

ENVIRONMENTAL ASSESSMENT
Case File No: AA-084463 (1030)
AK-040-03-EA-006

Applicant: Gary Nelson
Chuathbaluk, Alaska

Type of Action: Timber Sale

Location: Seward Meridian, Alaska
T. 17 N., R. 53 W.
Section 5, Lot 2;
Section 6, Lot 2;
Section 7, N½;
Section 8, Lot 3

T. 17 N., R. 54 W.
Section 1, Lots 2, 3,

Prepared by: Mike Zaidlicz
Forester

Preparing Office: Bureau of Land Management
Anchorage Field Office
6881 Abbott Loop Road
Anchorage, Alaska 99507-2599

Date: December 19, 2002

I. INTRODUCTION

Mr. Gary Nelson has requested a permit for the harvest of approximately 75,000 board feet of white spruce on selected lands along the Kuskokwim River. The lands in question have been selected by the Kuskokwim Corporation and are located in portions of Sections 5, 6, 7, and 8, T. 17 N., R. 53W., and Section 1, T. 17 N., R. 54 W., Seward Meridian. The Kuskokwim Corporation has provided a letter of non-objection to allow Mr. Nelson to harvest the requested material. Any receipts generated by this sale will be held in escrow until the land is conveyed to the Kuskokwim Corporation or until the land has been released from selection.

A. Purpose and Need for the Proposed Action:

The timber sale will provide material for Mr. Nelson's sawmill operation in the village of Chuathbaluk. He provides the only lumber for local building and construction activities in the area. Without Mr. Nelson's sawmill, local residents would have to purchase lumber from distant sources to be delivered by barge, at very high costs. Mr. Nelson has provided lumber and jobs to residents of the area for many years. He has previously harvested timber in the area on Native and State lands.

B. Conformance with Land Use Plan:

The land is within the boundary of the Southwest Management Framework Plan (MFP), dated November 1981. Authorization to conduct forest product sales are provided under objective number F-1 of this plan.

C. Relationship to Statutes, Regulations, Plans or other Environmental Analyses:

The land is selected by the Kuskokwim Corporation, which has provided the Bureau with a non-objection letter dated October 18, 2002.

II. PROPOSED ACTION AND ALTERNATIVES

A. Proposed Action:

Mr. Nelson has requested a permit to harvest approximately 75,000 board feet of mature, over mature and dead white spruce timber. He proposes to harvest this timber from scattered timber stands adjacent to the Kuskokwim River. The affected land is described as: Lot 2 of Section 5, Lot 2 of Section 6, North ½ of Section 7 and Lot 3 of Section 8, T. 17 N., R. 53 W, and Lots 2 and 3 of Section 1, T. 17 N., R. 54 W., Seward Meridian and is located along the south bank of the Kuskokwim River. The proposed harvest will affect between 15 and 20 total acres at various locations within the described lands.

Individual trees will be felled and skidded by caterpillar tractor to the river bank where they will either be rafted into log rafts (if the river is unfrozen) and towed by boat or (if the river is frozen) skidded by small caterpillar tractor over the river ice to Mr. Nelson's mill site approximately 20 miles downstream at Chuathbaluk.

Slash resulting from the harvest activity will be lopped and scattered so that it will not be more than 12 inches deep.

The harvest activity will likely take several weeks for completion depending on weather and ice conditions. The permit will be issued for a term of 12 months with the possibility of an extension.

B. No Action Alternative:

The No Action Alternative would result in no timber harvest taking place. The permit would be denied. No surface disturbance on the site would occur.

III. AFFECTED ENVIRONMENT

The land affected by the Proposed Action has been subjected to little if any development over the years.

A. Critical Elements:

The following critical elements of the human environment were not present or will not be affected by the Proposed Action or the No Action Alternative and will receive no further discussion:

Air Quality
Areas of Critical Environmental Concern
Environmental Justice
Farmlands (Prime or Unique)
Floodplains
Invasive, Non-Native Species
Native American Religious Concerns
Water Quality, Surface/Ground
Wetlands/Riparian Zones
Wild and Scenic Rivers
Wilderness

1. Cultural Resources:
There are no known cultural resources near the land affected by the proposed timber sale. No further consultation is necessary under Section 106 of the National Historic Preservation Act.
 2. Waste, Hazardous or Solid:
The operator will be utilizing heavy equipment with the potential for spilling fuel or hydraulic fluid on the proposed site. Spills during fueling and transportation of fuel might occur during the operation. Potential hazardous materials involved include diesel fuel, gasoline, automotive oils and grease, and hydraulic fluid. Vehicles serviced on site could contaminate soil or nearby water sources. Mitigation measures included with the permit will alleviate the potential for hazardous materials spills.
 3. Subsistence – ANILCA, Section 810:
The Proposed Action does not occur on Federal Public Lands as defined in ANILCA and does not fall under the regulatory authority of the Federal Subsistence Board. This action will not significantly restrict subsistence uses, decrease the abundance of subsistence resources, alter the distribution of subsistence resources, or limit subsistence users' access under currently existing conditions. No further analysis is necessary.
 4. Threatened or Endangered Species:
There are no known threatened or endangered wildlife species in the area.

There are no known threatened and endangered plant species within the area of the proposed activity. There may be sensitive species on nearby bare ridgetops or talus slopes, such as *Douglasia beringensis*, and *Smelowskia pyriformis*. This area is relatively unknown for sensitive species.
- B. Fire Management:
The area of concern is classified as a Full suppression area according to the Alaska Interagency Wildland Fire Management Plan. This designation requires aggressive initial attack if suppression resources are available. The nature of the action will not increase or decrease the amount of vegetation available for combustion.

- C. Recreation:
This area of the Kuskokwim river basin is sparsely populated and receives little recreation use. This area is accessed primarily by boat or snowmachine. The occasional float plane may access this area for hunting purposes. Primarily people from this region are not seeking recreational solitude, but actively seeking subsistence opportunities. Commercial recreation use near the Proposed Action location is not known.
- D. Soils:
The soil association (Histic Pergelic Cryaquepts-Typic Cryofluvents, loamy, nearly level association) on the proposed site occurs in the flood plains and are essentially the same in all major river flood plains. They are of two basic kinds – lower flood plain soils that are poorly drained with permafrost and those on the higher natural levees that are well drained where permafrost is deep or absent. Soils texture in poorly drained areas range from silt loam to sandy loam with upland areas consisting of silt loam and fine sand. Both acid and nonacid soils are included. This soil association has severe limitations for construction in all areas because of flooding and, in poorly drained soils, permafrost.
- E. Vegetation:
The Proposed Action would occur in the floodplains along the Kuskokwim River in the transition zone between the Kuskokwim Highlands and Interior Alaska Lowlands. The area is a mixture of poorly drained soils interspersed with higher, natural levees that are well-drained, and meander scars. The vegetation in the poorly drained areas consists of mosses, sedges, and shrubs or covered by a stunted black spruce forest with a ground cover of moss. Vegetation in the well drained soils consists of white spruce, paper birch, aspen, cottonwood and willow.
- F. Visual Resources:
Visual Resource Management (VRM) Class III is assigned to the proposed project area. The objective of this class is to partially retain the existing character of the landscape by allowing moderate levels of change. Management activities may attract attention but should not dominate the view of the casual observer. The Proposed Action would be an acceptable level of change to the existing environment.
- G. Wildlife:
Moderate to low densities of moose occur in the areas associated with willow shrubs and mixed forest. Predators such as wolves, black and brown bear, lynx and marten may frequent the area, but are highly mobile

and would be encountered infrequently and for short periods of time. Resident and migrant land birds nest and feed in shrub (alder and willow) and forest habitats in summer. Cliffs and bluffs along the Kuskokwim River may provide nesting habitat for raptors including rough-legged hawk, and peregrine falcon. Bald eagles and osprey use tall spruce and cottonwood trees on and near the river bank for long term nest sites. Raptor surveys on the Kuskokwim River in 2000 and 2001 identified an active rough-legged hawk nest at the mouth of the Kolmakof River, and an active peregrine falcon nest four miles upstream from the mine site. No raptor nest sites were identified in the area of the Proposed Action, though some may exist. There have been no other wildlife surveys completed in this area. The peregrine falcon and bald eagle have been delisted under the Endangered species Act.

IV. ENVIRONMENTAL CONSEQUENCES

A. Impacts of the Proposed Action:

1. Critical Elements:

a. Hazardous Materials:

The Proposed Action will have little chance of causing a spill of hazardous materials if the mitigation requirements attached to the permit are followed. Servicing of equipment (changing oil) will not be permitted on the harvest area.

2. Recreation:

Recreation opportunities will not benefit from the Proposed Action, but no significant recreational opportunities will be lost.

3. Soils:

Timber harvest operations that use heavy equipment have the potential to remove ground level vegetation cover and disturb soil layers. If operations are conducted on steep slopes, erosion can occur. Of major concern is erosion of permanently frozen erosion prone soils. As the vegetation mat is removed, frozen soils thaw and begin to lose their structural integrity. In high use areas, soils become increasingly soft and are unable to support the equipment. This creates muddy sections along access routes, which gets larger as use continues. In time heavy equipment is forced to go around muddy areas creating even more damage. Where damaged access routes reach the river, erosion can occur and transport sediments into the river.

Removal of tree canopy can increase soil temperatures and cause thawing of frozen soils. This, combined with the impacts of heavy equipment, has the potential to cause serious erosion.

4. Vegetation:

Principle impacts of the Proposed Action would be the removal of trees and skidding them with a caterpillar overland to the river. This would result in disruption and compaction of the vegetation all along the skid trail, especially if the trees were moved during the summer. In the areas with permafrost, the disruption of the surface layer could cause the permafrost to melt, which could cause soil erosion and slumping.

If the work occurs on stream banks, soil erosion and associated decreases in soil moisture could extend the length of time for the area to revegetate. The Proposed Action will not likely contribute to the spread of weeds or invasive vegetation.

5. Visual Resources:

Visual resource quality will slightly degrade with the scarring that will take place from skidding logs to the Kuskokwim river. This landing area will be visible from the air and water and remain for some time. Spring river break-up and run-off events could potentially remove any sign of the Proposed Action.

6. Wildlife:

The impacts of clearing, cutting and skidding timber near the river banks will cause a loss of shrub and forest habitats. It may also cause a disturbance to moose and habitat loss to land birds which use mature forest habitats in summer. The noise associated with the timber harvest will temporarily displace wildlife from nearby, unaffected shrub and forest areas. Displaced animals may be more vulnerable to predators and may cause breeding birds to abandon nests and breeding territories, increasing mortality. Loss of nesting trees with established nests will severely impact nesting pairs of raptors. Noise and disturbance of timber harvest near an active raptor nest may cause pairs to abandon the nest site, particularly during courtship, egg laying and incubation (April - June).

B. Impacts of the No Action Alternative:

Under the No Action Alternative, jobs in the village of Chuathbaluk which had been dependent on the mill, would be lost. Villagers needing forest

products (lumber) would be forced to pay higher prices for material hauled in from greater distances. Dead, diseased and overmature trees on the site would continue to degrade over time resulting in the loss of value of the material.

There would be no affect on any other resources under the No Action Alternative.

C. Residual and Cumulative Impacts:

No residual or cumulative impacts will occur from this action.

D. Mitigation Measures:

1. Critical Elements:

a. Wastes, Hazardous/Solid:

The operator will be required to meet State and Federal requirements for handling of fuels and other hazardous materials including a requirement to have secondary containment devices, spill abatement material, and trained personnel available for spill remediation. The permittee will not be allowed to change oil on equipment on the harvest area.

2. Fire:

Harvest operations will be suspended during periods of high fire danger.

When Fine Fuel Moisture Contents (FFMC) are low to medium (0-86) logging operations are not restricted. When the FFMC is High (87-90) the operator will be required to post a one hour fire watch in the area of operations for that day.

When the FFMC is Extreme (90+) the operator will cease all operations and if operations had been ongoing the operator will post a one hour fire watch.

The above conditions apply when there is less than four inches of snow on the unit.

All internal combustion engines must have approved spark arresters that are serviceable.

3. Fisheries:
No cutting of timber will be allowed within 100 feet immediately adjacent to an anadromous or high value resident fish water body.
4. Recreation:
None necessary.
5. Soils:
Log skidding operations will be restricted during times of high soil moisture to prevent potential erosion. Landings and concentration areas will be located at least 100 feet away from streams, rivers or other water bodies.
6. Visual Resources:
Once the operation is complete, the trail(s) used for skidding the logs should be "broken-up" by falling or dragging timber across this path so as to obscure the visual intrusion of new trails.
7. Wildlife:
During timber harvest operations, care must be taken to avoid all raptor nests, particularly those of bald eagle and osprey, usually found in tall spruce and cotton wood trees along the river. No raptor nest trees should be cut. When nests are encountered, no clearing or cutting of trees should be done within 1,500 feet of an active nest. Active nests may not have birds present from September to March.

V. CONSULTATION AND COORDINATION

- A. List of Preparers:
Donna Redding - Archaeologist
Jeff Denton - Subsistence Coordinator
Bruce Seppi - Wildlife Biologist
Debbie Blank - Botanist
Mike Zaidlicz - Forester
Brian Sterbenz - Fire Management
Larry Beck - Hazardous Materials
Jake Schlapfer - Recreation/Visual Resources