

## FORESTRY

### Goals

Ensure that the state forestlands continue to contribute to the quality of life and economy in the planning area by:

1. providing wood for personal and commercial uses and providing jobs from timber harvesting and processing;
2. ensuring that timber harvest adheres to sustained yield principles;
3. accelerating reforestation of spruce beetle-impacted areas through a variety of means;
4. supporting tourism, maintaining opportunities for diverse recreational activities in a variety of settings, and promoting scenic quality;
5. protecting and enhancing fish and wildlife habitat, and
6. protecting air, land, and water quality.

### Management Guidelines

In addition to the guidelines below, the Forest Resources and Practices Act (AS 41.17) and Regulations (11 AAC 95) provide statewide policy and guidance for managing forestry related activities. Site-specific guidelines for forestry management activities will be addressed through the Forest Land Use Plan prior to any commercial timber sale or harvest (AS 38.05.112). Timber harvest activities must be compatible with the guidelines in this section and with the management intent statements and land-use designations identified for each unit in Chapter 3.

**A. The Changing Forests.** This plan provides general management intent for how the state should manage its forest resources in the planning area over the next 20 years. Nonetheless, the spruce forests in the planning area are changing rapidly due to massive spruce beetle infestation and a general warming trend. Over the next ten years there will be a significant reduction in the volume of merchantable spruce remaining in the planning area. Other factors such as fire occurrences, new information on brown bear habitat, and success or failure of unmanaged forested areas to regenerate following the spruce beetle infestation will also be known over the next several years. For this reason, the sections of the plan that address lands with commercial timber harvest potential may have to be revisited and revised before the end of the 20-year planning window (see *Types of Plan Changes*, Chapter 4, for more information on the process for revising this plan).

#### **B. Harvest by Designation and Type of Timber Sale**

1. *Forest management of land designated Forestry.* All lands designated Forestry are areas that the Division of Forestry has identified suitable for timber production over the long term. These lands will be retained in state ownership. Subject to the guidelines in this plan, the timber in these units is available for timber production and will be part of the timber base for calculating the Annual Allowable Cut.

2. *Forest management of land designated resource management - high value or general use.* The Resource Management - High Value designation is used in this plan where land may have a number of important resources but a specific resource allocation decision is not possible because of the lack of information; or an allocation decision is not necessary at this time even though the unit may have two or more potential uses that may conflict. The General Use designation is used when land contains one or more resource values, none of which is of sufficiently high value to merit designation as a primary use. In units designated Resource Management - High Value, General Use, Transportation, Materials, Agriculture, Settlement, or Public Facilities, a percentage of forest cover is available for timber production and included in the timber base unless prohibited by the management intent for the individual unit. The proportion of each unit included in the timber base for calculating the Annual Allowable Cut will vary depending on the management intent for the unit.

3. *Forest management of land under other designations.* Units designated for Wildlife Habitat and Harvest, Public Recreation and Tourism (Dispersed Use or Public Use Site) and Heritage Resources will not be included in the long-term timber base unless specified in the management intent for the unit. Timber harvests may occur in these units if the sale is designed to be consistent with the management intent for the unit. For units designated Fish and Wildlife Habitat, harvests may be considered in consultation with ADFG.

4. *Timber salvaged from land cleared for non-forest use.* There is no limit on the percent cover/volume that can be salvaged from clearing land for a non-forest use such as for roads, transmission lines, materials sites, or coal mining.

5. *Cutting and gathering wood for personal use.* Dead and down wood on state land may be gathered for personal use. This wood may not be used for barter, sale, or commercial purposes. Live trees on state land may not be harvested without DNR authorization. Using dead and down firewood for a cooking or warming fire is a Generally Allowed Use under 11 AAC 96.020, unless the area has been closed to all fires because of danger to wildfire. However, harvesting of dead and down wood for personal use or for other uses still requires a permit.

6. *Beach log salvage.* Beach log salvage will be administered under the provisions of the Alaska Coastal Management Program (ACMP) consistency review procedures. If, in the future, beach log salvage is no longer under the provisions of an ACMP general concurrence determination, and if beach log salvage activities are proposed, this plan should be modified to include guidelines to manage beach log salvage. If the plan is not modified, salvage activities shall be consistent with standards for beach log salvage that have been developed by the Division of Forestry.

### C. Guidelines for Timber Sale Layout.

1. *Five Year Schedule of Timber Sales (FYSTS)*. In accordance with AS 38.05.113, the Division of Forestry annually prepares a FYSTS. This schedule provides the public, timber industry, and other agencies with an overview of proposed timber activities on state land for the next five years. Listing a proposed sale does not mean a decision have been made to go forward with the sale. The FYSTS solicits input on whether or not to proceed with sale planning and on concerns to be addressed in sale design. Except for salvage sales, emergency sales, and negotiated sales less than 500 MBF (including personal use permits), all sales must be included in the two five-year schedules preceding the sale. This area plan will not make timber harvest decisions.
  
2. *Forest Land Use Plans (FLUPs)*. This area plan will not make timber harvest decisions. Before commercial timber harvest decisions are made for the planning area, the Division of Forestry (DOF) will prepare a draft Forest Land Use Plan (FLUP) that is the preliminary decision document. FLUPs are required for all sales greater than 10 acres. FLUPs will contain site-specific guidelines for timber harvest, including the location, timing, and volumes of proposed timber harvest, timber sale access, and reforestation plans on state land managed by DNR. FLUPs are generally completed between five and 14 months prior to the anticipated timber sale, and both agencies and the public will have an opportunity to review and comment on the FLUPs. The Division of Forestry will evaluate these comments and respond to them in the final FLUP. If the timber harvest proceeds, DOF will modify it as appropriate using public and agency comments.
  
3. *Size and shape of timber harvest units*. The size, shape, and spacing of timber harvest units will be based on silvicultural requirements, considerations of wildlife travel impediments, wildlife feeding, the purposes of adjacent special management areas and leave areas, access, vegetation patterns, terrain, and harvest equipment efficiency. Timber stands shall be designed for shape and edge contrast to provide for wildlife needs.
  
4. *Leave area design criteria*. Leave 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. Forest leave strips 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. Also see *Bear Habitat Zones* in Table 2-4 under the *Shorelines, Stream Corridors and Wetlands* section in this chapter.
  
5. *Slope restrictions*. Special consideration will be given to any timber harvest/habitat enhancement projects on slopes exceeding 40 per cent. Ground-based harvest equipment must be matched to the soils and terrain. Mechanical scarification needs to be carefully designed where a slope is greater than 40 per cent
  
6. *Recreation and scenic values*. The size and shape of cutting units will be designed with consideration of recreation values and scenic quality. Cutting areas will reflect local

topography and will be designed to appear similar to natural openings after revegetation. Note, though, that the extensive beetle-killed spruce on the Kenai Peninsula will create limitations on design of cutting units. Of particular importance is protection of the viewshed of the Seward Highway that has been designated as an All American Road.

7. *Timber harvest on state lands near extensive logging on private land.* When developing the five-year schedule, DOF will take into consideration the past and proposed harvesting of timber on adjacent lands. Consideration should be given to joint transportation planning.

8. *Sustainable yield.* The Alaska Constitution and the Forest Resources and Practices Act (AS 41.17) require that state land be managed for a sustainable yield of replenishable resources. For forests, this is defined as, “A high level of annual or regular periodic output of the various renewable resources of forest land and water without significant impairment of the productivity of the land and water, but does not require that timber be harvested in a non-declining yield basis over a rotation period.” (AS 41.17.950(17)). The Alaska Supreme Court helped clarify this definition, stating that timber cutting may be permitted at a level that cannot be sustained over a forest rotation only in unusual circumstances such as salvage cuts where trees have been killed or damaged.

On state lands in the planning area, harvesting (non-salvage timber) in any ten-year period shall not exceed ten times the annual allowable cut. The amount of timber available in any year equals ten times the annual allowable cut minus the volume harvested in the previous nine years. This guideline is intended to allow flexibility in scheduling harvests to respond to fluctuations in timber markets, while ensuring that timber is available throughout the rotation and that the lands in the guidelines’ area continue to support forests of a variety of ages to support wildlife, recreation, tourism, and other public uses.

Due to the spruce beetle epidemic on the Kenai Peninsula, the Division of Forestry proposes to harvest additional acreage over the next ten-year increment. This departure from even flow sustained yield is necessary to utilize the decaying wood resource and assure timely reforestation of the infested acreage. Sustainability and annual allowable cut are based on live, growing trees. With the present spruce beetle infestation on the Kenai, the volume of spruce tree mortality now exceeds volume growth, thus placing the sustainability of forest resources at their present levels in jeopardy.

9. *Reforestation.* All areas harvested on state lands will be reforested to the fullest extent practicable (11 AAC 95.375). Certain exceptions to this regulation include land that is being converted to another use, or a stand that is significantly composed of insect and disease-killed trees. Natural regeneration will be used where possible. Most tree species in Alaska require mineral soil in order to optimize germination. Scarification is the mechanical process of exposing mineral soil on the forest floor in order to enhance the establishment and development of a new forest crop. To ensure that desirable forest species can establish and out compete grassland species, scarification is sometimes

necessary. Without scarification, grasses will dominate the site for decades and retard the re-establishment of trees.

**D. Log Transfer Facilities and Sort Yards.** All sort yards and log transfer facilities (LTFs) will be constructed, sited, operated, and monitored in compliance with the DOF’s Log Transfer Facility Siting, Construction, Operation, and Monitoring/Reporting Guidelines (October 21, 1985). Modifications to the approved operations require interagency review and approval. These facilities should be sited, constructed, and operated according to the following criteria:

1. Resource transfer sites and facilities should be sited and operated to avoid or minimize interference with important and established personal, commercial, or recreational uses.
2. Joint use and consolidation of Resource Transfer Sites will be required where feasible and prudent, for efficiency, and to minimize impacts to other uses.
3. The feasibility of using or modifying existing sites will be evaluated before a new site is authorized.
4. Resource transfer sites should be sited and designed to accommodate future use and development. (See also the *Waterfront Development* section in this chapter).

**E. Fire Hazards.** Although the DOF is restricted from harvesting timber in many areas (such as near eagle nests, in critical fish and wildlife habitat, and in riparian buffers), harvesting in these areas is allowed when necessary to prevent or control outbreaks of wildfire, or to remove dead and dying trees that are potential hazards to public facilities. Because of the extensive amount of beetle-killed spruce forest on the Kenai Peninsula, the danger of fire and falling trees may be unusually high on the Kenai Peninsula in the near future. Timber harvest, even in the restricted areas mentioned above, may be allowed if it is determined, through evaluation of risk factors, that it is necessary in order to create fire breaks and fire roads, or to remove potential hazard trees, especially near public facilities like schools, campgrounds, and near heavily-settled areas.

If harvesting is proposed to occur near eagle nest trees, the DOF should consult with the U.S. Fish and Wildlife Service during the planning process or before harvesting operations begin.

**F. Maintain a Mosaic of Habitat.** Natural disturbance regimes provide the basic blueprint for sustaining pattern and processes across the landscape. Management practices are utilized that reflect these landscape patterns and ecosystem processes, thus providing a mosaic of habitats.

**G. Species that Need Additional Habitat Protection in Forestry Management Areas.** Some species in the planning area will need habitat maintenance measures more detailed than this area plan provides. Species that could require further consideration include moose, goats, marten, black and brown bears, swans, Neotropical migrating birds and eagles. DOF, in consultation with DFG, will apply more detailed habitat protection through the FLUP planning process. Additional protection for these species will be included in the FLUP.

## H. Transportation and access for forestry management activities.

1. *General.* The location, design, and development of roads shall consider multiple use values of state lands, and reflect the management intent and primary uses for the affected area. The goal is to optimize long term public use benefits from new access while minimizing adverse effects on existing public uses, including maintaining a range of recreation opportunities and wildlife habitat values.
2. *Road Management and Access.* Descriptions of proposed access corridors, types of access, and proposals for road management after forest operations will be included in the Five-Year Schedule of Timber Sales. The Forest Land Use Plan for each sale will include preliminary location of any proposed primary and secondary roads. The FLUP or transportation schedule shall state whether or not roads will be permanent or put-to-bed and whether or not roads put-to-bed will be open to off-road vehicle use. Non-permanent secondary roads and spur roads will be put to bed.

**I. Recreation Areas.** Impacts on recreation and scenic values are considered prior to harvesting. AS 41.17.101 (c)(6) states that allowance shall be made for scenic quality in or adjacent to areas of substantial importance to the tourism and recreation industry. AS 38.05.112 requires Forest Land Use Plans to contain appropriate guidelines on areas to be harvested, road access, buffers, harvest method, etc. The FLUP will be the method for addressing site-specific conflicts and concerns.

Recreation activities are often concentrated along rivers, streams, and lakeshores. Waterbodies provide access routes and support recreation by boats, snowmachines, float planes and ski planes. Water bodies are also key elements of the beauty and diversity of the landscape. The management objective for recreation is maintenance of diverse recreation opportunities in waterfront areas and the adjacent riparian and woodland areas, and maintenance or enhancement of the scenic values of these lands.

Under the Alaska Forest Practices Act (AS 41.17.118(a)) the harvest of timber may not be undertaken within 100 feet immediately adjacent to an anadromous or high value resident fish waterbody. Between 100 and 300 feet from the waterbody, timber harvest may occur but shall be consistent with the maintenance of important fish and wildlife habitat.

**J. Harvest in Areas Proposed for Addition to the State Park or Refuge/Critical Habitat Area System.** Commercial timber harvest is prohibited in areas that this plan proposes for addition to the State Park, Game Refuge, Critical Habitat Area, or Game Sanctuary systems except for purposes of recreation, scenery, public safety (including fire danger), and wildlife habitat enhancement purposes. Harvest may also be allowed in some proposed additions to parks, refuges, or critical habitat areas when the management intent for the unit specifically allows for it.

1. *Timber harvest in the Kenai River Special Management Area and proposed additions to KRSMA.* Timber harvest is prohibited on lands in or proposed for addition to KRSMA except as may be necessary to protect or enhance public safety, scenery,

habitat and recreation or carry out any other statutory purpose of KRSMA, in consultation with ADFG on habitat issues.

2. *Timber harvest within the Kenai River Drainage.* For lands that are not in KRSMA or proposed for addition to KRSMA in the *Kenai River Comprehensive Management Plan*, timber harvest is prohibited within 200 feet of ordinary high water on the main stem of the Kenai River tributaries listed in the KRCMP (list follows). Exceptions to this prohibition may be allowed in order to prevent or mitigate impacts from insect infestations, disease, fire, or windthrow when they threaten public safety or habitat, scenic, or water quality values. Under the Alaska Forest Resources and Practices Act, between 200 and 300 feet from the waterbody, timber harvest may occur but shall be consistent with the maintenance of important fish and wildlife habitat. This applies to the following Kenai River tributaries.<sup>6</sup>

|                |                  |                |
|----------------|------------------|----------------|
| Funny River    | Snow River       | Trail River    |
| Quartz Creek   | Juneau Creek     | Crescent Creek |
| Cooper Creek   | Ptarmigan Creek  | Beaver Creek   |
| Soldotna Creek | Slikok Creek     | Dave's Creek   |
| Victor Creek   | Shakleford Creek |                |
| Bean Creek     |                  |                |

#### **K. Coordination of Hazard Tree Removal**

There is an immediate need to initiate a tree removal effort that will eliminate the current and projected hazards of dead or dying trees to existing public facilities such as schools, campgrounds, roads, and rights-of-way.

**L. Heritage Resources in Timber Management Areas.** See the guideline for this resource under the *Heritage Resources* section.

#### **Resource Allocation Summary**

The planning area contains extensive acreage with high or moderate potential for commercial timber production because of soils, elevation, climate, and access. On the peninsula, these lands include state-owned forestlands located on the valley bottoms and lower slopes around Moose Pass, Salmon Creek (north of Seward), and the drainages originating in the Caribou Hills. Elsewhere in the planning area, there is commercial timber on Kalgin Island, Elizabeth Island, and along the Chuitna River. Most of these areas have been affected by beetle infestation and are expected to lose a significant percent of their commercial value over the next five years. For this reason, only 26,100 acres have been designated Forestry by the Kenai Area Plan. The management intent for these lands is to manage them over the long term for timber production or

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<sup>6</sup> Derived from page 74, Table 4-5 in the Kenai River Comprehensive Management Plan, 1997. The list of rivers included here differs from the list in the KRCMP since this list includes only those rivers that have corridors adjacent to state land. Anadromous rivers not on this list are still protected, however, under the Forest Resources and Practices Act.

for personal use timber harvest. Units designated Resource Management - High Value or General Use also allow for timber harvest. However, these units do not designate timber production as a primary use. State lands under other designations also allow for commercial harvest, harvest prior to clearing for resource development and salvage harvest consistent with the management intent for the individual units. Personal use harvest and house log cutting may be authorized under all designations.

The plan protects waterbodies, fish and wildlife habitat, scenic resources, recreation, and water quality through guidelines in Chapters 2 and 3 and management intent statements for each unit. This management intent will be used in combination with the Forest Resources and Practices Act (AS 41.17) and regulations (11 AAC 95), and the Forest Land Use Planning process.

The plan designates 18 units Waterfront Development that are intended to be used for transfer of products from uplands to the tidelands. Of the areas designated Waterfront Development, several are existing or proposed log transfer facilities including sites on Kalgin Island, the south side of Kachemak Bay, the outer Kenai Peninsula coast (between Rocky and Dogfish Bays), Elizabeth Island, Crescent River and Tyonek. For further information, see the *Waterfront Development* section in this chapter.

The plan also addresses forest management and logging road construction in areas important to brown bears and other wildlife. Finally, the plan identifies areas used for forest research and education including the Homer Demonstration Forest, two sites located south of Clam Gulch, and the experimental plots near Centennial Lake.