

# I. FISH AND WILDLIFE

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## C. GUIDELINES

### 1. HABITAT ENHANCEMENT

These guidelines apply to all areas where habitat enhancement is carried out unless specifically superceded by a subunit guideline.

a. **Timing of Enhancement Activities.** Habitat enhancement activities for fish and/or wildlife species may occur, subject to guidelines below, when biological and/or population data [STATISTICS] indicate that improvements in survival, reproduction, and/or population numbers can or need to be increased through habitat enhancement/rehabilitation activities.

(1) [HOWEVER,] Enhancement activities will not occur in Hatcher Pass until evaluation of enhancement projects in the Matanuska Valley Moose Range or other areas indicates that the techniques are effective in increasing habitat carrying capacity for moose [PRODUCTION].

(2) Timber harvesting activities shall be planned and coordinated to minimize disturbances to seasonal use patterns of moose and other land use activities.

b. **Areas Where Habitat Enhancement Activities will be Restricted**

(1) **Buffers in Riparian Habitats.** See Lakeshores and Stream Corridors and Wetlands Sections in this chapter.

(2) **Diverse Habitats.** Diversity of habitats will be retained during enhancement activities to protect other species. For example, small stands of old decadent timber will be retained as nesting and feeding habitat for hole nesting birds.

(3) **Scenic Areas.** The quality of foreground scenery near existing or potential residential areas, along roads, trails, floatable waterways, and background scenery seen from populated areas shall be maintained during habitat enhancement or timber harvesting efforts.

c. **Process for Scheduling Enhancement Activities.** Enhancement projects will be described in a habitat enhancement schedule prepared by ADF&G in consultation with Division of Parks and Outdoor Recreation and shall require the Division of Land and Water Management approval. Public review [MAY] will be required [IF APPROPRIATE]. If the enhancement is done as part of a timber sale, public notice will be given as required by the Susitna Forest Plan. Elements within the plan shall include:

Project description and explanation of need.

- . Location and access.
- . Existing and proposed access.
- . Size.
- . Physical data inventory of existing vegetation, slope, aspect, elevation, soil type, depth, moisture content and analysis, and wind condition.
- . Target vegetation for enhancement.
- . Enhancement methods including use of chemicals and controlled burning. These activities require public and agency review prior to approval. The public review must include a public hearing.
- . Restrictions on the type or timing of activities that may be needed to limit impacts on riparian habitats, visual quality, water quality, or other resources.
- . Monitoring programs to ascertain success of project.
- . Compatibility with recreational uses and visual qualities of the area.

d. **Roads**

Road management is probably the most important factor that will influence moose populations and their habitat in areas designated for timber harvests.

- (1) Minimize road mileage necessary to achieve habitat management objectives. All new roads should be evaluated by a biological review process to estimate their potential for affecting moose populations and their habitat. Subsequent use or nonuse of roads should be considered as part of the enhancement schedule.

e. **Location, size, and shape of Harvest Units**

- (1) Timber stands should be designed for shape and edge contrast to provide for wildlife needs. In general, cuts should be designed with irregular borders to increase the amount of forage-producing edge. Cutting units should be oriented to avoid blowdown and loss of moose habitat.

- (2) Maintain mature coniferous cover in close proximity to winter foraging areas (cut units) to benefit wintering moose.

- (3) To ensure that adequate year-round cover is available to meet wildlife species needs, harvests will be designed to leave approximately 60 percent of each enhancement area in mature forest at all times. Reentry for harvest of the uncut portion shall not occur until the stand characteristics of the original cut unit can meet cover requirements of moose. It is not intended that the rotation period be designed for sustained yield timber production in designated enhancement areas in the Government Peak and Hillside Subunits, with the exception of T18N, R1W, S.M., Section 7 and the south half of sections 5 and 6.

Enhancement areas include lands specifically identified for wildlife habitat enhancement in this plan in the Government Peak and Hillside Subunits. Enhancement areas may also include other lands that are identified for wildlife habitat enhancement in the future. The boundaries for additional enhancement areas will be determined through the

process for developing the habitat enhancement schedule described in Guideline 1 c above.

A mature forest is one that has the stand characteristics for which it is being managed. In enhancement areas, mature forests are those that meet cover requirements for moose (generally 80 to 100 years for spruce cover in this area depending on the site).

(4) Cutting units of approximately 20 acres (ranging between 5 and 50 acres) are preferred. (In the Government Peak Subunit the maximum cutting unit size will be 40 acres.) Cutting units that are too large preclude moose use of the total area while cuts that are too small may encourage high-density concentrations that may lead to over-browsing.

(5) Cutting units generally should be no wider than 660 feet to allow access to cover for bears, moose and other small wildlife and to encourage full utilization of browse. Where cutting units are greater than 660 feet or in cuts larger than 50 acres, residual islands of dense cover should be left within the clearcut to provide cover, bedding, and shelter for moose. Islands should be 0.5 - 5 acres spaced 660-990 feet apart, stocked by at least 1/3 conifers to provide relief in deep snow, and with tree cover at least 13-20 feet high for hiding cover.

(6) Escape, hiding, and/or resting cover should be maintained around the perimeter of wetlands areas and other open areas.

(7) Maintain snags greater than 23 cm (9 in) DBH as necessary to provide resting and denning sites for marten and nesting sites for cavity-nesting birds.

**f. Timber Harvest Systems**

(1) Clearcutting and seed tree harvesting are the preferred harvesting systems for wildlife habitat and timber production. Single-tree selection, group selection, shelterwood cutting, or other harvesting systems may be prescribed on certain sites where beneficial for wildlife, timber management, recreation, visual quality, or other considerations.

(2) Plan timber sales to produce a continuous mosaic of mature, close-canopied timber stands intermixed with variable-sized cut units that range between 5 and 25 years old.

(3) Scarification must occur on at least 50 percent of the cutting unit to ensure regeneration. Scarification can be spot or broadcast using root rake or similar method designed to break up duff layer.

**g. Debris Management**

(1) Slash disposal benefits reforestation, helps avoid insect and disease outbreaks, reduces the amount of fuel available for wildfires, improves habitat and visual quality, and aids recreational use of cut over areas. Logging and road construction slash

should be disposed to avoid hindering wildlife from using cut over areas. Disposal can be accomplished either mechanically or by burning, or by a combination of both methods. Slash that falls on uncut lands adjacent to harvest areas should be cleaned up or removed to facilitate moose use of cover and feeding areas.

(2) Broadcast burning is preferable to piling and burning because it encourages growth of fruiting shrubs used for forage. When burning is used for slash disposal, burns should be conducted while the ground is damp to protect the root systems of forage plants. Broadcast burning is preferred to burning slash piles to encourage growth of early successional shrubs used by moose.

h. **Prescribed Burning**

(1) Controlled burning is recommended when climate, soil, and fuel conditions are conducive to safely removing slash, maintaining forest openings, and improving the quality and quantity of moose forage. If burning is proposed for slash disposal, the proposed burning will be described in the Forest Management Report for the timber sale. DEC permits are required for burning on forestry projects greater than or equal to 40 acres. DOF burning permits also are required from May 1 through September 30.

i. **Herbicides**

(1) Herbicides should be not used for regeneration until a comprehensive evaluation of herbicide effects on moose browse has been completed. If pesticides are applied aerially, a buffer strip of 500 feet or wider should be left around aquatic areas to protect fish and wildlife habitat and human uses from significant direct toxicological effects. The minimum width of the buffer in these areas will be 250 feet. A buffer strip of 250 feet will be left around private lands to prevent adverse impacts on private property.

## 2. WILDLIFE VIEWING

In order to provide opportunities for wildlife viewing, DNR (including the Division of Parks and Outdoor Recreation) and ADF&G will take the following steps [(CONTINGENT ON AVAILABLE FUNDING)]:

a. **Preservation of Special Features.** Wildlife habitat, particularly special features like snags, beaver ponds, waterways, naturally occurring mineral licks, raptor nest trees, and fish and wildlife concentration areas, shall be preserved wherever possible.

b. **Disturbances and Development.** Disturbances and development in fish and wildlife breeding and rearing areas should be avoided.

c. **Public Information.** The public should be informed where life history, seasonal fish, and wildlife distribution and habitat association information may be obtained; and also how to use this information to improve their opportunities to see wildlife.

d. **Alternative Viewing Areas.** The public should be encouraged to stop, look, and listen in areas other than high public use locations. Provide information about trails to wildlife viewing overlooks special habitat features.

e. **Beaver Ponds.** Opportunities should be developed for viewing of beavers from the road corridor. See guidelines, page 216 (Willow/ Craigie Creek) and page 256 (Government Peak).

f. **Interpretive Aids.** Educate the public through information displays in facilities within the management unit and by posting interpretive signs at key locations along the road systems, at trailheads, picnic areas and campgrounds; and through information included in the proposed Guide to Hatcher Pass, to the extent funding is available.

g. **Habitat Diversity.** Habitat diversity has important value in providing a related correspondence of wildlife, especially in transition zones between vegetation types. Habitat diversity will thus be maintained to incorporate not only complete vegetative communities but transition zones as well.

h. **Low-speed Roads.** Continuance of low-speed, gravel roads may increase sightings of grouse and ptarmigan, which use gravel as a source of grit. Low-speed roads generally increase wildlife sightings and reduce collisions with wildlife.

### **3. ANADROMOUS FISH STREAMS**

ADF&G will manage by maintaining, protecting, and enhancing anadromous fisheries in the Little Susitna River, Willow Creek and Little Willow Creek. [ADF&G, WITH THE SUPPORT OF DNR AND USGS, WILL OBTAIN THE NECESSARY DATA FOR RESERVING INSTREAM FLOW REQUIREMENTS FOR FISH AND WILDLIFE, FUNDING PERMITTING.]

### **4. ACCESS TO HABITAT ENHANCEMENT AREAS**

Guidelines for access for wildlife habitat enhancement are included in the Transportation and Access section of this chapter on page 163.

### **5. TUNDRA NESTING BIRD HABITAT PROTECTION**

ADF&G has identified several site-specific locations with concentrations of tundra nesting birds (see Baldy North/Lucky Shot Ridge Subunit descriptions, Chapter Four). There is a high likelihood that other such nesting sites may exist within the management unit. Upon identification of these sites by ADF&G, special use areas may be established to protect the nest areas from disturbance by motorized use.