

## Fish and Wildlife Habitat

### Goals

**Ensure Access to Public Lands and Waters.** Ensure access to public lands and waters and promote or enhance the responsible public use and enjoyment of fish and wildlife resources.

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

**Contribute to Economic Diversity.** Protect fish and wildlife resources which contribute directly or indirectly to local, regional, and state economies through commercial, subsistence, sport and non-consumptive uses.

**Maintain and Protect Publicly Owned Habitat Base.** Maintain in public ownership and protect habitat for fish and wildlife resources to conserve sufficient numbers or a diversity of species to support commercial, recreational, or traditional uses on an optimum sustained yield basis; or protect a unique or rare assemblage of a single or multiple species of regional, state, or national significance.

**Manage for Sustained Yield.** The management of state land and resources shall be consistent with the requirements of sustained yield, as written in the State Constitution under Article VIII (Natural Resources).

**Manage to Maintain and Enhance the Natural Environment.** DNR shall maintain and enhance the natural environment in areas known to be important as habitat for fish and wildlife.

**Avoid the Introduction of and Reduce the Spread of Invasive Plants, Exotic Animals and Diseases.** State lands are to be managed to avoid or reduce the spread of non-native invasive animals and plants as well as exotic diseases that can be detrimental of wildlife populations. This management shall be consistent with the applicable requirements of 11 AAC 34.

### Management Guidelines

The Management Guidelines that follow apply to all habitat areas throughout the planning area, with emphasis on moose, caribou and sheep seasonal habitats; anadromous streams and high value resident fish streams; and other uses listed in Guideline B where alternation of the habitat and/or human disturbance could result in a loss of a population or sustained yield of a species.

**A. Mitigation.** When issuing permits and leases or otherwise authorizing the use or development of state lands, DNR will include stipulations or measures needed to protect fish, wildlife, or their habitats. The costs of mitigation relative to the benefits to be gained will be considered in the implementation of this policy.<sup>4</sup>

All land use activities will be conducted with appropriate planning and implementation to avoid or minimize adverse effects on fish, wildlife, or their habitats, and on public access to those resources.

DNR and ADF&G will enforce permit stipulations and measures appropriate to their agency, consistent with their authorities and enforcement capabilities. Mitigation will be required of any significant damage to fish, wildlife, or their habitats that may occur as a direct result of the party's failure to comply with applicable law, regulations, or the conditions of the permit or lease.

When determining appropriate stipulations and measures, the departments will apply, in order of priority, the following steps. Mitigation requirements listed in other guidelines in this plan will also follow these steps:

- 1) Avoid anticipated, significant adverse effects on fish, wildlife, or their habitats through siting, timing, or other management options.
- 2) When significant adverse effects cannot be avoided by design, siting, timing, or other management options, the magnitude of the adverse effect(s) of the use or development will be minimized.
- 3) If significant loss of fish or wildlife habitat occurs, the loss will be rectified by repairing, rehabilitating, or restoring the affected area to a useful state.
- 4) DNR shall consider replacement or enhancement of fish and wildlife habitat when steps 1 through 3 cannot avoid substantial and irreversible loss of habitat. The ADF&G will identify the species affected, the need for replacement or enhancement, and the suggested method for addressing the impact. In those instances when replacement or enhancement is not feasible, DNR will consider the provision of substitute resources or environments. DNR will consider only those replacement and enhancement techniques that have either been proven to be, or are likely to be, effective and that will result in a benefit to the species impacted by the development. Replacement or enhancement will be required by DNR if it is determined to be in the best interest of the state either through the AS 38.05.035(e) or other authorization process.

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<sup>4</sup> The types and amounts of mitigation requirements are determined through the balancing of potential impacts against the potential benefits of a given project, and DNR, through a written determination, may determine that the impacts that are associated with a project are likely and are adverse, but are acceptable in the determination of the state's best interest. This does not preclude DNR from imposing those stipulations necessary to protect the public interest.

**B. Allowing Uses in Fish and Wildlife Habitats (Ha).** These habitats are defined as areas that serve as important use areas for fish and wildlife species during a sensitive life history stage where alteration of the habitat and/or human disturbance could result in a loss of a population or sustained yield of the species. Fish and wildlife categories used, in part, to identify Habitat (Ha) designations in this plan include the following:

- Anadromous and high value fish spawning, rearing, and overwintering migration areas.
- Trumpeter swan nesting and molting concentrations.
- Waterfowl nesting and molting areas, and areas important for waterfowl migration.
- Fish streams frequented by bears (including concentrations by season).
- Moose rutting, wintering and calving areas.
- Caribou wintering and calving areas.
- Dall sheep lambing, winter use areas and mineral licks.
- Important wildlife migration corridors.

The areas designated Habitat (Ha) in Chapter 3 of the plan were defined using the best available information when the plan was written. In the granting of authorizations within areas designated Habitat, DNR adjudicators should attempt to acquire more detailed and more recent information pertaining to habitat resources and values if there is some question as to the appropriateness of the use that is under consideration for authorization.

The resource that was used to make the determination that an area should be designated “Ha” is identified in the parcel descriptions contained in Resource Allocation Tables in Chapter 3 under the column, “Resources and Uses”. In some cases, there is only a single resource but in other instances, several resources exist, with these resources sometimes occupying differing portions of the parcel. The spatial distribution of habitat resources is described in the management intent language, if known. Units are to be managed to protect the resource(s) identified in these tables. The fish and wildlife associated with the Habitat designation are listed in the Glossary under the term ‘Habitat’.

There is a distinct seasonality associated with the critical life periods of certain species; seasonality shall be taken into consideration during project review and approval. Seasonality and critical life cycle stages are identified in various publications.<sup>5</sup> Thus, it may be possible, through consultation with ADF&G and other agencies, that uses and facilities be found appropriate within areas designated Habitat if the seasonality criteria are satisfied by including mitigating measures in project design.

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<sup>5</sup> These publications include, but are not limited to the following: ADF&G Regional Habitat Guides and related ADF&G publications. Note to DNR adjudicators: In the event that information is not contained in these publications, consult pertinent publications and coordinate with ADF&G and federal agencies with jurisdiction over species in question to determine seasonal windows and use patterns.

Uses not consistent with a plan designation or not authorized in a management intent statement and that, if permitted would result in the degradation of the resource(s) within areas designated “Ha”, are to be considered incompatible and are not to be authorized. Degradation of the resource might result from actions involving one or more of the following factors: dredging, filling, significant compaction of vegetation and sediment, alteration of flow patterns, discharge of toxic substances, or disturbance during sensitive periods. If there is a question as to whether a use would be appropriate or whether it would degrade a listed resource, DNR shall consult with ADF&G in making the determination of initial incompatibility.

Non-designated uses that cause significant adverse impacts to the resources identified within a given “Ha” parcel can be allowed if:

- DNR determines that the management unit in question does not possess those attributes characteristic of a Habitat designation as defined in the plan; or
- If DNR in consultation with ADF&G determines that the non-designated use can be made compatible and significant adverse impacts to the “Ha” area avoided with appropriate design, siting, and operating stipulations; or
- The project is found to be in the best interest of the state under state disposal decisions under AS 38.056.035(e) or similar department authorizations and significant adverse impacts are mitigated under Management Guideline A<sup>6</sup>.

**C. Allowing Uses Outside of Designated Fish and Wildlife Habitat Areas.** Habitat-altering uses will be sited consistent with the management guidelines in this chapter, and the management intent and guidelines in Chapter 3, and applicable statutes and regulations.

**D. Habitat Manipulation: General Requirements.** Habitat restoration through water control, timber management practices, removal of pollution sources, or other measures may be used to improve habitat for fish and wildlife species where ADF&G determines that it is beneficial to the species or habitat and DNR determines that it is compatible with other primary uses.

**E. Habitat Manipulation: Management of Invasive Plant and Animal Species.** The state shall manage its lands and waters to avoid the introduction of and reduce the spread of invasive non-native plants and animals, consistent with the requirements of 11 AAC 34. Although the strategic management plan for noxious and invasive plant species recognizes this as a statewide issue, in most instances this problem is best handled at the local level. The local Soil and Water Conservation District has a program in place that currently concentrates on surveying areas of infection and providing landowners with treatment options and Best Management Practices in an effort to manage these species. Contact them for more information.

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<sup>6</sup> Authorizations involving uses that have been determined to be necessary in the best interest finding but are inconsistent with plan designations and management intent or management guidelines require a plan amendment. See 11 AAC 55.030(f). See also Management Guideline R.

**F. Hatchery and Aquatic Farm Source Waters.** To preserve the quality of an existing hatchery's water supply, land uses should be limited to those that reduce the risk of reducing water quality or quantity below that needed by the hatchery.

**G. Water Intake Structures.** When issuing water rights for waters providing fish habitat, DNR and ADF&G will require that practical water intake structures be installed that do not result in entrainment or impingement of fish and will maintain instream flows needed to sustain existing fish populations. The simplest and most cost-effective technology may be used to implement this guideline.

Water intake structures should 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. The DMLW (Water Section) and ADF&G Division of Habitat should be consulted to determine screen size, water velocity, and intake design if the intake structure is in fish-bearing waters. ADF&G will continue to determine and permit the appropriate intake structures for specific locations and projects.

**H. Alteration of the Riverine Hydrologic System.** To the extent feasible, channelization, diversion, or damming that will alter the natural hydrological conditions and have a significant adverse impact on important riverine habitat will be avoided. If projects like this are proposed they will require a review and permit from the ADF&G Division of Habitat and other agencies.

**I. Threatened and Endangered Species.** All land use activities will be conducted consistent with state and federal Endangered Species Acts to avoid jeopardizing the continued existence of threatened or endangered species of animals or plants, to provide for their continued use of an area, and to avoid modification or destruction of their habitat. Specific mitigations recommendations should be identified through interagency consultation for any land use activity that potentially affects threatened or endangered species. There are no known threatened or endangered species under either federal or state statute or regulation within the planning area. The U.S. Fish and Wildlife Service (USFWS), Division of Ecological Services, should be consulted on questions that involve endangered or threatened species of federal interest and the ADF&G for those listed by the state.

**J. Eagles.** Authorizations or disposals that potentially affect bald eagles will be consistent with the state and federal Endangered Species acts and the Bald Eagle Protection Act of 1940 as amended. Applicable standards are drawn from a cooperative agreement signed by the U.S. Forest Service and the USFWS or such subsequent standards that may be promulgated. These standards, however, may not be adequate in all circumstances, and the USFWS may determine that additional measures are necessary. In addition, meeting the guidelines does not absolve the party from the penalty provisions of the Bald Eagle Protection Act; therefore, the USFWS should be consulted when activities may affect bald or golden eagles.

- 1) **Siting Facilities to Avoid Eagle Nests.** Facilities determined by the U.S. Fish and Wildlife Service to cause significant disturbance to nesting eagles will not be allowed within 330 feet and up to one-half mile of any bald eagle nest site, whether the nest is currently active or not.
- 2) **Activities Disturbing Nesting Eagles.** Activities the U.S. Fish and Wildlife Service determines likely to cause significant disturbance to nesting eagles will be prohibited within 330 feet of active bald eagle nests between March 15 and August 31. Temporary activities and facilities that do not alter eagle nesting habitat or disturb nesting eagles, as determined by the USFWS, may be allowed at other times.

#### **K. Moose, Caribou and Dall Sheep Wintering and Calving Areas.**

Moose. Moose are present throughout the planning area, and many portions are important for moose calving and rutting, or are used as winter concentration areas. Calving typically occurs from May through June. Uses that are likely to produce levels of acoustical or visual disturbance sufficient to disturb calving, rutting, or post-calving aggregations that cannot be seasonally restricted should not be authorized in these areas. Uses may be authorized in these areas at other times of the year. DNR authorizations shall include seasonal restrictions on activities that would produce significant acoustical or visual disturbance during sensitive periods.

Moose calving and rutting areas may change over time. Consult ADF&G prior to issuing an authorization in an area suspected to contain such concentrations in order to better determine: 1) the location of calving and rutting areas; 2) when activities within these areas should be avoided; and 3) identify appropriate mitigation measures if no feasible or prudent alternative site exists. Refer to a management unit's 'Uses and Resources' section in the Resource Allocation Tables to determine whether the presence of a rutting or calving area is likely or if it is a winter concentration area.

Caribou. Caribou are present throughout the mountainous terrain within the Parks Highway and West Alaska Range region. Except for a small portion of the southeastern part of the Kantishna region, which contains general range, they are generally absent from the Kantishna regions. Caribou are prevalent in the northern areas Lower Tanana Region. Within the Parks Highway and West Alaska Range region, they are distributed throughout the large of mountainous terrain situated south of the Japan Hills with this range extending south nearly to the Nenana River. Within this area, caribou are widely distributed and there are numerous areas that are important for calving and winter habitats. Authorizations in these areas are to use the same management requirements as those for moose calving and winter concentration areas, described above.

Dall Sheep. Dall sheep are present throughout the mountainous terrain within the Parks Highway and West Alaska Range region. Within the Parks Highway and West Alaska Range region, they are distributed throughout the mountainous terrain. Within this area, sheep are widely distributed and there are numerous areas that are important for lambing

rutting, and winter habitats. Authorizations in these areas are to use the same management requirements as those for moose/caribou calving, rutting and winter concentration areas, described above.

**L. Protection of Mineral Licks.** Mineral licks identified within specific management units are used by significant numbers of wildlife primarily during the spring and early summer. Known mineral licks occur in the Parks Highway and West Alaska Range region and are identified within that region under management unit P-49. The regular use of these areas suggests that the licks play an important role in the life history of the animals that use them. These same areas may also have significant mineral values. Management Intent should protect the area around the licks for their wildlife value. Stipulations should be developed on a case-by-case basis, in consultation with ADF&G, for specific leases or permits. The stipulations should address the following: 1) The avoidance of direct and indirect impact on the mineral licks, the animal tracks leading to them and other areas of concentrated animal use that is associated with the mineral lick; 2) the method and routing of mining-related access to these areas.

**M. Trumpeter Swan Nesting Areas.** In Trumpeter swan nesting areas, uses that would disturb a significant number of nesting swans or detrimentally alter their nesting habitat should be avoided. The siting of permanent facilities, including roads, material sites, storage areas, and other forms of permanent structures should be avoided within one-quarter mile of these known nesting sites. Surface entry should also be avoided within one-quarter mile of these nesting areas between April 1 and August 31. Both of these should be evaluated on a case-by-case basis. Some areas are more open and susceptible to noise and visual disturbances and therefore require larger protection areas. Leases or permits may require seasonal restrictions on activities to avoid disturbance to swans. Consult with ADF&G and USFWS to identify current or potential nesting habitat and to determine guidelines to follow and activities to avoid. The standards of Guideline N, 'Activities in Important Waterfowl Habitat', also apply. Refer to the management unit's 'Resources and Uses' section in the Resource Allocation Tables to determine if the presence of a nesting area is likely.

**N. Activities in Important Waterfowl Habitat.** In important waterfowl habitat, activities requiring a lease, permit, or development plan, and producing habitat disturbance or high levels of acoustical or visual disturbance from sources such as boat traffic, vegetation clearing, construction, blasting, dredging, and seismic operations, should be avoided during sensitive periods such as nesting, staging, or brood-rearing periods. Where it is not feasible and prudent to avoid such activities, other mitigation measures may be required to avoid significant adverse impacts and the activity may be denied. If it is likely that a waterfowl concentration exists within the area affected by a potential project, consult with ADF&G and USFWS to identify areas of important waterfowl in addition to those identified in the management units in this plan and to determine appropriate mitigation or avoidance measures.

**O. Fish and Wildlife Enhancement on State Lands.** Fish and wildlife enhancement activities on state lands, whether by ADF&G or other parties, will be consistent with the management intent for those lands. Enhancement activities likely to attract significant public use, including sport fishing use, will be designed and located to minimize the impact of additional public use on the existing recreation resources, including anchorages, campsites, and existing and intended wilderness values.

**P. Protection of Fish and Wildlife Resources - Transportation Routes and Facilities.** Important overwintering, calving, lambing, or mineral lick areas, fish and wildlife habitats in riparian areas, fish and wildlife movement corridors, important wintering areas, and threatened or endangered species habitat should be avoided in siting transportation routes unless no other feasible and prudent alternatives exist. Location of routes and timing of construction should be determined in consultation with ADF&G. Transportation corridors that intersect or cross fish or wildlife movement areas shall be equipped with appropriate crossing devices or structures to allow the free and efficient passage (in both directions) of the species using the corridor.

**Q. Protection of Riverine Areas.** Riverine areas perform a variety of important functions related to recreation, habitat protection, and water quality/quantity maintenance. To the maximum extent feasible and prudent, the protection of these areas is important and DMLW and DOAg authorizations are to ensure the maintenance of these areas in any authorizations that may be issued. See Management Guidelines D, E, F, H, and I in the ‘Shorelands and Stream Corridors’ section in this Chapter for guidance and standards pertaining to riverine areas. These standards are to apply to authorizations issued by DMLW and the Division of Agriculture.<sup>7</sup>

**R. Protection of Resources and Balancing of Impacts with Potential Development.** DNR, in its consideration of resources and in the management of state land, shall consider the impacts of such use upon fish and wildlife populations and human uses of those populations, habitat and soil degradation, and upon other forms of use that may occupy the area that is under consideration in an authorization. Uses that are not compatible with these uses and resources are to be made compatible through the use of stipulations. The ability of the Department to manage the subsequent activities that may result from the issuance of an authorization is to be taken into consideration in the adjudication of an application that requires a written determination by DNR.

It is recognized that the use and development of resources will create some level and area of impact. Nonetheless, the state may determine through its authorization processes that the development of specific surface or subsurface resources is appropriate, even with some level of impact, and may approve such developments, with appropriate stipulations. It is also

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<sup>7</sup> Separate riparian standards under AS 41.17.115 and .118 apply to timber sales conducted by the Division of Forestry on state land. The riparian standards followed by DMLW and DOAg are similar to those followed by DOF.



recognized that the development of specific subsurface resources may take precedence over surface uses. Material site development and construction access may also take precedence in certain instances.

**S. Conflicts with Traditional Uses of Fish and Game.** The harvesting of fish and game resources is an important part of the subsistence lifestyle within the planning area, with concentrations of this activity occurring in native villages generally along the Yukon River. The underlying integrity of the ecological system and traditional way of life within the planning area is to be maintained to the maximum extent practicable. DNR decisions are to carefully consider the effects of a proposed project or activity upon these uses and resources, and authorizations are to ensure that adverse impacts are avoided, minimized, or mitigated consistent with the requirements of this section of Chapter 2 and, specifically, with Management Guideline A within areas designated or co-designated Habitat.

**T. Other Guidelines Affecting Fish and Wildlife Habitat.** Other guidelines may affect the protection and management of fish and wildlife habitat. See other sections of this chapter.