State of Alaska
Department of Natural Resources
Division of Forestry & Fire Protection
NORTHERN REGION
FAIRBANKS-DELTA AREA

Draft Forest Land Use Plan

Quartz Lake Mixed 2025 Timber Sales

NC-1892-D, NC-1903-D, NC-1924-D, NC-1925-D

JUNE 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	Hundred cubic feet
DBH	Diameter at breast height (4.5 feet above root collar)
DMLW	Division of Mining, Land and Water
DOF	Division of Forestry & Fire Protection
ETAP	Eastern Tanana Area Plan
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
TVSF	Tanana Valley State Forest
TVSF MP	Tanana Valley State Forest Management Plan, 2025 Update

Contents

I. Introduction

Project File Number: NC-1892-D, NC-1903-D, NC-1924-D, and NC-1925-D.

Division of Forestry & Fire Protection Office: Fairbanks-Delta Area
Area Forester: Kevin Breitenbach, Fairbanks-Delta Forester
Forest Practices Geographic Region (AS 41.17.950): Region III

This Forest Land Use Plan (FLUP) covers proposed forest operations on approximately 75 acres of mixed birch and spruce forest from state lands in the Quartz Lake Extension area east of the Richardson Highway. 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; 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 adoptions of a final FLUP pursuant to AS 38.05.035 (e) and AS 38.05.945; Quartz Lake 2025 Mixed Timber Sales PBIF includes proposed timber sales NC-1892-D, NC-1903-D, NC-1924-D, and NC-1925-D; and is available on DOF's public webpage:
http://forestry.alaska.gov/timber/delta

☐ 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).

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 AKDT Monday, July 14, 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, Alaska 99709, or by email to andrew.allaby@alaska.gov. For more information you may contact the Fairbanks-Delta Area Resource Forester, Andrew Allaby, at 907-451-2603 or at the physical/electronic addresses

provided. 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 issue a final 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:

2025 Tanana Valley State Forest Management Plan Update 2015 Eastern Tanana Area Plan (DNR)

The administrative record for these sales is maintained at the Division of Forestry & Fire Protection Fairbanks Office filed as NC-1892-D, NC-1903-D, NC-1924-D, and NC-1925-D.

A. Legal description

The proposed sales are located approximately 11 miles north of the Delta Area Forestry office in the Quartz Lake area east of the Richardson Highway at milepost 278. The proposed sales are accessed via Quartz Lake Road 2.5 miles east of Richardson Highway, and then onto the Quartz Extension Forest Road system.

- **NC-1892-D / Quartz 8 Mile Spruce:** an 8-acre spruce sawlog sale located 7.6 miles down Quartz Extension Forest Road on the downhill (south) side. This proposed sale is within Section 13, T8S, R10E, Fairbanks Meridian.
- **NC-1903-D / Garnet Spruce:** is a 33-acre spruce sawlog sale located 5.1 miles down Quartz Extension Forest Road, then 1.1 miles down an existing spur road. The proposed sale is within Section 23, T8S, R10E, F.M.
- **NC-1924-D / Quartz 4 Mile Birch:** an 8-acre birch fuelwood sale located 4.0 miles down Quartz Extension Forest Road on the downhill (south) side. This proposed sale is within Section 22, T8S, R10E, F.M.
- **NC-1925-D / Deja View Birch:** a 3-unit 21-acre birch fuelwood sale located 8.4 miles down Quartz Extension Forest Road on the downhill (south) side. This proposed sale is within Sections 12 & 13, T8S, R10E, F.M.

The sales are accessed primarily by existing all-season roads on State land, but new spur roads will need to be constructed to access within each sale.

See also maps in Section VI.

B. Operational Period

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

C. Timber Disposal

☒ 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 timber before a significant decrease in merchantability occurs due to age, wildfire, or forest health issues, and return the site to a young productive mixed stand forest.
- Provide sawlogs and firewood for building and 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	☒	☒	☒
☐ Other state land managed by DNR	☒	☒	☐
☐ University of Alaska	☐	☐	☐
☐ Mental Health Trust	☐	☐	☐
☐ School Trust	☐	☐	☐

B. Other Land Ownership

☐ ☐ ☐

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
- 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.

Timber Stand Description and History

The proposed project area is a mosaic of vigorous younger stands that experienced a fire around 80 years ago, and aging stands greater than 200 years old. All proposed sales are on fairly deep, well-drained soils and are mid-to lower slope above valley bottom, generally with slopes less than 25% favorable for ground-based logging systems. There are an estimated 590 Cords (531 CCF) of mixed fuelwood and 282 MBF (689 CCF) of spruce sawlogs on 75 acres.

- **NC-1892-D** is an older open canopy mixed forest with an estimated 50 ft^2/ac of spruce sawtimber and 20 ft^2/ac of birch fuelwood. The average age of cored trees at 4.5 ft was 233 years. The average spruce tree was 16" dbh and 80 feet tall, with moderate levels of defect. The birch was rapidly senescing with an average dbh of 13 inches and average height of 65 feet. The lower elevation parts of the sale have an ericaceous shrub understory and a black spruce component to the canopy.
- **NC-1903-D** is a mature open canopy mixed forest with an estimated 75 ft^2/ac of spruce sawtimber and 25 ft^2/ac of birch fuelwood. The average age of cored trees at 4.5 ft was 216 years. The average spruce tree was 11" dbh and 80 feet tall, with moderate levels of defect. The birch was rapidly senescing with an average dbh of 10 inches and average height of 60 feet. Frequent openings characterized by an alder canopy with some evidence of spruce regen established on nurse logs of previous canopy dominants.
- **NC-1924-D** and **NC-1925-D** are primarily closed canopy birch forest with an estimated 110 ft^2/ac of birch fuelwood. These stands likely established after a fire approximately 80 years ago. Trees cored on site were 74 years at 4.5 ft. The birch was vigorous with low defect, and an estimated average dbh of 8 inches and average height of 65 feet. Decent stocking of pole-sized white spruce growing under the birch canopy throughout.

A. Timber Harvest Activities

Timber Harvest Activities are displayed in Table 1.

Table 1. Timber Harvest Activities

Unit ID	Acres	Topography	Silvicultural Action	Logging Method
NC-1892-D	8	Slopes 10-20%	Clear cut	Ground based, whole tree harvest
NC-1903-D	33	Slopes 15-30%	Clear cut	Ground based, whole tree harvest
NC-1924-D	10	Slopes 10-20%	Heavy partial cut	Ground based, whole tree harvest
NC-1925-D	21	Slopes 10-15%	Heavy partial cut	Ground based, whole tree harvest

B. Site Preparation

☐ Site preparation will not be necessary. There is either sufficient residual stocking, or because there has been sufficient soil disturbance by logging/fire to forego scarification.

☒ Site preparation will be implemented and described in Table 2:

Table 2. Site Preparation

Unit ID	Acres	Site Preparation Method	Date of Completion
NC-1924-D	10	Mechanical ground scarification on areas with slope < 20%	31 August in the season after an area has been harvested
NC-1925-D	21		

C. Reforestation

Season of harvest:

☐ Winter harvest only
☐ Non-winter harvest only
☒ All-season harvest (**NC-1892-D, NC-1903-D, NC-1924-D,** and **NC-1925-D**)

☒ Clearcut (**NC-1892-D, NC-1903-D**)
☒ Partial Harvest (**NC-1924-D, NC-1925-D**) 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 using data for the number of residual trees collected during DOF regeneration surveys and populate the following Table 3:

Table 3. Stocking Level Requirements

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”	50	200	25%
Total Residual Stocking			25%

Seedlings Required:

Percentage Under stocked = 100 – Total Residual Stocking %
Percentage Under stocked = 100 – 25% = 75%

Seedlings/ Acre Required = Percentage Understocked/100 x 450
Seedlings/ Acre Required = 75% /100 x 450 = 338

☐ 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				
☒	☐	☐	☐	Moss layers are shallow (≤4") or absent. *Note: NC-1892-D and NC-1903-D have areas with more established moss layers, but mechanical harvest and sun exposure is expected to provide sufficient receptive seedbeds.*
☒	☐	☐	☐	Where birch or spruce regeneration is targeted, exposed 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.

Yes	No	N/A	Unknown	
Seed/vegetative reproduction sources available				
☒	☐	☐	☐	Exposure to prevailing winds, if known
☒	☐	☐	☐	Adequate seed trees exist within 3 tree heights of the reforestation site for spruce or within 2 tree heights for birch
☐	☐	☐	☒	Where spruce regeneration is targeted, large seed crop in 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 [paper birch, quaking aspen].

Yes	No	N/A	Unknown	Competition and infestation risk
☐	☒	☐	☐	*Calamagrostis* (bluejoint grass) is not visually evident. If *Calamagrostis* is visually evident, describe abundance and distribution. Note: *Calamagrostis* coverage of more than 1-2% distributed across the site indicates that grass coverage may expand rapidly after harvest without treatment. *Sales with a large birch component (NC-1924-D, NC-1925-D) have grass present up to 5%. Ground disturbance from harvest activities, especially on slopes, is expected to reduce grass continuity and provide receptive seedbeds. Mechanical scarification will also be required.*
☒	☐	☐	☐	*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.
☐	☒	☐	☐	Existing stands are not infested with bark beetles *(Dendroctonus* or *Ips)*
☐	☒	☐	☐	Where 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

☐ Landowner requests an extended period for natural regeneration under 11 AAC 95.375(d)(6)

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.
☐ Slash will be disposed of by the operator ☒ 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. 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 4 below.

Table 4. 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
	NONE				

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

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

Notes: The Tanana River is the nearest catalogued anadromous waterbody, and is categorized under FRPA as a Type III.B. waterbody (glacial, with resident fish). The proposed sale areas are at least 4,000 feet from the active channels of the Tanana River, and there are no known perennial streams impacted by the sale areas or the access roads. Thompson Lake, a FRPA Type III.A. waterbody, is 1,200 feet downslope from NC-1903-D with natural forest between the sale and lake.

F. 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

Notes: Within ETAP Unit D-12, management intent includes direction that "ADNR shall consult with ADF&G regarding moose and bison habitat prior to authorizing uses." This applies to sales **NC-1924-D** and **NC-1925-D**.

G. 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.)

H. 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 5. Other Affected Resources / Areas of Concern

Impacted Resource	Reviewing Agency	Impact/ Mitigation Actions
Viewshed	DOF	Screening techniques employed during sale layout, such as irregular boundaries and buffers of mature forest

☒ 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: uppermost portions of **NC-1903-D** and **NC-1924-D** may be visible along a half mile segment of the Tanana River. An irregular sale edge and a retained buffer of mature forest will obscure the sale from the Tanana viewshed.

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 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	Segment	Harvest Unit	Mile/ Station	Road Class	Maximum Grade %	Constructed By	Maintained By
Quartz Lake Road	1	all	2.5	Non-FRPA	8%	DOT	DOT
Quartz Lake Ext. Forest Road	2	all	8.6	Primary	8%	DOF	Operator
5 Mile Spur	3	NC-1903-D	1.2	Spur	8%	DOF	Operator
NC-1903-D Access	4	NC-1903-D	0.2	Spur	8%	Operator	Operator
NC-1183-D Unit 3Access	5	NC-1892-D	0.5	Spur	8%	DOF	Operator
NC-1892-D Access	6	NC-1892-D	0.1	Spur	8%	Operator	Operator
NC-1925-D Access	7	NC-1925-D	0.8	Spur	8%	Operator	Operator

Notes: Existing roads are listed as DOF-constructed and must be maintained as part of these timber sales. Any new road construction to access the proposed harvest areas will be constructed by the Operator to the standards set out in AFRPA and the 2016 DNR-DOF Road Standards.

**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: 30%

☒ 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.
  - ☐ 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.

General Erosion Control:

☐ Grass seeding ☐ Erosion control mats ☐ Wattle ☒ Waterbars
☐ Other: _____ ☐ Not applicable

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 along access roads as described in the table below:

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

Road ID	Segment	Mile/ Station	Bridge Length (ft.)	Structure Type	AS 41.17.950 Stream Classification	ADF&G AWC Number	Duration of crossing structure in place

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

E. Material Extraction

☒ 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.
☐ 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

V. 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.

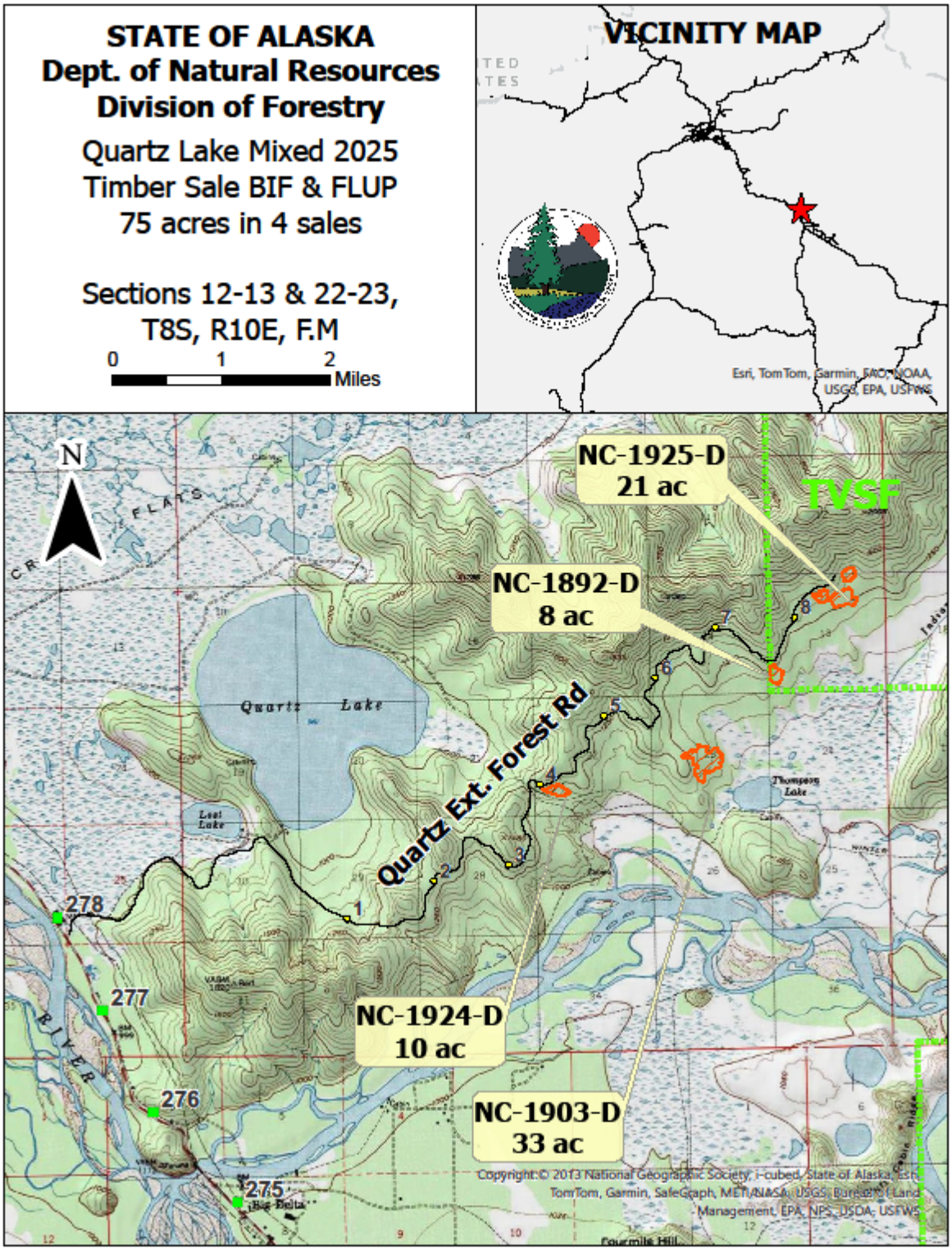
_____ _____

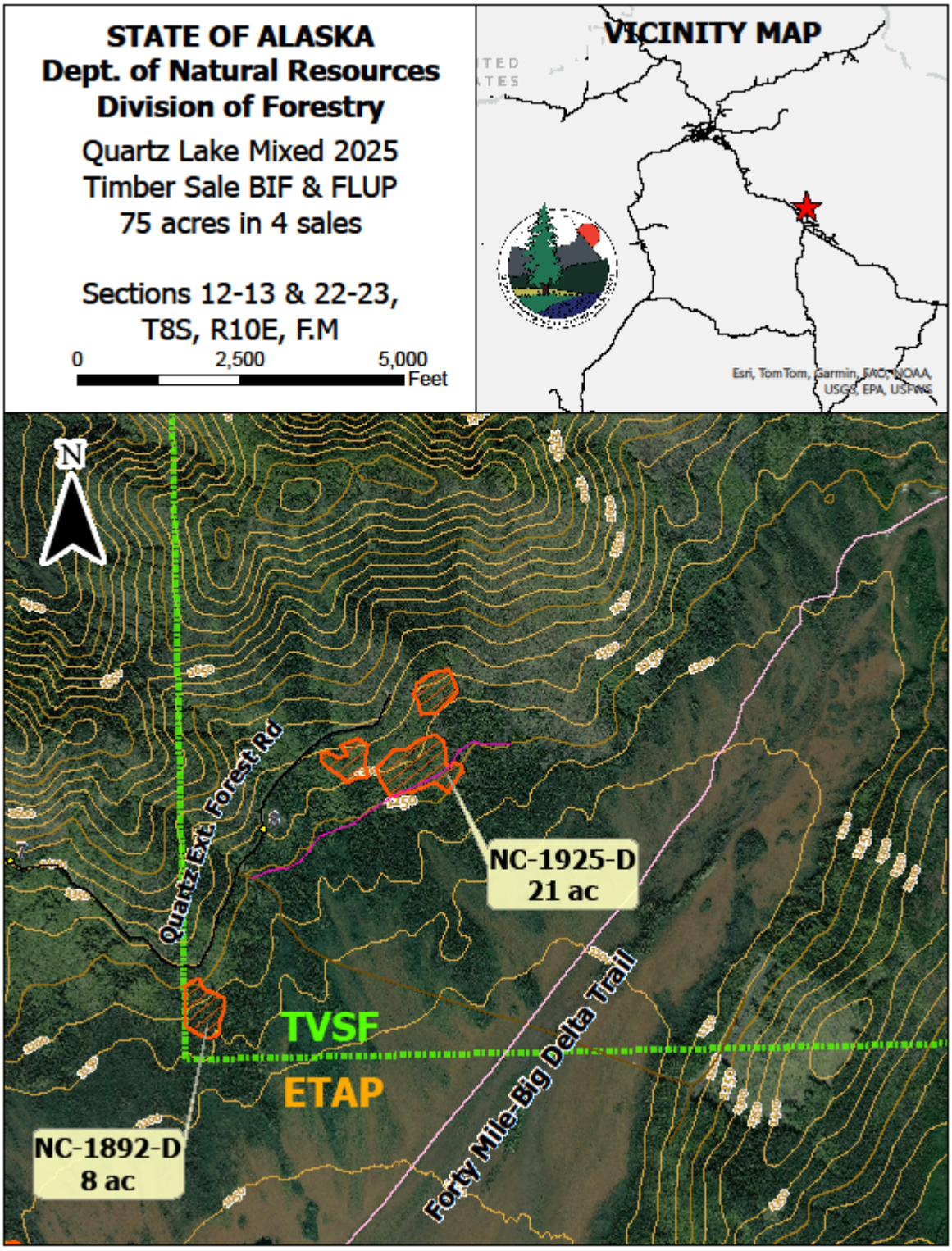
Area Forester **Date**
Kevin Breitenbach
Fairbanks-Delta

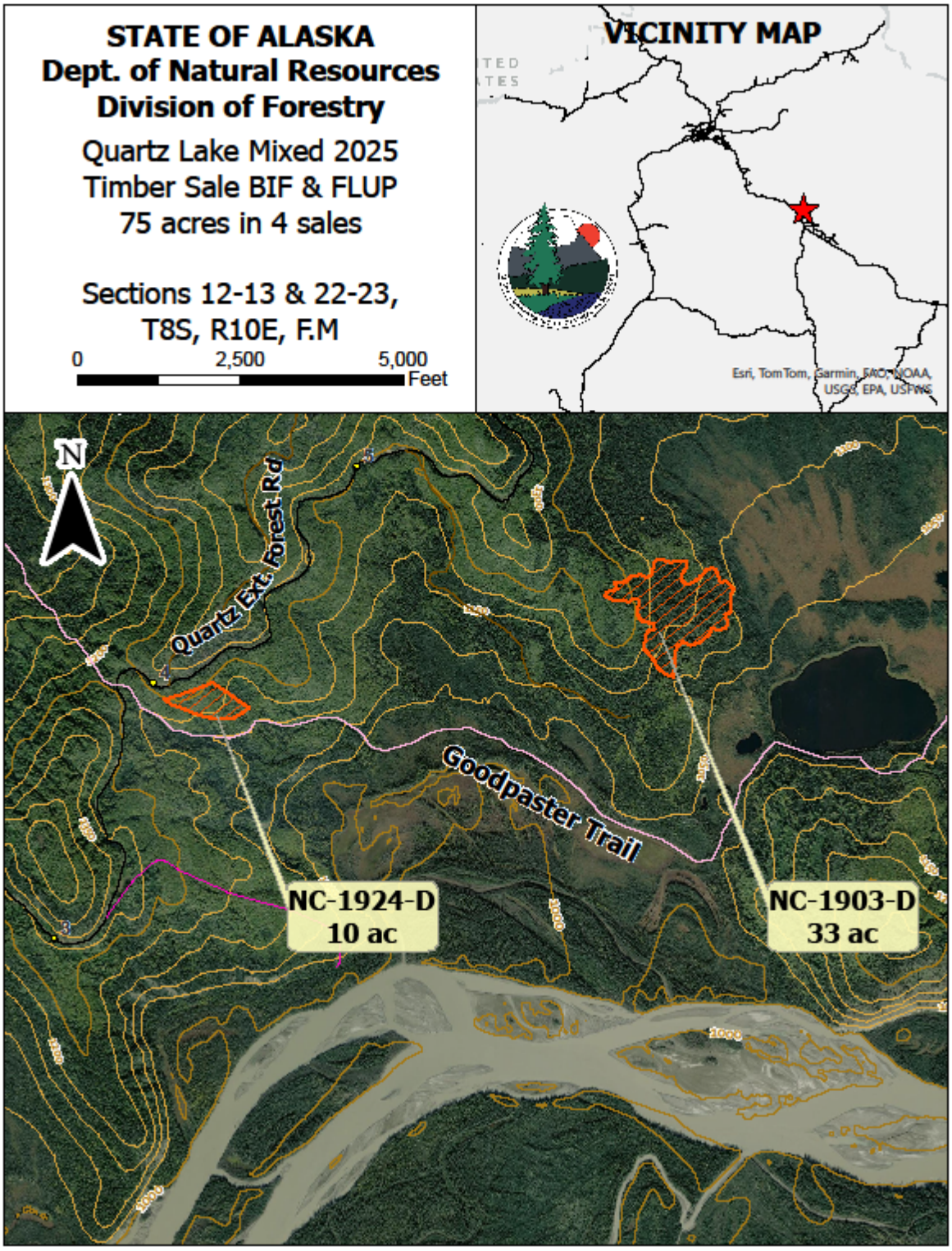
_____ _____

Regional Forester **Date**
Kevin Meany
Northern Region

VI. Appendix: Sale maps




STATE OF ALASKA
Dept. of Natural Resources
Division of Forestry
Quartz Lake Mixed 2025
Timber Sale BIF & FLUP
75 acres in 4 sales
Sections 12-13 & 22-23,
T8S, R10E, F.M
0
2,500
5,000
Feet
VICINITY MAP
Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS
N
Quartz Ext. Forest Rd
NC-1925-D
21 ac
TVSF
ETAP
Forty Mile-Big Delta Trail
NC-1892-D
8 ac


STATE OF ALASKA
Dept. of Natural Resources
Division of Forestry
Quartz Lake Mixed 2025
Timber Sale BIF & FLUP
75 acres in 4 sales
Sections 12-13 & 22-23,
T8S, R10E, F.M
0
2,500
5,000
Feet
VICINITY MAP
Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS
N
Quartz Ext. Forest Rd
Goodpaster Trail
NC-1924-D
10 ac
NC-1903-D
33 ac