

FISH AND WILDLIFE

The Willow Sub-basin, like much of Alaska, faces "rapidly growing demands for fish and wildlife use which are in sharp contrast to the shrinking area available to support this use."* The following pages summarize management issues, the fish and wildlife resources of the area, and related land use designations made by this plan.

FISH AND WILDLIFE MANAGEMENT ISSUES

The Willow Sub-basin is situated on the edge of the most populous, developed area in Alaska. Pressures to use sub-basin habitat lands for settlement, agriculture, mining, and other resource uses are substantial and certain to increase. Demands for the use of fish and wildlife are also large. This situation - a growing demand for fish and wildlife use with a simultaneous decrease in the land base available to support this use - is the fundamental fish and wildlife issue in the sub-basin. The challenge to land managers is to blend these potentially conflicting demands in a manner that can maintain the sub-basin's unique status as an area that provides both high quality and readily accessible opportunities for fish and wildlife use. Four specific issues are outlined below.

1. Role of Public Lands

A large percentage of existing fish and wildlife habitat is in private and borough ownership. These areas are likely to be developed in the relatively near future. Supporting existing population levels will require state lands to take up a larger percentage of this function.

2. Access

Much of the existing use of fish and wildlife occurs on or across private land. As this land is developed, publically owned access corridors, hunting areas, etc., must be provided to insure future opportunity to use fish and wildlife.

* Alaska Department of Fish and Game, Alaska Wildlife Management Plans - Southcentral Alaska, 1978.

3. Environmental Quality

Many activities such as mining, grazing, agriculture, and forestry potentially impact habitat quality. Aquatic habitats are especially vulnerable.

4. Habitat Manipulation

Blocks of land need to be available where various habitat manipulation practices can be used to provide new habitat for species such as moose.

FISH AND WILDLIFE RESOURCES

Sustaining fish and wildlife populations requires certain types, amounts, and spatial arrangements of habitat. These requirements vary from species to species. For example, food requirements of moose are met almost entirely by willow, dwarf birch, and a few other shrubs which grow primarily in wet areas, near timberline and in recently cleared areas. In addition, moose, like all species, have specific habitat requirements for cover and reproduction.

The Willow Sub-basin, due to its particular combinations and varieties of climate, topography, and vegetation, is an unusually good area for a variety of fish and wildlife species. Map 12 presents information on generalized habitat types in the sub-basin.

The list below shows the principal types of species typically using these different habitats. This list, like Map 12, is general. Species cited are limited to fish and wildlife most frequently used by people.

Habitat Use By Important Fish and Wildlife

Tundra and Associated Uplands - spring, summer, fall moose; brown bear; potential dall sheep, caribou and mountain goat; rock and white tailed ptarmigan, headwaters for anadromous streams.

Upland/Lowland Transitional Areas - moose (migration and seasonal use), ptarmigan and spruce grouse, brown and black bear.

River Corridors - anadromous fish and other sportfish, small fur bearers, brown and black bear, moose (Note: Some anadromous streams are protected by major river corridors, e.g., the Little Susitna. Streams running through non-public lands are often protected by a 50 foot easement along each bank. The many lakes supporting sportfish are not shown on this map).

Lowlands - moose, limited bear, and game birds.

Tidewater Estuaries and Adjacent Lands (presently protected by three legislatively designated game refuges) - waterfowl, moose winter habitat.

Habitat areas on Map 12 are prioritized into two categories to show their importance within the sub-basin. First priority areas (shaded on the map) were chosen because they support species most important to human users or support a large number of species, because they are of limited availability in the sub-basin and/or because they are unusually vulnerable to disruption. In addition, certain areas were designated first priority because they provide key linkages between two or more habitat zones. The remainder of the sub-basin is also important for fish and wildlife habitat and human use but is designated as second priority.

HUMAN USE OF FISH AND WILDLIFE

The use of most sub-basin fish and wildlife species - waterfowl, salmon, trout, moose, ptarmigan, and others - is large and growing. The substantial local population and the proximity of the sub-basin to Anchorage residents and visitors from other areas make this particular portion of Alaska one of the most heavily used fish and wildlife areas in the state. Details are outlined below:

1. The first and third most heavily used waterfowl hunting areas in Alaska, the Susitna Flats and Palmer Hay Flats state game refuges, are in the sub-basin.
2. The area offers high quality, accessible moose and other big game hunting. There were an average of 5700 hunter days per year from 1975-1980 with an average of 200 moose taken per year.
3. There is increasing nonconsumptive use of fish and wildlife including observation of birds and other species, wildlife photography, scientific study, etc.
4. There is substantial trapping along sub-basin streams and rivers although it is less than in the past.
5. Sub-basin streams contribute approximately 10% of the salmon caught in the multi-million dollar Cook Inlet Commercial Salmon Fishery.
6. There were 82,000 fishing days per year in 1977 within the basin or approximately 7% of the state's total sportsfishing activity, second only to the Kenai system.

In addition to the satisfaction directly obtained by these fishers, hunters, and sightseers, fish and wildlife related activities bring significant economic benefit to local and regional economies.

DESIGNATED LAND USES

This plan designates substantial acreage to fish and wildlife use and habitat protection (see Map 13). In each case, fish and wildlife is one of two or more primary designated land uses. For example, forestry is an additional primary use in the Kashwitna and Susitna Floodplain management units; mining, recreation, and grazing are also primary uses in Hatcher Pass; watershed is a second primary use in the large wetland areas within Pear Lake, Ronald Lake, and Susitna Corridor Management Units; and recreation is a use of equal importance in the Little Susitna River Corridor and other small stream and river buffers (these last two items are not shown on map).

The practical effect of these land use designations is to set aside an amount and variety of land sufficient to provide opportunities for a continuing high level of fish and wildlife use although the location of use will likely shift some from present locations. Shared uses of these lands will help protect or enhance habitat and assist the development of necessary access. Specifically, these designated land uses will:

- a. protect Little Susitna, Little Willow Creek, Fish Creek, and other aquatic habitats on public land to maintain existing sportfishing opportunities. This is partially contingent on protection of water quality in tributaries and portions of streams flowing through private land.
- b. provide sufficient spring, summer, fall, and winter habitat for moose as well as corridors connecting these areas to assure continuing high moose harvests. It is important to note that terrestrial species like moose require large amounts of land, at least one square mile per moose. Much of the existing moose habitat is currently on non-state land. Even if all the public land designated for fish and wildlife were to remain in that use, future development of the remaining land in the sub-basin will lead to reduced populations and significantly reduced human use.