State of Alaska Department of Natural Resources Division of Forestry & Fire Protection



Coastal Region – Mat-Su/Southwest Area Office Forest Land Use Plan Willer-Kash Area Timber Sales 2023 SC-2023-01A

Adopted November 8, 2023

Abbreviations

ADEC	Alaska Department of Environmental Conservation					
ADF&G	Alaska Department of Fish and Game					
ADNR	Alaska Department of Natural Resources					
BIF	Best interest finding					
CUNIT	100 cubic feet					
DBH	Diameter at Breast Height					
DMLW	Division of Mining, Land and Water					
DOF	Division of Forestry & Fire Protection					
FLUP	Forest Land Use Plan					
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					

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Introduction

Project File Number: SC-2023-01A

Division of Forestry & Fire Protection Office: Mat-Su/Southwest Area Forester: Stephen Nickel Forest Practices Geographic Region (AS 41.17.950): Region II

This Forest Land Use Plan (FLUP) covers proposed forest operations for 8 proposed harvest units on approximately 256 acres of land in the Willer-Kash Block, in the Willow area. 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 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; Mat-Su Valley Beetle-Kill Sales Best Interest Finding, SC-2023-01, May 30, 2023, available at https://forestry.alaska.gov/timber/matsu. 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 July 14, 2023 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; Mat-Su Valley Beetle-Kill Sales Best Interest Finding, SC-2023-01, July 14, 2023, available at https://forestry.alaska.gov/timber/matsu.

 \Box This Draft Forest Land Use Plan is for timber to be harvested that does not require a final finding pursuant to AS 38.05.035 (e) and notification under AS 38.05.945.

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).

This Forest Land Use Plan was made available for public review and comment; the review period ended on October 25,2023. After public and agency review of the draft FLUP, the DOF reviewed comments (see Appendix D), made no substantive changes to the operational content, and has adopted the FLUP.

This Forest Land Use Plan has been adopted by the Department of Natural Resources. Site specific compliance with the Alaska Forest Resources and Practices Act and Regulations, as well as the Final Finding for this proposed project are reflected in this Forest Land Use Plan and will be implemented in the timber sale contract.

An eligible person affected by this decision, and who provided timely written comment to the department, may appeal the decision to the DNR commissioner per AS 44.37.011 and 11 AAC 02

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

Susitna Forestry Guidelines, Southeast Susitna Area Plan

The administrative record for this sale is maintained at the Division of Forestry & Fire Protection Mat-Su/Southwest Area Office filed as SC-2023-01A.

A. Legal description

Township 20 North, Range 3 West, Sections 4, 7, 8, 9, 17, 28, 29, Seward Meridian. See also maps in Appendix A.

B. Operational Period

Approximately 5 years from the "Effective Date" on the signed contract. Timber contracts administered by the Mat-Su/Southwest Area office generally have a 5-year operational period terminating on May 31 of the fifth 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.
- \Box Other

D. Objectives and Summary

*Salvage beetle-killed timber to capitalize on the economic value of the spruce in the area before it loses substantial value;

*Reduce wildfire risk to nearby communities;

*To follow one of Department of Natural Resources (DNR) mandates 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, by providing a secure source of timber for harvest that produces raw materials for local manufacturing plants when practical while protecting other resources such as fish and wildlife;

*To help the state's and borough's economies by providing royalties to the state from stumpage receipts, and adding to the state's economy through wages, purchases, jobs and business; *To provide a mosaic of forest stand ages for a variety of wildlife species that live in the area, including some early-successional stages for wildlife that depend on habitat diversity including increased winter moose browse away from transportation corridors for public safety, and for game bird habitat including ruffed grouse.

Affected Land Owners/Jurisdictions

A. State

	Activity on ownership:	Access Easement	Harvest	Written Representative Approval
□ State Forest				
\boxtimes Other state land	managed by DNR		\boxtimes	
\Box University of Al	aska			
□ Mental Health T	rust			
□ School Trust				
B. Other Land Ow	nership			
Land Owner:				

Land Owner Representative:

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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 proposed harvest areas are a mixture of beetle-killed white spruce, mature birch, black spruce. Most of the stands are uniform in composition and composed of mixed spruce/hardwood but dominated by hardwoods.

The two Iron #1 harvest units (25.5 and 24.1 acres) are comprised of a mixture of sawtimber and poletimber size birch and white spruce. Both units are unlogged and the boundaries are flagged. The northern unit holds an estimated 2 MBF of white spruce per acre and 26 cunits of birch per acre. White spruce are beetle-killed, average 7" DBH, and average 48 feet tall. The birch are predominately 9-12" DBH and average 66 feet tall. The moss depth is shallow and ranges between 0-6 inches. The grass component is low, and estimated to cover <10% of the stand. The southern unit holds an estimated 2 MBF of white spruce per acre, 12.6 cunits of birch per acre, and 1,144 board feet of black spruce per acre. The white spruce are beetle-killed, average 8" DBH, and average 60 feet tall. The birch are predominately 9-11" DBH and average 56 feet tall. There is an estimated 10% defect in these two units. An ATV trail runs through part of the northern unit of this proposed sale that may be used, in part, to access the units. A road will need to be constructed into the southern unit from the northern unit.

The Copper #3 harvest unit had been partially logged in 2018/2019, with approximately 26 acres remaining to be cut. An undetermined volume of felled trees remain within the cut portion of this unit and will be included in the sale of this unit but not counted in the volume or stumpage estimates. The condition of these logs is not verified. The unharvested portion of the sale contains an estimated 1.1 MBF per acre of white spruce and 19 cunits per acre of birch. The white spruce range from approximately 6-8" DBH and average 45 feet tall, while the birch

range from approximately 9-11" DBH and average 58 feet tall. There is an estimated 5% defect in this unit.

The 18.4 acre Copper harvest unit was included in a larger sale within the Willer-Kash Block in 2007/2008, however it was not harvested. The unit contains primarily birch poletimber with some white spruce, an estimated 8 cunits of birch per acre and about 1.5 MBF of white spruce per acre. Birch range from approximately 8" to 11" DBH and average 53 feet tall, while white spruce range from about 8-9" DBH and average 61 feet tall. There is an estimated 10% defect in this unit.

The Tin unit, 34.0 acres, was part of a multi-unit sale in 2006, however, this unit was not harvested. There is an estimated 24 cunits of birch per acre, and an estimated 1.8 MBF per acre of white spruce. Birch range from approximately 9-11" DBH and average 57 feet tall, while white spruce range from approximately 9-10" DBH and average 65 feet tall. There is an estimated 5% defect in this unit.

The 45.5 acre Molybdenum #2 unit was originally intended to be included with another sale in 2017/2018, however no interest was shown in it. The unit contains an estimated 12.8 cunits of birch per acre and an estimated 1.1 MBF per acre of spruce. A logging road provides access to this unit, passing through another harvest unit that was sold in 2019. This road extends approximately ¹/₄ mile into the unit before terminating. There is an estimated 5% defect in this unit.

The Rogers #1 unit is 31.6 acres and comprised mainly of paper birch and white spruce poletimber (an estimated 18.8 cunits of birch per acre and an estimated 2.7 MBF of spruce per acre). The birch in the stand are generally 9-12" DBH, and are on average 51 feet tall. The white spruce are generally 9-10" DBH, and are on average 50 feet tall. A two-track trail runs east/west through the middle of the unit and may provide access. There is an estimated 15% defect in this unit.

The Rogers #2 unit is 37.2 acres and comprised mainly of paper birch and white spruce poletimber (an estimated 10.3 cunits of birch per acre and an estimated 1.8 MBF of spruce per acre). The birch are generally 9-10" DBH and on average 45 feet tall. The white spruce are generally 7-9" DBH and on average 42 feet all. There is an estimated 10% defect in this unit.

B. Timber Harvest Activities

Timber Harvest Activities are displayed in Table 1.

Unit ID	Acres	Topography	Silvicultural Action	Logging Method
Molybdenum #2	45.5	Undulating with small kettles	Heavy partial cut	Seed tree harvest
Rogers #1	31.6	Mostly flat, generally sloping to the west	Heavy partial cut	Seed tree harvest
Rogers #2	37.2	Mostly flat, generally sloping to the west	Heavy partial cut	Seed tree harvest
Tin	34.0	Flat terrain bisected by terrace	Heavy partial cut	Seed tree harvest
Copper	18.4	Flat terrain on a terrace	Heavy partial cut	Seed tree harvest
Iron #1, unit 1	25.5	Gently sloping from north to south	Heavy partial cut	Seed tree harvest
Iron #1, unit 2	24.1	Undulating, terrace bisecting unit from east to west	Heavy partial cut	Seed tree harvest
Copper #3	39.3	Generally flat terrain	Heavy partial cut	Seed tree harvest

Table 1. Timber Harvest Activities

C. Site Preparation

Scarification will be used to mimic disturbance, suppressing competition from vegetation and exposing mineral soil to achieve reforestation objectives for these sales. Residual leave trees will provide habitat, a seed source for regeneration and other benefits. Scarification may be incorporated into normal harvest operations, or within two years of harvest. Deficiencies in regeneration density by year seven will be augmented by planting white spruce seedlings to meet the Forest Practices Act standard of 450 trees per acre.

Birch and spruce both regenerate naturally following disturbances, either natural or artificial, that expose mineral soil for a seedbed and suppress competing vegetation. White spruce is moderately shade tolerant, and will grow, if not prosper, beneath an overstory of faster growing birch until birch decline and drop out of the canopy and are replaced by spruce.

- □ 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.
- \boxtimes Site preparation will be implemented and described in Table 2:

Unit ID	Acres	Site Preparation Method	Date of Completion
Molybdenum	45.5	Scarification	Within two years of harvest completion
Rogers #1	31.6	Scarification	Within two years of harvest completion
Rogers #2	37.2	Scarification	Within two years of harvest completion
Tin	34.0	Scarification	Within two years of harvest completion
Copper	18.4	Scarification	Within two years of harvest completion
Iron #1, unit	25.5	Scarification	Within two years of harvest completion
Iron #1, unit	24.1	Scarification	Within two years of harvest completion
Copper #3	39.3	Scarification	Within two years of harvest completion

 Table 2. Site Preparation

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.
- \boxtimes Slash will be disposed of by the operator \square Slash will be disposed of by the State
- \Box Other method of slash disposal: \Box removal off site \Box crushing or grinding \Box burning
- Burn permits necessary from DOF and DEC to be acquired.
- \boxtimes 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 $\leq 50\%$
- \Box Maximum percent side slopes are >50%

Percentage of sale area with slopes >50%: _____

Maximum percent slopes:

- \boxtimes 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

- In the streams or lakes abutting or within a harvest unit.
- □ Known surface waters and protection measures are described in Table 4 below. *Locations are*

included in the operational map in the Appendices.

Unit	Waterbody Name	AS 41.17.950 Classification	ADF&G AWC #	Required Riparian Protection	Site-specific actions to minimize impacts on riparian area

Table 3. Protection for Known Surface Waters

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

- \Box During the timber sale planning process
- \Box During the agency review conducted for the Best Interest Finding for this sale
- \boxtimes 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 above were reviewed by the Department of Environmental Conservation:

- \Box During the timber sale planning process
- \Box During the agency review conducted for the Best Interest Finding for this sale
- \Box During the drafting of this Forest Land Use Plan

Non-classified surface waters are subject to applicable BMPs in 11 AAC 95.

NT /	
INOTES	

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:

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

\Box Other actions

Notes: Retention of large snags to maintain late successional habitat within unit boundaries will be required to the extent consistent with safe and efficient harvest practices. Harvest units have been designed to include irregularly shaped islands of unharvested forest to provide cover and refuge for various species.

H. Cultural and Historical Resource Protection

- ☑ This project was reviewed by the State Historic and Preservation Office (SHPO).
- \Box 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.

Impacted Resource	Reviewing Agency	Impact/ Mitigation Actions
Recreation/mushing	DOF	Specify in sale contracts and identify locations of existing trails/crossings or areas of high recreational traffic

 Table 4. Other Affected Resources / Areas of Concern

□ There are no affected resources or areas of concern other than surface water, fish habitat, and wildlife habitat, which are addressed in this Forest Land Use Plan.

Notes:

J. Reforestation

Regeneration of white spruce occurs only from seeds. White spruce trees generally produce modest seed crops every three to five years and large seed crops every five to seven years. White spruce seeds germinate best on decaying logs and stumps, as well as on mineral soil. Scarification to mineral soil and planting white spruce seedlings are generally very successful at producing an even aged stand of white spruce. However, after planting spruce, birch may reseed naturally into the scarified area, and may become the predominant forest stand tree for many years, since birch initially grows faster than white spruce. White spruce trees are shade tolerant and do not need full sunlight to grow. Over time, they become established and dominate a stand, resulting in an uneven-aged white spruce stand.

Successful birch regeneration requires full sunlight to reach the forest floor. Birch seedlings establish themselves by seed fall on mineral soil and to a lesser degree from stump sprouting. Mineral soil is essential for birch seed germination, and seedling survival. Birch seed is produced every year or two.

Birch stands generally regenerate after wildfire kills the overstory of mature birch and spruce. Fire opens the site to nearly full sunlight, exposes mineral soil to seed fall from adjacent live birch, and by allows birch stumps to sprout.

Opportunities for regenerating birch in any stand will be greatly enhanced by mechanical scarification that exposes mineral soil in areas with almost full sunlight. Scarification should be done as soon after harvest as possible to minimize grass growth.

Harvest type as it relates to reforestation requirement:

 \Box Clearcut

□ Region I: Partial Harvest leaving more than 50% live basal area (11 AAC 95.375(b)(3))

⊠ Region II or III: Partial Harvest relying on residual trees to result in a stocking level that meets standards of 11 AAC 95.375(b)(4).

Season of harvest:

- \Box Winter harvest only
- \Box Non-winter harvest only
- \boxtimes All-season harvest

Regeneration type:

 \boxtimes Natural regeneration

List species: Alaska birch, white spruce, balsam poplar.

 \Box Coppice

List species:

 \Box 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 for further reforestation details.

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 or other means required for the access and removal of this timber from the harvest area(s) or unit(s) are listed in Table 5A and 5B.

Road ID	Segment	Harvest Unit	Mile	Road Class	Maximum Grade %*	Constructed By	Maintained By
Tin	5	Tin	0.5	Secondary	10%	Operator	Operator
Copper 3	8	Copper 3	0.34	Primary and Spur	10%	Operator	Operator

Table 5A. Road Reconstruction and Use

 Table 5B. New Road Construction and Use

Road ID	Segment	Harvest Unit	Mile	Road Class	Maximum Grade %	Constructed By	Maintained By
Rogers	1	Rogers 1	0.1	Spur	10%	Operator	Operator
Rogers extension	2	Rogers 2	0.25	Spur	10%	Operator	Operator
Tin Extension	6	Tin	.25	Secondary	15%	Operator	Operator
Copper	7	Copper	.4	secondary	15%	Operator	Operator

Road Class is as defined in the DOF Road Standards.

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

Notes:

B. Soil Erosion / Mass Wasting

Maximum percent side slopes: ____20%_____

 \boxtimes Maximum percent side slopes are $\leq 50\%$

 \Box Maximum percent side slopes are >50%

- $\hfill\square$ 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:

Road ID	Segment	Mile/ Station or Point Label	Identified Erosion Risk	Risk Level	Mitigation

Table 6. Road Erosion Control Risk and Mitigation

General	Timber	Sale	Erosion	Control:
---------	--------	------	---------	----------

□ Grass seeding	\Box Erosion control mats	□ Wattle	⊠ Waterbars
□ Other:		\Box Not applicable	

C. Crossing Structures

Are you removing or replacing drainage structures? \Box YES \boxtimes NO

 \boxtimes No crossing structures are needed within the project area.

□ Crossing structures will be placed in access roads as described in the table below:

Road ID	Segment	Mile/ Station or Point Label	Bridge Length (ft.) or Culvert Diameter (in.)	Structure Type [ex. Corrugated Plastic Pipe, Log Stringer, Fabricated, Ice]	AS 41.17.950 Stream Classification	ADF&G AWC Number	Duration of crossing structure in place

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

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	Clos	ures	
					_

Road ID	Segment	Unit	Closure Type All Season/Winter	Estimated Closure Date	Projected Road Use after Timber Harvest

E. Material Extraction

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

 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 operation map, in a manner that prevents runoff from entering surface waters.

 \Box 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.

Impacted Resource	Reviewing Agency	Impact / Mitigation Actions

Table 9. Other Affected Resources

Approvals

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

Area Forester	Date	
 Regional Forester	 Date	

APPEALS – Not signed or cosigned by the Commissioner:

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. Any appeal must be received within twenty (20) calendar days after issuance of this decision under 11 AAC 02.040. An eligible person must first appeal a decision to the Commissioner before seeking relief in superior court. The Alaska State Courts establish its own rules for timely appealing final administrative orders and decisions of the department.

Appeals may be mailed or hand-delivered to the DNR Commissioner's Office, 550 W. 7th Avenue, Suite 1400, Anchorage, Alaska, 99501; or faxed to (907)-269-8918; or sent by electronic mail to dnr.appeals@alaska.gov. Appeals must be accompanied by the fee established in 11 AAC 05.160(d)(6), which has been set at \$200 under the provisions of 11 AAC 05.160 (a)-(b).

Appendices

Appendix A Maps Appendix B Supporting Information Silvicultural Prescription Appendix C Appeals Appendix D Draft FLUP Public Comments

Appendix A: Timber Sale Maps

















Appendix B: Supporting Information

Silivcultural Prescription for Willer kash Timber Sales SC-2023-01A

Each unit has more than 330 foot of no-cut area between it and the next closest unit as required by the Susitna Forestry Guidelines. The unit is marked with pink "Timber Harvest Boundary" flagging. Within the harvest units, all dead spruce, live spruce greater than 5 inches in diameter at breast height (DBH), and merchantable birch 6 inches in diameter and larger at DBH are designated for removal. Snags, approximately 3 per acre for wildlife use, residual birch less than 6 inches (DBH), and all live spruce less than 5 inches DBH will **not** be cut. Where feasible, evenly scattered clumps of 3-5 leave trees will be preferred over leaving single trees to reduce the chance of windthrow, provide better protection for the root system, provide additional habitat and cover for wildlife, and serve as a seed source for regeneration. Residual leave trees will be protected from damage during harvest operations.

Unmerchantable Populus sp. (aspen and cottonwood) and willow will be cut incidental to the timber harvest to encourage prolific regeneration from root and stump sprouts for moose browse and wildlife habitat. Logs may be left on site where they lay for use as habitat.

Limbs and tops will be 1) severed and scattered to decompose in the units, 2) decked at a landing to be disposed of by burning by the purchaser, or 3) a combination of both treatments. If burning is utilized to dispose of slash, burn permits may be required and are the responsibility of the purchaser to consult with DEC and DOF and acquire necessary permits. If burning is utilized, piles may be burned when there is at least 6 inches of snow on the ground and must be completely extinguished before snow melts.

Each of these sales will rely on scarification and leave trees for seed for reforestation. Copper #3, Iron #1, Tin, Rogers #1 & #2 have been laid out with islands of leave trees to provide cover and habitat for wildlife. These islands, additional leave trees described herein, and trees in the surrounding forest will be a source for seed for the future forest.

All units will be **scarified as follows**: 50% exposed mineral soils distributed uniformly over each acre within the unit. Scarification can be incorporated into harvest operations, or within a year of completing harvest. A medium class excavator, Caterpillar D-6 class dozer or equivalent horsepower (180 horsepower or more) is required to perform scarification. Scarification is to be applied in all units on upland sites. Do not scarify in wet areas. Avoid areas with advanced regeneration, small willows and shrubs unless directed otherwise by DOF personnel.

All heavy equipment used in winter/snow movement, road building, timber harvest, scarification, skidding, forwarding etc.; including, dozers, road graders, excavators, backhoes, shovels, front end loaders, rubber tired skidders, cat-skidders, forwarders, delimber/strokers, disc-trenchers, and mechanical harvesters; are required to be pressure washed at a location and in a manner approved by the State to remove all dirt and soil prior to entering the Timber Sale

Area. The timber sale area I defined as the area accessed by Willer-Kash Road depicted in Appendix A "Willer-Kash Area Timber Sales." The intent of this requirement is to remove soil and seeds of potentially invasive species that could impact reforestation efforts in the harvest units and along the road system.

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:

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

Table 1. Stocking Level Requirements

Seedlings Required:

Percentage Under stocked = 100 - Total Residual Stocking %Percentage Under stocked = $100 - \frac{\%}{\%} = \frac{\%}{\%}$

Seedlings/ Acre Required = Percentage Understocked/100 x 450 Seedlings/ Acre Required = _____% /100 x 450 = _____

 \Box 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):

⊠ Natural regeneration: provide known information on the following indicators of suitability for natural regeneration. If a box is checked "no," please explain/describe the condition. N/A means "not applicable."

Yes No N/A Unknown

Seedbed and soil conditions suitable for natural regeneration

\boxtimes		Moss layers are shallow (≤ 4 ") or absent
\boxtimes		Where birch or spruce regeneration is targeted, exposed

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		\boxtimes		mineral soil will exist on at least 25% of the harvest area and is well-distributed across the unit Where aspen regeneration from suckering is targeted, root damage will be minimal and soil exposure will encourage warming.
$\frac{\text{Yes}}{2}$	<u>No</u>	<u>N/A</u>	Unkno	
		\square	_	n sources available
\boxtimes				Exposure to prevailing winds, if known
\boxtimes				Adequate seed trees exist within 3 tree heights of the
			\boxtimes	reforestation site for spruce or within 2 tree heights for birch
				Where spruce regeneration is targeted, large seed crop in
\boxtimes				year prior to harvest or current year 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.
Yes	No	N/A	Unkno	own
		and infe		
r				
	\boxtimes			<i>Calamagrostis</i> (bluejoint grass) is not visually evident. If
				<i>Calamagrostis</i> (bluejoint grass) is not visually evident. If <i>Calamagrostis</i> is visually evident, describe abundance and distribution. <u>Note</u> : <i>Calamagrostis</i> coverage of more than 1-2% distributed across the site indicates that grass coverage may expand rapidly after harvest without treatment.
				<i>Calamagrostis</i> is visually evident, describe abundance and distribution. <u>Note</u> : <i>Calamagrostis</i> coverage of more than 1-2%
				Calamagrostis is visually evident, describe abundance and distribution. <u>Note</u> : Calamagrostis coverage of more than 1-2% distributed across the site indicates that grass coverage may expand rapidly after harvest without treatment. <i>Equisetum</i> (horsetail) is present prior to harvest
			_	Calamagrostisis visually evident, describe abundance and distribution. Note: Calamagrostiscoverage of more than 1-2% distributed across the site indicates that grass coverage may expand rapidly after harvest without treatment.Equisetum (horsetail) is present prior to harvestThe site is not currently subject to intense herbivory due to peaks in the hare cycle, dense moose populations, or scarcity of
				Calamagrostis is visually evident, describe abundance and distribution. <u>Note</u> : Calamagrostis coverage of more than 1-2% distributed across the site indicates that grass coverage may expand rapidly after harvest without treatment. Equisetum (horsetail) is present prior to harvest 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.
			_	Calamagrostisis visually evident, describe abundance and distribution. Note: Calamagrostiscoverage of more than 1-2% distributed across the site indicates that grass coverage may expand rapidly after harvest without treatment.Equisetum (horsetail) is present prior to harvestThe site is not currently subject to intense herbivory due to peaks in the hare cycle, dense moose populations, or scarcity of

Appendix C. Appeal and Request for Reconsideration Regulations

Note: "Appeal" means a request to the commissioner to review a decision that the commissioner did not sign or cosign. "Request for reconsideration" means a petition or request to the commissioner to review an original decision that the commissioner signed or cosigned.

11 AAC 02 Regulations

11 AAC 02.010. Applicability and eligibility.

(a) This chapter sets out the administrative review procedure available to a person affected by a decision of the department. If a statute or a provision of this title prescribes a different procedure with respect to a particular decision, that procedure must be followed when it conflicts with this chapter.

(b) Unless a statute does not permit an appeal, an applicant is eligible to appeal or request reconsideration of the department's decision on the application. An applicant is eligible to participate in any appeal or request for reconsideration filed by any other eligible party.(c) If a statute restricts eligibility to appeal or request reconsideration of a decision to those who have provided timely written comment or public hearing testimony on the decision, the department will give notice of that eligibility restriction as part of its public notice announcing the opportunity to comment.

(d) If the department gives public notice and allows a public comment period of at least 30 days on a proposed action, and if no statute requires opportunity for public comment, the department may restrict eligibility to appeal or request reconsideration to those who have provided timely written comment or public hearing testimony on the proposed action by including notice of the restriction as part of its public notice announcing the opportunity to comment.

(e) An eligible person affected by a decision of the department that the commissioner did not sign or cosign may appeal the decision to the commissioner within the period set by 11 AAC 02.040.

(f) An eligible person affected by a decision of the department that the commissioner signed or cosigned may request the commissioner's reconsideration within the period set by 11 AAC 02.040.

(g) A person may not both appeal and request reconsideration of a decision.

11 AAC 02.015. Combined decisions.

(a) When the department issues a combined decision that is both a final disposal decision under AS 38.05.035(e) and any other decision, including a disposal decision combined with a land use plan decision, or a disposal decision to grant certain applications combined with a decision to deny others, the appeal process set out for a disposal decision in AS 38.05.035(i) - (m) and this chapter applies to the combined decision.

(b) Repealed 12/27/2012.

11 AAC 02.020. Finality of a decision for purposes of appeal to court.

(a) Unless otherwise provided in a statute or a provision of this title, an eligible person must first either appeal or request reconsideration of a decision in accordance with this chapter before

appealing a decision to superior court.

(b) The commissioner's decision on appeal is the final administrative order and decision of the department for purposes of appeal to the superior court.

(c) The commissioner may order or deny a request for reconsideration within 30 calendar days after issuance of the decision, as determined under 11 AAC 02.040(c) - (e). If the commissioner takes no action during the 30-day period, the request for reconsideration is considered denied. Denial of a request for reconsideration is the final administrative order and decision of the department for purposes of appeal to the superior court.

(d) If the commissioner timely orders reconsideration of the decision, the commissioner may affirm the decision, issue a new or modified decision, or remand the matter to the director for further proceedings. The commissioner's decision, other than a remand decision, is the final administrative order and decision of the department for purposes of appeal to the superior court.

11 AAC 02.030. Filing an appeal or request for reconsideration.

(a) An appeal or request for reconsideration under this chapter must

(1) be in writing;

(2) be filed by personal service, mail, facsimile transmission, or electronic mail;
(3) be signed by the appellant or the appellant's attorney, unless filed by electronic mail; an appeal or request for reconsideration filed by electronic mail must state the name of the person appealing or requesting reconsideration and a single point of contact to which any notice or decision concerning the appeal or request for reconsideration is to be sent;

(4) be correctly addressed;

(5) be timely filed in accordance with 11 AAC 02.040;

(6) specify the case reference number used by the department, if any;

(7) specify the decision being appealed or for which reconsideration is being requested;

(8) specify the basis upon which the decision is challenged;

(9) specify any material facts disputed by the appellant;

(10) specify the remedy requested by the appellant;

(11) state the address to which any notice or decision concerning the appeal or request for reconsideration is to be mailed; an appellant may also provide a telephone number where the appellant can be reached during the day or an electronic mail address; an appeal or request for reconsideration filed electronically must state a single address to which any notice or decision concerning the appeal or request for reconsideration is to be mailed;

(12) identify any other affected agreement, contract, lease, permit, or application by case reference number, if any;

(13) include a request for an oral hearing, if desired; in the appeal or request for reconsideration, the appellant may include a request for any special procedures to be used at the hearing; the appeal or request for reconsideration must describe the factual issues to be considered at the hearing; and

(14) be accompanied by the applicable fee set out in 11 AAC 05.160.

(b) At the time an appeal is filed, and up until the deadline set out in 11 AAC 02.040(a) to file the appeal, an appellant may submit additional written material in support of the appeal,

including evidence or legal argument.

(c) If public notice announcing a comment period of at least 30 days was given before the decision, an appellant may not submit additional written material after the deadline for filing the appeal, unless the appeal meets the requirements of (a) of this section and includes a request for an extension of time, and the department determines that the appellant has shown good cause for an extension. In considering whether the appellant has shown good cause, the department will consider factors including one or more of the following:

(1) comments already received from the appellant and others;

(2) whether the additional material is likely to affect the outcome of the appeal;

(3) whether the additional material could reasonably have been submitted without an extension;

(4) the length of the extension requested;

(5) the potential effect of delay if an extension is granted.

(d) If public notice announcing a comment period of at least 30 days was not given before the decision, an appellant may submit additional written material after the deadline for filing the appeal, if the appeal meets the requirements of (a) of this section and includes a notice of intent to file the additional written material. The department must receive the additional written material within 20 days after the deadline for filing the appeal, unless the appeal also includes a request for an extension of time, and the department determines that the appellant has shown good cause for an extension. In considering whether the appellant has shown good cause, the department will consider factors including one or more of the following:

(1) comments already received from the appellant and others;

(2) whether the additional material is likely to affect the outcome of the appeal;

(3) whether the additional material could reasonably have been submitted without an extension;

(4) the length of the extension requested;

(5) the potential effect of delay if an extension is granted.

(e) At the time a request for reconsideration is filed, and up until the deadline to file a request for reconsideration, an appellant may submit additional written material in support of the request for reconsideration, including evidence or legal argument. No additional written material may be submitted after the deadline for filing the request for reconsideration.

(f) If the decision is one described in 11 AAC 02.060(c), an appellant may ask for a stay as part of the appeal or request for reconsideration. The appellant must include an argument as to why the public interest requires a stay.

11 AAC 02.040. Timely filing; issuance of decision.

(a) To be timely filed, an appeal or request for reconsideration must be received by the commissioner's office within 20 calendar days after issuance of the decision, as determined under (c) or (d) of this section, unless another period is set by statute, regulation, or existing contract. If the 20th day falls on a day when the department is officially closed, the appeal or request for reconsideration must be filed by the next working day.

(b) An appeal or request for reconsideration will not be accepted if it is not timely filed.

(c) If the appellant is a person to whom the department delivers a decision by personal service or by certified mail, return receipt requested, issuance occurs when the addressee or the addressee's agent signs for the decision. If the addressee or the addressee's agent neglects or

refuses to sign for the certified mail, or if the address that the addressee provided to the department is not correct, issuance by certified mail occurs when the decision is deposited in a United States general or branch post office, enclosed in a postage-paid wrapper or envelope, addressed to the person's current address of record with the department, or to the address specified by the appellant under 11 AAC 02.030(a)(11).

(d) If the appellant is a person to whom the department did not deliver a decision by personal service or certified mail, issuance occurs

(1) when the department gives public notice of the decision; or

(2) if no public notice is given, when the decision is signed; however, the department may state in the decision a later date of issuance and the corresponding due date for any appeal or request for reconsideration.

(e) The date of issuance constitutes delivery or mailing for purposes of a reconsideration request under AS 44.37.011(d) or AS 44.62.540(a).

11 AAC 02.050. Hearings.

(a) The department will, in its discretion, hold a hearing when questions of fact must be resolved.

(b) The hearing procedure will be determined by the department on a case-by-case basis. As provided in 11 AAC 02.030(a)(13), any request for special procedures must be included with the request for a hearing.

(c) In a hearing held under this section

(1) formal rules of evidence need not apply; and

(2) the hearing will be recorded, and may be transcribed at the request and expense of the party requesting the transcript.

11 AAC 02.060. Stays; exceptions.

(a) Except as provided in (c) and (d) of this section, timely appealing or requesting reconsideration of a decision in accordance with this chapter stays the decision during the commissioner's consideration of the appeal or request for reconsideration. If the commissioner determines that the public interest requires removal of the stay, the commissioner will remove the stay and allow all or part of the decision to take effect on the date set in the decision or a date set by the commissioner.

(b) Repealed 9/19/2001.

(c) Unless otherwise provided in a statute or a provision of this title, a decision takes effect immediately if it is a decision to

(1) issue a permit that is revocable at will;

(2) approve surface operations for a disposal that has already occurred or a property right that has already vested; or

(3) administer an issued oil and gas lease or license, or an oil and gas unit agreement.(d) Timely appealing or requesting reconsideration of a decision described in (c) of this section does not automatically stay the decision. However, the commissioner will impose a stay, on the commissioner's own motion or at the request of an appellant, if the commissioner determines that the public interest requires it.

(e) A decision takes effect immediately if no party is eligible to appeal or request reconsideration and the commissioner waives the commissioner's right to review or reconsider

the decision.

11 AAC 02.070. Waiver of procedural violations.

The commissioner may, to the extent allowed by applicable law, waive a requirement of this chapter if the public interest or the interests of justice so require.

11 AAC 02.900. Definitions.

In this chapter,

(1) "appeal" means a request to the commissioner to review a decision that the commissioner did not sign or cosign;

(2) "appellant" means a person who files an appeal or a request for reconsideration;

(3) "commissioner" means the commissioner of natural resources;

(4) "decision" means a written discretionary or factual determination by the department specifying the details of the action to be allowed or taken;

(5) "department" means, depending of the particular context in which the term is used, the Department of Natural Resources, the commissioner, the director of a division within the Department of Natural Resources, or an authorized employee of the Department of Natural Resources;

(6) "request for reconsideration" means a petition or request to the commissioner to review an original decision that the commissioner signed or cosigned.

Appendix D Draft FLUP Public Comments

Organization	Author	Location
Alaska Department of Natural Resources, Division of Mining Land and Water	Lowe, Colleen Natural Resource Specialist	Anchorage, AK
Alaska Department of Fish and Game, Habitat	Moenaert, Crystal	Palmer, AK
Public	Branham, Ty	unspecified, AK
Public	Trowbridge, Lorna	Willow, AK

Commenter	Comment	Response
	Purpose/Land Base/ Management Intent	
	No comments received.	
	Timber Harvest Methodology	
Lowe	If materials are needed for road reconstruction, or new road construction, authorization may be required. There doesn't appear to be an established material site for obtaining material in the vicinity of the areas described.	Noted. No change to document needed, material extraction for road building will be addressed in the timber sale process.
Trowbridge	 C/O Steve Nichols Division of Forestry Dear Sir/Madam, I hope this letter finds you well. I am writing to express my support for the recent decision to sell timber rights to loggers in our area. I 	Noted. Road maintenance is addressed in timber sale contracts. No change to document needed.

Commenter	Comment	Response
	understand the importance of sustainable	
	forestry practices and their contribution to our	
	local economy. However, I would like to bring	
	a matter of concern to your attention, one that	
	pertains to the preservation of our community's	
	wellbeing. While I am in favor of the logging	
	operations, I would like to emphasize the	
	necessity of ensuring that the roads used by	
	heavy logging trucks remain in a drivable	
	condition. It is crucial that measures are taken	
	to prevent these roads from being rutted and	
	destroyed during the logging process. The	
	condition of these roads is of utmost	
	importance to the residents consisting of 5	
	families of our area for several reasons. First	
	and foremost, in the event of a medical	
	emergency, timely access to medical facilities	
	is essential. A damaged or impassable road	
	could result in potentially life-threatening	
	delays in reaching medical assistance.	
	Additionally, the condition of these roads	
	directly impacts the transportation of	
	agricultural products, which is the livelihood of	
	many residents in our community. Ensuring the	
	integrity of these routes is vital for the	
	economic well-being of our area. I kindly	
	request that the Division of Forestry work	
	closely with the logging companies to establish	
	guidelines and enforce regulations that will	
	help preserve the road infrastructure during and	
	after logging operations. This would include	
	regular maintenance and repair to keep these	
	roads in good condition. I believe that with	
	responsible forestry practices and proper road	
	maintenance, we can strike a balance between	
	the economic benefits of timber harvesting and	
	the preservation of our community's safety and	

Forest Land Use Plan for Willer Kash Timber Sales, SC-2023-01A

Commenter	Comment	Response
	economic stability. Thank you for your attention to this matter, and I look forward to hearing about the steps taken to address these concerns. Sincerely, Lorna Trowbridge	
	Water Quality/ Fisheries	
Moenaert	Good Afternoon Stephen, The ADF&G Habitat Section has reviewed the Public Notice and draft FLUP for proposed timber sales in the Mat-Su Area. Currently, there are no documented anadromous streams within the boundaries of the proposed eight specified harvest units in the Willer-Kash Block. Rogers Creek is a small water body in the vicinity of harvest units: Rogers #2 and Rogers #1. It's unclear from aerial imagery where the exact channel is, and if it runs through the boundaries of the harvest units. At this time we have no fish presence information for this waterbody. Should fish presence be discovered in this waterbody, or any others within the harvest units, please contact the ADF&G Habitat Section at Access to harvest units will require use of an active road and creation of proposed roads. One of the proposed roads near harvest unit Iron #1 crosses an unnamed anadromous stream (AWC # 247-41- 10200-2130-3030-4025) at approximately 61.8402 N, 49.8118 W. Should this road be built a Fish Habitat Permit will be required for mechanized stream crossings, placement of structures below ordinary highwater (OHW), water withdraws, or other modifications below OHW. Thank you for the opportunity to comment. Should you have any questions please feel free to	Noted. The proposed road and waterbody crossing near the Iron # 1 unit is past the Iron #1 harvest unit boundary. At this time the proposed road will terminate within the harvest unit boundaries and therefore will not intersect the creek until the road is constructed beyond the harvest unit boundary in the future. We will keep this information for the future development of timber sale units in this area.

Forest Land Use Plan for Willer Kash Timber Sales, SC-2023-01A

Commenter	Comment	Response
	contact me.	
	Sincerely,	
	Crystal Moenaert	
	Habitat Biologist 3	
	ADF&G Habitat Section	
	1801 S Margaret Drive, Suite 6	
	Palmer AK 99645	
	Ph: 907-861-3204	
	ADF&G Habitat Section Permits	
	Wildlife	
	No comments were made on Wildlife issues.	
	Cultural Resources	
	No comments for Cultural Resources.	
	General	
Lowe	Continue the page numbering through the rest of	Noted. Will ensure page numbers are
	the document. (from page 1)	included in final document.
Lowe	Recommend including the meridian in the legal	Noted. Document updated.
	description. (page 2)	
Lowe	Recommend using parallel structure for bullet lists	Noted.
	by starting each bullet item with the same word	
	type. (page 3)	
Lowe	Consider making this another bullet item: "*To	Noted and updated.
	sustain and promote"	
Lowe	Perhaps add DBH to the list of abbreviations at the	Noted and updated.
	beginning if the document. Maybe consider adding	
	"cunit" too.	