

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



Fairbanks Area Forestry
Draft Forest Land Use Plan
BONANZA CREEK TIMBER PROJECT AREA
NC-1236-F, NC-1638-F, NC-1833-F, NC-2331-F, NC-2341-F,
NC-2342-F, NC-2344-F, NC-2582-F, NC-2583-F

10/8/2026

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
DMLW	Division of Mining, Land and Water
DFFP	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
TVSF	Tanana Valley State Forest
TVSFMP	Tanana Valley State Forest Management Plan

Contents

Introduction	3
A. Legal description	4
B. Operational Period.....	5
C. Timber Disposal	5
D. Objectives and Summary.....	5
Affected Land Owners/Jurisdictions	6
A. State.....	6
B. Other Land Ownership	6
Harvest Methods, Silvicultural Actions, and Management of Non-timber Resources	6
A. Timber Stand Description and History	7
B. Timber Harvest Activities	9
C. Site Preparation	9
D. Slash Abatement.....	10
E. Soil Stability / Erosion / Mass Wasting.....	10
F. Timber Harvest—Surface Water Protection.....	10
G. Wildlife Habitat.....	11
H. Cultural and Historical Resource Protection.....	12
I. Other Resources Affected by Timber Harvest and Management	12
J. Reforestation.....	12
Roads and Crossing Structures.....	13
A. Road Design, Construction, and Maintenance.....	13
B. Soil Erosion / Mass Wasting	14
C. Crossing Structures.....	15
D. Road Closure	16
E. Material Extraction	16
F. Other Resources Affected by Roads or Material Extraction.....	16
Approvals	17
Appendices.....	18

Appendix A: Timber Sale Maps.....	18
Appendix B: Supporting Information.....	27

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Introduction

Project File Number: NC-1236-F, NC-1638-F, NC-1833-F, NC-2331-F, NC-2341-F, NC-2342-F, NC-2344-F, NC-2582-F, NC-2583-F.

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

Area Forester: Kevin Breitenbach

Forest Practices Geographic Region (AS 41.17.950): Northern (III)

This Forest Land Use Plan (FLUP) covers proposed forest operations on approximately 544 acres of land in the Bonanza Creek Forest Road 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 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 [date] 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; Bonanza Creek 2026 PBIF available at <https://forestry.alaska.gov/timber/fairbanks>.

☐ 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 DFFP Fairbanks – Delta Area Office by **4:30pm AKST Friday, November 6th, 2026** 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 andrew.allaby@alaska.gov.

For more information you may contact Andrew Allaby, Fairbanks-Delta Resource Forester, andrew.allaby@alaska.gov, (907) 451-2603. 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 DFFP 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 2025](#)

[Eastern Tanana Area Plan 2015](#)

[ADNR-DFFP Forest Road and Bridge Standard Design 2016,](#)

[SOA Occupational Safety and Health Additional Logging Standards](#)

The administrative record for this sale is maintained at the Division of Forestry & Fire Protection Fairbanks-Delta Area Office filed as NC-1236-F, NC-1638-F, NC-1833-F, NC-2331-F, NC-2341-F, NC-2342-F, NC-2344-F, NC-2582-F, NC-2583-F.

A. Legal description

The proposed project area is located approximately 21 miles southwest of Fairbanks along the Bonanza Creek Forest Road, which connects to the Parks Highway at mile 338.7. The project area is within TVSF Subunit 5A. Access passes through Subunit 5B, the UAF Bonanza Creek Experimental Forest.

The proposed sales are located within the Fairbanks Meridian at:

- **NC-1236-F / Camp 78 Spruce:** a 1-unit, 135-acre spruce sale located 3.4 miles down Bonanza Creek Forest Road, then west 2.3 miles on the Camp 78 Spur Road. The proposed sale is within Sections 20, 21, 28 & 29, Township 2 South, Range 4 West.
- **NC-1638-F / Bonanza Creek South Spruce:** a 1-unit, 48-acre spruce sale located 4.5 miles down Bonanza Creek Forest Road, then west 3.0 miles on the Bonanza West Spur Road. 1.1 miles of new spur road must be constructed to reach the sale boundary. The proposed sale is within Sections 6-7, Township 3 South, Range 4 West.
- **NC-1833-F / Bonanza Birch #1:** a 1-unit, 22-acre birch sale located 2.6 miles down Bonanza Creek Forest Road, then west 0.8 miles on a spur road. The proposed sale is within Sections 16 & 21, Township 2 South, Range 4 West.
- **NC-2331-F / Mantis Spruce:** a 1-unit, 45-acre spruce sale located 8.2 miles down Bonanza Creek Forest Road adjacent to the Tanana River. The proposed sale is within Sections 9 & 16, Township 3 South, Range 4 West.
- **NC-2341-F / Chili Bean Mixed:** a 1-unit, 28-acre mixed wood sale located 4.5 miles down Bonanza Creek Forest Road, then west 1.2 miles on the Bonanza West Spur Road. The proposed sale is within Section 32, Township 2 South, Range 4 West.

- **NC-2342-F / Green Bean Mixed:** a 1-unit, 19-acre mixed wood sale located 4.5 miles down Bonanza Creek Forest Road, then west 1.4 miles on the Bonanza West Spur Road. The proposed sale is within Sections 32-33, Township 2 South, Range 4 West.
- **NC-2344-F / Soy Bean Spruce:** a 2-unit, 96-acre spruce sale located 3.4 miles down Bonanza Creek Forest Road, then west 3.9 miles on the Camp 78 Spur Road. The proposed sale is within Section 20, Township 2 South, Range 4 West.
- **NC-2582-F / Birchnanza:** a 1-unit, 109-acre birch sale located 4.5 miles down Bonanza Creek Forest Road, then west 3.0 miles on the Bonanza West Spur Road. 0.6 miles of new spur road must be constructed to reach the sale boundary. The proposed sale is within Sections 6-7, Township 3 South, Range 4 West.
- **NC-2583-F / Butterfly Birch:** a 2-unit, 42-acre birch sale located 4.5 miles down Bonanza Creek Forest Road, then west 3.0 miles on the Bonanza West Spur Road. The proposed sale is within Sections 31-32, Township 2 South, Range 4 West, and Sections 5-6, Township 3 South, Range 4 West.

See also 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 Area Office generally have a 3-year operational period expiring on May 31 of the third year. These sales shall be offered over at least 2 years or more, depending on demand. **NC-2344-F** and **NC-2583-F** would be offered in Year 1.

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 raw material for the forest industry to produce timber products that provide benefits to the state and local economy through employment opportunities.
- Harvest the commercial fuelwood before a significant decrease in vigor occurs and return the site to a young, productive mixed 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 forest resources.

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

☐	☐	☐
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Land Owner: n/a

Land Owner Representative: n/a

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

- **NC-1236-F / Camp 78 Spruce:** a 1-unit, 135-acre spruce sale on an upland site from midslope to ridgeline 675-1,025' elevation with a south aspect. Slopes are 10-25%, with the steepest areas just below the ridgetop. The sale area covers two distinct drainage basins, each dissected by hogback and swale topography on the upper slopes. The sale area is underlain by the Gilmore silt-loam soil type nearest the ridgetop, and the Fairbanks silt-loam on the lower elevations. These soil types are rated as well-drained, with weathered bedrock underlying the ridgetop areas, and deep (> 80 inches) layers of windblown loess on the lower elevation areas. The sale area has an estimated white spruce sawlog component of 90 trees/ac and 100 ft²/ac of basal area. Stand age at breast height is 160 years.
- **NC-1638-F / Bonanza Creek South Spruce:** a 1-unit, 48-acre spruce sale on an upland site from midslope to ridgeline between 625-775' elevation with a west aspect. Slopes are 5-15%. The sale area is underlain by the Fairbanks-Steese complex soil type. This soil type is rated as well-drained with deep (> 80 inches) layers of windblown loess. The sale area is primarily closed canopy mature spruce forest.
- **NC-1833-F / Bonanza Birch #1:** a 1-unit, 22-acre birch sale near the ridgetop on an upland site between 1,075-1,175' elevation with an east aspect. Slopes are 10-30%, steepest at the lowest elevation parts of the sale. The sale area is underlain by the Gilmore silt-loam soil type nearest the ridgetop, and the Steese silt-loam on the steeper/lower elevations. These soil types are rated as well-drained, with weathered bedrock approximately 3 feet down.. The stand is a mature mixed wood forest dominated by birch with a small component of mature white spruce trees.
- **NC-2331-F / Mantis Spruce:** a 1-unit, 45-acre spruce sale along the Tanana River floodplain with a minimum 100-ft riparian buffer. The sale area is at 400 feet of elevation, and is mostly flat with inactive re-forested slough channels throughout. The sale is underlain by the Eielson-Pile-drive complex soil type. This soil type is a sandy loam, moderately well-drained, and prone to flooding and continued alluvial deposition. The sale area has an estimated white spruce sawlog component of 110 ft²/ac of basal area, and 30 ft²/ac of mixed fuelwood. Stand age at breast height is 150 years.
- **NC-2341-F / Chili Bean Mixed:** a 1-unit, 28-acre mixed wood sale on the toe-slope of an upland site bounded by lower productivity valley bottom to the north. The sale area is between 650-725' elevation with a west aspect. Slopes are 5-8%. The sale area is underlain by the Fairbanks silt loam soil type. This soil type is rated as well-drained with deep (> 80 inches) layers of windblown loess. The stand is primarily white spruce sawtimber with a lesser component of merchantable mature birch.
- **NC-2342-F / Green Bean Mixed:** a 1-unit, 19-acre mixed wood sale on the toe-slope of an upland site bounded by lower productivity valley bottom to the north. The proposed sale is between 650-725' elevation with a west aspect. Slopes are 5-8%. The sale area is underlain by the Fairbanks silt loam soil type. This soil type is rated as well-drained with deep (> 80 inches) layers of windblown loess. The stand is primarily white spruce sawtimber with a lesser component of merchantable mature birch.
- **NC-2344-F / Soy Bean Spruce:** a 2-unit, 96-acre spruce sale on an upland site from midslope to ridgeline between 625-875' elevation. Unit 1 (east) has with a south aspect and extends around a single drainage basin with 10-15% slope. Unit 2 (west) has with a

west-northwest aspect with 10-20% slope. Both units are defined by hogback and swale topography, especially on the upper slopes. Both units are underlain by the Gilmore silt-loam soil type nearest the ridgetop, and the Minto silt-loam (Unit 2) or Fairbanks silt-loam (Unit 1) on the lower elevations. These soil types are rated as well-drained, with weathered bedrock underlying the ridgetop areas, and deep (> 80 inches) layers of windblown loess on the lower elevation areas. The sale area has an estimated white spruce sawlog component of 110 ft²/ac of basal area. Stand age at breast height is 160 years. Unit 2 (west-most unit) has a more open canopy with slightly lower spruce and 35 ft²/ac of birch basal area.

- **NC-2582-F / Birchnanza:** a 1-unit, 109-acre birch sale on an upland site from midslope to ridgeline between 600-825' elevation with a northwest aspect. Slopes are 5-20%, with some incipient hogback and swale topography along the steeper upper elevations. The sale area is underlain by the Fairbanks silt-loam and Fairbanks Steese complex soil types. These soil types are rated as well-drained, with deep (> 80 inches) layers of windblown loess. The sale area has an estimated birch fuelwood component of 170 trees/ac and 75 ft²/ac of basal area, with some incidental white spruce and aspen trees.
- **NC-2583-F / Butterfly Birch:** a 2-unit, 42-acre birch sale on an upland midslope site between 650-850' elevation with a west to northwest aspect. Slopes are 10-25%, with hogback and swale topography along the upper elevation areas. The sale area is underlain by the Fairbanks silt-loam soil type, with part of the southern unit including some soils from the Fairbanks-Steese complex. These soil types are rated as well-drained, and are underlain by weathered bedrock in the steeper areas, with deeper (> 80 inches) layers of windblown loess on the flatter areas. The sale area has an estimated birch fuelwood component of 170 trees/ac and 75 ft²/ac of basal area, with some incidental white spruce and aspen trees.

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
NC-1236-F	135	Upland 10-25% slope	Heavy partial cut	Whole tree harvest
NC-1638-F	48	Upland 5-15% slope	Heavy partial cut	Whole tree harvest
NC-1833-F	22	Upland 10-30% slope	Heavy partial cut	Whole tree harvest
NC-2331-F	45	Floodplain	Heavy partial cut	Whole tree harvest
NC-2341-F	28	Upland 5-8% slope	Heavy partial cut	Whole tree harvest
NC-2342-F	19	Upland 5-8% slope	Heavy partial cut	Whole tree harvest
NC-2344-F	96	Upland 10-20% slope	Heavy partial cut	Whole tree harvest
NC-2582-F	109	Upland 5-20% slope	Heavy partial cut	Whole tree harvest
NC-2583-F	42	Upland 10-25% slope	Heavy partial cut	Whole tree harvest

C. Site Preparation

Natural regeneration will be utilized initially for reforestation. These sales will be laid out so that areas adjacent to and/or within the boundaries include mature, robust spruce and birch trees to provide seed to harvest units. Mechanical ground scarification will be used on portions of the harvest area where feasible and necessary (generally <20% slope).

- ☐ 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	Acres	Site Preparation Method	Date of Completion
NC-1236-F	135	none	n/a
NC-1638-F	48	none	n/a
NC-1833-F	22	Mechanical patch scarification where slope < 20%	Completed annually following the previous season's harvest
NC-2331-F	45	none	n/a

Unit ID	Acres	Site Preparation Method	Date of Completion
NC-2341-F	28	Mechanical patch scarification	Completed annually following the previous season's harvest
NC-2342-F	19	Mechanical patch scarification	Completed annually following the previous season's harvest
NC-2344-F	96	none	n/a
NC-2582-F	109	Mechanical patch scarification where slope < 20%	Completed annually following the previous season's harvest
NC-2583-F	42	Mechanical patch scarification where slope < 20%	Completed annually following the previous season's 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.
- ☐ 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 DFFP and DEC to be acquired.
- ☒ The operator will contact the DFFP local area office prior to ignition of debris.

E. Soil Stability / Erosion / Mass Wasting

- ☒ Maximum percent side slopes are $\leq 50\%$
- ☐ Maximum percent side slopes are $> 50\%$

Percentage of sale area with slopes $> 50\%$: 0%

Maximum percent slopes: 30%

- ☒ 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
NC-2331-F	Tanana River	III-B	334-40-11000-2490	100-ft timber retention buffer	Boundary layout will incorporate a minimum 100-ft vegetated buffer with the river's edge
NC-2344-F	Two unnamed ponds < 1 ac	III-A	n/a	100-ft timber retention buffer	Boundary layout will incorporate a minimum 100-ft vegetated buffer with the ponds' edge

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:

G. Wildlife Habitat

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

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

- ☒ Timber retention - concentrations of timber surrounding harvest units, or interspersed within harvest units to provide cover.
- ☒ Snag Retention- snags or isolated trees left for cavity nesting species.
- ☒ Large Woody Debris – concentrations of downed timber or logging debris interspersed within harvest units to provide cover left on site.
- ☐ Other actions

Notes:

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
Scenic values along Parks Highway	DFFP	- Impact: NC-2344-F Unit 2, and portions of NC-1638-F and NC-2582-F will be visible from the Parks Highway. - Mitigation: Irregular stand edges and retention of mature forest between the harvest boundaries and Highway
Scenic values along Tanana River	DFFP	- Impact: NC-2331-F may be discernible from the Tanana River - Mitigation: retain at least 100' riparian buffer

- ☐ 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

This project area will be reforested in compliance with the Forest Resources and Practices regulations (11 AAC 95.375-.390) Natural regeneration will be utilized initially for reforestation. The sale areas will be laid out so that areas adjacent to the boundary include mature, robust trees to provide seed to these cutting units. Root-collar sprouting of birch is also anticipated. Harvest operations on steeper slopes are expected to provide suitable seedbeds for these sales. Reforestation will be assessed post-harvest, and a regeneration survey will be conducted if regeneration appears marginal or patchy. If the survey indicates inadequately stocked areas, then scarification may be performed in non-stocked areas. The goal for regeneration is to achieve a minimum of 450 evenly distributed trees per acre at the end of the regeneration survey period (any commercial tree species).

Harvest type as it relates to reforestation requirement:

- ☒ 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:

- ☐ Winter harvest only
☐ Non-winter harvest only
☒ All-season harvest

Regeneration type:

- ☒ Natural regeneration (NC-1833-F, NC-2341-F, NC-2342-F, NC-2582-F, NC-2583-F)

List species: Alaska birch, white spruce, quaking aspen

- ☒ Coppice (NC-1833-F, NC-2341-F, NC-2342-F, NC-2582-F, NC-2583-F)

List species: Alaska birch

- ☒ Artificial regeneration (NC-1236-F, NC-1638-F, NC-2331-F, NC-2344-F)

- ☐ Seeding: Species and source of seed (general vicinity location of seed source)

-
- ☒ Planting: Species: white spruce Date of proposed planting: after sale termination

Source of seedlings (location of seed source): TVSF Unit 5

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.

Table 5A. Road Reconstruction and Use

Road ID	Segment	Harvest Unit	Miles	Road Class	Maximum Grade %*	Constructed By	Maintained By
Bonanza Ck Forest Rd	1	All	8.2	Primary	8	DFFP	Purchaser
Camp 78 Rd	2	NC-1236-F NC-2344-F	4.2	Secondary	8	DFFP	Purchaser
Bonanza West	3	NC-1638-F NC-2341-F NC-2342-F NC-2582-F NC-2343-F	3.1	Secondary	8	DFFP	Purchaser
2.5 Mile Spur	4	NC-1833-F	0.9	Spur	8	DFFP	Purchaser

Table 5B. New Road Construction and Use

Road ID	Segment	Harvest Unit	Miles	Road Class	Maximum Grade %	Constructed By	Maintained By
NC-1638 Spur	5	NC-1638-F NC-2582-F	1.0	Spur	8	Purchaser	Purchaser

Road Class is as defined in the DFFP Road Standards.

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

Notes: Spur road construction and skid trails within timber sale boundaries are expected within each timber sale.

B. Soil Erosion / Mass Wasting

Maximum percent side slopes: 30%

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

☐ 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	Miles	Identified Erosion Risk	Risk Level	Mitigation
Bonanza Ck Forest Rd	1	8.2	Negligible	Low	Existing road
Camp 78 Rd	2	4.2	Negligible	Low	Existing road
Bonanza West	3	3.1	Negligible	Low	Existing road
2.5 Mile Spur	4	0.9	Negligible	Low	Existing road
NC-1638 Spur	5	8.2	Negligible	Low	Construction to conform with DNR-DFFP Road Standards and AFRPA Best Management Practices

General Timber Sale Erosion Control:

- ☐ Grass seeding
 ☐ Erosion control mats
 ☐ Wattle
 ☒ Waterbars
 ☒ Other: Logging slash
 ☐ 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 in access roads as described in the table below:

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

Road ID	Segment	Mile	Bridge Length (ft.)	Structure Type	AS 41.17.950 Stream Classification	ADF&G AWC Number	Duration of crossing structure in place
NONE							

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 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
Scientific values within the Experimental Forest	DFFP	- Impact: University researchers use the same road system to access scientific research sites. Heavy logging traffic could impair the quality of access. - Mitigation: ensure logging operations fulfill their contract responsibilities to minimize harm to the roads and perform contractual maintenance to leave the roads in similar or better condition.
Winter recreational trails	DFFP	- Impact: Snow removal along winter access routes may result in berms that present travel barriers where trails cross winter roads - Mitigation: Ensure existing trail locations are made known to Operators and berms are removed to maintain trail access

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.

Kevin Breitenbach
Area Forester

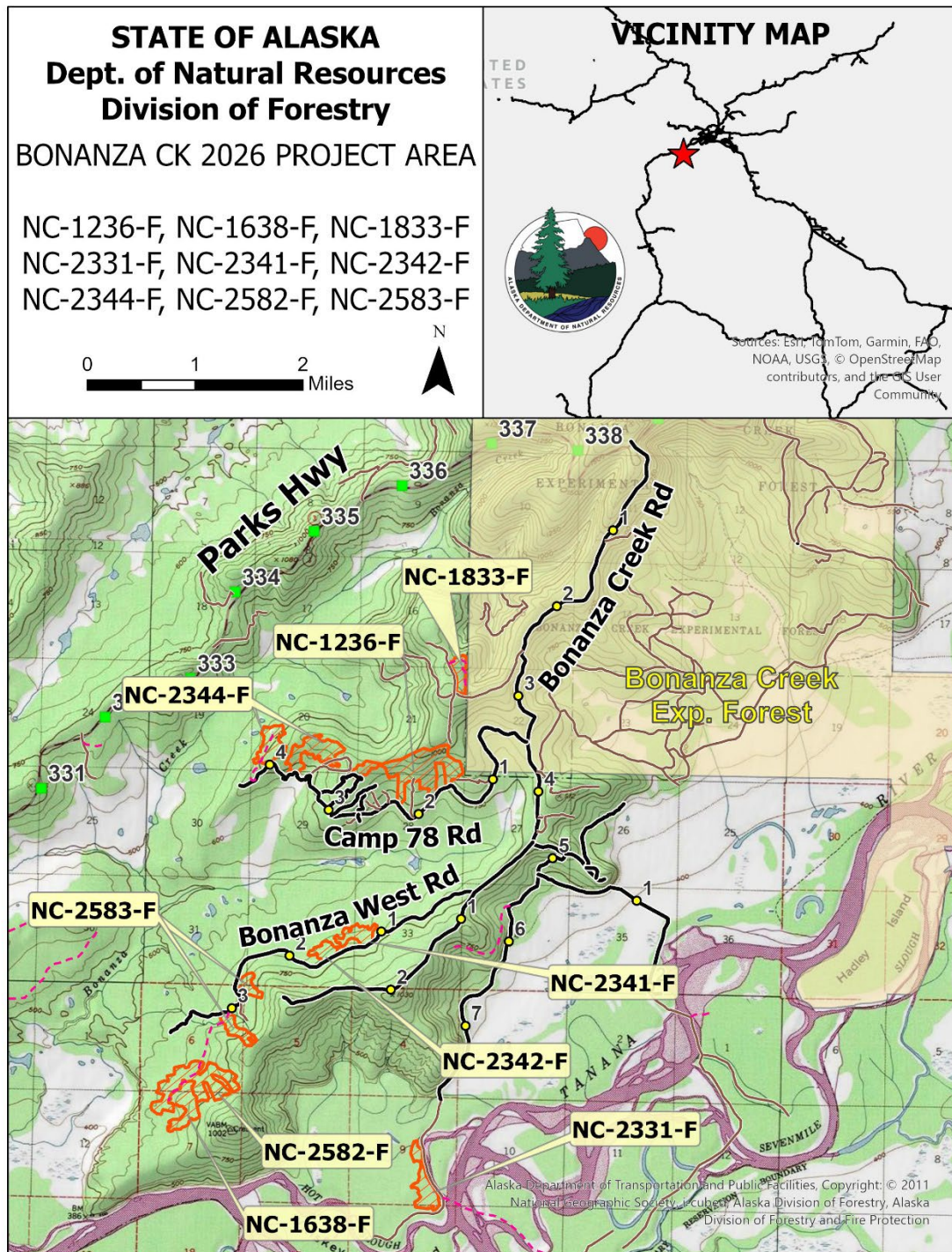
Date

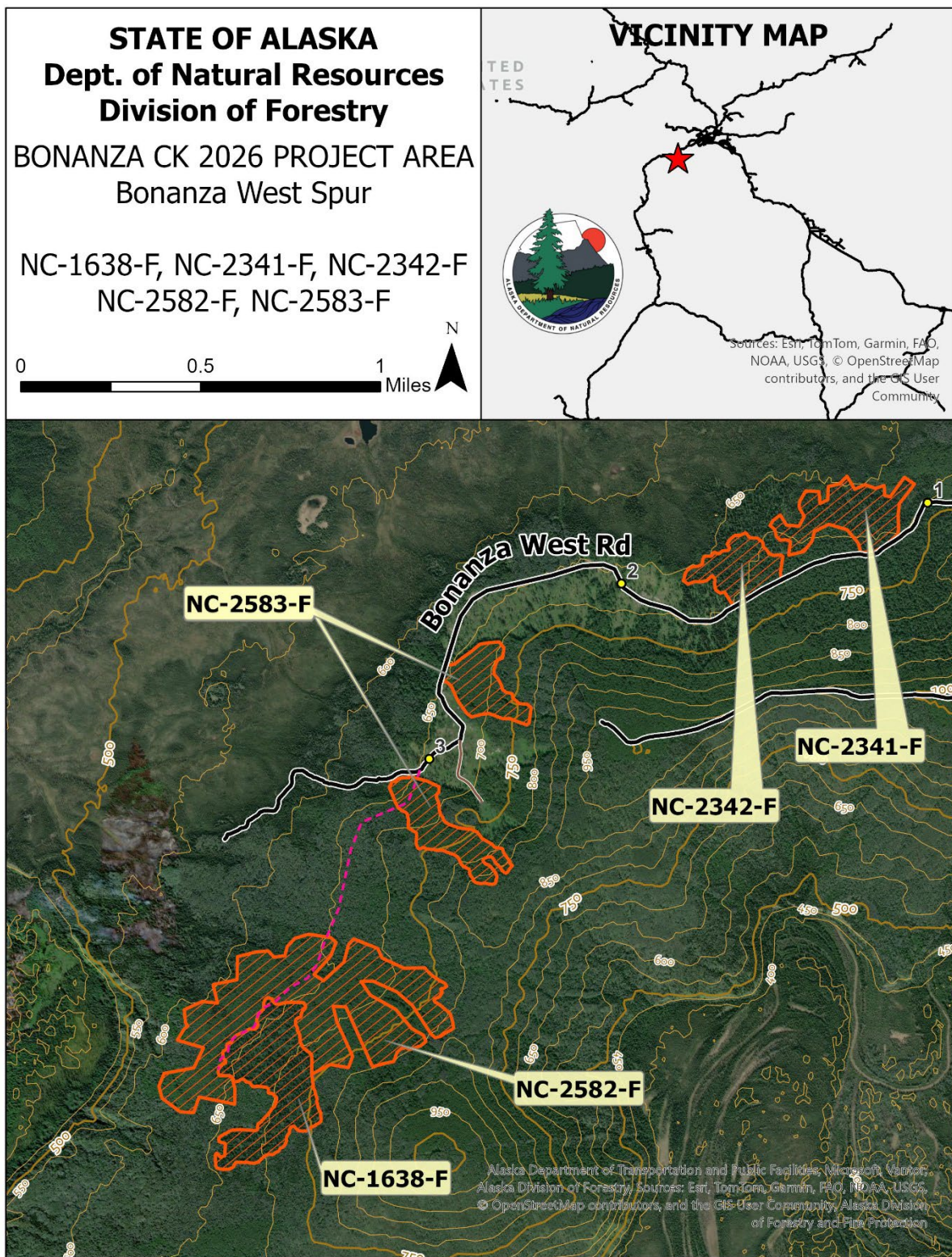
Kevin Meany
Regional Forester

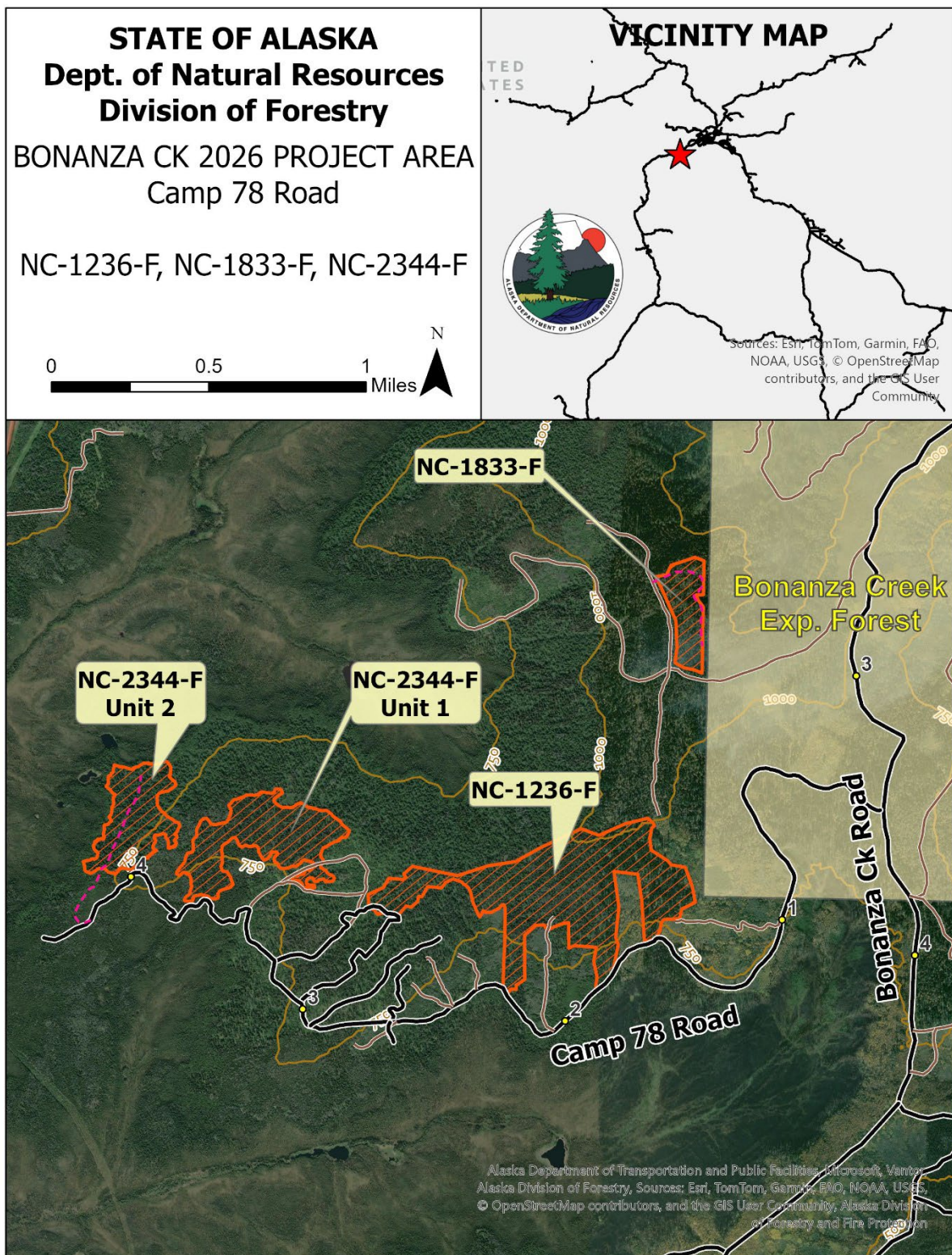
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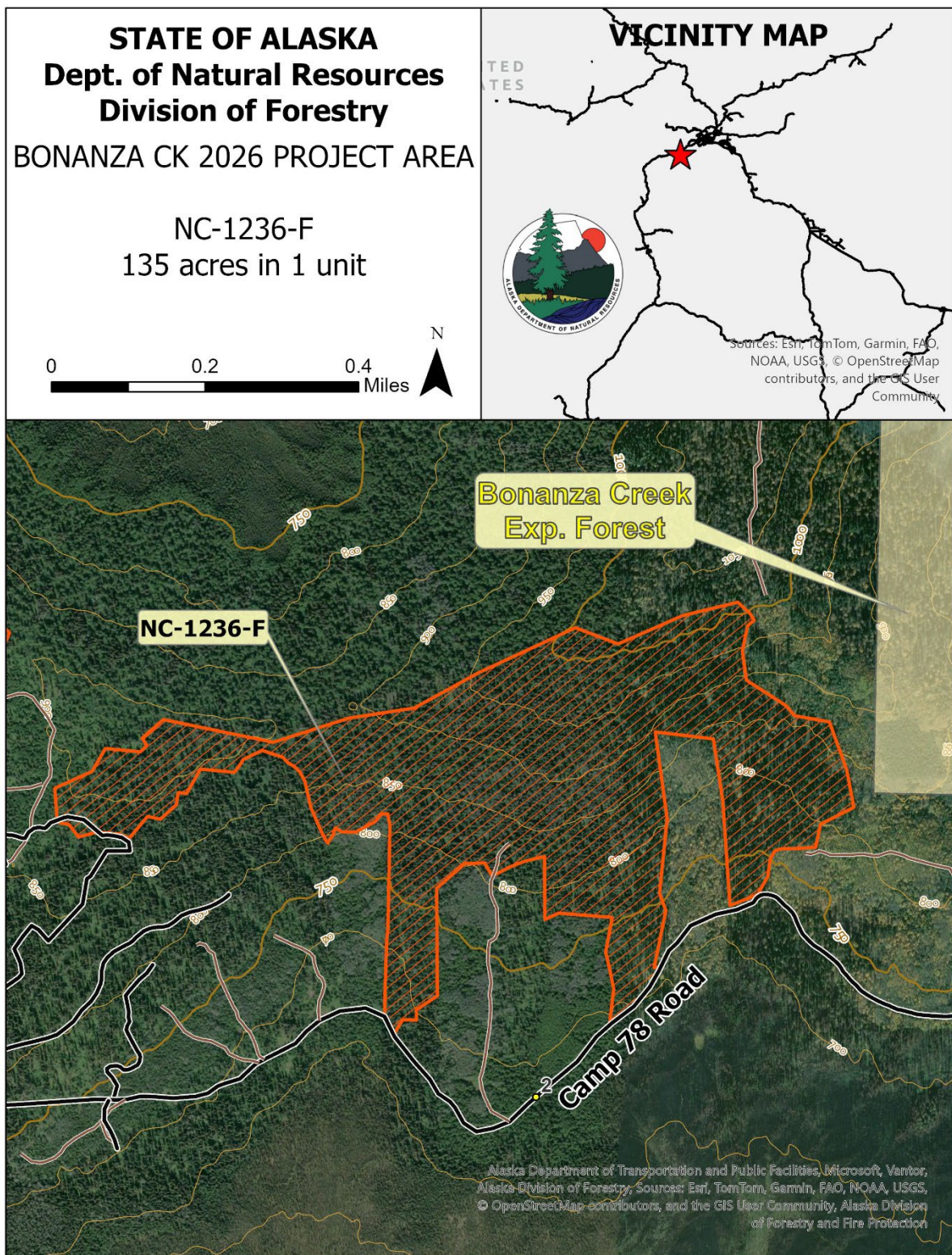
Appendices

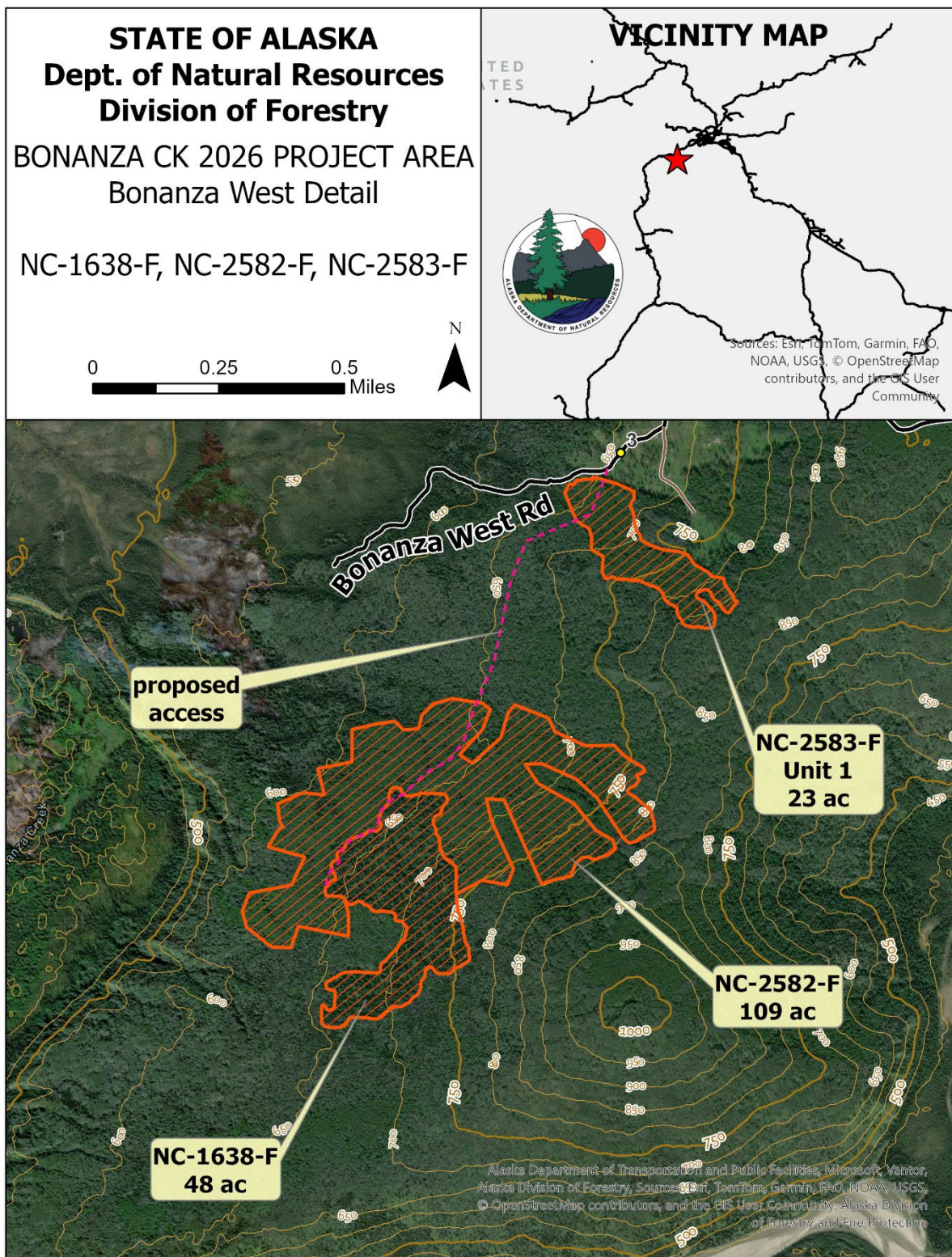
Appendix A: Timber Sale Maps

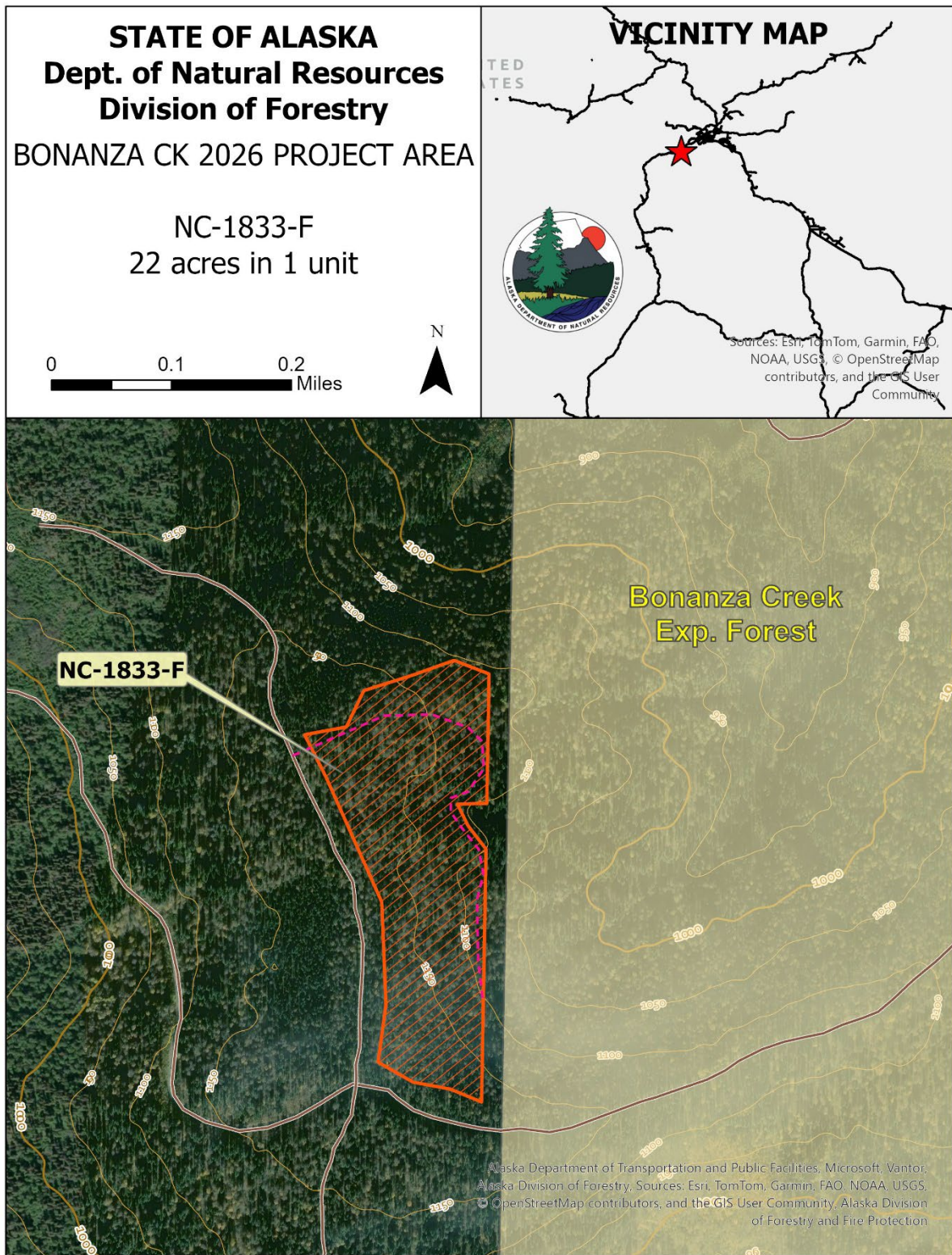


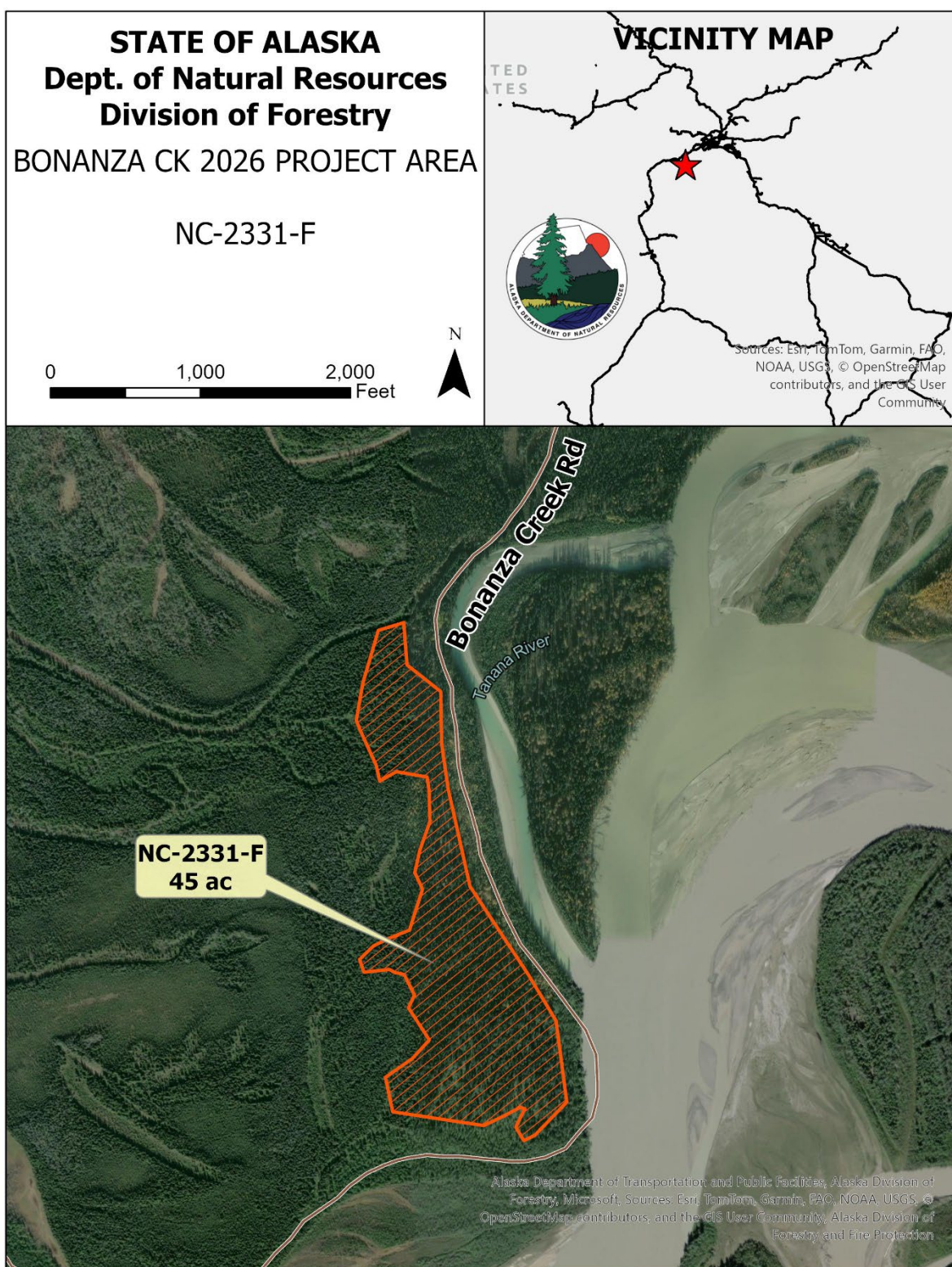


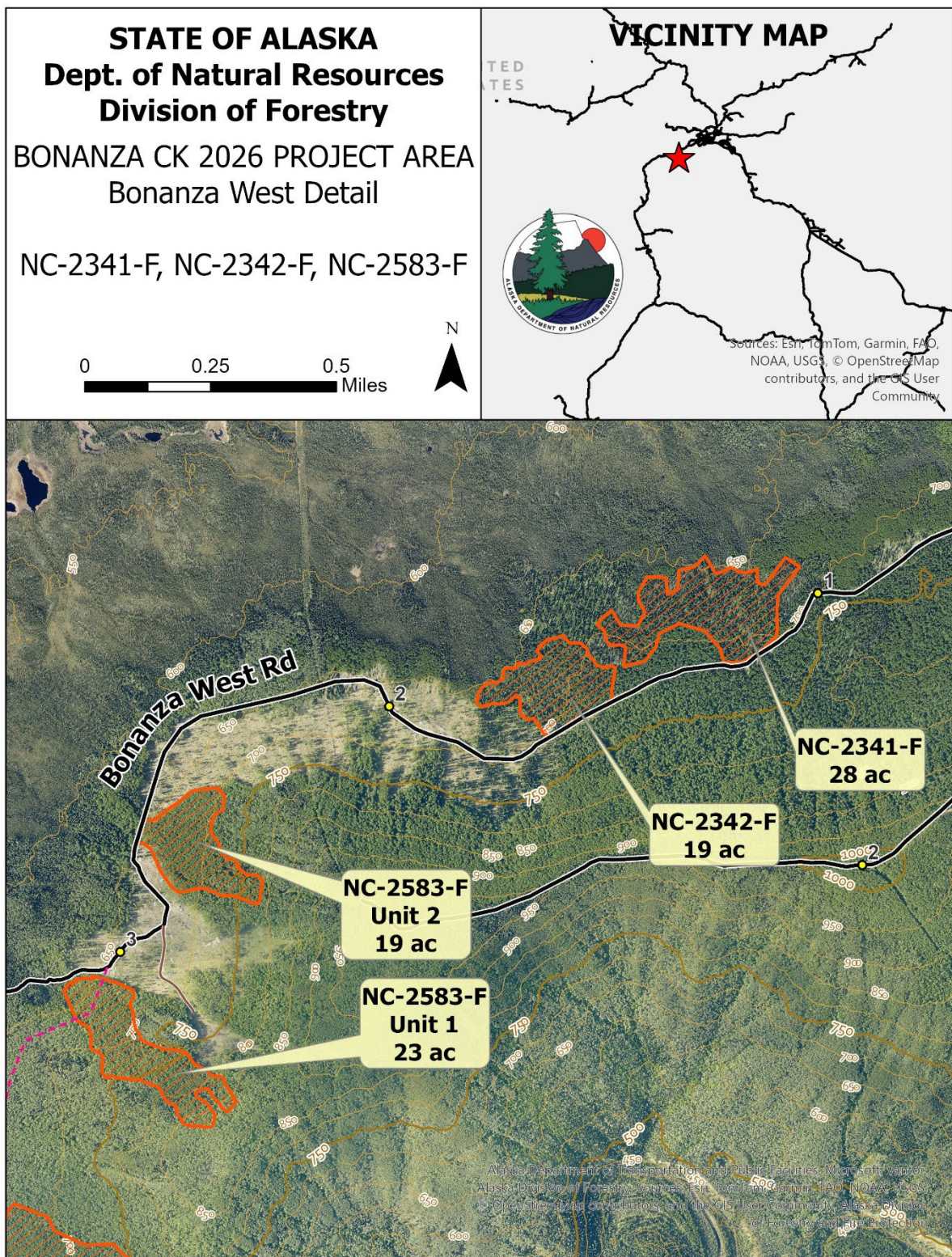


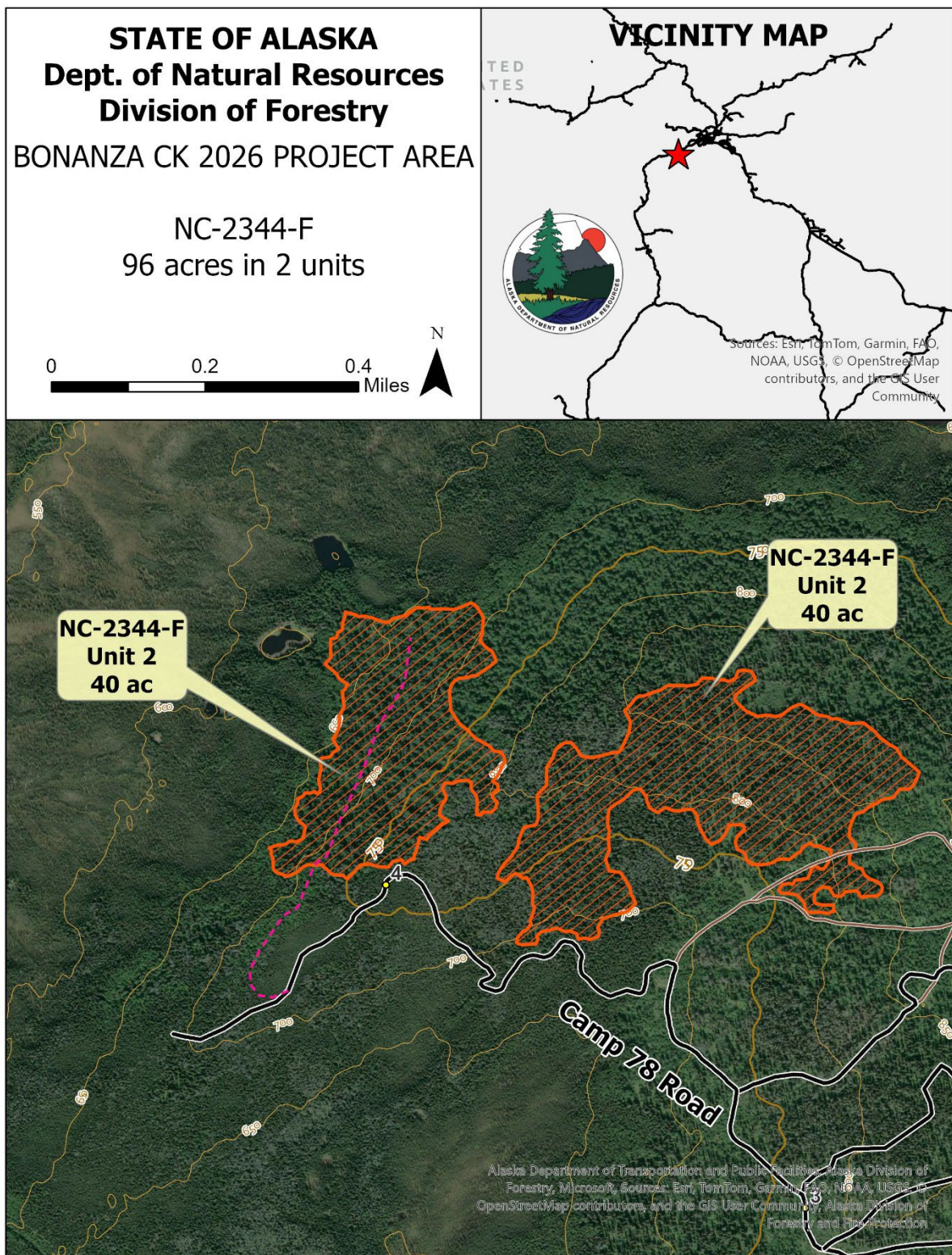












Appendix B: Supporting Information

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%

Seedlings Required:

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

Percentage Under stocked = $100 - 0\% = 100\%$

Seedlings/ Acre Required = $\text{Percentage Understocked}/100 \times 450$

Seedlings/ Acre Required = $100\% / 100 \times 450 = 450$

☒ Artificial regeneration

☐ Seeding: Species and source of seed (general vicinity location of seed source)

☒ Planting: Species: white spruce Date of proposed planting: after sale termination

Source of seedlings (location of seed source): TVSF Unit 5

☒ 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." *[If natural regeneration is the proposed reforestation method, include and fill out the following checklist. Explain any boxes checked "no"—these represent potential challenges to successful natural regeneration.]*

Yes No N/A Unknown

Seedbed and soil conditions suitable for natural regeneration

☐	☒	☐	☐	Moss layers are shallow ($\leq 4"$) or absent
☒	☐	☐	☐	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

Bonanza Creek 2026

Draft FLUP

- | | | | | |
|--------------------------|-------------------------------------|--------------------------|--------------------------|--|
| ☐ | ☒ | ☐ | ☐ | 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 [Alaska birch]. |

Yes No N/A Unknown

Competition and infestation risk

- | | | | | |
|-------------------------------------|--------------------------|--------------------------|--------------------------|--|
| ☒ | ☐ | ☐ | ☐ | <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>Equisetum</i> (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 (<i>Dendroctonus</i> or <i>Ips</i>) |
| ☒ | ☐ | ☐ | ☐ | Where spruce regeneration is targeted, harvest areas are free of known incidence of <i>Onnia tomentosus</i> root rot. <u>Note:</u> <i>tomentosus</i> can kill regeneration of spruce and, to a lesser degree, pine and larch. If <i>tomentosus</i> is present, describe the extent of the problem in the notes box below. Design reforestation to minimize continuation or spread of the disease |