

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



**Fairbanks-Delta Area**  
**Draft Forest Land Use Plan**  
**Anderson Spruce Timber Sale 2025**  
**NC-2077-F**

**October 2025**

## **Abbreviations**

|       |                                                   |
|-------|---------------------------------------------------|
| AAC   | Alaska Administrative Code                        |
| ADEC  | Alaska Department of Environmental Conservation   |
| ADF&G | Alaska Department of Fish and Game                |
| ADNR  | Alaska Department of Natural Resources            |
| AS    | Alaska Statute                                    |
| BIF   | Best interest finding                             |
| CCF   | 100 cubic feet (timber volume)                    |
| DBH   | Diameter at breast height (4.5 feet above ground) |
| DMLW  | Division of Mining, Land and Water                |
| DOF   | Division of Forestry & Fire Protection            |
| FLUP  | Forest Land Use Plan                              |
| FRPA  | Alaska Forest Resources and Practices Act         |
| FYSTS | Five-Year Schedule of Timber Sales                |
| MBF   | Thousand board feet                               |
| OHA   | Office of History and Archeology                  |
| ROW   | Right-of-way                                      |
| TVSF  | Tanana Valley State Forest                        |
| YTAP  | Yukon Tanana Area Plan                            |

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## I. Introduction

Project File Number: NC-2077-F

Division of Forestry & Fire Protection Office: Fairbanks

Area Forester: Kevin Breitenbach

Forest Practices Geographic Region (AS 41.17.950): Region III

This Forest Land Use Plan (FLUP) covers proposed forest operations on approximately 247 acres of land west of Anderson along the Nenana River. 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; [Best Interest Finding For Anderson West timber sales, NC-1448, NC-1449, NC-1504-F, NC-1615-F, NC-1616-F, NC-1617-F and NC-1981-F November 2024 available at <https://forestry.alaska.gov/timber/fairbanks>. 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 November 2024 Anderson West 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;

☒ 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.

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 Area Office by **4:30pm AKST, Friday, November 21<sup>st</sup>, 2025**, in order to ensure consideration for review. Comments should be mailed to the State of Alaska, Division of Forestry & Fire Protection, 3700 Airport Way, Fairbanks AK 99709, or by email to [Andrew.Allaby@Alaska.gov](mailto:Andrew.Allaby@Alaska.gov). For more information you may contact Andrew Allaby, Resource Forester at (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 DOF will review comments, make changes as appropriate, and adopt the FLUP. An eligible person affected by this decision, and who provided timely written comment or public hearing testimony to the department, may appeal the decision to the DNR Commissioner per AS 44.37.011 and 11 AAC 02.]

☐ Other Documents are referenced in this FLUP. This timber sale is designed to be consistent

with the management intent of the following documents:

|                             |
|-----------------------------|
| Yukon Tanana Area Plan 2014 |
|-----------------------------|

The administrative record for this sale is maintained at the Division of Forestry & Fire Protection Fairbanks Area Office filed as NC-2077-F. NC-2077-F is a compilation of several offerings previously mentioned in the 2024 Fairbanks Area FYSTS and Anderson West BIF as NC-1403-F and NC-1448-F.

#### **A. Legal description**

The proposed sales are located within Sections 14, 23, 26 & 35, T7S, R9W and Sections 10 T8S, R9W, F.M. See also maps in Appendix A.

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

NC-2077 Approximately 10 years from the “Effective Date” on the signed contract, with the option to cancel the contract after 3 years from the effective date.

#### **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**

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• Provide the raw material for the industry to produce timber products providing benefits to the state and local economy through employment opportunities.</li><li>• Harvest the commercial sawtimber and/or fuelwood before a significant decrease in vigor occurs and return the site to a young productive mixed stand forest.</li><li>• Provide firewood for the residential heating needs of interior Alaska communities.</li><li>• 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</li></ul> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## II. Affected Land Owners/Jurisdictions

### A. State

| Activity on ownership:                                              | Access<br>Easement                  | Harvest                             | Written<br>Representative<br>Approval |
|---------------------------------------------------------------------|-------------------------------------|-------------------------------------|---------------------------------------|
| <input type="checkbox"/> Tanana Valley State Forest                 | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>              |
| <input checked="" type="checkbox"/> Other state land managed by DNR | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>              |
| <input type="checkbox"/> University of Alaska                       | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>              |
| <input type="checkbox"/> Mental Health Trust                        | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>              |
| <input type="checkbox"/> School Trust                               | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>              |

### B. Other Land Ownership

|                          |                          |                          |
|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|

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

Forest operations will be designed to:

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

Harvest and Silvicultural Methods:

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

## A. Timber Stand Description and History

The sale area is composed of uneven-aged floodplain spruce stands, along the west bank of the Nenana River. Units are naturally delineated by seasonal drainage channels with a very minor component of Alaska Birch and Balsam Poplar along water features. Where natural openings in the canopy occur an alder understory is present with a regenerating cohort of white spruce.

Cruise data shows roughly 106 trees per acre, a basal area of 100 sq ft. per acre and roughly 23 CCF net per acre of spruce sawtimber. The dominant size class is between 10-16 inches DBH. Southern portions of the stand have signs of higher mortality and lower volume due to various abiotic stressors such as seasonal flooding, wind, and aufeis, especially closer to the main river channel. These abiotic stressors have resulted in pockets of dead and wind-damaged leaning spruce that have hosted minor secondary insect activity. A forest health assessment in spring of 2025 revealed that scattered spruce beetle activity is taking advantage of these stressed or dead trees, however, there were no indications of elevated spruce beetle population levels.

## 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-2077-F<br>unit 1 | 72.2  | <5% slope  | Clear Cut            | Ground-Based<br>Whole tree harvest |
| NC-2077-F<br>Unit 2 | 50.9  | <5% slope  | Clear Cut            | Ground-Based<br>Whole tree harvest |
| NC-2077-F<br>Unit 3 | 124.1 | <5% slope  | Clear Cut            | Ground-Based<br>Whole tree harvest |

## C. Site Preparation

Natural regeneration will be utilized initially for reforestation. The sales has been laid out so that areas adjacent to the boundary include mature, robust spruce trees to provide a seed source.

☒ 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-2077-F1  | 72.2  | Natural regeneration    | 12 years post-harvest |
| NC-2077-F-2 | 50.9  | Natural regeneration    | 12 years post-harvest |

| Unit ID     | Acres | Site Preparation Method | Date of Completion    |
|-------------|-------|-------------------------|-----------------------|
| NC-2077-F-3 | 124.1 | Natural regeneration    | 12 years post-harvest |

Mechanical site preparation should avoid driving heavy equipment over known den sites greater than 12" in diameter (e.g., dens for fox, wolves, and bears).

#### D. Slash Abatement

- ☐ Potential for insect infestations caused by slash accumulations exists. Slash abatement for controlling infestations will be implemented as required by 11 AAC 95.370.
- ☒ Lop and scatter slash; accumulations will be kept to less than 2 feet in height.
- ☒ 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. 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: 5%

- ☒ 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-2077-F | Nenana River   | III-A                       | 334-40-11000-2490-3200 | 100-ft timber retention buffer | Winter roads and crossings to comply with FRPA Best Management Practices • Operator required to obtain ADF&G Stream Crossing permit |

## DRAFT Forest Land Use Plan for Anderson Spruce Timber Sale 2025

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: Large portions of the sale areas have been subject to intermittent flooding and aufeis. Seasonal surface flow has been observed within channels near the sales at times of high water or during winter aufeis events.

### 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                                                                                                                                                                                                                                                                                                                                         |
|--------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Kobe Ag Road       | DNR              | <ul style="list-style-type: none"> <li>Impact: Access route for logging traffic uses 0.25 mi of public road</li> <li>Mitigation: Ensure public roads at the end of the contract will be left in a condition equal to or better than they were before the sale. Require project work to effect this within the contract</li> </ul>                                  |
| Rochester Way      | DNR              | <ul style="list-style-type: none"> <li>Impact: Access route for logging traffic uses 3.25 mi of public road with numerous private parcels.</li> <li>Mitigation: Ensure public roads at the end of the contract will be left in a condition equal to, or better than they were before the sale. Require project work to effect this within the contract.</li> </ul> |
| Private residences | DNR              | <ul style="list-style-type: none"> <li>Impact: Additional logging traffic on public road</li> <li>Mitigation: Contract terms to ensure roads are left in equal to or better conditions than before sale</li> <li>Mitigation: Ensure basic noise mitigation terms are included in the contract</li> </ul>                                                           |

- ☐ 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

The sale 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 has been laid out so that areas adjacent to the boundary include mature, robust spruce trees to provide seed to this unit. Reforestation will be assessed within five years post-harvest, and a regeneration survey will be conducted if regeneration appears marginal or patchy. If the survey indicates inadequately stocked areas, then scarification or seedling planting may be performed on nonstocked 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).

## DRAFT Forest Land Use Plan for Anderson Spruce Timber Sale 2025

Season of harvest:

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

Regeneration type:

- ☒ Natural regeneration

List species: White Spruce, Alaska birch, Balsam Poplar

- ☒ Coppice

List species: Alaska Birch, Quaking Aspen

- ☐ 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.

## 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 5.

**Table 5. Road Construction and Use**

| Road ID             | Segment | Harvest Unit | Mile/ Station ** | Road Class | Maximum Grade %* | Constructed By | Maintained By |
|---------------------|---------|--------------|------------------|------------|------------------|----------------|---------------|
| Kobe Ag Road        | 1       | All          | 0.25 mi          | Non-FRPA   | <5%              | DOT            | Residents     |
| Rochester Way       | 2       | all          | 3.25 mi          | Non-FRPA   | <5%              | DOT            | Residents     |
| NC-2077 Winter Road | 3       | all          | 4.0 mi           | Winter     | 5%               | 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: <5%

☒ 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 | Mile/ Station or Point Label | Identified Erosion Risk | Risk Level | Mitigation                                                                                                                                                                                  |
|---------------------|---------|------------------------------|-------------------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Kobe Ag             | 1       | 0.25 mi                      | Negligible              | Low        | Existing road                                                                                                                                                                               |
| Rochester Way       | 2       | 3.25 mi                      | Negligible              | Low        | Existing road                                                                                                                                                                               |
| NC-2077 Winter Road | 3       | 4.0 mi                       | Seasonal river channels | Low        | If significant amounts of erodible mineral soil are exposed by winter road operations, waterbars or other barriers will be required adjacent to stream crossings to intercept sedimentation |

General Timber Sale 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 in access roads as described in the table below:

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

| Road ID                                   | Segment | Mile/<br>Station<br>or<br>Point<br>Label | Bridge<br>Length<br>(ft.) or<br>Culvert<br>Diameter<br>(in.) | Structure Type        | AS 41.17.950<br>Stream<br>Classification | ADF&G AWC<br>Number | Duration of<br>crossing<br>structure in<br>place |
|-------------------------------------------|---------|------------------------------------------|--------------------------------------------------------------|-----------------------|------------------------------------------|---------------------|--------------------------------------------------|
| Various spur<br>roads within<br>sale area | n/a     | n/a                                      | n/a                                                          | Ice & snow<br>bridges | n/a                                      | Not Catalogued      | Winter<br>seasonal<br>operations                 |

**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<br>All Season/Winter | Estimated<br>Closure Date | Projected Road Use after<br>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 |
|-------------------|------------------|-----------------------------|
| none              |                  |                             |

## **V. Approvals for Draft FLUP**

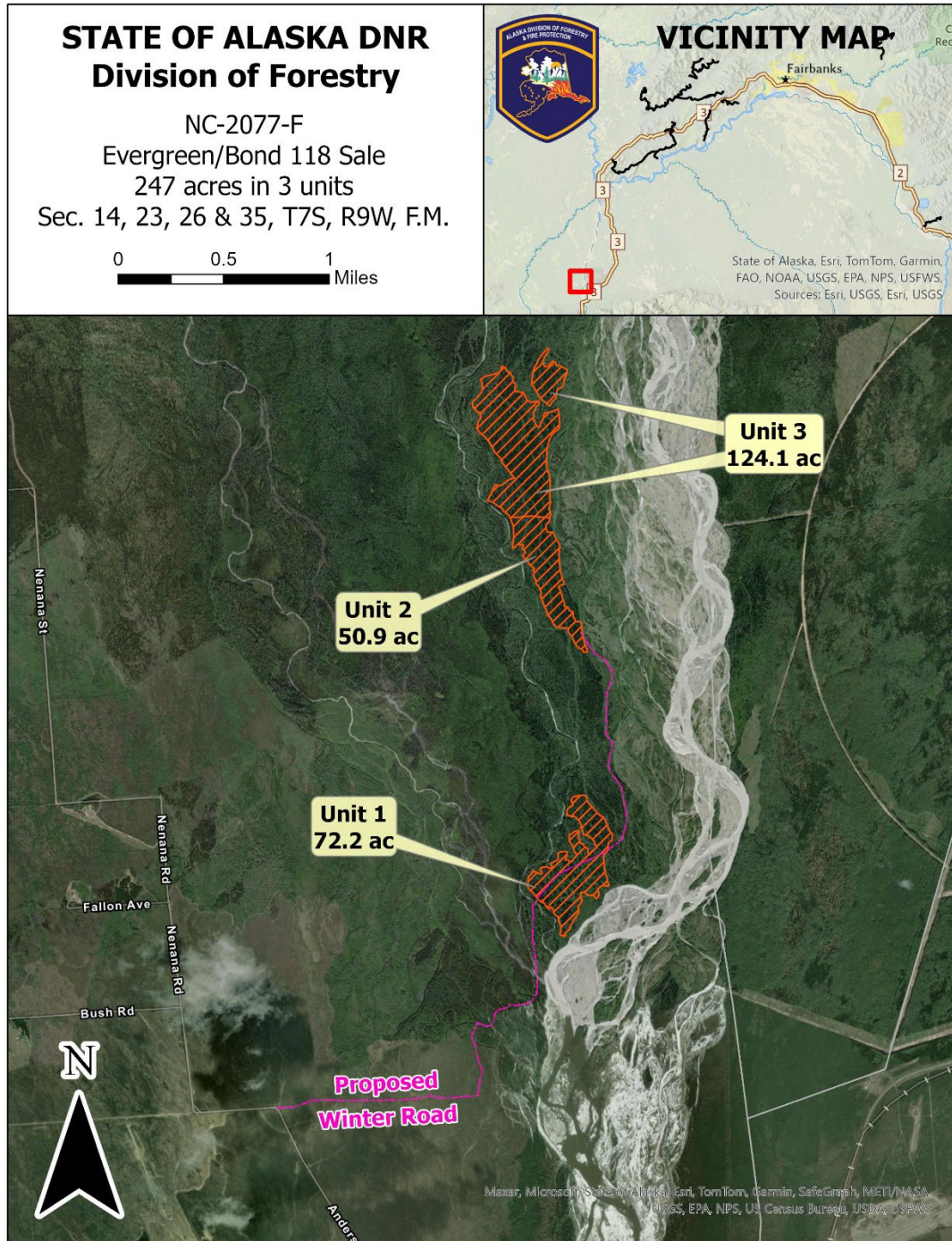
This Draft Forest Land Use Plan has been reviewed by the Division of Forestry & Fire Protection and provides the information necessary for public and agency review of the project described in this document.

|                      |             |
|----------------------|-------------|
| _____                | _____       |
| <b>Area Forester</b> | <b>Date</b> |

|                          |              |
|--------------------------|--------------|
| _____                    | _____        |
| <b>Regional Forester</b> | <b>Date/</b> |

## VI. 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 =  $100 - 100\% = 0\%$

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: \_\_\_\_\_ 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 ( $\leq 4"$ ) or absent

*Majority of field observations collected during winter, but open canopy conditions and discernible understory vegetation support a conclusion that thick moss layers are not characteristic of the seedbed.*

# DRAFT Forest Land Use Plan for Anderson Spruce Timber Sale 2025

- |                                     |                          |                                     |                          |                                                                                                                                                             |
|-------------------------------------|--------------------------|-------------------------------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | 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 |
| <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 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

- |                                     |                                     |                          |                                     |                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | Exposure to prevailing winds, if known                                                                                                                                                                                                                                                                                                                                                                   |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | Adequate seed trees exist within 3 tree heights of the reforestation site for spruce or within 2 tree heights for birch<br><i>*79% of the stand is within 3 tree heights of mature spruce timber<br/>The multi-aged nature of the stand and non-continuous distribution of sawlog stems ensures there will be adequate growing stock available to provide seed and/or serve as advanced regeneration</i> |
| <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Where spruce regeneration is targeted, large seed crop in year prior to harvest or current year<br><i>*large seed crops occur every 3-5 years and are expected during or shortly after the harvest cycle.</i>                                                                                                                                                                                            |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | 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   Unknown

Competition and infestation risk

- |                                     |                          |                          |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <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.<br><i>*The majority of field measurements occurred in the winter. The extent of Calamagrostis could not be observed.</i> |
| <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <i>Equisetum</i> (horsetail) is present prior to harvest                                                                                                                                                                                                                                                                                                                                                                                               |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 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.                                                                                                                                                                                                                                                                                    |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | Existing stands are not infested with bark beetles ( <i>Dendroctonus</i> or <i>Ips</i> ) A Forest health assessment in spring of 2025 indicates minor beetle activity in wind stressed spruce and pockets of mortality, however there is no evidence of widespread beetle activity.                                                                                                                                                                    |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | Where spruce regeneration is targeted, harvest areas are free of known incidence of <i>Onnia tomentosus</i> root rot.<br><u>Note</u> : <i>tomentosus</i> 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

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