

State of Alaska  
Department of Natural Resources  
Division of Forestry  
Coastal Region  
Kenai / Kodiak Area

**Final Decision**  
**Best Interest Finding**  
**Forest Land Use Plan**  
**South Ninilchik Timber Sale**  
**SC-3138 K**  
**October 2013**



South Ninilchik Timber Sale  
 SC 3138 K  
 Final Decision  
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## **I. INTRODUCTION**

### **A. Purpose**

The Department of Natural Resources, Division of Forestry (DOF), Kenai-Kodiak Area is offering for sale approximately 1500 acres in 15 cutting units. The sale contains an estimated 7.5 million board feet (MMBF) of spruce to be sold by sealed competitive bid. This sale will salvage spruce trees that are dead or infested by spruce beetles, as a portion of the birch trees. Leaving reserves of healthy trees and encouraging natural regeneration will also help preserve the natural genetic diversity in Kenai forests. This sale is designed to minimize impacts on visual quality, recreation, tourism, water quality, and fisheries and provide forest products, primarily firewood.

The State may elect to offer timber from the South Ninilchik Timber Sale Area in a single timber sale or divide and offer timber in smaller sales. Any sale awarded will have a contract period of less than three years.

This document also provides the necessary site specific information required for adoption as a Forest Land Use Plan (AS 38.05.112. Forest land use plans). This Forest Land Use Plan (FLUP) for the South Ninilchik Timber Sale will be adopted with the issuance of the Final Finding stating the timber sale is in the state's best interest.

This sale went through the public and agency review process in 2003. In 2004, the Division of Forestry published a final finding that timber harvest as described in this Forest Land Use Plan was in the best interest of the State. This conclusion was reached after the Division of Forestry reviewed and field comments from agencies and members of the public participating in the public/agency review process. The condition of the timber and market demand has changed since the Forest Land Use Plan was adopted by the Department of Natural Resources in 2004. Therefore, it has been re-written to reflect the changes.

The Preliminary Finding for this timber sale was available for review and comments by the public and agencies between October 18, 2013 and November 18, 2013. The Division of Forestry has addressed comments received from the public and reviewing agencies; this information is attached to the back of this document.

### **B. Objectives**

The primary objectives of this timber sale are:

1. To reduce the wildfire risk and potential destruction of adjacent private property, salvage timber affected by bark beetles.
2. To accelerate reforestation: harvesting timber is a means of preparing the area for new trees to establish. This proposal helps meet the Division's statutory responsibility to provide "...sound forest practices necessary to ensure the continuous growing and harvesting of commercial forest species on ...state land."
3. To follow DNR's constitutional mandate to encourage the development of the state's renewable resources, making these resources available for maximum use consistent with the public interest. Firewood is the primary product of this sale, and therefore parallels the public's increasing firewood demand.

**C. Five Year Schedule:**

The South Ninilchik Timber Sale is currently listed in the last edition of the Five Year Timber Sale Schedule 2011-2015 as required under AS 38.05.113.

**D. Location:**

The legal description of this proposed action is as follows: portions of Sections 17, 18, 19, and 20, Township 3 South, Range 12 West, and portions of Sections 13, 23, 25, 26, 27, 33, 34, 35, and 36, Township 3 South, Range 13 West, Seward Meridian. Ninilchik is the nearest community, and is located about 12 miles northwest of the sale. Cook Inlet Region Inc. (CIRI), Ninilchik Native Association, Inc. (NNAI), and Kenai Peninsula Borough (KPB) lands are adjacent to the sale area. This sale can be located on the United States Geological Survey 1:63360 Quadrangle maps titled Seldovia D-4 and D-5.

**E. Title, Classification and Other Active or Pending Interests:**

The State received title to the land under general grant patents: GS 70, 50-90-0717 dated 9/28/90 for Sections 17 - 20, T3S, R12W; and GS 69, 50-90-0717 dated 9/28/90 for Sections 13, 23 -27, 33 - 36, T3S, R13W, S.M. This sale is located in an area covered by the Kenai Area Plan (adopted in January 2000) and is designated for habitat and dispersed public recreation. The Kenai Area Plan unit numbers are 45B and 267. This proposed sale complies with the guidelines and specific policies contained in the Kenai Area Plan, including the Caribou Hills Management Plan & Special Land Use Designation contained within the plan. The management intent for these units of the plan specifically identifies this proposed sale. Additionally, the plan provides for a “Bear Habitat Management Zone” adjacent to anadromous streams (South Fork Deep Creek) from the mouth up to the upper limits of anadromous fish spawning. This zone extends landward 375 feet from ordinary high water.

The other active interests on the proposed sale area are three oil and gas leases: ADL 388196, ADL 388199 and ADL 388200. There is also a 60-foot easement for an existing trail locally known as Ninilchik Dome Road that crosses diagonally from NW to SE through Section 23 and 24, T3S, R13W, S.M. This legal access is provided by LSH 360 and ADL 225683. The Kenai Peninsula Borough has municipal entitlement selection (ADL 217089) on Sections 23, 26, 35, and 36 of T3S, R13W, S.M.

Additionally, there is one personal use cabin, ADL 222113, located within ¼ of a mile of harvest unit boundaries, although not within a harvest unit itself. There are three other personal use cabins within a mile of the proposed harvest units; ADL 222227, 222065, and 222112.

These are the active and pending interests shown on the most recent status plats dated 6/19/02 for T3S, R12W, and dated 3/21/01 for T3S, R13W, Seward Meridian

**F. Planning Framework**

The decision to offer the South Ninilchik Timber Sale was based on a long series of planning decisions, made with public and agency input every step of the way. This document, the Forest Land Use Plan (FLUP) for the timber sale, is one of the final steps in this long planning process. The planning for where timber harvest is appropriate, and where it is not appropriate, is done at a much broader scale than the FLUP. The framework for how management decisions are made for timber sales on the Kenai Peninsula is as follows:

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1. Area plans, management plans, and land use plans (in this case, the *Kenai Area Plan*) determine where timber harvesting is allowed.
2. The Forest Resources and Practices Act and Regulations, and the Alaska Forest Management Statutes & Regulations determine how timber will be managed within areas where harvesting is allowed by the area plan.
3. The Five-Year Schedule of Timber Sales proposes when timber sales will be offered, and approximately where and how big each sale will be.
4. Next, a Forest Land Use Plan is written for each individual sale, which contains more detailed decisions about each sale.

Both the area plan and the management plan processes openly reviewed resource information and public concerns prior to making long-range decisions about public land management. The planning processes determined how the complete range of uses would be accommodated in the proposed sale area, including opportunities for forestry, as well as protecting fish and wildlife habitat, opportunities for recreation, and the whole range of other uses. This document's decision to conduct a timber harvest in the area is developed based on the Kenai Area Plan's designation for this particular area that allows for timber harvest.

Next, the Division of Forestry prepares a Five-Year Schedule of Timber Sales (FYSTS) every other year. The FYSTS gives the public, timber industry, and other agencies an overview of the division's plans for timber sales. They summarize information on proposed timber harvest areas, timber sale access, and reforestation plans. Five-Year Schedules are subject to public and agency review. The review helps identify issues that must be addressed in detailed timber sale planning. After review and revision, DNR uses the schedules to decide how and where to proceed with timber sale planning.

Finally, the Best Interest Finding and Forest Land Use Plan (FLUP) are prepared. The FLUP presents detailed information on the location, access, harvest methods, duration, and proposed reforestation for each sale. The public is asked to comment at this stage, as well. By getting the best available data, combined with a series of public processes that helps us gather information from the public and other agencies, we make well-informed decisions about uses of resources on state land.

## **II. LEGAL AUTHORITY**

The department is taking this action under the authority of AS 38.05.035(e) (Best Interest Finding); AS 38.05.110-120; 11 AAC 71 (Timber Sale Regulations); AS 41.17.010-.950 and 11 AAC 95 (Forest Resources and Practices Statutes and Regulations).

## **III. ADMINISTRATIVE RECORD**

The division will maintain an administrative record regarding the decision of whether or not to offer timber within the South Ninilchik Timber Sale. This record will be maintained at the Kenai-Kodiak Area Office and filed as **SC-3138K**.

#### **IV. DESCRIPTION OF SALE AREA**

##### **A. Physical characteristics of the sale area**

###### **Topography and Soils**

The South Ninilchik timber sale lies on gently rolling terrain. The only steep terrain is where slopes drop steeply into river or creek drainages or climb steeply into alpine areas. These steep areas are located outside proposed harvest units. Slopes within the proposed harvest units range from 0% to 20%. The elevation ranges from approximately 1,000 to 1,500 feet above sea level and has a west to northwest aspect. The sale is located in an area where the spruce beetle has killed the surrounding spruce trees.

The Natural Resource Conservation Service Soil Survey indicates there are several soil types within the harvest units of the sale area. The deep, well-drained silt loams include the following soil series: Whitsol, Mutnala, Cohoe, Redoubt, and Talkeetna. These soils generally occur on nearly flat to strongly sloping terrain. The soil's susceptibility to erosion is rated as slight to moderate. The Cohoe, Whitsol, and Mutnala series are some of the more productive soils on the Kenai. Approximately 82% of the proposed harvest units are on well-drained soils. Other upland soils include Spenard silt loam, which is a somewhat poorly drained soil. Approximately 18% of the harvest units are located on these soils. Muskeg areas are dominated by Doroshin and Starichkof peat soils.

###### **Waterbodies**

There are several anadromous or high value resident fish water bodies within or adjacent to the sale area. The primary anadromous and high value resident fish water bodies that flows within and adjacent to the sale area are Clam Creek (Stream No. 244-20-10100-2010, per ADFG Anadromous Stream Catalog), Stariski Creek (Stream No. 244-10-10050), and South Fork of Deep Creek (Stream No. 244-20-10100-2030). The only water body that provides spawning habitat adjacent to the sale is the South Fork of Deep Creek which provides habitat for spawning and rearing chinook and coho salmon, and Dolly Varden. Both Stariski Creek and Clam Creek provide rearing habitat for coho salmon and probably Dolly Varden. Additionally, there are two unnamed tributaries (Stream No. 241-11-3031-5033 & 6008) to Chakok River within the sale that are known to provide rearing habitat for coho salmon approximately 1¼ miles downstream from harvest unit 1. (See Issue F, Effects on Fisheries.)

Riparian retention areas have been established around wetlands, anadromous and high value resident fish water bodies, and non-fish bearing waters as required under AS 41.17.117-118. These retention areas will mitigate any erosion potential and there are no anticipated impacts to fish habitat or water quality.

###### **Timber Stand Conditions**

Most of the sale is composed of the open spruce forest. On the Kenai Peninsula, there are natural hybrids between white spruce and Sitka spruce (*Picea glauca X sitchensis*). This hybrid is called Lutz spruce (*Picea X lutzii* Little). Muskeg, riparian willow, upland willow, and upland alder types are also found. Many larger spruce have lost significant amounts of bark and wood decay is advancing as evident by occasional wind-snap and soft borings. There have been considerable changes to the living forest stand structure, lower average DBH, lower average tree height, and reduced stand density. Natural spruce regeneration occurs when there is an adequate supply of viable seed and an appropriate seedbed. A significant grass influx

inundates available seedbeds for tree regeneration. With the absence of available seed trees, natural regeneration is not expected to occur as quickly as healthy spruce stands. Birch regeneration is also decreased due to the severe competition of grass and inadequate seedbed availability.

One study indicates that even after 11 years, no natural tree or browse regeneration had occurred (Holsten, et al 1995). Species diversity has declined in these stands. Within two to four years following mortality, beetle killed trees begin to wind-snap and fall to the ground. The time-span between mortality and having the tree break-off and fall to the ground appears to be a function of the level of decay in the base of the tree at the time of mortality.

Declining live spruce forests are eventually replaced with sparse, pole-sized spruce mixed with scattered birch and to a lesser degree—cottonwoods and aspen. Grass has become the predominant ground cover and will inhibit the development of suckering and sprouting plants which reduces the availability of browse (Holsten, et. al. 1995). Therefore, as the stand structure changes, the population dynamics between wildlife species within the proposed sale area will vary.

### **Wildfire Potential and Fuels Mitigation**

The spruce bark beetle infestation during the 1990's was widespread across the Kenai Peninsula and continues to have a significant ecological impact on forests.

Spruce stands became increasingly jack-strawed as dead trees eventually fell over. Large dead trees were closer to the ground, and more exposed to fire even long after fine limbs and needles had rotted away. Surface fuels comprised of grass and downed trees enable wildfires to spread quickly and with greater intensity. Downed timber in tall grass impedes access into a fire area by firefighters and will severely limit the use of tactical ground forces such as engines, dozers and hand crews (See 1998). Even when suppressing fires during moderate environmental conditions, placing crews in this type of fuel poses a significant personal safety risk should winds begin to rapidly increase, change direction, or if sudden slope changes are encountered.

### **B. Wildlife Habitat**

The effects of the harvest activity will vary depending on species. Wildlife species that prefer mature and over-mature spruce stands will either be displaced or decline in numbers. Species preferring the grass-forb successional stage will likely increase in abundance (DF&G 1994).

The primary measures for minimizing impacts to wildlife habitat are the previously-mentioned fringes of timber that will be retained to provide wildlife cover. Only temporary ice roads will be used to access the sale area. After timber harvest activities cease in the spring, the access routes will be blocked with logs or large material to obstruct off road vehicle traffic. This will reduce wildlife impacts associated with roads.

Approximately three to four standing trees per acre will be retained within the harvest unit as nesting habitat. Harvest operations will occur typically from December to mid March, so disturbance from harvest operations will be relatively brief. Grass and alder will reseed rapidly on disturbed sites and help in effectively closing the road access.

## **Bears**

For black bear, the proposed timber sale includes areas with potential late summer and early fall berry crops. It is doubtful that winter denning sites exist in the sale area for either brown or black bears. This is due to its proximity to residential development. No denning sites were found during field reviews for either species.

Increased vulnerability of local black bear populations to hunting is a function of road location and road density which, in turn, is related to the timber harvesting systems used and the level of logging activity (DF&G 1994).

In 2010, the US Forest Service and the US Fish & Wildlife Service conducted a census for brown bears on the Kenai Peninsula. The result of the census was an estimate of 624 bears (USFS/USFWS 2012).

The highest densities of brown bears are in the forested lowlands and sub-alpine areas west of the Kenai Mountains. No denning sites were identified within the proposed timber sale during field reconnaissance.

This timber sale may impact the home range of resident bears. However, research suggests that home ranges for brown bears can cover tens to hundreds of square miles and because of this variability; the concept of home range size is not very useful (DF&G 2000).

Increased access associated with resource development is of concern to wildlife managers (Selinger, 2005). Logging roads may cause behavioral changes with the bear population. Although evidence suggests that road avoidance behavior and habitat loss leads to changes in wildlife productivity and survivorship, there is little data currently available to support this hypothesis (Frederick 1991). Again, this proposed sale will be accessed by roads that are only drivable during the winter months, when bear activity is expected to be minimal. These actions are intended to closely align with the recommendations of the Kenai Peninsula Brown Bear Conservation Strategy (DF&G 2000).

The availability of security cover is considered important in how brown bears are influenced by human activities. Brown bears are at least twice as likely to be displaced from open areas where they can see or be seen by humans (Suring 1998). The harvested portion of the timber sale will provide little cover for bears until the regeneration reaches an adequate height. As recommended in the Kenai Area Plan, reserves of unharvested timber will be retained for cover.

## **Moose**

Within the boreal forest, moose are generally more closely associated with forest cover in summer than in winter. This may reflect a preference for forage that is higher quality as a result of delayed plant development or different plant characteristics. Cows may prefer to calve and bed their newborns on forested knolls or other vegetated high points from which predators are more easily detected. These features may also present varied escape routes that require minimal energy expenditure by calves (Collins 1995).

As the dead spruce fall to the ground, escape routes will diminish and it is likely that energy expenditure by newborn moose for escape will be increased. The increase over time in the amount of deadfall that will occur without intervention will also decrease sight distance that may result in additional predation of young moose. The increasing amount of deadfall and debris on the forest floor could limit access to preferred

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foraging areas and limit mobility during critical times of the year for moose (DF&G 1994). DF&G (2003) notes that increasing deadfall over time will make moose travel through these areas more difficult. While biologists recognize the importance of overstory disturbance in the boreal forest in terms of enhanced production of moose browse, recommendations for the size and shape of the forest openings vary greatly from 5 acres to a square mile or more. While birch is not the dominate species of the existing stand, this sale operation is intended to result in mature left standing as seed sources. Ground disturbance from logging activity will result in favorable conditions for subsequent birch regeneration. Cover is more important in summer conditions; moose have an efficient way of keeping warm in severe weather but are less efficient in moderating the effects of high summer temperatures that can cause them to overheat (INFEST #6). The buffers along the muskeg will provide some cover, but the harvested areas will not provide shading and calving areas.

### **Other Fur Bearers**

Timber harvest activities are expected to impact the habitat for ermines, mink, and river otters by reducing cover or abundance of available prey. By retaining timber in riparian areas—as will be required in this proposed sale—the above-mentioned impacts will be offset.

Snowshoe hares appear to be decreasing numbers in proximity to the sale area. This species is subject to population rises, followed by abrupt declines. Timber harvest is not expected to influence the population dynamics. During peak population cycles, hares browsing can cause significant reduction in young tree development.

### **Birds**

Spruce grouse are also affected by the loss of spruce trees to the spruce beetle primarily through the loss of winter feeding habitat (DF&G 1994).

Timber harvest operations will have similar effects. The loss of canopy will result in increased mortality from predation because of more visible nests and loss of protection from inclement weather (DF&G 1994). Leave areas will help to offset this loss to the extent that they are useful. Scarification, where feasible and quick reforestation efforts will help to create more suitable habitat conditions in a shorter period of time than if left in an unmanaged condition. Some snags and unmerchantable live trees will be retained within harvest units and will offer nesting habitat as well.

Bird species that favor grass, shrub and saplings for habitat could benefit from timber harvest and consequently, will increase in numbers (DF&G 1994).

### **Fish Habitat**

Streams identified as fish habitat are mentioned “Water Bodies” Section. The Alaska Forest Resources & Practices Act and the Regulations require protection of anadromous and high value resident fish. In addition to Riparian Standards under AS 41.17.118, timber harvest and associated road building will be subject to fish passage, and habitat protection requirements under the Department of Fish & Game’s Title 16 regulatory authority.

### **C. Human activity and social considerations**

#### **Hunting**

Based on field observations, the area is hunted primarily by local residents; hunting pressure is not expected to increase in the area as a result of timber harvest.

#### **Subsistence**

The subject area has not been designated as a subsistence zone. Under current state law, subsistence harvest opportunities within the timber sale have been incorporated in general hunting and fishing regulations (DF&G 10/23/94). There are the following possible subsistence uses in the area: trapping, hunting and gathering of berries. The effects of timber harvest on wildlife species of interest to both trapping and hunting are detailed above in the wildlife sections. Most of the *Vaccinium* species prefer open forest conditions, which would tend to indicate that the berry crops might do well as the stands open up. However, Holsten, et al. (1995) indicated that on untreated beetle killed sites, lowbush cranberry decreased in number and on burned sites it doubled. It is anticipated that the berry crop will not be significantly affected by the proposed treatment.

#### **Recreation**

Based on field observations, there appears to be intermittent recreation presumably by residents who have been allowed access through the adjacent private ownerships. Generalized use of ATV's was evident in the area. The area may be used for moose hunting in the fall, but there was no evidence of any established camps or recreational use sites. This area is not known to have unique tourism values. At this time, there are no commercial recreation operations that use this area.

#### **Cultural Resources**

Currently, there no reports of cultural or historical sites in the Alaska Heritage Resources Survey within the sale area (DNR/ Parks, AHRS, 2013). The Alaska Heritage Resources Survey (**AHRS**) is an inventory of all reported historic, prehistoric, and paleontological sites within the State of Alaska. The State Historic Preservation Office (SHPO) was consulted during the planning of this sale; no resources were reported to be present.

Under the Alaska Historic Preservation Act (41.35.200), all burials on state land are protected. If burials or human remains are found, all land-altering activities that would disturb the burial or remains shall cease and measures will be taken to protect it in place. The Office of History and Archaeology and a law enforcement officer will be notified immediately to ensure that proper procedures for dealing with human remains are followed.

#### **Scenic**

This sale will not be visible from the Sterling Highway, but will likely be visible from aircraft, and by snowmachiners, and ATV users. Roads leading to the sale area pass through private ownerships which may restrict general public use.

Timber retention areas near wetlands, and the retention of selected live spruce and birch, will lessen what visual impact may be caused by harvest operations.

### **Land Use**

Existing land use includes an oil and gas lease within the sale area. No agricultural use or grazing occurs within the proposed sale area. Traditional use areas may exist but the sale will not adversely impact these uses. However, opportunities for hunting and berry picking will likely be improved.

### **D. Sustained yield and allowable cut**

This proposal complies with sustained yield/allowable cut principles outlined in the Kenai-Kodiak Area's Five Year Schedule of Timber Sales for CY-14 through CY-18.

### **E. Silviculture and Timber Harvest**

The silvicultural prescription selected for spruce in this sale is to salvage dead spruce and harvest live spruce and birch based on maturity, while retaining reserves of live trees to provide seed and cover. All merchantable dead spruce larger than eight inches in DBH will be removed. Live spruce greater than 10 inches diameter at breast height will be allowed for harvest. After harvest, the resulting stand will consist of multi-age spruce, due to the age diversity of the seedlings and pole-sized trees left in the stand. Healthy spruce and all birch will be retained for seed production and wildlife cover.

Birch is present in this stands; however it averages less than 20% of the total stem density. Birch is a prolific seeder, but viability of seed is potentially low due to age and vigor of the birch. Birch trees are not expected to grow to maturity in large numbers in the sale area, due to moose browse. The birch is not expected to contribute significantly to regeneration of the harvest area. Birch trees will be allowed for harvest at the discretion of the state.

Delimbed tops will be re-scattered and allowed to decompose or will be burned. Some piles will be retained for their wildlife values. Large amounts of nutrients such as phosphorous, nitrogen, and to a lesser extent for other mineral elements, are stored in the foliage, twigs, and branches; smaller amounts are in the main trunk of the tree (Bartels 1985). This material (limbs, twigs, and needles) is an important source of nutrients for the next stand of trees; typically over 95% of the nitrogen is contained within this material (Perry, et. al. 1989). Disposal of green or infested spruce material larger than five inches in diameter shall be in accordance with the standards set in 11 AAC 95.195(b) of the Forest Practices Regulations. Stump heights will be kept as low as feasible, typically less than one foot.

Logging will not be authorized during spring break-up, which usually occurs during a period from mid-April to June 1. The length of time to complete the harvest operations will be two years. Directional falling may be required to protect 70 percent of the seedlings, saplings and pole-sized residuals. The contract will require that care be taken to minimize damage to residuals. All-season logging will be allowed in the adequately drained, upland portions of the sale area. Otherwise, ice roads will be required.

The State will conduct regeneration surveys following harvest to determine if artificial regeneration will be necessary. Planting may be necessary on sites lacking sufficient regeneration to meet stocking standards. Planted spruce seedlings will be grown from locally collected seed. This proposal may be adjusted post-harvest depending on the success in protecting residual seedlings and saplings.

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Regeneration surveys will monitor trends of survival and species composition and also help to determine if any further reforestation effort is required to meet the reforestation requirements of the Forest Resources and Practices Act (11 AAC 95.375).

#### **F. Transportation**

Access will require the purchaser to obtain an agreement with the adjacent landowner, the Ninilchik Native Association, Inc. (NNAI), and potentially Cook Inlet Region, Inc. (CIRI) to use the existing logging roads of the 7000 Road network for access to the sale boundary. Duplicative access will be avoided. Access across CIRI and NNAI land is private and is not open to general public use.

Additional access developed to harvest this sale will only be that access necessary to facilitate removal of timber under this sale proposal. Roads will be constructed to minimize impacts and protect water and upland resources while achieving the forest management objectives. Approximately 12 miles of temporary spur road will need to be constructed. Access across upland sites will be constructed of native material at a standard suitable for log hauling and put to bed after they are no longer needed. Only ice roads will be allowed across muskegs, or sites too unstable to support log hauling without being sufficiently frozen.

No roads are proposed within the 375-foot Bear Habitat Management Zone on the South Fork of Deep Creek. The purchaser will be required to close roads at the conclusion of the sale. The temporary roads on state land that are put to bed upon completion of use will be closed in accordance with the Forest Resources and Practices Regulations on road closure (11 AAC 95.320). Additionally, wood debris will be spread over a portion of the road bed to discourage ATV use. Many of the actions noted above are in compliance with the recommendations of the brown bear conservation strategy (DF&G 2000), such as minimizing duplicative access routes, minimizing road development, and closing roads upon completion of use.

Where log hauling on ice roads is necessary, it will begin when underlying ground is frozen sufficiently to support equipment.

#### **G. Erosion**

Because of the gently to moderately sloping terrain and soils that have a slight to moderate potential of erosion, harvest units are not predicted to be a significant source of sediment. Roads will be constructed and maintained in accordance with the standards outlined in the Forest Resources and Practices Regulations.

#### **H. Mining**

There is no known mining activity in this area and therefore no effect.

#### **I. Materials**

This proposed harvest will not preclude future development of a material site. Needed borrow material for the timber sale road(s) will be minimal and acquired from within the right of way. No pits will be developed.

#### **V. MARKET CONDITIONS AND ECONOMICS**

The local market includes domestic sawlogs, house logs and firewood. Most of the timber from this sale area will probably be sold and utilized as firewood. The cost of heating oil on the Kenai Peninsula rose sharply in 2008. The demand for firewood has increased noticeably over the previous two years. Consequently, firewood sold for \$150 to \$200 per cord in 2012. Firewood prices are presently competitive with sawlogs as an end product for all but the green wood. Firewood will likely be in greater public demand than either sawlogs or house logs in the near future. The DOF anticipates this sale to be marketable based on past sale activity.

## VI. ALTERNATIVE ACTIONS

After a review of the material and information discussed above, the following alternatives have been considered:

1. **Offer a timber sale as outline in this Forest Land Use Plan.** This alternative meets the objectives of the Five-Year Schedule of Timber Sales and one of DNR's mandates to make the state's renewable resources available for public use. It also meets the silvicultural objective of improving forest vigor, provides for a value-added end product and creates additional local jobs due to the combination of road building, logging, and trucking.

2. **Offer this timber sale at another time.** We believe that postponing the harvest of timber within the sale is not in the public interest. As the dead trees continue to decay, their merchantability will decline; therefore it is important to provide opportunities to utilize a resource that currently is in high public demand—firewood.

Allowing continued high wildfire fuel loading is also not in the public's interest. Trees that would otherwise be salvaged would become sources for ignition and fuel loading for a potential catastrophic wildland fire.

3. **Modify the Sale by making the harvest units smaller.** This sale is intended to be large enough to be economically viable for mechanical logging methods. Decreasing the size of the sale area will reduce the supply of firewood and leave more timber to further deteriorate on the site and exacerbate the wildfire fuel loading. This sale is large enough to cover the costs of constructing access roads and cover the mobilization costs to operate in the Anchor Point area under historic conditions. This sale is appropriately balanced to maintain other resource values as well as provide economic benefits to the Kenai Peninsula.

4. **Do not offer this timber 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 significant contribution to the state and local economies. This alternative would delay the management objectives planned for the area, would deny making a source of raw materials available to the local wood products industry, and would delay the harvest of dead trees and mature trees. Economic value and suitability for public use will be lost as dead timber in the proposed area continues to decay.

**VII. BEST INTEREST FINDING**

The purpose of this decision is to determine if the Department of Natural Resources, Division of Forestry, will make available timber located in portions of Sections 17, 18, 19, and 20, Township 3 South, Range 12 West, and portions of Sections 13, 23, 25, 26, 27, 33, 34, 35, and 36, Township 3 South, Range 13 West, Seward Meridian

After due consideration of all pertinent information and alternatives, the Division of Forestry has reached the following **Final Decision: To offer the sale as proposed in Alternative 1.** The Division of Forestry finds that this final decision satisfies the objectives as stated in this document and it is in the best interest of the State to proceed with this action under its authority of AS 38.05.035(c) and AS 38.05.120.

**REQUESTS FOR RECONSIDERATION**

A person affected by this decision who provided timely written comment or public hearing testimony on this decision may appeal it, in accordance with 11 AAC 02. Any appeal must be received by December 30, 2013 and may be mailed or delivered to Joe Balash, Commissioner, Department of Natural Resources, 550 W. 7th Avenue, Suite 1400, Anchorage, Alaska 99501; faxed to 1-907-269-8918, or sent by electronic mail to <mailto:dnr.appeals@alaska.gov>. If no appeal is filed by that date, this decision goes into effect as a final order and decision on January 9, 2014. An eligible person must first appeal this decision in accordance with 11 AAC 02 before appealing this decision to Superior Court. If you have any questions, please contact Hans Rinke at the Kenai / Kodiak Area Office at (907) 260-4200 or e-mail [hans.rinke@alaska.gov](mailto:hans.rinke@alaska.gov).

Failure of the commissioner to act on a request for reconsideration within 30 days after issuance of this decision is a denial of reconsideration and is final administrative order and decision for the purposes of an appeal to Superior Court. The decision may be appealed to Superior Court within a further 30 days in accordance with the rules of the court, and to the extent permitted by applicable law. An eligible person must first request reconsideration of this decision in accordance with 11 AAC 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.

If you have any questions, please contact Hans Rinke Kenai-Kodiak Area Forester at (907) 260-4200 or by e-mail [hans.rinke@alaska.gov](mailto:hans.rinke@alaska.gov).



Michael Curran  
Coastal Regional Forester



Date

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Abbreviations

ADFG: Alaska Department of Fish and Game  
AHRs: Alaska Heritage Resources Survey  
BMPs: Best Management Practices  
DBH: diameter at breast height  
DEC: Department of Environmental Conservation  
DLP: Defense of Life and Property  
DNR: Department of Natural Resources  
DOF: Division of Forestry  
FF: Final Finding (Forest Land Use Plan)  
FLUP: Forest Land Use Plan  
FRPA: Alaska Forest Resources and Practices Act  
FYSTS: Five Year Schedule of Timber Sales  
KAP: Kenai Area Plan  
ORV: off-road vehicle  
PD: Preliminary Decision (Forest Land Use Plan)  
SHPO: State Historic Preservation Office

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**DF&G 1994.** Alaska Department of Fish and Game, Habitat and Restoration Division, Albert, Steve W. March 16, 1994. Attachment A to memorandum that describes affects of spruce beetle and harvest activities to wildlife species.

**DF&G 2000.** Kenai Peninsula Brown Bear Conservation Strategy, Alaska Department of Fish and Game, Division of Wildlife Conservation, June 2000.

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**DNR Parks 2013.** Division of Parks and Recreation. Alaska Heritage Resources Survey

**Frederick, Glenn. 1991.** Effects of Forest Roads on Grizzly Bears, Elk, and Gray Wolves: Literature reviews USDA Forest Service. Publication number R1-91-73, April 1991.

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**Links to Planning Documents:**

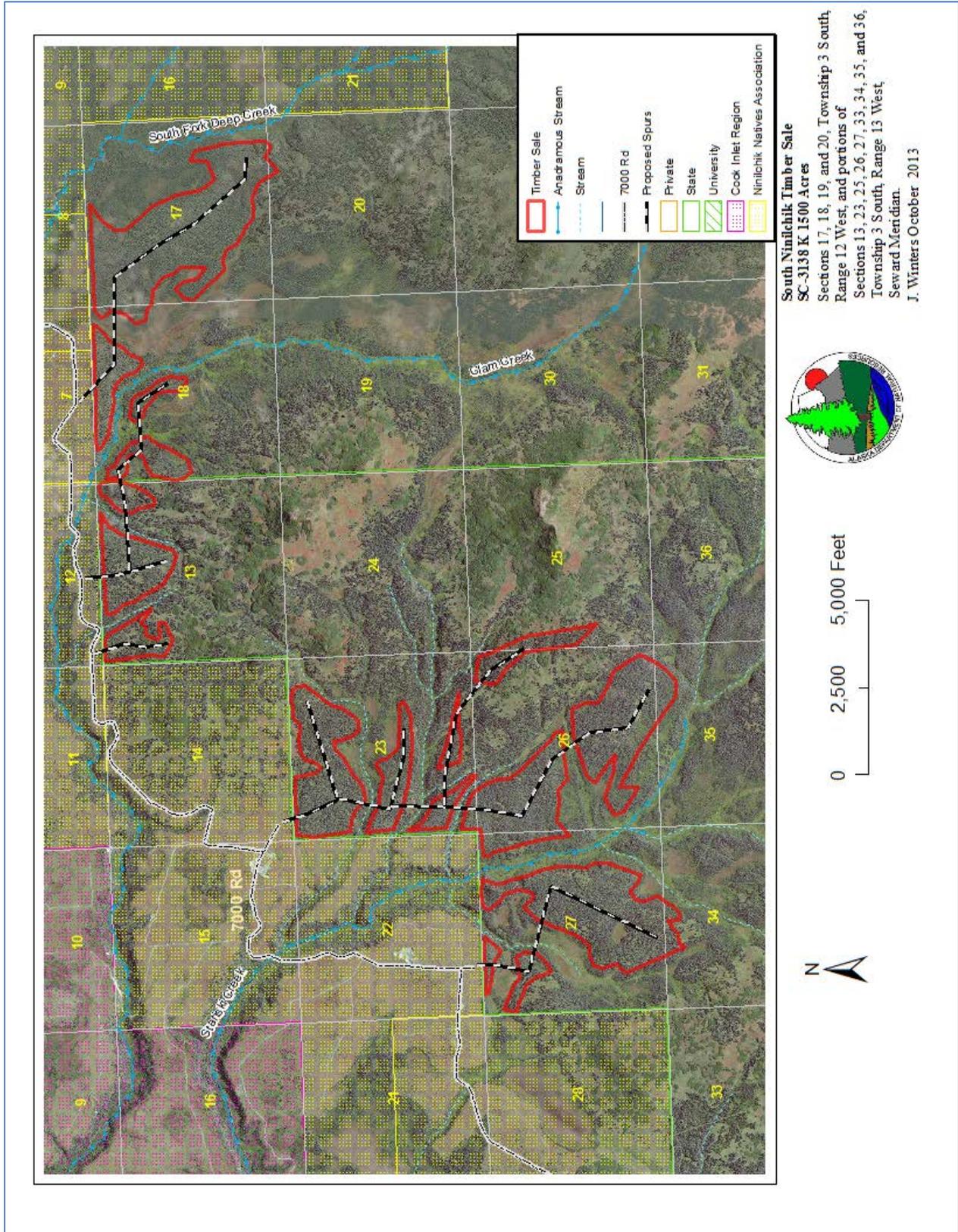
Kenai Area Plan: [http://dnr.alaska.gov/mlw/planning/areaplans/kenai/pdfs/master\\_KAP.pdf](http://dnr.alaska.gov/mlw/planning/areaplans/kenai/pdfs/master_KAP.pdf)

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Timber Sale Maps



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**Comments & Responses**

Department of Natural Resources, Division of Forestry  
November 2013

The following comments were received during the public comment period on the South Ninilchik Timber Sale.

<b>Organization</b>	<b>Author</b>	<b>Location</b>
Alaska Department of Fish & Game	Patti Berkhahn	Soldotna
Alaska Department of Environmental Conservation	Kevin Hanley	Juneau
Alaska Department of Natural Resources/Parks/State Historic Preservation Office	Mark Rollins	Anchorage

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Commenter	Comments	Response
<p>Patti Berkhahn</p>	<p>There are several anadromous streams within the harvest area including Clam Creek, South Fork of Deep Creek, Stariski Creek, and unnamed streams as well as unnamed resident fish streams. Any activity across these streams will be subject to Fish Habitat permits issued by ADFG, Habitat Division pursuant to Title 16 authority to protect fish passage and/or anadromous fish habitat. They should be provided riparian protection under AS 41.17.118 of the Alaska Forest Resources &amp; Practices Act.</p> <p><b>Flag streams prior to snowfall.</b> If streams pass through or abut harvest units, flag stream crossings and streams in the harvest area prior to snowfall.</p> <p><b>Leave buffer strips along lake, wetland, and bog areas.</b> No harvest buffer strips are intended to provide escape cover, thermal cover, resting cover, visual screens in hunting areas, and travel corridors for moose, bear, and other wildlife. They should include natural travel corridors such as ridge points, the forested edge of wetlands and tidelands, lake shorelines, and riparian corridors along anadromous and high value resident fish streams. Trees along the edges of muskegs, as well as pockets of sub merchantable timber within the harvest units should be retained for the purpose of wildlife cover.</p> <p><b>Directional falling and minimization of damage to residuals.</b> Practice directional falling to minimize damage to residual trees and away from waterbodies to protect water quality.</p>	<p>Noted. All roads and logging will be subject to water quality and fish habitat protection requirements of the Alaska Forest Resources &amp; Practices Act and the Regulations. Also, timber retention fringes, and concentrations of trees will be left to provide cover for wildlife as recommended in the Kenai Area Plan.</p>

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Commenter	Comments	Response
Kevin Hanley	<p>Given the paucity of streams or other surface waters within the individual harvest units of these sales, we have no significant concerns for the maintenance of water quality. In addition, we trust that the road construction and stream crossing components of the sales will be done in accordance with the standards of 11 AAC 95.290(f),(g),(h), and (i), and 11 AAC 95.300(a)(5). These standards pertain to proper winter road and ice bridge construction, use, and closure techniques for the protection of water quality.</p>	<p>Noted. The timber sale operator will be required to build roads and harvest timber in compliance with the statues stated in your comments.</p>
Mark Rollins	<p>There are no recorded AHRS sites within the proposed areas for timber harvest (South Ninilchik, East Ninilchik, &amp; Jerome).</p>	<p>Noted. Any cultural artifacts or remains discovered will be protected from impacts on scene and reported to the State Historic Preservation Office</p>