

STATE OF ALASKA  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF FORESTRY

NORTHERN REGION DELTA AREA

FOREST LAND USE PLAN

PROPOSED TIMBER SALE

**BLACK LAKE NO. 3**  
**NC-1196 ADL-417062**

March 5, 2008

FINAL REPORT  
and  
BEST INTEREST FINDING

Prepared by  
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Resource Management Forester

INTRODUCTION: The purpose of this Forest Land Use Plan (FLUP) is to provide sufficient information for reviewers to ensure that the best interest of the State will be served by this proposed timber sale. Pursuant to AS 38.05.35(e) and AS 38.05., and the applicable regulations, the Delta Area Office of the Division of Forestry has made a Final Finding and Decision to offer for sale approximately one million four hundred thousand board feet of timber. The timber to be offered is located 34.5 air miles southeast of Delta Junction and is 0.54 miles northwest of Black Lake. The area to be harvested is approximately 158.4 acres located in Section 6, Township 13 South, Range 16 East, Fairbanks Meridian, Alaska. The Final Finding and Decision is at the end of this report.

The State of Alaska complies with Title II of the American Disabilities Act of 1990. The State is prepared to accommodate individuals with disabilities by providing auxiliary aids when requested. Individuals with audio impairments who wish to respond to this proposed action by telephone may call the Northern Region Information Counter in Fairbanks between the hours of 8:00 am and 5:00 pm, Monday through Friday, at TTY (907) 451-2770.

1. SUMMARY OF PROPOSED SALE: This sale would harvest approximately 158.4 acres of white spruce sawtimber from Tanana Valley State Forest lands near Black Lake located on the northeast side of the Tanana River. The purpose of this sale is to manage the forest in the Delta Area and provide spruce sawtimber for the local forest industry. A new road will need to be constructed to access the sale.
2. LOCATION OF PROPOSED SALE: The proposed sale is 34.5 air miles southeast of Delta Junction and is about 0.54 miles northwest of Black Lake. The sale is about 1.3 miles northeast of the Tanana River. The sale is within Unit 10C the Tanana Valley State Forest (TVSF).
3. STATUTORY AUTHORITY: This sale is proposed to be sold by authority of AS 38.05.035(e) and AS 38.05.115. It is consistent with Department of Natural Resources regulations 11AAC 71.060 or 11AAC 71.035-.050 governing competitive and negotiated timber sales. This sale was listed in two editions of the Five-Year Harvest Schedule for the Delta Area.
4. TITLE AND CLASSIFICATION: The acquisition authority for the proposed sale area is GS 801 under tentative approval. The proposed sale is within Unit 10C of the TVSF. There are no title restrictions on the parcel. The primary land classification is Forestry in Unit 10C of the TVSF, per Classification Order NC-82-065. Management intent is more specifically addressed in the TVSF Management Plan (TVSFMP).
5. PLAN RESTRICTIONS ON FOREST MANAGEMENT: There are no restrictions that apply to the sale. Black Lake is located 3,200 feet south of the proposed sale.

The proposed access route crosses the Tanana River, an anadromous stream, requiring a Fish Habitat (Title 41) Permit from the Office of Habitat Management and Permitting (OHMP). The proposed access is within the riparian area of Black Lake and an associated marsh, both classified as Type III-A water bodies, and may also need approval and a Fish Habitat permit from OHMP prior to construction depending on final location.

6. VOLUME OF TIMBER: The sale has an estimated volume of 1,619,000 board feet or 485,700 cubic feet of white spruce sawtimber.

7. DESCRIPTION OF HARVEST UNIT DESIGN: The sale consists of three units with a total of 158.4 acres. The boundaries are located along naturally occurring vegetative type changes. Mature spruce trees have been left around the sale periphery to serve as future seed tree sources. The sale is designed to harvest all the spruce larger than 9 inches DBH. All other trees are to be protected.
8. WITHIN A BOROUGH? No.
9. LEGAL DESCRIPTION: The sale is located in Section 6, Township 13 South, Range 16 East, Fairbanks Meridian, Alaska.
10. USGS QUAD PROPOSED SALE IS LOCATED ON: Mt. Hayes D-2.
11. LIST NON-STATE LAND WITHIN 600' OF PROPOSED SALE: The nearest private land is Mendas Chaag Native Corporation land located adjacent to the eastern boundary of the proposed sale. Mendas Chaag Native Corporation has also prepared a timber sale 1.5 miles east of this sale.

A 40 acre native allotment is located approximately 1.3 miles to the south of the sale area. The native allotment owner developed a proposed timber sale on the property through Tanana Chiefs and is hoping to sell it in the future.

12. PROPOSED SALE ACCESS ROUTES: The sale would be accessible only during the winter. The access route departs the Alaska Highway west of the Little Gerstle River and would cross the Tanana River with an ice bridge. The Division of Forestry (DOF) proposes to access the sale by continuing the existing road that was constructed for timber sale NC-1184-D, "Black Lake No. 2. The end of the existing road is shown on the attached Sale Area Map.

Eventually the road accessing NC-1184-D will be extended 1.3 miles to the sale boundary for NC-1196-D. About 150 feet of the proposed road location goes around the base of a hill near a marsh joined to Black Lake. The road in this location is about 100 feet from the marsh. The marsh is comprised of dense grass and sedges.

The location of the road adjacent to the marsh is constrained by steep topography and rock outcrops. The road has been moved as far away from the marsh as is feasibly possible and the road location is in a dense mixed forest of spruce and birch pole timber. Sedimentation near the marsh is not anticipated.

Locating the route on the Black Lake Marsh itself was carefully considered as it would have avoided the side hill construction which will be more costly. The ice road across the lake would be much smoother and faster, easier on the equipment, and more cost effective in hauling logs once the snow drifts are cleared. OHMP is supportive of a lake crossing because it would eliminate construction in a riparian zone and it is provided as an option in the proposed timber sale contract. In addition, Tanana Chiefs is selling a timber sale on the east end of the Black Lake that will be accessed by a road crossing the length of the lake.

Unfortunately, the snow drifts heavily into the east end and north sides of the marsh and Black Lake. An ice road veering north off of Black Lake on the east side of the hill adjacent to the marsh will put the road perpendicular to the wind direction in a drift zone that is 200-400 feet

wide. Even a light snow of 2 inches followed by the frequent, prevailing southeast winds, would blow the snow off Black Lake and potentially make the road impassable in 2 to 3 hours.

Previous experience with winter roads in the Delta Area has demonstrated the capacity for snow drifting to make timber sale access difficult and unfeasible. DOF is willing to allow the Purchaser the option to attempt access across the marsh ice and northwest corner of Black Lake to shorten the haul time and distance. The proposed timber sale contract designated route is on the uplands around the edge of the marsh. OHMP has concurred with the proposed upland route and they would also consider permitting an ice crossing of the marsh if requested by the timber sale purchaser.

There will be an additional 1.5 miles of spur road within NC-1196 to harvest the sale. The proposed new sale access road is located on an upland site through a mixture of spruce and birch forests.

The proposed access route does not cross any streams other than the Tanana River. The Tanana River ice bridge crossing has been used at least four years for the harvest of timber sales Black Lake No. 1 and No. 2. DOF will apply for a permanent Right-Of-Way public easement for the access route. The Purchaser will need to apply for a Title 41 permit for the proposed winter crossing of the Tanana River and for a permit to cross the marsh and west end of Black Lake. OHMP stated that they “conceptually concur with, and anticipates issuing a Fish Habitat (Title 41) Permit for, the proposed use of an existing ice crossing location of the Tanana River”.

13. ROAD CONSTRUCTION DESCRIPTION: Sections of the proposed forest access road will be constructed to a secondary winter and secondary all-season standards as described in Appendix F of the TVSFMP, depending upon the terrain. The road will be constructed to secondary winter road standards through tussocks located between Black Lake and the sale. From the existing end of the road to the northwest corner of Black Lake, the road will be constructed to secondary all-season standards because of the sloping terrain and upland forests. The road will be constructed to a 12 to 16 foot width.

About 150 feet of the new road location goes around the base of a hill located adjacent to a marsh. The road is located on side slopes that vary from 0 to 20% as it is designed to stay uphill and away from the marsh. The grade of the road is fairly level as it contours the hill adjacent to the marsh. Debris from the road construction will be placed below the road when there is a slope or on the north or west side of the road when there is insufficient slope to avoid constructing a berm that would catch snow. Soil or other debris resulting from construction will be carefully placed so it is stable and does not enter the extent of ordinary high water (OHW).

The proposed route crosses about 0.6 miles of relatively flat land having black spruce and tussocks. The road goes between two ponds that do not have outlets. The route then gradually climbs for 200-300 feet up to a 9% grade onto a bench in the sale.

The proposed road has a relatively small potential to erode. The contract will require gravel to be placed on the existing road going over a pass between the Tanana River and Black Lake to minimize erosion potential in that section of the road. The timber sale contract will require steps to be taken to prevent erosion including installation of water bars, sediment barriers, seeding with native species, fiber mats, and placement of culverts where needed. The Division of Agriculture, Plant Materials Center in Palmer can be contracted for appropriate

seed sources (907) 745-4469. The new road is not expected to have erosion that could not be mitigated and will be left open after the sale to facilitate additional forest management in the area. DOF will be responsible for erosion control. The existing access road has steeper and much longer grades and has no evidence of erosion problems in 4 or 5 years of use.

14. **TOPOGRAPHY AND SOILS:** The proposed sale is on hilly topography that extends toward a black spruce flat south of the sale. The elevation of the sale boundary extends from 1,300 feet to 2,000 feet. Slopes within the sale vary from 5 to 60% with the average being about 25-30%. Rock outcrops are visible within the sale. The depth to bedrock is estimated to be about 5 feet deep around the base of the sale. Shallower depths to bedrock are expected near the ridge top.
15. **WATER RESOURCES AND FISHERIES:** The map shows the nearest water body to the proposed sale is a seasonal drainage about 600 feet from the sale. The map also shows four ponds 730 to 2,000 feet from the sale boundary. Black Lake is located to the southeast 0.54 miles, Tanana River to the west 1.3 miles and George Creek to the south 1.4 miles. The Alaska Department of Fish and Game (ADF&G) noticed small pike in Black Lake in 1994. ADF&G measured lake depth at 8 feet and initially concluded it was too shallow to over-winter fish. The ADF&G Division of Sport Fish recently documented multiple age classes of northern pike in Black Lake, indicating that fish have at least fairly regular access to Black Lake, and that fish appear to have found accessible over wintering habitat.

The Tanana River would be crossed with an ice bridge to access the sale. The Tanana is a navigable, glacial stream, and classified as an anadromous and high value resident fish water body. No salmon spawning or rearing areas have been identified near the proposed ice bridge crossing. Chum salmon are reported to spawn about one mile upstream of the proposed crossing at the confluence of the Tanana River and George Creek. Salmon and other resident fish species migrate through the Tanana River. The river supports a variety of resident fish species including grayling, pike and burbot. The access route to be used to cross the Tanana River has been used successfully during previous winters to access the “Black Lake No. 1” timber sale.

George Creek is an important fish stream and transportation corridor connecting the Tanana River and George Lake. A number of species of fish use George Creek to migrate back and forth to George Lake and the Tanana River. River boats and snowmachines also travel the stream enroute to George Lake.

There are no adverse affects anticipated upon the fishery from the proposed sale at this time. The Purchaser of the timber sale would be required to obtain a Title 41 permit from OHMP to cross the Tanana River to access the sale area.

16. **WATERSHED MANAGEMENT:** The proposed sale is not anticipated to alter the watershed.
17. **WATER QUALITY:** There are no foreseeable adverse affects on water quality.
18. **RECREATION:** Recreational use of this area is minimal. Trapping and hunting are the only current recreation activities around Black Lake. In recent years, there has been an increased number of people hunting moose around Black Lake. There is no recreation activity occurring in the sale unit. The timber sale is expected to enhance recreational opportunities by

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providing access and improved habitat for moose, grouse, and other wildlife using early-successional habitats.

Trappers frequent timber harvest areas because of the improved access. Larry Dorshorst and Dean Cummings, Jr., trappers with 30 years of local experience, report that about three years after an area is harvested, there is an increase in the vole population that provides more food for furbearers such as marten, fox and mink to feed on.

19. CULTURAL RESOURCES: There are no known cultural, historic or prehistoric sites in the sale unit. The State Office of History and Archaeology (OHA) concurs with the sale design and has no objection to DOF proceeding with the sale. During the sale layout and systematic grid cruise of the sale area, DOF saw no evidence of historic or archaeological artifacts or features. DOF will follow the requirements of the Alaska Historic Preservation Act. If any historic or archaeological sites are encountered, DOF will immediately inform the State Historic Preservation Officer and take action to protect the findings.

The location with the highest potential for prehistoric or historic sites in the area is probably on the existing native allotment located near the confluence of the Black Lake outlet and George Creek. Archaeologist examined the native allotment in the late 1990's when Tanana Chiefs developed the timber sale for the allotment owner. The native allotment has a large rock outcrop immediately adjacent to the confluence of George and Black Creeks. Other excellent locations to look for prehistoric sites would be large rock outcrops or promontories along the shore of Black Lake or some other open expanse. No prominent rock outcrops are present along the access route or in the proposed sale.

20. SUBSURFACE RESOURCES: There are no known subsurface resources in the sale area.
21. WILDLIFE: Most common species of wildlife that are normally found in interior Alaska forests inhabit the area. There are no known critical or important wildlife areas in or near the proposed sale or access routes. There is no harvest planned for any of the deciduous trees on the sale. All the mature balsam poplar trees will be protected for cavity nesting birds. Timber sale operators will be encouraged but not required to leave dead standing white spruce for cavity nesting birds.

The timber sale harvest will afford more sunlight to the forest floor and will increase the production of browse species for moose. The increase in sunlight will also enhance the production of a variety of berries and seeds eaten by grouse and other animals.

22. USES OF FISH AND WILDLIFE: The area becomes accessible to trappers from the highway side of the Tanana River when the river freezes sufficiently to cross on the ice. An old trap line was found along a portion of the ridge going through the sale unit but did not appear to be active in recent years. In some years, trapping occurs around the periphery of the marsh and Black Lake. People do hunt the marsh below the sale and Black Lake for moose. No visible evidence or documentation of recent hunting activities was noted in the sale area. There is no known subsistence, recreational or commercial fishing near the sale.
23. PERSONAL USE TIMBER: During the winter, the timber sale will provide for personal use harvest of firewood from portions of the defective boles left in the landings. ADF&G and DOF may mark specific snags in the sale units to remain standing for wildlife habitat unless they pose an immediate safety risk during harvest and transport operations. Adjacent for-

ested stands along the road and on either side of the sale area will afford opportunities for personal use sawlog and houselog sales.

24. TOURISM: There is no known tourism in the proposed sale area. Tourism is occurring on George Lake with access on George Creek. The proposed sale is not anticipated to have any adverse impact on tourism.
25. ADJACENT LAND USES: A 40-acre native allotment is located about 1.3 miles to the south of the proposed sale. A timber sale is being actively harvested 0.25 miles west of this proposed sale. George Creek and the Tanana River are being used for access by riverboats and snowmachines. This sale will have no known adverse impacts on these uses.
26. AGRICULTURE: No agriculture is near the proposed sale area.
27. TIMBER STAND COMPOSITION AND STRUCTURE: The forest stand within the sale boundary is predominantly mature white spruce sawtimber. There is approximately 15-20% mixed species of aspen, birch and poplar in the sale area but the predominate species is white spruce. Portions of the sale area have white spruce saplings and pole-sized trees beneath the canopy of white spruce. The forested stands surrounding the sale areas are comprised of a variety of stand mixtures including mature white spruce, black spruce, birch, and aspen.
28. STAND SILVICULTURE: The Delta Area goal for regenerating harvest areas that were predominantly mature white spruce is to establish a mixed species forest of hardwoods and white spruce, with white spruce being the predominate species. Old stands are to be rejuvenated to a fully stocked mixed stand of young healthy trees while retaining some residual trees resulting from partial harvest. Young forests provide future crop trees and food for wildlife. Residual trees provide seed sources, nesting sites, and other benefits which are explained in the paragraph below.

A combination of environmental and economic factors has influenced the Delta Area to favor moderate to heavy partial harvests in combination with natural seeding. Partial harvests result in a wide range of the number of sapling to pole-sized trees per acre. The average harvest area has about 20 saplings and pole-sized mixed species trees left per acre. Some acres have no trees left and other sites have up to 100 saplings and pole-sized trees per acre left after harvest. The strong winds in the Delta Area combined with summer drought which typically occurs during the summer solstice period, cause a very high mortality of white spruce seedlings that germinated in May or early June. Partial harvesting allows some shading during the 20+ hour sunlight period and slows wind velocities to moderate the effect of desiccation of germinates and increases their survival rate.

This sale area will be partially harvested. The sale will allow the contractor to harvest spruce over 9 inches DBH. The mature sized balsam poplars will be protected from damage during the harvest to serve as cavity nesting trees and woody debris in the future. Mature white spruce will be left around the perimeters of the harvest units to provide seed sources for regeneration. Portions of the sale may be scarified to aid in warming the soil and improving regeneration of white spruce. Scarification can also improve the regeneration of woody shrubs and deciduous trees for wildlife browse and cover. This particular sale area has less of a need to be scarified than most sites because of the drier southern exposures. The forester will make a final determination for the need to scarify any particular area within the sale after the harvest is completed. Any areas that are expected to be deficient in meeting the Forest

Practices Act standard of 450 trees established by the 7<sup>th</sup> year will be planted with white spruce seedlings.

Sale areas with partial harvests are anticipated to have intermediate harvests of the residual white spruce pole timber. Intermediate harvests have occurred between 20 to 50 years after the initial harvest. Intermediate harvests provide opportunities to regenerate vegetation that is important to wildlife and will warm the soil to improve forest health.

29. THE SPECIFIC MANAGEMENT OBJECTIVES FOR THE PROPOSED SALE AREA ARE:

1. Harvest the commercial sawtimber before any significant loss occurs.
2. Return the site to a young productive mixed stand forest to include balsam poplar, birch, aspen, and white spruce.
3. Provide timber products for the industry and the State and local economy.

30. ALTERNATIVE ACTIONS:

There are four possible alternatives to consider for this sale area. A discussion of each of the four alternatives follows:

A. To continue the sale as proposed:

This alternate meets the objectives of DNR's constitutional mandate and is consistent with the land classification. Additional employment opportunities will occur associated with harvest operations, saw milling and value-added processing. The sale boundaries are designed to minimize the potential for loss of timber from wind-throw, maximize the feasibility of the sale to the State, and provide for natural reforestation of the harvest area.

B. To modify the sale by making it smaller or larger:

The estimated volume and acreage of timber to be harvested as stated in this Forest Land Use Plan (FLUP) is designed to accommodate the existing market in the vicinity of Delta Junction. The sale is of an adequate size to cover the costs to construct access and cover the mobilization costs for operation. The sale boundaries are located in a manner to minimize the potential for wind-throw. Moving the boundaries inward would increase the risk of wind-throw. Decreasing the size of the sale would make the sale less feasible to the State and the Purchaser. Extending the boundaries would not appreciably result in more marketable timber and would remove valuable trees left for seed sources to naturally reforest the harvest area.

C. Defer the sale to a later date:

Deferring harvest to a later date would fail to meet many of the objectives of the sale. In addition to the economic loss to the State and the local timber industry there would be an extended risk to the timber in the sale from wildfire, insect infestations, wind-

throw and other natural processes associated with over-mature timber. The value of the timber will decline within the next 15 years for both the industry and the State.

D. Not offer this sale:

This alternative would result in not meeting any of the objectives outlined for this management action. Utilization of the forest resource would not be achieved. There would be no contribution to the State and local economies.

**DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF FORESTRY**

**BEST INTEREST FINDINGS**  
NC-1196-D, "Black Lake No. 3"

I. Formal Review of Objections, Comments or Alternatives (summarized):

The 30-day Agency and Public review of the Forest Land Use Plan (FLUP) started on **December 8, 2005** and ended on **January 6, 2006**. Advertisement was published in the Fairbanks Daily News-Miner on **December 8, 2005**, and in the Delta Wind on **December 22, 2006**. The notice was posted on the Department of Natural Resources, Public Information web site for public notices on **December 8, 2005**, on the State of Alaska, Division of Forestry web site and at the Delta Junction Post Office.

In addition, notices were also sent to 34 agencies and members of the public, including the Salcha-Big Delta Soil and Water Conservation Board, U.S. Fish and Wildlife Service, City of Delta Junction, Healy Lake Traditional Council, Doyon, Alaska Forest Association (AFA), Tanana Valley State Forest Citizens Advisory Committee, and other agencies and individuals. Comments were received from Alaska Department of Natural Resources (ADNR), Office of Habitat Management and Permitting (OHMP), ADNR Office of History and Archaeology, ADNR Division of Mining, Land and Water (DMLW), and ADNR, Division of Agriculture. One public comment was received from the AFA expressing support for the sale.

The ADNR Office of History and Archaeology was consulted previously about the proposed sale and received an email dated **June 20, 2005** approving the sale. ADNR, Division of Agriculture expressed no objection to the sale in an email dated **December 5, 2005**.

OHMP was also consulted before the review period and DOF received comments in a memo dated **August 20, 2005**, that were incorporated into the FLUP for the formal agency and public review. OHMP was concerned about the road near the marsh and proposed that the access route go directly onto the marsh. DMLW sent comments dated **December 23, 2005**, that also expressed the same concern's OHMP had about the proposed road near the marsh. DOF subsequently moved the alignment of the road away from the marsh and also provided for the option of the road going across the marsh.

New information was sent to OHMP regarding the relocation of the road on **March 20 and 22, 2006**. OHMP replied in an email on **March 23, 2006**, stating, "OHMP has reviewed these items, and considered (1) the potential effects of the cut-and-fill road construction, (2) the inherent difficulties with an ice road at this location, and (3) the nature of nearby fish habitat and resources. We will not object to the modified alignment for this road as currently proposed." Appropriate changes were made to the FLUP to reflect the changes made to the road and address OHMP's and DMLW's concerns.

DMLW's **December 23, 2005** memo also recommended that any grass seeding done to mitigate erosion utilize native species. This recommendation was incorporated into the FLUP.

## II. Final Finding and Decision

The purpose of this decision is to determine if the Department of Natural Resources, Division of Forestry, shall make available approximately 158.4 acres of timber located in the following parcel: Section 6, Township 13 South, Range 16 East, Fairbanks Meridian, Alaska.

The sale as proposed in this finding is in the best interest of the State for the following reasons:

1. The sale would meet the objectives outlined in this Forest Land Use Plan.
2. The sale would make wood available to the local timber industries to produce wood products.
3. The impact of the sale on other uses, such as fish and wildlife habitat has been carefully considered and is anticipated to be negligible.
4. The sale has undergone agency and public review and concerns have been resolved in the preparation and design of the sale.
5. The design and location of the sale is consistent with the Tanana Valley State Forest and Tanana Basin Area Management Plans.

The findings presented have been reviewed and considered. The case file has been found to be complete. The requirements of all applicable statutes and regulations have been satisfied. Therefore, it is the finding of the Director that it is in the best interest of the state to approve this action under the authority of AS 38.05.035(e) and AS 38.05.110-120.

A person affected by this decision who provided timely written comment may appeal it, in accordance with 11AAC 02. Any appeal must be received by **March 26, 2008**, and may be mailed or delivered to Tom Irwin, Commissioner, Department of Natural Resources, 550 W. 7<sup>th</sup> Avenue, Suite 1400, Anchorage, Alaska 99501; faxed to 1-907-269-8918, or sent by electronic mail to [dnr.appeals@alaska.gov](mailto:dnr.appeals@alaska.gov). If no appeal is filed by this date, this decision goes into effect as a final order and decision on **April 7, 2008**. An eligible person must first appeal this decision in accordance with 11AAC 02 before appealing this decision to Superior Court. A copy of 11 AAC 02 may be obtained from any regional information office of the Department of Natural Resources. It is the Division of Forestry's intent to offer this timber sale on or after **April 8, 2008**.

S/S Al Edgren  
Al Edgren  
Delta Area Forester

March 5, 2008  
Date