/ Mitigation Actions
Scenic	DOF	Size and Distribution

V. Approvals

This Draft Forest Land Use Plan has been reviewed by the Division of Forestry and provides the information necessary for public and by agency review of the project described in this document.

Gregory D. Staunton

For: **Gregory D. Staunton**
Southeast Area Forester

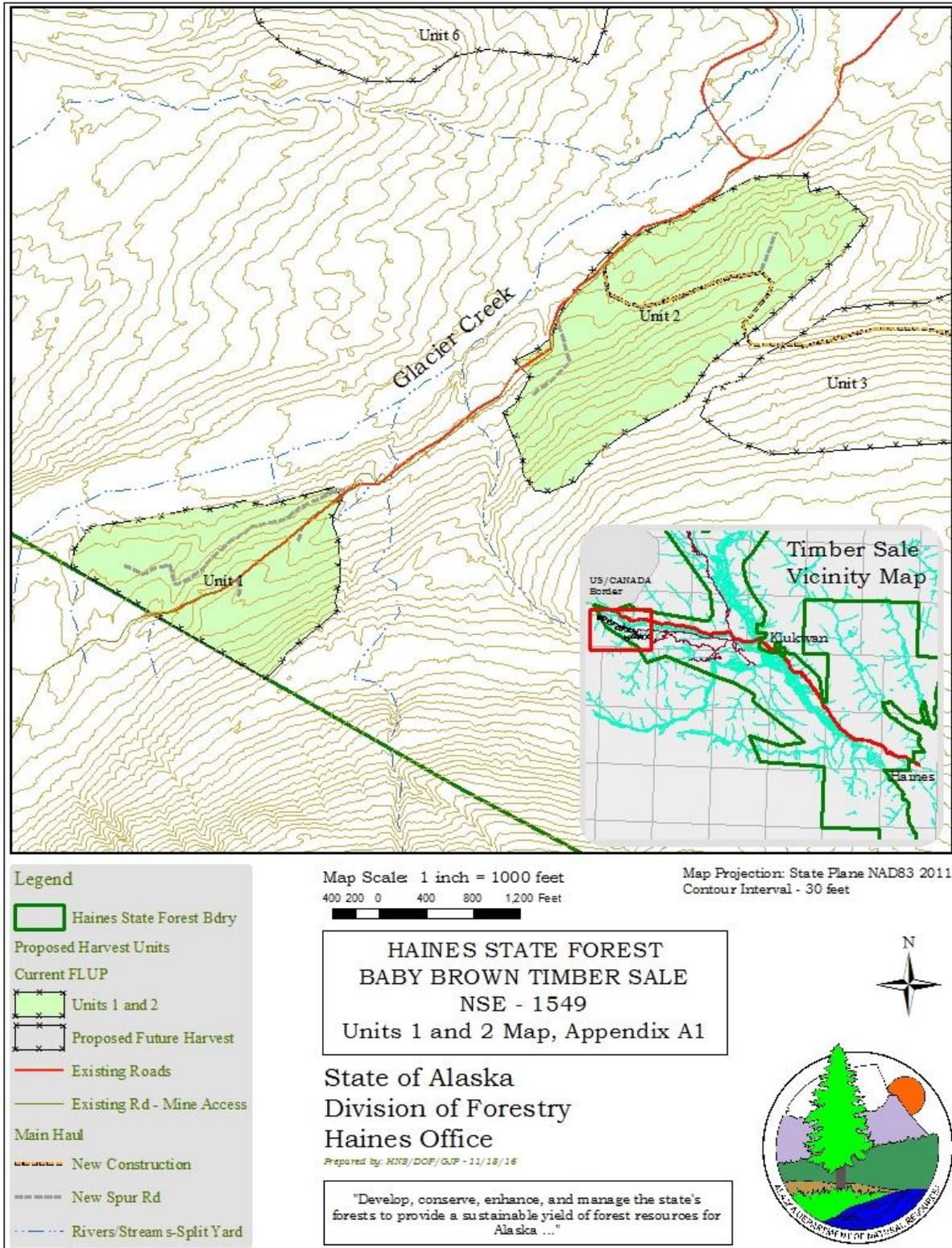
11-21-2016

Date

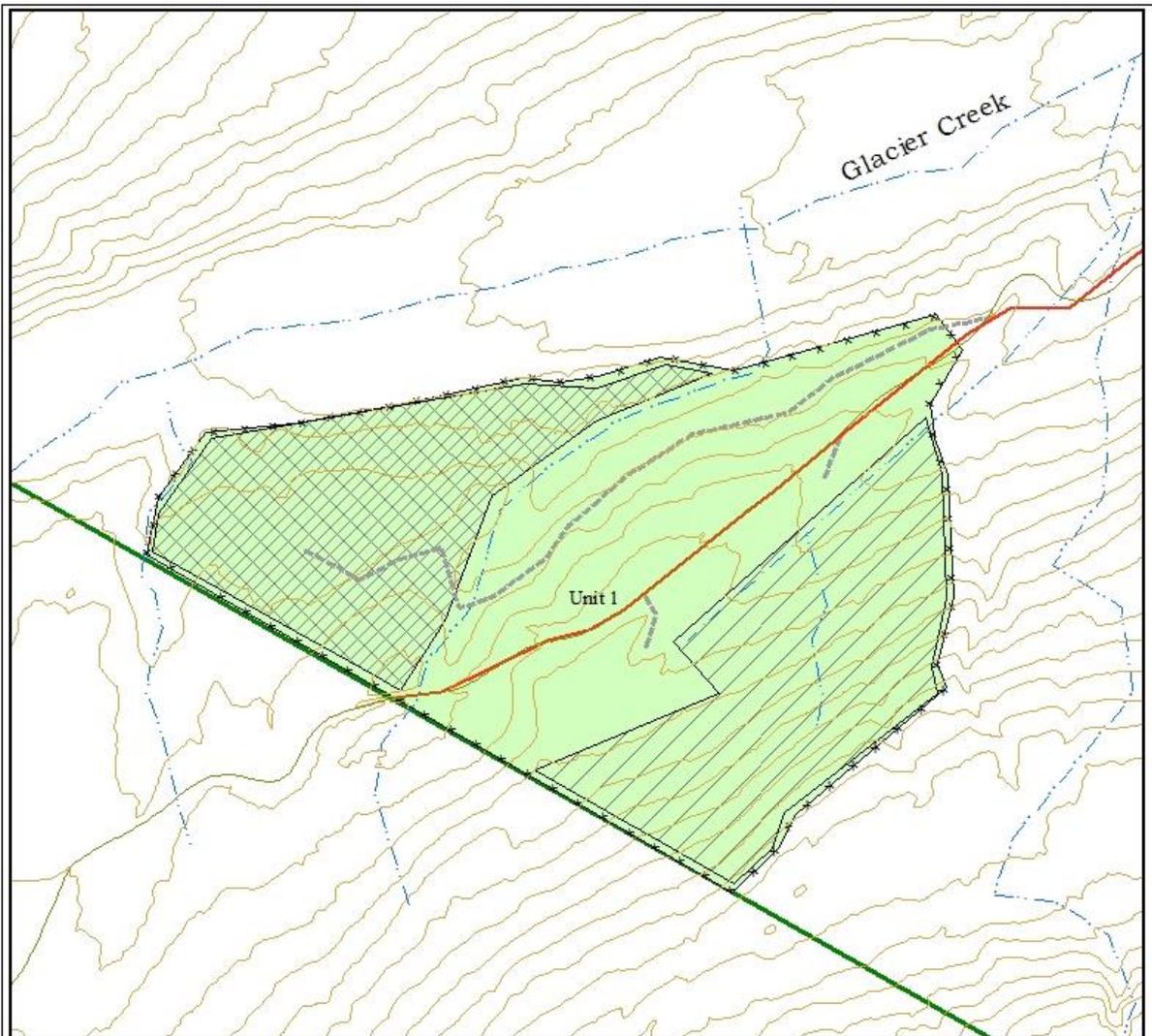
If you have any questions, please contact Greg Palmieri of the Southeast Area Field Office in Haines at (907) 766-2120 or e-mail greg.palmieri@alaska.gov.

Appendix A: Timber Sale Maps

Legal Description: Sections 25 and 36 T28S R53E, Section 30 T28S R554E



Appendix A1: Unit Harvest System Map



Map Scale: 1 inch = 400 feet

Map Projection: State Plane NAD83 2011
Contour Interval - 30 feet

400 200 0 400 Feet

Legend

-  Haines State Forest Bdry
- Harvest System**
-  Cable
-  Ground
-  Existing Roads
-  Existing Rd - Mine Access
-  New Spur Rd
-  Rivers/Stream s-Split Yard

**HAINES STATE FOREST
BABY BROWN TIMBER SALE
NSE - 1549
Unit 1 Harvest System Map, Appendix A2**



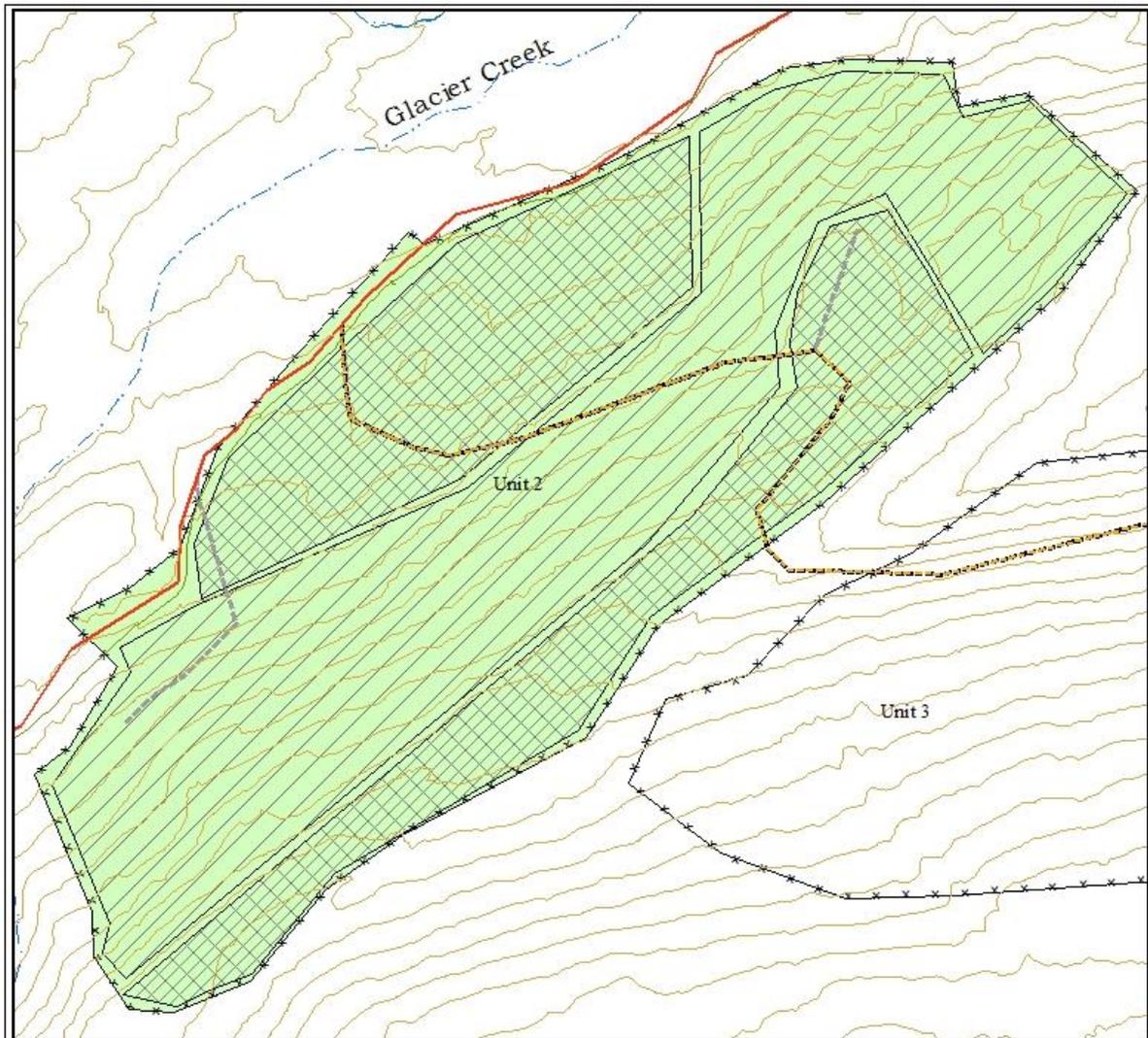
**State of Alaska
Division of Forestry
Haines Office**

Prepared by: HNS/DOF/GLP - 11/18/16

"Develop, conserve, enhance, and manage the state's
forests to provide a sustainable yield of forest resources for
Alaska ..."



Appendix A2: Unit Harvest System Map



Map Scale: 1 inch = 400 feet

400 200 0 400 Feet

Map Projection: State Plane NAD83 2011
Contour Interval - 30 feet

Legend

-  Haines State Forest Bdry
- Harvest System
-  Cable
-  Ground
-  Existing Roads
- Main Haul
-  New Construction
-  New Spur Rd
-  Rivers/Stream s

HAINES STATE FOREST
BABY BROWN TIMBER SALE
NSE - 1549
Unit 2 Harvest System Map, Appendix A2



State of Alaska
Division of Forestry
Haines Office

Prepared by: HNS/DOF/GJP - 11/18/16

"Develop, conserve, enhance, and manage the state's
 forests to provide a sustainable yield of forest resources for
 Alaska ..."



Appendix B Supporting Information:

B1 Silvicultural/ Timber Stand Information

HARVEST AND SILVICULTURE METHODS

The silvicultural design for this sale will be a partial cut method retaining standing timber in groups and selectively dispersed across areas within or adjacent to clear cut areas. This approach is intended to produce smaller clear cut openings and structural diversity within the harvest unit. The design application of this method will be applied within each harvest unit under the administration of the State.

Harvest Design Goals

1. Standing Timber in small groups and timber selectively dispersed within areas of a unit.
 - a. Provide visual structural diversity of larger clear cut areas.
 - b. Provide habitat diversity within units by retention of large over mature trees exhibiting clear signs of significant decay.
 - c. Improve economic viability of the timber sale.
 - d. Provide soil retention and stability by reducing the change in hydrological flow through the harvest area immediately following harvest.
2. Standing Timber selectively dispersed within areas of a unit.
 - a. Provide visual structural diversity of larger clear cut areas.
 - b. Provide soil stability by reducing initial water flow impacts resulting from timber removal.
3. Clear Cut areas within unit.
 - a. Provide openings within units rather than clearing the entire unit to reduce visual impacts of timber harvest.
 - b. Provide beneficial even age management characteristics on the harvest unit such as:
 1. solar penetration to the forest floor enhancing natural regeneration and
 2. soil disturbance that increases the volume of seedling, orb and browse species development.

Harvest Design Objectives

1. Standing Timber in groups.
 - a. Minimize the visual impact of harvest areas to the highway.
 - b. Mitigates habitat removal in areas suitable for small mammals and birds (presence of decay trees provide cavity potential) and protection from heavy snow accumulation for larger mammals within harvest areas.
 - c. Reduce soil instability immediately following harvest activities.
 - d. Reduce initial excess water flow impacts resulting from timber removal.
2. Standing Timber selectively dispersed within areas of a unit.

- a. Address visual impacts.
 - b. Reduce potential soil instability immediately following harvest activities.
 - c. Reduce initial excess water flow impacts resulting from timber removal.
3. Clear Cut areas within unit.
- a. Addresses visual impact of harvest activities by reducing the size of clear cut areas from the entire unit to portions of the unit.
 - b. Enhance the quality and quantity of natural regeneration for the next forest rotation.
 - c. Increase the square foot leaf mass of small forbs and brush components across the area during the stand initiation phase of development following harvest.

Appendix B Supporting Information:

B2 DOF Standards

Alaska Forest Practices and Regulations.

<http://forestry.alaska.gov/forestpractices>

Forest Road and Bridge Standards.

http://forestry.alaska.gov/Assets/uploads/DNRPublic/forestry/pdfs/resources/forest_road_standard_design_20151231.pdf

http://forestry.alaska.gov/Assets/uploads/DNRPublic/forestry/pdfs/resources/forest_bridge_standard_design_20150128.pdf

Appendix B Supporting Information:

B3 Required Permits (Reserved)

Note: None required.

Appendix C (Reserved)

Appendix D Appeal Statutes and Regulations (Reserved)

Appendix E: Public and Agency Comments and Responses (Reserved)