## State of Alaska

# Department of Natural Resources Division of Forestry & Fire Protection



## Northern Region – Fairbanks-Delta Area DRAFT FOREST LAND USE PLAN Underwear Ridge Spruce NC-1978-F

October 2025

#### **Abbreviations**

AAC Alaska Administrative Code

ADEC Alaska Department of Environmental Conservation

ADF&G Alaska Department of Fish and Game

ADNR Alaska Department of Natural Resources

AS Alaska Statute

BIF Best interest finding

CCF 100 cubic feet (timber volume)

DBH Diameter at breast height (4.5 feet above ground)

DMLW Division of Mining, Land and Water

DOF Division of Forestry & Fire Protection

FLUP Forest Land Use Plan

FNSB Fairbanks-Northstar Borough

FRPA Alaska Forest Resources and Practices Act

FYSTS Five-Year Schedule of Timber Sales

MBF Thousand board feet

OHA Office of History and Archeology

ROW Right-of-way

TVSF Tanana Valley State Forest

YTAP Yukon Tanana Area Plan

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#### I. Introduction

Project File Number: NC-1978-F

Division of Forestry & Fire Protection Office: Fairbanks-Delta Area

Area Forester: Kevin Breitenbach

Forest Practices Geographic Region (AS 41.17.950): Region III

This Forest Land Use Plan (FLUP) covers proposed forest operations on approximately 87 acres of land near Nenana Ridge / Maisch Forest Road system. It is 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 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 AS 38.05.945; the Underwear Ridge Spruce PBIF includes proposed timber sale NC-1978-F and is available on DOF's public webpage: <a href="http://forestry.alaska.gov/timber/fairbanks">http://forestry.alaska.gov/timber/fairbanks</a>. 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 Best Interest Finding and are not appealable under this FLUP.
 ☐ This DRAFT Forest Land Use Plan is for timber sale(s) for which a Preliminary Best Interest Finding is currently out for review. A final best interest finding must be completed prior to adoption of a FLUP pursuant to AS 38.05.035 (e) and AS 38.05.945; the Underwear Ridge Spruce PBIF includes proposed timber sale NC-1978-F and is available on DOF's public webpage: <a href="http://forestry.alaska.gov/timber/fairbanks">http://forestry.alaska.gov/timber/fairbanks</a>.
 ☐ This DRAFT Forest Land Use Plan is for timber to be harvested that does not require a final

A draft of this plan was distributed to the Alaska Department of Fish & Game (ADF&G) and the Department of Environmental Conservation (DEC) for their review and comments relevant to the consistency of this proposed project with the statutes governing forest land use plans (AS 38.05.112) and the requirements of the Alaska Forest Resources & Practices Act (AS 41.17) and its Regulations (11 AAC 95).

finding pursuant to AS 38.05.035 (e) and notification under AS 38.05.945.

The public and agencies are invited to comment on specific requirements for harvest, access, and reforestation operations in this draft FLUP. The decision on whether or not to offer timber for sale is made through the best interest finding process, and is not subject to review under the FLUP. Objections or comments pertaining to the draft FLUP must be received in writing by the DOF Fairbanks-Delta Area Office by **4:30PM AKST Friday**, **November 21st**, **2025** in order to ensure consideration for review. Comments should be mailed to the State of Alaska, Division of Forestry & Fire Protection, 3700 Airport Way Fairbanks, AK 99709, or by email to <a href="mailto:andrew.allaby@alaska.gov">andrew.allaby@alaska.gov</a>. For more information you may contact the Fairbanks-Delta Resource Forester, Andrew Allaby, 907-451-2603. To be eligible to appeal the final decision, a person must have provided written comment by **4:30PM AKST Friday**, **November 21st**, **2025**. To be eligible

to participate in any appeal or request for reconsideration to the final decision, a person must be affected by the decision, and must have submitted comment to the preliminary decision during the comment period.

After public and agency review of the draft FLUP, the DOF will review comments, make changes as appropriate, and adopt the FLUP. An eligible person affected by this decision, and who provided timely written comment or public hearing testimony to the department, may appeal the decision to the DNR Commissioner per AS 44.37.011 and 11 AAC 02.]

☑ Other Documents are referenced in this FLUP. This timber sale is designed to be consistent with the management intent of the following documents:

Tanana Valley State Forest Management Plan (TVSF MP) 2025 Yukon Tanana Area Plan (YTAP) 2014

The administrative record for this sale is maintained at the Division of Forestry & Fire Protection Fairbanks Office filed as Underwear Ridge Spruce / NC-1978-F.

#### A. Legal description

The proposed sale is located approximately 30 miles southwest of the Fairbanks Forestry office in the Nenana Ridge Road Area south of the Parks Highway. The unit is not within any organized Borough. The proposed sale is located within Sections 10, 11 & 15, Township 3 South, Range 6 West, Fairbanks Meridian. The sale may be accessed from Parks Highway Mile 328, then 8.8 miles on Nenana Ridge Forest Road, then 1.5 miles on Upper Grouse Forest Road, then 0.4 miles on an existing spur road. Operator must construct 1.1 miles of new spur roads to reach the sale.

See maps in Appendix A.

#### **B.** Operational Period

Approximately 3 years from the "Effective Date" on the signed contract. Timber contracts administered by the Fairbanks-Delta office generally have a 3-year operational period terminating on May 31 of the third year.

#### C. Timber Disposal

$\boxtimes$	Timber will be sold and will have a contract administrated by the State.
	Timber will be available to the public; permits obtained by the public will be issued by the
	State.
	Other

#### **D.** Objectives and Summary

- Provide the raw material for the industry to produce timber products providing benefits to the state and local economy through employment opportunities.
- Harvest the commercial sawtimber and/or fuelwood before a significant decrease in vigor occurs and return the site to a young productive mixed stand forest.
- Provide firewood for the residential heating needs of interior Alaska communities.
- Promote multiple use management that provides for the production, utilization, and replenishment of timber resources while perpetuating personal, commercial, and other beneficial non-timber uses of the forest resources.

#### II. Affected Land Owners/Jurisdictions

#### A. State

Activity on ownership	Access: Easement	Harvest	Written Representative Approval
□ Tanana Valley State Forest		$\boxtimes$	
☑ Other state land managed by DNR	$\boxtimes$	$\boxtimes$	
☐ University of Alaska			
☐ Mental Health Trust			
☐ School Trust			
B. Other Land Ownership			
	Ш		Ш
Land Owner: n/a			
Land Owner Representative: n/a			

## 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
- Ensure prompt reforestation and maintenance of site productivity in compliance with AS 41.17.060(c) and 11 AAC 95 .375-.390.

Harvest and Silvicultural Methods:

- ☑ The silvicultural actions are described in this document, and no prescription was written or is necessary.
- ☐ A silvicultural prescription has been written and is attached to this document in Appendix B.

#### A. Timber Stand Description and History

The stand is primarily a mature closed canopy white spruce forest, with small components of birch and aspen. The stand appears to be even-aged and trees are all of a similar age cohort: the average age of cored trees is 96 years at 4.5 feet above root collar, and site index (expected height at 100 years) for spruce sawtimber is 86. Spruce sawtimber (9 inches DBH and greater) comprises 96 ft<sup>2</sup> of basal area and grosses 23 CCF/acre. Measured spruce in the dominant class were between 11-14 inches DBH with an average height of spruce sawtimber at 73 feet; the largest measured tree was 21 inches DBH.

Spruce fuelwood comprises 28 ft²/acre and grosses 5 CCF/acre, and birch fuelwood comprises 16 ft²/acre and grosses 3 CCF/acre. Less productive portions of the stand contain higher densities of spruce and show signs of overstocking such as thinner average diameters, more developed moss layers, and nearly closed canopies. Flatter portions of the stand contain more hardwoods, especially the ridgeline of unit 4 and the lower relief portions of units 1-3.

Some low shrubs such as rose and highbush cranberry are present, as well as alder in canopy gaps. The grass component is low in this stand and is estimated to cover < 10% of the area, while a mosaic of moss and leaf litter/horsetail is the prevalent groundcover.

There is an estimated 10% defect for spruce in the stand, mostly as form defects such as sweeps, crooks, and forks. Birch show considerably higher defects (such as signs of stem and butt rot, broken tops) as they near the end of their lifespan.

#### **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
All	87	10-25% slope	Clear cut	Ground-based whole tree harvest

#### C. Site Preparation

Natural regeneration will be utilized initially for reforestation. The sale has been laid out so that

areas adjacent to the boundary include mature, robust spruce trees to provide seed to this unit. ☑ Site preparation will not be necessary. There is either sufficient residual stocking, or because there has been sufficient soil disturbance by logging to forego scarification. ☐ Site preparation will be implemented and described in Table 2: **Table 2. Site Preparation Unit ID Site Preparation Method Date of Completion** Acres All 87 Natural regeneration 12 years post-harvest Mechanical site preparation should avoid driving heavy equipment over known den sites greater than 12" in diameter (e.g., dens for fox, wolves, and bears). D. Slash Abatement ☐ Potential for insect infestations caused by slash accumulations exists. Slash abatement for controlling infestations will be implemented as required by 11 AAC 95.370. ☑ Lop and scatter slash; accumulations will be kept to less than 2 feet in height.  $\square$  Slash will be disposed of by the operator  $\boxtimes$  Slash will be disposed of by the State ☐ Other - method of slash disposal: ☐ removal off site ☐ crushing or grinding ☐ burning ☐ Burn permits necessary from DOF and DEC to be acquired. ☐ The operator will contact the DOF local area office prior to ignition of debris. E. Soil Stability / Erosion / Mass Wasting  $\boxtimes$  Maximum percent side slopes are  $\leq 50\%$ ☐ Maximum percent side slopes are >50% Percentage of sale area with slopes >50%: 99% Maximum percent slopes: 25% ☐ There are no indicators of unstable areas. ☐ Indicators of unstable areas were identified and will be mitigated by actions indicated below.

#### F. Timber Harvest—Surface Water Protection

☐ There are no streams or lakes abutting or within a harvest unit. ☐ Known surface waters and protection measures are described in Table 3 below. *Locations are* included in the operational map in the Appendices.

**Table 3. Protection for Known Surface Waters** 

Unit	Waterbody Name	AS 41.17.950 Classification	ADF&G AWC#	Required Riparian Protection	Site-specific actions to minimize impacts on riparian area			
Surface waters listed above 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								
□ Du ⊠ Du	Surface waters listed above 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-cl	assified surfac	e waters are sub	ject to appli	cable BMPs in	11 AAC 95.			
Notes	5:							
G. Wi	ldlife Habitat							
<ul> <li>☑ Wildlife species and allowances for their important habitats were addressed in writing by the Department of Fish &amp; Game during the Best Interest Finding review.</li> <li>☐ Wildlife species and allowances for their important habitats were addressed in writing by the Department of Fish &amp; Game during the drafting of this Forest Land Use Plan.</li> </ul>								
<ul> <li>Silvicultural practices to be applied to minimize impacts to wildlife habitat or wildlife management:</li> <li>☑ Timber retention - concentrations of timber surrounding harvest units, or interspersed within harvest units to provide cover.</li> <li>☑ Snag Retention- snags or isolated trees left for cavity nesting species.</li> <li>☐ Large Woody Debris – concentrations of downed timber or logging debris interspersed within harvest units to provide cover left on site.</li> <li>☐ Other actions</li> </ul>								
Notes	s:							
Н Сп								

#### H. Cultural and Historical Resource Protection

☑ This project was reviewed by the State Historic and Preservation Office (SHPO).
⊠ No artifacts have been reported within the project area(s).
☐ Known or likely sites have been identified and a mitigation plan is in place. (Describe the

mitigation actions.)

#### I. Other Resources Affected by Timber Harvest and Management

☑ There are other resources and areas of concern besides surface water, fish habitat, and wildlife habitat that may be affected. Mitigations actions were addressed in the Best Interest Finding.

**Table 4. Other Affected Resources / Areas of Concern** 

Impacted Resource	Reviewing Agency	Impact/ Mitigation Actions
Parks Highway Viewshed	DOF	Portions of the harvest may be visible between Parks Hwy Miles 318-320. The sale is divided into multiple small units separated by mature forest with irregular edges, which is expected to obscure and minimize scenic view impacts.

	Parks Highway Viewshed	DOF	Portions of the harvest may be visible between Parks Hwy Miles 318-320. The sale is divided into multiple small units separated by mature forest with irregular edges, which is expected to obscure and minimize scenic view impacts.
		esources or areas of cond are addressed in this Fo	cern other than surface water, fish habitat, and orest Land Use Plan.
	Notes:		
•	J. Reforestation		
( 1 1 1 1	(11 AAC 95.375390) Nat been laid out so that areas a seed to this unit, and the siz unharvested edge. Refores regeneration survey will be indicates inadequately stoc	cural regeneration will be adjacent to the boundary ze and shape of the unit of station will be assessed we be conducted if regenerating ked areas, then scarificates to achieve a minimum	the Forest Resources and Practices regulations entitle utilized initially for reforestation. The sale has include mature, robust spruce trees to provide ensure no area is more than 200 feet from the within five years post-harvest, and a on appears marginal or patchy. If the survey tion may be performed on non-stocked areas. of 450 evenly distributed trees per acre at the reial tree species).
]	Harvest type as it relates to	reforestation requireme	nt:
	⊠ Clearcut		
	☐ Region I: Partial Ha	rvest leaving more than	700/ 1: 1 1 (11 A A C) 0.7 27.7 (1 ) (2))
	☐ Region II or III: Par	a , tee real, mg mere man	50% live basal area (11 AAC 95.375(b)(3))
	_		esidual trees to result in a stocking level that

Season of harvest:

☐ Winter harvest only ☐ Non-winter harvest only

⊠ All-season harvest

generation type:
□ Natural regeneration
List species: White spruce, Alaska birch, quaking aspen
⊠ Coppice
List species: Alaska birch
☐ Artificial regeneration
☐ Seeding: Species and source of seed (general vicinity location of seed source)
☐ Planting: Species: Date of proposed planting:
Source of seedlings (location of seed source):
See Appendix B: Reforestation for more information.

#### 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). Roads used for access will also be maintained for multiple users following all applicable guidelines in the Tanana Valley State Forest Management Plan.

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 5.

Table of Road Construction and Case							
Road ID	Segment	Harvest Unit	Miles	Road Class	Maximum Grade %*	Constructed By	Maintained By
Nenana Ridge Forest Road	1	All	8.8	Active, Primary	8	DOF	Purchaser
Upper Grouse Forest Road	2	All	1.5	Active, secondary	10	DOF	Purchaser
Mile 10.3 Spur	3	All	0.4	Active, spur	10	DOF	Purchaser

**Table 5. Road Construction and Use** 

Road ID	Segment	Harvest Unit	Miles	Road Class	Maximum Grade %*	Constructed By	Maintained By
Lower 1978 Spur	4	1-3	0.7	Proposed, spur	12	Purchaser	Purchaser
Upper 1978 Spur	5	4	0.4	Proposed, spur	12	Purchaser	Purchaser

Road Class is as defined in the DOF Road Standards.

Notes: access within sale to be constructed as required by Operator. A log landing may be constructed outside of the sale boundary between Units 1-3 if approved in writing by the Forester-in-charge.

#### B. Soil Erosion / Mass Wasting

Maximum percent side slopes: 40%
Maximum percent side slopes are ≤50%
☐ Maximum percent side slopes are >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:

#### **Table 6. Road Erosion Control Risk and Mitigation**

Road ID	Segment	Mile	Identified Erosion Risk	Risk Level	Mitigation
Nenana Ridge Forest Road	1	8.8	negligible	low	Existing road
Upper Grouse Forest Road	2	1.5	negligible	low	Existing road
Mile 10.3 Spur	3	0.4	negligible	low	Existing road
Lower 1978 Spur	4	0.7	negligible	low	Construction to conform with DNR-DOF Road Standards and AFRPA Mest Management Practices
Upper 1978 Spur	5	0.4	negligible	low	Construction to conform with DNR-DOF Road Standards and AFRPA Mest Management Practices

General Timber Sale Ero	sion Control:		
☐ Grass seeding	☐ Erosion control mats	☐ Wattle	
☐ Other:		☐ Not applicable	

<sup>\*</sup>Note: Roads must be less than 20% grade per 8 AAC 61.1060 Additional Logging Standards.

#### **C.** Crossing Structures

Are you removing or replacing drainage structures? ☐ YES	⊠ NO
☐ No crossing structures are needed within the project area.	
⊠ Crossing structures will be placed in access roads as described in	in the table below:

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

Road ID	Segment	Mile	Culvert Length (ft.)	Structure Type	AS 41.17.950 Stream Classification	ADF&G AWC Number	Duration of crossing structure in place
Lower 1978 Spur	4	0.10	24	culvert	Non-FRPA	n/a	permanent
Lower 1978 Spur	4	0.18	24	culvert	Non-FRPA	n/a	permanent
Lower 1978 Spur	4	0.20	24	culvert	Non-FRPA	n/a	permanent
Lower 1978 Spur	4	0.26	24	culvert	Non-FRPA	n/a	permanent
Lower 1978 Spur	4	0.30	24	culvert	Non-FRPA	n/a	permanent
Lower 1978 Spur	4	0.58	24	culvert	Non-FRPA	n/a	permanent
Lower 1978 Spur	4	0.63	24	culvert	Non-FRPA	n/a	permanent
Lower 1978 Spur	4	0.66	24	culvert	Non-FRPA	n/a	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	Segment	Unit	Closure Type All Season/Winter	Estimated Closure Date	Projected Road Use after Timber Harvest
none					

#### E. Material Extraction

☐ There will be no material extraction sites in the project are	a.
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<sup>☐</sup> Material extraction and associated overburden disposal will be located outside of riparian areas and muskegs. Material extraction and disposal will be located as shown on the

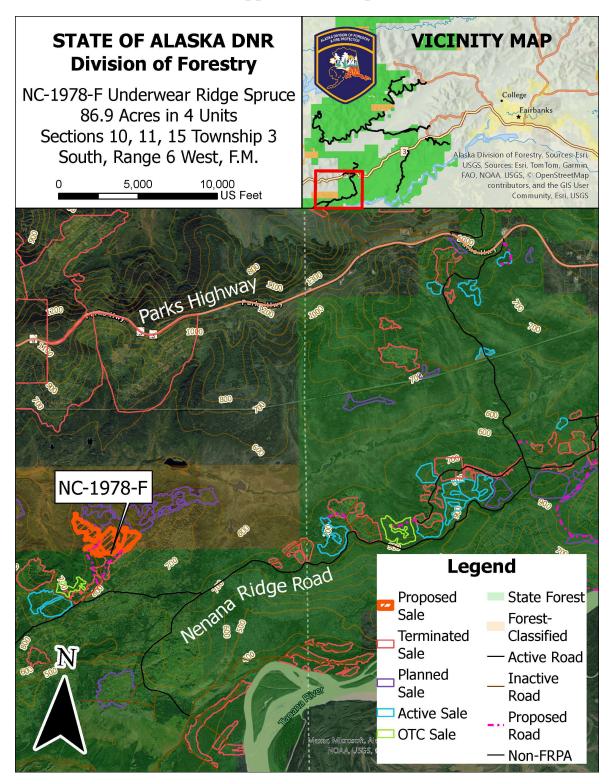
DRAFT Forest Land Use P	lan for Underwear Ridge S	Spruce / NC-1978-F
operation map, in a ma ☐ Other:	anner that prevents runoff	from entering surface waters.
F. Other Resources Affe	cted by Roads or Materia	al Extraction
construction, and indicate		esources potentially impacted by road gated. Other affected resources could be, but eational trails, etc.
	Table 9. Other Affec	ted Resources
Impacted Resource	Reviewing Agency	Impact / Mitigation Actions
	Use Plan has been review the information necessar	red by the Division of Forestry & Fire ry for public and agency review of the
Area Forester		Date

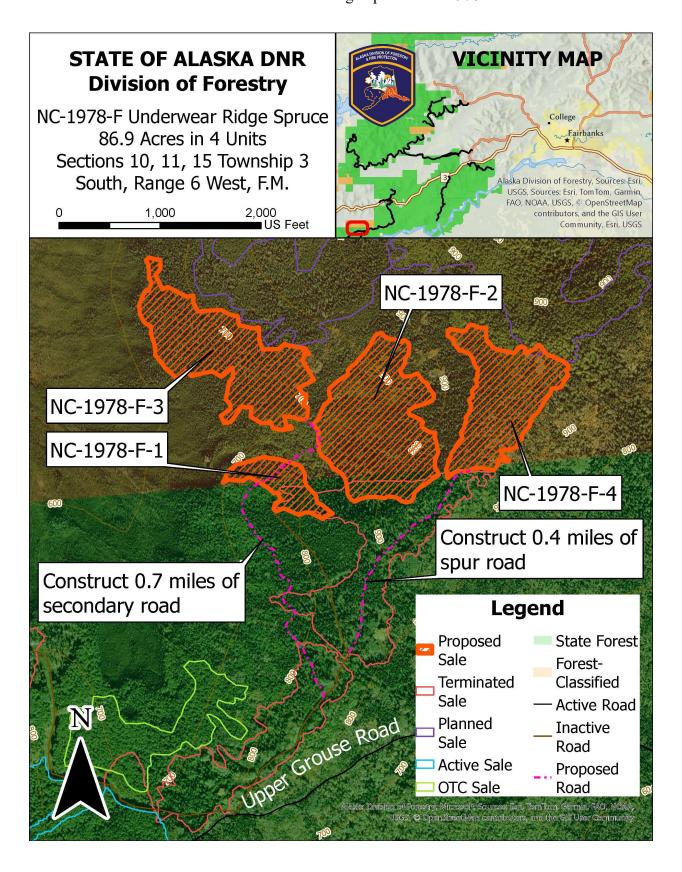
**Regional Forester** 

Date

## VI. Appendices

**Appendix A: Maps** 





## **Appendix B: Supporting Information**

#### **Reforestation Supporting Information**

For Region II or Region III partial harvest relying on residual trees to result in a stocking level that meets standards of 11 AAC 95.375(b)(4). Stocking levels will be calculated as follows:

**Table 1. Stocking Level Requirements** 

Average DBH (Diameter at breast height)	Residual Trees (Trees/acre)	Minimum Stocking Standard (Trees/acre)	Percent Stocking
≥ 9"	0	120	0%
6" to 8"	0	170	0%
1" to 5"	0	200	0%
Total Residual Stocking			0%

Total	Residual	Stocking			0%
Pe	_	ge Unde		ed = $100$ – Total Residual Stocking % ed = $100 - \underline{0}\% = \underline{100}\%$	
	_		-	d = Percentage Understocked/100 x 450 d = $\underline{100}$ % /100 x 450 = $\underline{450}$	
□ Aı	tificial	regenera	ation		
	Seeding	g: Speci	es and	source of seed (general vicinity location of seed source)	
	Plantin	g: Speci	es:	Date of proposed planting:	
	Source	of seedl	ings (lo	ocation of seed source):	
na	atural re	_	ion. If a	ovide known information on the following indicators of suitability box is checked "no," please explain/describe the condition. N	•
Yes	No	N/A	Unkn	<u>own</u>	
Seedl	ed and	soil con	ditions	suitable for natural regeneration	
	$\boxtimes$			Moss layers are shallow ( $\leq$ 4") or absent	
				Explanation: all-season harvest is expected to disturb the g layers sufficiently to expose seedbeds.	round
$\boxtimes$				Where birch or spruce regeneration is targeted, exposed mineral soil will exist on at least 25% of the harvest area an well-distributed across the unit.	d is

 $\boxtimes$ Where aspen regeneration from suckering is targeted, root damage will be minimal and soil exposure will encourage warming. <u>Yes</u> Unknown N/A No Seed/vegetative reproduction sources available  $\boxtimes$ Exposure to prevailing winds, if known  $\boxtimes$ Adequate seed trees exist within 3 tree heights of the reforestation site for spruce or within 2 tree heights for birch *Note: approximately 5 acres within Unit 2 is > 300 feet away from* an unharvested edge. This area is expected to benefit partly from standing tree seed sources and partly from seedbank accrued through skidding operations and residual seed sources on steep hogback edges.  $\boxtimes$ Where spruce regeneration is targeted, large seed crop in year prior to harvest or current year Explanation: large seed crops occur every 3-5 years and are expected during or shortly after the harvest cycle.  $\boxtimes$ Where vegetative reproduction is targeted the harvest area contains sufficient, well-distributed paper birch, aspen, balsam poplar, western black cottonwood, red alder, or other species known to regenerate vegetatively as approved by the Division. No N/A Unknown Yes Competition and infestation risk  $\boxtimes$ Calamagrostis (bluejoint grass) is not visually evident. If Calamagrostis is visually evident, describe abundance and distribution. Explanation: Calamagrostis is present at very low incidence (<2%).  $\boxtimes$ Equisetum (horsetail) is present prior to harvest  $\boxtimes$ The site is not currently subject to intense herbivory due to peaks in the hare cycle, dense moose populations, or scarcity of browse in the surrounding landscape.  $\times$ Existing stands are not infested with bark beetles (Dendroctonus or Ips) XWhere spruce regeneration is targeted, harvest areas are free of known incidence of Onnia tomentosus root rot. Note: tomentosus can kill regeneration of spruce and, to a lesser degree, pine and larch. If tomentosus is present, describe the extent of the problem in the notes box below. Design reforestation to minimize continuation or spread of the disease

DRAFT Forest Land Use Plan for Underwear Ridge Spruce / NC-1978-F