

**STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY**



KENAI / KODIAK AREA OFFICE

**FINAL BEST INTEREST FINDING AND
DECISION FOR
MILE 127 Timber Sale, SC-3093K
and the
Garden Timber Sale, SC-3179K**

January 2015

Final Best Interest Finding
Mile 127 Timber Sale
Garden Timber Sale

Contents

PROPOSED ACTION	2
II. STATUTORY AND REGULATORY AUTHORITY	2
III. ADMINISTRATIVE RECORD	3
IV. SCOPE OF DECISION	3
Step 1: Regional planning.....	3
Step 2: Five-year Schedule of Timber Sales (AS 38.05.113).....	3
Step 3: Best Interest Finding.....	3
Step 4: Forest Land Use Plans (AS 38.05.112).	4
Step 5: Timber sales and contracts.....	4
Step 6: Sale administration.	4
V. PROJECT LOCATION, LAND STATUS, AND DESCRIPTION	4
A. Location.....	4
B. Title status	5
C. Land use planning, classification, and management intent.....	5
D. Current access and land use	5
E. Background and description of proposal.....	5
F. Resources and management.....	7
G. Costs and benefits	10
VI. PUBLIC REVIEW	10
VII. PUBLIC NOTICE	10
VII. ALTERNATIVES AND DISCUSSION.....	10
VIII RECOMMENDATIONS AND PRELIMINARY DECISION	11
Timber Sale Maps	12
References Cited	15
Links to Planning Documents:.....	16

I. PROPOSED ACTION

The Division of Forestry is proposing to offer for sale 157 acres of both dead and live spruce, as well as birch from state lands located east of the Sterling Highway between Clam Gulch and Ninilchik, Alaska. The estimated volume between the two sales is 305 thousand board feet (MBF) of spruce. Both sales are to be sold by sealed competitive bid. In addition to salvaging dead spruce, these sales are intended to accelerate reforestation, increase habitat diversity, and decrease potential of catastrophic fire by reducing fuel loading from dead trees.

In addition to removing dead timber, mature spruce and birch exceeding established diameters will be available for harvest: live spruce over 10 inches Diameter at Breast Height (DBH) and birch exceeding 12 inches DBH. This will result in a partial overstory removal intended to promote reforestation, both by seeding and by retaining sufficient smaller trees per acre to meet reforestation standards of the Alaska Forest Resources & Practices Regulations. Fringes of unharvested timber will be retained surrounding all harvest units. These retention fringes will provide seed sources and wildlife cover.

The Preliminary Best Interest Finding (PBIF) and a Draft Forest Land Use Plan (FLUP) are being issued for review at the same time for these sales. The proposed sales covered by this PBIF appeared in the Mat-Su and Kenai / Kodiak Area CY 2014 – 2018 Five Year Schedule of Timber Sales.

The management objectives for the proposed timber sales are:

1. 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."
2. Reduce the wildfire risk and wildfire intensity by salvaging dead timber.
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 these sales, and therefore parallels the public's increasing firewood demand.

II. STATUTORY AND REGULATORY AUTHORITY

The Division is taking this action under the authority of AS 38.05.035(e) Best Interest Finding; AS 38.05.110-120 and 11 AAC 71, Timber Sale Statutes and Regulations; and 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 proceed with the action as proposed. This record will be maintained at the DOF's Kenai/Kodiak Area Office; the Mile 127 Timber Sale will be filed as SC-3093K and the Garden Timber Sale will be filed as SC-3179K.

IV. SCOPE OF DECISION

This final best interest finding (BIF) concludes step three of a six-step process to design, sell, and administer timber sales. The following list summarizes the overall process:

Step 1: Regional planning.

The Department of Natural Resources (DNR) develops area plans and state forest management plans to designate appropriate uses for state land, classify the land accordingly, and establish management guidelines for multiple use. These plans determine where timber sales are an allowed use, and what other uses must be considered when designing and implementing sales. Subsequent land use decisions must be consistent with the area plans. The area in this PBIF is covered by the Kenai Area Plan. The finding also considers the Interagency Wildland Fire Management Plan. The Ninilchik Area Community Wildfire Protection Plan, March 2006 covers the sale areas. The proposed area is not within a municipality—no municipal plans apply.

Step 2: Five-year Schedule of Timber Sales (AS 38.05.113).

The Kenai / Kodiak Area prepares a Five-year Schedule of Timber Sales every other year. The Schedule identifies proposed sales, including their location, volume, and main access routes. The Five-year Schedules are scoping documents that provide an opportunity for public, agency, and industry to identify potential issues and areas of interest for further consideration in the best interest finding. A proposed timber sale must appear in at least one of the two Five-year Schedules preceding the sale.

Step 3: Best Interest Finding.

A best interest finding is the decision document that:

- Establishes the overall area within which the timber sale may occur,
- Determines the amount of timber that will be offered for sale and the duration of the sale,
- Sets the overall harvest and reforestation strategy for the sale area,
- Determines whether the sale proposal complies with the Constitutional requirement to manage for sustained yield by evaluating the amount of timber in the sale and the annual allowable cut for the affected area,
- Selects the appropriate method of sale (i.e., competitive or negotiated sale), and
- Determines the appraisal method that will be used to determine sale prices.

The Division of Forestry issued a Preliminary BIF covering the decision to sell approximately 157 acres of mostly dead spruce from state lands located between Clam Gulch and Ninilchik in a competitive

Final Best Interest Finding
Mile 127 Timber Sale
Garden Timber Sale

sale for commercial use on November 24, 2014. DOF considered all written comments received during the 30-day review period.

This document is the final Best Interest Finding for the Mile 127 and the Garden Timber Sales. A person affected by the final decision who provided timely written comment or public hearing testimony on the preliminary decision may appeal it, in accordance with 11 AAC 02.

Step 4: Forest Land Use Plans (AS 38.05.112).

Prior to authorizing harvest of timber on any area greater than 10 acres, the DOF must adopt a site-specific Forest Land Use Plan (FLUP) for the harvest area. The Division of Forestry will prepare a Forest Land Use Plan (FLUP) of the overall sale areas covered by this best interest finding. FLUPs specify the site, size, timing, and harvest methods within the sale area. FLUPs also address site-specific requirements for access construction and maintenance, reforestation, and multiple use management. Draft FLUPs will be based on additional field work, agency and community consultation, and site-specific analyses by the DOF, and will be subject to public and agency review.

Step 5: Timber sales and contracts.

Following adoption of the final best interest finding, and completion of the FLUP, DOF will offer the timber for sale by auctioning competitive sales and/or negotiating some sales with purchasers. The Division will sign a contract with the winning bidder for each sale. The contract will include stipulations to ensure compliance with the best interest finding, FLUP, and statutory requirements.

Step 6: Sale administration.

DOF administers timber sales and conducts field inspections to ensure compliance with the final best interest finding, FLUP, timber sale contract, and applicable laws, including the Alaska Forest Resources and Practices Act and regulations (AS 41.17 and 11 AAC 95), and forest management statutes and regulations in AS 38.05 and 11 AAC 71.

V. PROJECT LOCATION, LAND STATUS, AND DESCRIPTION

A. Location

The proposed Mile 127 Sale is approximately 102 acres and lies within Section 34, Township 1 North, Range 13 West; and Sections 3, and 4, Township 1 South, Range 13 West, Seward Meridian. Ninilchik is the nearest community, and is located about 11 miles southwest of the sale. Cook Inlet Region, Inc. (CIRI) and miscellaneous private lands are adjacent to the sale area. These sales can be located on the United States Geological Survey 1:63360 Quadrangle maps titled Kenai A-4 and A-5.

The proposed Garden sale is approximately 55 acres and lies within Section 25, Township 1 North, Range 13 West, Seward Meridian. Ninilchik is the nearest community, and is located about 9 miles southwest of the sale. Cook Inlet Region, Inc. (CIRI) and miscellaneous private lands are adjacent to the sale area. This sale can be located on the United States Geological Survey 1:63360 Quadrangle maps titled Kenai A-4.

B. Title status

Both of the sale areas are on parcels selected by the Kenai Peninsula Borough; the selections are on file with the State as ADL 227977. The State has not made a final decision regarding conveyance of this selection to the KPB.

Land use planning, classification, and management intent

These sales are located in areas covered by the Kenai Area Plan (adopted in January 2000). The Mile 127 Timber Sale is within Kenai Area Plan Unit 60. The land use designation for Unit 60 is Resource Management—High Value. To date, there has been no resource allocation decision made for this unit. The Garden Timber Sale lies within Unit 48 C of the Kenai Area Plan. Under the Plan, designated land uses include Forestry and Habitat. The Forestry Land Use Designation was given to sites that are suited for forest management due to their vegetation. It is also designated for use as wildlife and fish habitat. Timber harvest while maintaining fish and wildlife habitat is possible by appropriate timber retention as recommended in the Kenai Area Plan, and adherence to requirements of the Alaska Forest Resources & Practices Act and the Regulations. The Department of Fish & Game will have an opportunity to comment and provide site-specific recommendations for protecting fish and wildlife habitat. The Kenai Area Plan states that land in either of these two designations are to remain in State ownership.

There are no mining claims or grazing leases within either of the sale areas.

The Interagency Fire Management Plan includes these lands in the Full protection category.

C. Current access and land use

There are no roads into either of the sale areas. The advertised access is via the section line easements as depicted in the timber sale maps. The land between the sale area and the Sterling Highway is primarily private parcels. Prospective purchasers may elect to access the sale along different routes and through other land ownerships provided that they obtain written authorizations from the land owners.

The current land use in both sale areas appears to be local recreational activity and hunting. There are no mining claims within the sale area, or grazing leases.

D. Background and description of proposal

1. Background: Timber sales are the Division of Forestry's means of salvaging timber for economic value by supplying the local firewood and lumber businesses. In turn, removal of primarily dead trees reduces wildfire fuel.
2. Timber volume and sustained yield: The sale contains an estimated 200 thousand board feet (MBF) of spruce to be sold by sealed competitive bid. These sales will salvage dead spruce. Due to limited quantity of live trees to be harvested (based on diameter) there is no anticipated

Final Best Interest Finding
Mile 127 Timber Sale
Garden Timber Sale

impact to sustained yield. The sale will be subject to 11 AAC 95.375 Reforestation Requirements. This will further ensure sustained yield.

3. Harvest unit design: The timber harvest unit is on an upland island of timber surrounded by large muskegs. Harvest is within perimeters as depicted on the sale area map. Timber will be retained in fringes surrounding the harvest unit and between the muskegs. The retention areas are intended to provide wildlife cover as recommended in the Kenai Area Plan.
 - a. Reforestation and site preparation: The sale area will be reforested in compliance with the Forest Resources and Practices regulations (11 AAC 95.375-.390) Live spruce less than 10 inches in diameter at breast height (DBH) will be retained throughout the harvest unit. Limited live birch trees—greater than 12 inches DBH—may be harvested. Scarification of the sale area will be required in addition to anticipated site disturbance associated with logging. The harvest unit will be monitored for natural spruce or birch propagation. If necessary, the State will provide artificial reforestation.
 - b. Access design and construction: Access design, construction, and maintenance will comply with the Forest Resources and Practices regulations (11 AAC 95.285-.355).

Mile 127: The proposed access into the sale area is from an existing driveway located near Mile 127.8 of the Sterling Highway. The access will continue east between the following sections: between Section 34 of Township 1 North Range 13 West and Section 4 of Township 1 South Range 13 West. The access road will consist of winter road and will be within the section line easement. No anadromous fish habitat has been found in the sale area. Surface water will be crossed by ice bridges.

Garden: The proposed access into the sale area is via an existing trail that extends from the Sterling Highway near Mile 123.7 southeast through a parcel owned by the University of Alaska. The timber sale purchaser will need to directly obtain permission from the University of Alaska.

All roads in the sale area will be constructed, maintained and closed by the timber sale purchaser. The purchaser will be required to obtain all permits needed to construct access from the Sterling Highway to the sale area. The purchaser will be required to contact the Department of Transportation for information regarding driveway permits.

The Purchaser may also make arrangements directly with an adjacent private property land owner for access from the Sterling Highway into the sale area. This access would entail using existing driveways instead of obtaining a DOT permit. The Purchaser would be responsible for contacting private land owners and obtaining permission to cross their land to access the sale area. The State would not assume liability for portions of roads that lie on private property.

- c. Appraisal method: The dead timber in the sale area is expected to have low sawlog value. Due to decay, the primary commercial product is firewood. Volumes estimated during an inventory conducted by the Division of Forestry in 2012 (Hanson, 2012), combined with estimated yields in the closest past timber sales will be the basis for volume estimates. This enables a more cost effective means laying out the sale; greater profit is possible by omitting the costs associated with cruising the timber. As with previous sales, the timber will be sold per acre, with a minimum bid price per acre. Timber will be auctioned by sealed bids. The timber quantity and quality will not be guaranteed. Prospective buyers will be encouraged to examine the timber prior to placing bids.

F. Resources and management

1. Timber

- a. Timber stand composition and structure: Forest stands in both sale areas are on upland sites surrounded by muskegs and concentrations of black spruce. The estimated composition of standing timber is 40 percent spruce, 50 percent birch and the remainder a mix of aspen, cottonwood, and black spruce.
- b. Stand Silvics: Most of the once dominant spruce have fallen over and are extensively decayed. There are relatively few live spruce over 12 inches DBH. There are ongoing changes to the living forest stand structure, including: reduction in average age of trees, lower average DBH, lower average tree height, increased competition to seedling propagation by grass, and declining stand densities.

Bluejoint reedgrass (*Calamagrostis canadensis*) is already present throughout both sale areas in light to moderate densities, depending upon canopy cover. This grass grows over 24 inches high and forms dense rhizome sods. (INFEST, 2011) Dead grass from previous years adds to the mat. This insulates the soil, keeping soil temperatures low even during the summer, (Lieffers, MacDonald, Hogg, 1993). These characteristics make this grass highly competitive against tree seedling propagation—by inhibiting tree root development and by overtopping.

- c. Topography and Soils: The proposed sales will be designed and managed to prevent significant impairment of the land and water with respect to renewable resources (AS 41.17.060(c) (5)). Both sales lie on gently rolling glacial outwash terrain. The elevation ranges from 500 - 550 feet above sea level and has a relatively flat aspect. The Natural Resource Conservation Service Soil Survey indicates the predominant soil type in the sale area is of the Cohoe Series. The Cohoe Series is a deep, well-drained silt loam occurring on nearly flat to strongly sloping terrain. The soil's susceptibility to erosion is rated as slight to moderate. The Cohoe series is also one of the more productive soils on the Kenai. Other upland soils include Spenard silt loam, which is a somewhat poorly drained soil. Muskeg areas are dominated by Doroshin and Starichkof peat soils and the bogs are Salamatof peat soils (NRCS, 2011).

Final Best Interest Finding
Mile 127 Timber Sale
Garden Timber Sale

The most likely potential source of soil erosion would be from road construction, and will be mitigated by constructing and utilizing winter roads, as well as winter logging. Timber harvest, road construction, and maintenance will be subject per the timber sale contract to adhere to requirements of the Alaska Forest Resources & Practices Regulations. Due to predominate rolling terrain with slopes less than 15 percent grade, and the fact that roads will be utilized only in the winter, slope failure is unlikely.

2. Agriculture. There no ongoing or anticipated agricultural activities in the sale area.
3. Wildlife habitat and harvest. 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. Both the displacement and decline in populations may be offset by unharvested fringes left surrounding harvest units and by surrounding unharvested land that far exceeds the acreage of the proposed 55 and 105 acre harvest units. Species preferring the grass-forb successional stage will likely increase in abundance (DF&G 1994).

Bears:

No denning sites were found during field reviews for brown or black bears. Both species may be present in proximity to the sale area. Their duration in the sale area compared to surrounding sites is unclear. This may be due to residential development within two miles of the proposed sale areas.

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 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 particularly for travel in and out of the sale areas.

Seasonal road use and retained concentrations are planned actions intended to align with the recommendations of the Kenai Peninsula Brown Bear Conservation Strategy (DF&G 2000).

Moose:

As the dead spruce fall to the ground, it becomes increasingly more difficult for moose to walk through stands laden with deadfall. Escape routes from predators are diminished, and may result in increased predation of young moose. Moose have been observed to completely avoid wind-thrown stands as large as 40 acres (Innes, USFS, 2010). The increasing amount of deadfall and debris on the forest floor could limit access to preferred foraging areas and limit mobility during critical times of the year for moose (DF&G 1994).

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 dominant species of the existing stand, these sales operation is intended to result in mature birch trees left standing as seed sources. Ground disturbance from logging activity will result in favorable conditions for subsequent birch regeneration.

Birds:

The potential effects from a timber harvest on cavity-nesting and other non-game birds will be the shortage of suitable nesting trees, which could result in lower numbers of birds. The conversion of sites to early successional stages could result in a shift in bird species composition to favor birds that prefer grass, shrub/forb, and sapling habitats (DF&G 1994).

The impacts of timber harvest are expected vary among bird species. Bird species that require closed canopy will be displaced by canopy loss. However, the retention fringes surrounding the harvest units may offset habitat loss associated with canopy removal.

Snags and downed woody material likely benefit cavity-nesting birds such as woodpeckers, some owls, brown creepers, nuthatches, and chickadees (DF&G 1994). Living spruce seldom has soft heartwood preferred by cavity nesters. Spruce that die usually falls to the ground within 10 years, which is the time it takes for the heartwood to soften. The larger diameter birch, aspen, and cottonwood trees are more important than spruce for cavity nesters, however, there is very few birch within the timber sale and no aspen or cottonwood trees.

4. Fish Habitat, water resources, and water quality. The proposed sale will be designed and managed to protect fish habitat and water quality in compliance with the Forest Resources and Practices Act and regulations (AS 41.17 and 11 AAC 95). There are no anadromous fish or high-value resident fish water bodies within the sale area. Road construction and logging will occur during when the ground is frozen in order to allow log transport.
5. Recreation, tourism, and scenic resources. Recreational activity in the sale area is mostly by local residents for hunting. The harvest unit will not be visible from the Sterling Highway. Timber harvest may be visible by air. Timber will be retained surrounding and within the sale area to provide cover, seed sources, and stand regeneration.
6. Cultural Resources. DOF works with the State Historic Preservation Office (SHPO) to identify and avoid known cultural, historic or prehistoric sites in planning the proposed access routes and salvage areas. If additional archaeological sites are identified, proposed salvage areas and road locations will be appropriately adjusted to avoid conflicts. If any historic or archaeological sites are encountered during road construction or harvest activities, DOF will immediately inform SHPO and take action to protect the findings. Describe any specific measures to protect cultural resources (e.g., winter operations, any site-specific actions as a result of SHPO consultation)

7. Subsurface Resources. Describe any mining claims, mine development, oil & gas activity, or material sites in the sale area, and likely effects of the proposed sale on subsurface activities.

G. Costs and benefits

The administrative costs for these sales are estimated to be \$2500. Administrative costs include writing the planning documents required for processing the sale, advertisement costs and contract administration. Field layout cost approximately \$1000. The greatest expected value of this timber is in firewood. Less than 25% of the total volume is likely to be utilized as saw timber if compared to the utilization of other state timber sales

VI. PUBLIC REVIEW

The public and agencies are invited to comment on this Best Interest Finding. Objections or comments pertaining to the proposed action must be received in writing by the DOF Kenai/Kodiak Area Office **by 5 PM on January 30, 2015** in order to ensure consideration for review. Comments should be mailed to the State of Alaska, Division of Forestry, 42499 Sterling Highway or by email to hans.rinke@alaska.gov. For more information you may contact Hans Rinke—Area Forester, Alaska Division of Forestry, Kenai / Kodiak Area Office Soldotna; 907-260-4200. To be eligible to appeal the final decision, a person must have provided written comment by **5 PM on January 30, 2015**.

VII. PUBLIC NOTICE

This Best Interest Finding is being publicly noticed in compliance with AS 38.05.945. Notice was posted on the Alaska Online Public Notice System, Post Offices and libraries.

VII. ALTERNATIVES AND DISCUSSION

There are two possible alternatives to consider for this project area. A discussion of each of the alternatives follows. All alternatives are consistent with the area plan and applicable statutes and regulations.

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 Preliminary Best Interest Finding.** 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.

Final Best Interest Finding
Mile 127 Timber Sale
Garden Timber Sale

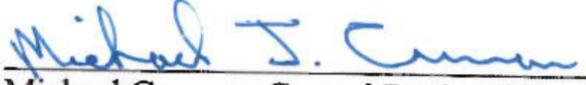
2. Do not offer this timber sale. This alternative would result in not meeting any of the objectives outlined for this management action. Utilization of the forest resource would not be achieved. There would be no opportunity for these sales to contribute to the local economy. This alternative would prevent the state from providing a resource for the local wood products industry as well as firewood. As the dead timber decays, the potential for recovering forest products and local firewood diminishes.

VIII RECOMMENDATIONS AND FINAL BEST INTEREST FINDING

After due consideration of all pertinent information and alternatives, the DNR has reached the following Final Decision: To offer for sale of approximately 157 acres of spruce both dead and live, and selected birch to provide saw timber and firewood. Expected benefits include fire hazard reduction and wildlife habitat improvement as proposed in Alternative I and described in this Final BIF. The DOF finds that this final decision satisfies the objectives 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(e) (Powers and Duties of the Director) & AS 38.05.110-120; 11 AAC 71 (Timber Sale Statutes and Regulations).

A person is eligible to participate in any appeal or request for reconsideration to the final finding if he or she has submitted comment to the preliminary finding and decision during the comment period.

If you have any questions, please contact Hans Rinke—Area Forester at hans.rinke@alaska.gov, or 907-260-4210.


Michael Curran—Coastal Regional Forester
Alaska Division of Forestry

1-7-15
Date

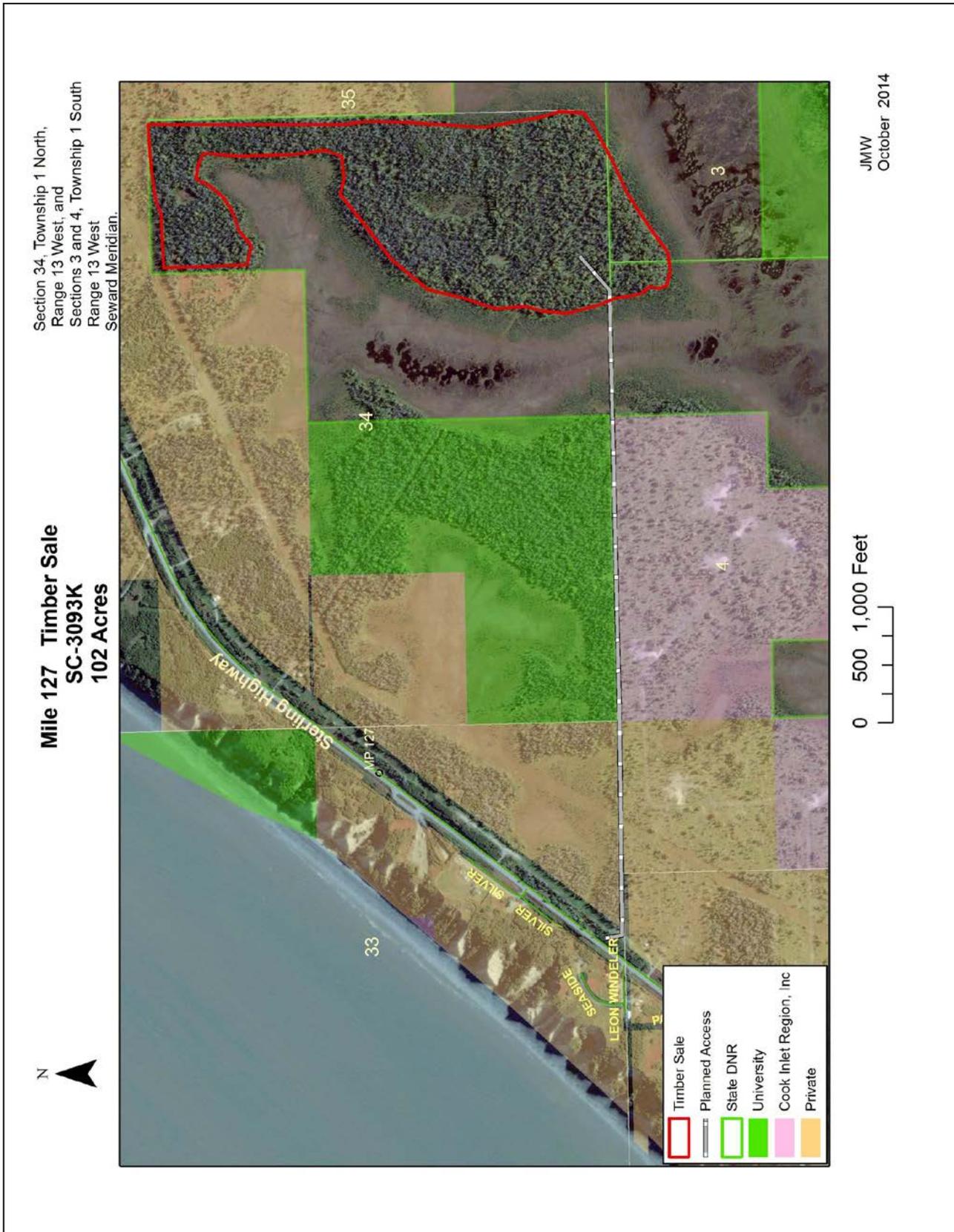
XI. ATTACHMENTS

Maps of the proposed project area follow.

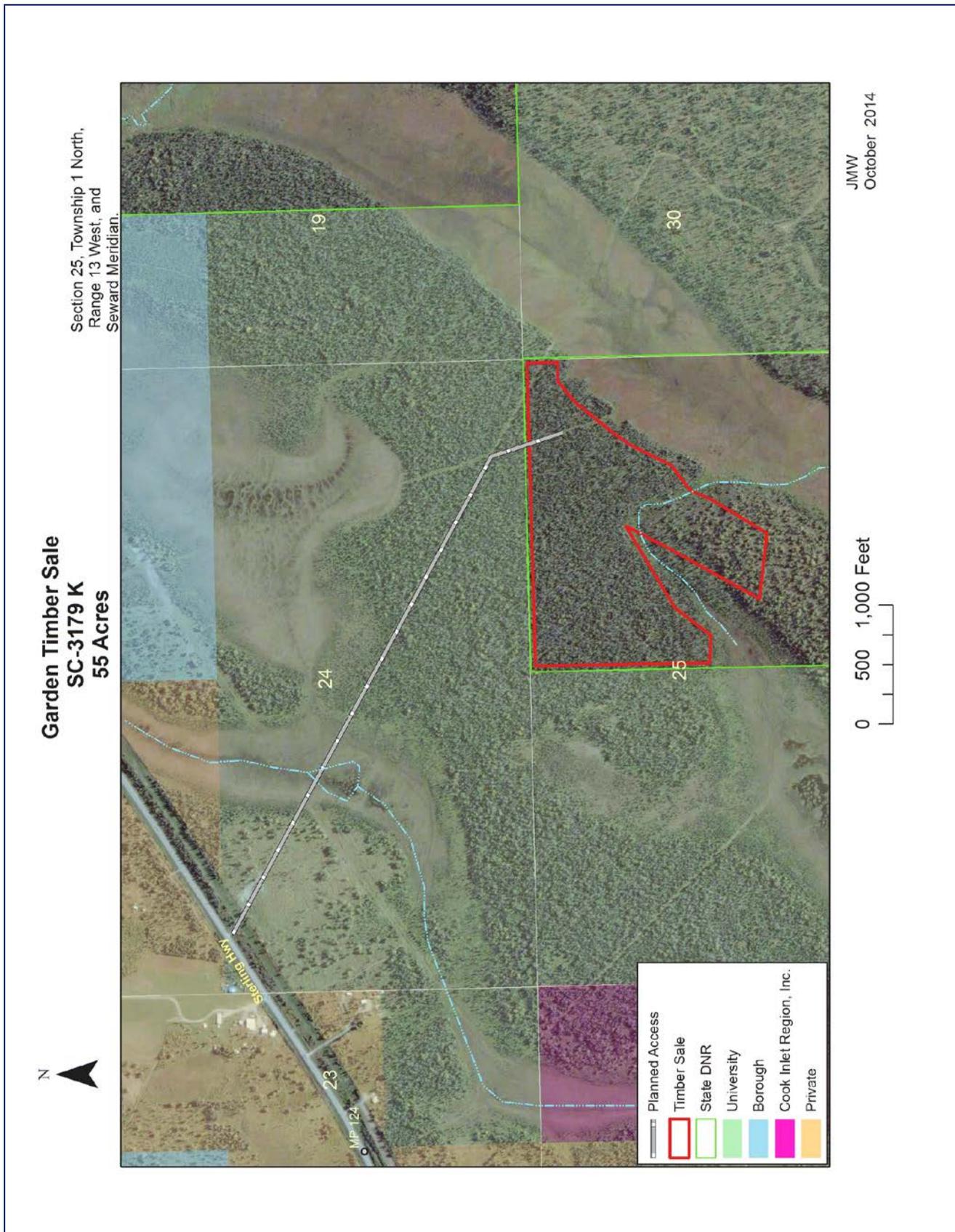
Timber Sale Maps



Final Best Interest Finding
 Mile 127 Timber Sale
 Garden Timber Sale



Final Best Interest Finding
 Mile 127 Timber Sale
 Garden Timber Sale



Final Best Interest Finding
Mile 127 Timber Sale
Garden Timber Sale

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INFEST #6, Forest Information Series #6, Bluejoint Reed Grass: Basic Ecological Considerations, Interagency Forest Ecology Study Team, Prepared by Tom Stephenson

INFEST #9, Forest Information Series #9, Spruce Regeneration After Spruce Beetle Outbreaks: Management Considerations, Interagency Forest Ecology Study Team, Prepared by Beth Schulz.

INFEST #11, Forest Information Series #11, Spruce Bark Beetles and Wildlife, Interagency Forest Ecology Study Team, Prepared by Lowell Suring.

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Final Best Interest Finding
Mile 127 Timber Sale
Garden Timber Sale

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Links to Planning Documents:

Kenai Area Plan: http://dnr.alaska.gov/mlw/planning/areaplans/kenai/pdfs/master_KAP.pdf

Comments and Responses:

The following comments were received during the public comment period on the Mile 127 and the Garden Timber Sales

Organization	Author	Location
Alaska Department of Environmental Conservation	Kevin Hanley	Juneau

Commenter	Comment	Response
Kevin Hanley	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.	Noted. The timber sale operator will be required to build roads and harvest timber in compliance with the Alaska Forest Resources & Practices Act and the Regulations.