

FISH AND WILDLIFE HABITAT

1. GOALS

A. Maintain and Protect Publicly Owned Habitat

Base. The state will maintain in public ownership and protect the habitat values of sufficient suitable lands and waters to provide for the habitat needs of fish and wildlife resources necessary to maintain or enhance public use and economic benefits.

B. Ensure Access to Public Lands and Waters.

Ensure access to public lands and waters where appropriate to promote or enhance responsible public use and enjoyment of fish and wildlife resources. Access improvements should be designed to match the public use objectives for the area under consideration.

C. Mitigate Habitat Loss. When resource development projects occur, avoid or minimize reduction in the quality and quantity of fish and wildlife habitat.

D. Contribute to Economic Diversity. Contribute to Alaska's economy by protecting the fish and wildlife resources and habitats that contribute directly and indirectly to local, regional and state economies through commercial, subsistence, sport and non-consumptive uses, while working to achieve the economic development of other resources.

2. MANAGEMENT GUIDELINES

A. Habitat Protection and Enhancement. While recognizing that all lands serve to a degree as fish or wildlife habitat, important habitat lands will be managed to the extent feasible and prudent for the purpose of maintaining and enhancing fish and wildlife production and related public uses. Procedures for this include the following:

1. Through interagency consultation with the Alaska Department of Fish and Game and other affected agencies, important fish and wildlife habitat and public use areas are identified. Emphasis is placed on species and areas with significant subsistence, commercial, recreational or aesthetic values, areas needed for important life functions of species which are limited in supply, and species which are especially vulnerable to impacts associated with human use.
2. Lands important for fish and wildlife production, public use, or the livelihood of local residents are retained in public ownership and classified as wildlife habitat.

3. Mitigative guidelines are applied to ensure the protection and maintenance of fish and wildlife or related public uses, as described in I below.

4. Habitat manipulation through controlled burning, water control, timber management practices or other measures may be used to improve habitat for certain fish and wildlife species where feasible and compatible with other designated primary uses.

B. Special Fish and Wildlife Management Areas.

The plan recommends for legislative or administrative designation lands or waters with special values for fish, wildlife or related public uses that require permanent retention and improved protection.

C. Activities in Important Waterfowl Habitat. In important waterfowl habitat, activities requiring a permit, lease, or development plan, and producing high levels of acoustical or visual disturbance from sources such as boat traffic, blasting, dredging, and seismic operations, will, to the extent feasible and prudent, be avoided during sensitive periods. Where it is not feasible and prudent to avoid such activities, other mitigative measures will be considered to attempt to avoid significant impacts. The Department of Fish and Game will be consulted for assistance in identifying areas of important waterfowl habitat.

D. Dredge and Fill in Important Waterfowl Habitat. Permits for dredging and filling in important waterfowl habitat, including permits for gravel extraction and construction of roads and pads, will not be granted unless it is determined that the proposed activity will not cause significant adverse impacts to important waterfowl habitat or that no feasible and prudent alternative exists. Where dredging or filling does take place, other mitigative measures will be considered to attempt to avoid significant impacts.

E. Structures in Fish Habitat. Structures in fish habitat will, to the extent feasible, be designed to minimize impacts on fish migration and other important life stages and activities including spawning and rearing.

F. Water Intake Structures. When issuing appropriations for waters providing fish habitat, DNR will require that practical water intake structures be installed that do not entrain or impinge upon fish. The most simple and cost-effective technology may be used to implement this guideline.

Water intake structures will be screened and intake velocities will be limited to prevent entrapment, entrainment, or injury to fish. The structures supporting intakes should be designed to prevent fish from being led into the intake. Other effective techniques may also be used to achieve the intent of this guideline. Screen size, water velocity, and intake design will be determined in consultation with ADF&G.

G. Threatened and Endangered Species. Identify as endangered species habitat those lands and waters necessary for protection, restoration, and propagation of fish and wildlife species that are now or may be threatened with extinction. All land use activities should be conducted so as to avoid jeopardizing the continued existence of threatened or endangered species of fish or wildlife or their continued use of an area, and to avoid modification or destruction of their habitat. Specific mitigation recommendations should be obtained through interagency consultation for any land use activity potentially affecting threatened or endangered species. Activities potentially affecting peregrine falcons and bald and golden eagles will be consistent, respectively, with the federal and state endangered species act and the Bald Eagle Protection Act of 1940 as amended.

When threatened or endangered species have been identified in the vicinity of a major federal action (projects that are federally constructed, permitted, licensed, granted, or necessitating other forms of federal authorization or approval), Section 7(c) of the Federal Endangered Species Act requires that a biological assessment be prepared. In general, a biological assessment should include the following:

1. An onsite inspection of the area affected by the proposed project.
2. Interviews with recognized experts on the species at issue.
3. A literature review to determine the species distribution, habitat needs, and other biological requirements.
4. An analysis of possible impacts to the species, including cumulative effects.
5. An analysis of measures to avoid or minimize impacts.

The Endangered Species office of the U.S. Fish and Wildlife Service should be consulted on questions involving endangered species.

H. Trumpeter Swans. Where feasible and prudent, all land use activities in or near trumpeter swan nesting habitat, including sales or the granting of leases or permits, will be conducted so as to avoid disturbance to swans or detrimental alteration to the habitat. Leases or permits may include seasonal restrictions on activities to avoid disturbance to swans. Consultation with the ADF&G should be used to identify current or potential nesting habitat and to determine guidelines to follow and activities to avoid.

Construction of transmission lines in trumpeter swan habitat should be avoided. If transmission lines are constructed they should be sited in forested areas and kept close to treetop level, and wires should be strung in one horizontal plane rather than in multiple, vertical stacks. Where wires cross rivers, marshes and other open spaces, they should be marked in a fashion to try to make them visible to swans.

I. Mitigation. All land use activities should be conducted with appropriate planning and implementation to avoid or minimize foreseeable or potential adverse effects on fish and wildlife populations or their habitats. Mitigation should include the following:

1. Attempt to avoid the loss of natural fish and wildlife habitat.
2. Where habitat loss can not be avoided, minimize loss and the need for habitat restoration or maintenance efforts. Procedures for this include the following:
 - a. Include fish and wildlife habitat and use considerations in the early phases of development project planning and design to minimize the spatial and temporal extent of impacts.
 - b. Develop siting and design criteria which will minimize wildlife-caused damage to life and property where conflicts between people and animals may arise.
 - c. Request information on best management practices from the Department of Fish and Game and other appropriate agencies.
3. When loss of habitat production potential cannot be minimized, restore and rehabilitate the habitat that was lost or disturbed to its pre-disturbance condition where doing so is feasible and prudent.

4. When loss of existing habitat production potential is substantial and irreversible and the above objectives cannot be achieved, compensation with or enhancement of other habitats should be considered. In general, compensation with similar habitats in the same locality is preferable to compensation with other types of habitat or habitats elsewhere.

J. Other Guidelines Affecting Fish and Wildlife Habitat. A number of other guidelines affect the protection and management of fish and wildlife habitat. For details of these guidelines, see the following sections of this chapter:

Agriculture
Forestry
Recreation
Settlement
Subsurface Resources and Materials
Transportation
Instream Flow
Lakeshore Management
Public Access
Stream Corridors
Trail Management
Wetlands Management
Resource Management and Borough Land Bank

3. LAND ALLOCATION SUMMARY

Over three-quarters of the public land in the region will be retained in public ownership and managed for multiple use, including protection of fish and wildlife habitat and provision of hunting, fishing and other wildlife use opportunities. Habitat protection and management is a primary use on over 90% of retained public lands and a secondary use on the rest (e.g., small recreation sites). Potential conflicts between competing uses will be resolved through application of the management guidelines in this plan, or through subsequent more detailed management plans.

Significant areas are closed to uses that would be incompatible with fish and wildlife habitat values. In particular, the major clearwater streams — Lake Creek, the Talachulitna River, the Kroto Creek-Moose Creek system, the Talkeetna River, and Alexander Creek — are closed to mineral entry and coal leasing, and large areas are closed to grazing because of Dall sheep or caribou range, moose winter range, or bear concentration areas along streams. Large areas are proposed for legislative or administrative designation to protect their wildlife and habitat resources; these areas are noted below (see Chapter 4, Implementation, for details).

A. Remote Areas. Approximately 80% of the plan region is remote — i.e., more than two miles from a road or railroad — and the great majority of this remote area is retained in public ownership. All mountainous portions of the region — the Talkeetna, Chugach, and Alaska ranges — are retained. In lowland remote areas — most of which presently are in public ownership — the plan calls for approximately 100,000 net acres to be sold over the next twenty years. Even where land is sold, however, some important habitat lands will be retained. For example, publicly owned buffers at least 200' wide will be retained on each side of nearly all streams.

As development occurs on existing private land and future land sales in these remote areas, some effects on wildlife populations can be expected. Populations of species sensitive to disturbance by people — such as grizzly bear — will become smaller near growing recreational and residential settlement areas. Populations of more tolerant species — such as moose — probably will not be affected seriously by land sales and resulting development in the near future because many important habitat areas are retained and because of the protection offered by the management guidelines for land use. In the longer term, development of existing private lands and lands proposed for sale may have significant effects on these species. Opportunities for hunting and fishing, however, are likely to be affected sooner. Hunting and fishing are likely to increase in rural areas because of larger human populations and improved access. Although this represents increased utilization of fish and wildlife, it also will produce increased competition, likely eventual reductions in fish and wildlife populations and an altered experience for prior users.

In addition, road access to new areas is likely to be significantly expanded by the economic activities that may follow the land use designations of this plan. New road systems are particularly likely for new timber harvest or farm projects, and eventually may link concentrations of settlement lands.

B. Road/Railroad Accessible Areas. In the 20% of the region that is presently accessible by road or railroad, a much larger proportion of the land already is in private ownership and proportionately more additional sales are planned than in remote areas. Although sizeable areas of important habitat will be retained some places, and smaller areas with habitat value retained near land disposals, a large segment of the lands presently accessible by road will be in private ownership after completion of the sales called for in this plan. The principal road-accessible areas to be retained and managed at least in part for their habitat values include: lands along

the upper Glenn Highway; land in several river corridors that cross the Glenn and Parks Highways and Petersville Road such as Kings River, Moose Creek, and Kroto Creek; lands proposed for legislative or administrative designation west of Kroto Creek; the existing Denali State Park; lands along the upper Parks Highway; lands along the Lake Louise road; and federal lands along the Denali Highway.

Where land is offered for sale some lands particularly important for habitat will be retained. Firstly, the most important and sensitive habitat lands are excluded from disposal projects. Secondly, lands near or within disposal projects are retained to establish interconnected systems providing some habitat requirements — including movement corridors — of fish and wildlife populations. These retained areas include — where the land is still public — buffers along lakes and streams, wetlands, other lands with low capability for settlement, and forested areas serving as personal-use woodlots. (Protection of wetlands important for habitat is provided in addition by the wetlands policies presented later in this Chapter.)

C. Allocations and Management Guidelines. In addition to protecting a substantial portion of the existing habitat of fish and wildlife populations, the plan's land use allocations and management guidelines are intended to protect or enhance human use of fish and wildlife populations in most places in the region.

1. Fishing

To protect fishing, corridors along most important fishing streams presently in public ownership will be retained and managed to provide opportunities for fishing, camping, hiking, and other compatible recreational activities. Of these, the major floatable, clearwater streams — Lake Creek, Talachulitna River, the Kroto Creek-Moose Creek system, the Talkeetna River, Alexander Creek; and portions of Sheep Creek, the Kashwitna River, the North Fork Kashwitna River and Peters Creek — are protected by retention of particularly large buffers (1/4 to 1/2 mile on each side). Nearly all the land in the buffers along these rivers is in public ownership.

The banks of most of the other large rivers, including the Susitna, Chulitna, Yentna and Skwentna rivers and the rivers in the Talkeetna Mts. Subregion are predominantly publicly owned as well. A portion of the middle reaches of the Susitna River, parts of the Matanuska River, and the upper portion of the Beluga River are in Native ownership. There are existing and/or pro-

posed disposals on short sections of the Chulitna, Yentna and Skwentna Rivers. Public corridors will be retained within these disposals subject to the areawide Stream Corridor policy (q.v., this chapter) and the management guidelines in Chapter 3. Construction of public use cabins to support recreational use is recommended for some of these corridors. On most smaller streams, the buffer of publicly-owned land on each side of the stream will be at least 200 feet wide. These buffers will allow public access to and along the streams for uses such as fishing and picnicking.

Many of the area's smaller streams already have extensive private land holdings along their banks. On a few of these, in areas particularly important for public access or recreation, the plan recommends that the state buy back private lands.

Most of the largest lakes in lowland areas already have numerous private lots on their shores. Some additional land sales will take place on several of these, but a significant amount of the remaining public lands will be retained on all these lakes. Only a few of the area's largest lakes have little private land at present. The plan calls for retention of all of the remaining public shoreline of several of these lakes, notably Chelatna, Tyone, Strandline, and Alexander Lakes. Much of the shoreline property around smaller lakes is privately owned, particularly in the Petersville Road and South Parks Highway Subregions, and in the large remote parcel areas in the central and western portions of the Susitna Lowlands Subregion. Numerous small lakes are and will remain in public ownership in other portions of the planning area, although there will be additional sales of lakefront property in some proposed disposals. Sales of lakefront property in these disposals will not exceed 50% of the shoreline on any lake with significant public recreation value. (See Lakeshore Management policy, this chapter.) Additional sales will take place on Hiline Lake, Lake Louise, Little Lake Louise, Larson Lake, and possibly Beaver Lake (in Lake Louise Subregion). On Susitna Lake, up to 25 additional lots may be offered for sale. Existing unsold surveyed lots on Hewitt Lake and Shell Lake will continue to be available for purchase over-the-counter.

The net effect of the plan's land allocations and management guidelines on fishing opportunities will be protection of remaining public land along the region's road-accessible fishing streams and the most heavily used remote rivers. A few lakes will be kept wholly in public ownership, and public use of the others will be protected through

retention of public lots and easements. On some lakes, provision of public or commercial recreation facilities is recommended to support public use.

2. Hunting

Moose hunting opportunities in most heavily hunted areas will be protected by public land retention. The most important moose hunting areas are along the Petersville Road, the lower Glenn Highway, and the portions of the Yentna, Skwentna, and Susitna rivers accessible by boat. Much of the western Petersville Road and Peters Hills area is recommended for legislative designation and will be managed partly to perpetuate hunting opportunities. However, some hunting lands in the eastern part of the area will be sold. A large area of the public land along the lower Glenn Highway has been legislatively designated as the Matanuska Valley Moose Range. Most public land along the Yentna, Skwentna, and Susitna rivers will be retained, although small areas will be sold. The lower Yentna and Susitna River corridors, including the Kroto Slough area near their confluence, also have been recommended for legislative designation to permanently protect riparian habitat and opportunities for public recreation.

Caribou hunting opportunities will be protected through retention of most caribou habitat lands (including all of the Talkeetna Mountains), and restrictions on mining or other potentially disruptive activities in caribou calving areas. The plan proposes legislative or administrative designation of a Nelchina Public Use Area, largely for caribou habitat protection.

3. Other Fish and Wildlife Uses

Trumpeter swans receive special protection through specific management guidelines and recommended legislative or administrative designation of four areas containing particularly important swan nesting habitat. These areas are near the Kahiltna, Upper Yentna and Hayes Rivers, and near the confluence of the Yentna and Susitna Rivers, where protection of moose winter habitat is another reason for special protection. Trumpeter swan habitat in the Lake Louise area also receives particular protection through the same guidelines applied to the four areas proposed for special designations.

Opportunities for other uses of fish and wildlife — including photography, viewing and other non-consumptive uses — also will be protected in large part through retention of large and small

blocks of land in strategic locations, as mentioned above. In the road accessible portions of the study area, these opportunities will be diminished, however, as development of private lands takes place.

D.Summary. Under the land use pattern recommended in the plan, significant populations of most fish and wildlife species are likely to continue to exist in most areas they presently occupy. Future sales of public land will be concentrated in presently accessible areas where considerable private land already exists, and this will help minimize reduction of habitat. However, some land sales, and increasing development of existing private land, will take place in some remote areas. As noted above, populations of species that are tolerant of disturbance are likely to be little affected in remote regions until a significant degree of development takes place. Populations of intolerant species can be expected to decline as development and human land use intensifies. The plan's management guidelines, in conjunction with existing statutes and regulations, are expected to minimize the detrimental effects of land use activities on habitat quality. Never-the-less, increasing development on existing private lands and lands proposed for sale in the plan will have some negative effects on fish and wildlife populations and habitat quality.