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Fish and Wildlife Habitat

Goals

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

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, personal use, sport and non-consumptive uses.

Manage to Maintain and Enhance the Natural Environment. 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 areas designated Habitat or co-designated Habitat areas throughout the planning area, with emphasis on fish and wildlife populations used for consumptive commercial, subsistence, personal use, and sport purposes, 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. The primary objective is the use of adequate protection measures to ensure the sustainability of fish and wildlife habitat, populations, and the continuation of other uses of the area. The management of state land and resources are also to be consistent with the requirements of sustained yield, as described in Article VIII is the State Constitution.

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

5
6 All land use activities will be conducted with appropriate planning and implementation to
7 avoid or minimize adverse effects on fish, wildlife, or their habitats, and on public access to
8 those resources.

9
10 DNR enforces permit stipulations and measures, consistent with their authorities and
11 enforcement capabilities. Mitigation will be required of any significant damage to fish,
12 wildlife, or their habitats that may occur as a direct result of the party's failure to comply
13 with applicable law, regulations, or the conditions of the permit or lease.

14
15 When determining appropriate stipulations and measures, the department will apply, in order
16 of priority, the following steps. Mitigation requirements listed in other guidelines in this plan
17 will also follow these steps:

- 18
19 1. Avoid anticipated, significant adverse effects on fish, wildlife, or their habitats
20 through siting, timing, or other management options.
- 21
22 2. When significant adverse effects cannot be avoided by design, siting, timing, or other
23 management options, the magnitude of the adverse effect(s) of the use or
24 development will be minimized.
- 25
26 3. If significant loss of fish or wildlife habitat occurs, the loss will be rectified by
27 repairing, rehabilitating, or restoring the affected area to a useful state.
- 28
29 4. DNR shall consider replacement or enhancement of fish and wildlife habitat when
30 steps 1 through 3 cannot avoid substantial and irreversible loss of habitat. The
31 ADF&G will identify the species affected, the need for replacement or enhancement,
32 and the suggested method for addressing the impact. In those instances when
33 replacement or enhancement is not feasible, DNR will consider the provision of
34 substitute resources or environments. DNR will consider only those replacement and
35 enhancement techniques that have either been proven to be, or are likely to be,
36 effective and that will result in a benefit to the species impacted by the development.
37 Replacement or enhancement will be required by DNR if it is determined to be in the
38 best interest of the state either through the AS 38.05.035(e) or other authorization
39 process.

40
41 **B. Allowing Uses in Fish and Wildlife Habitats (Ha).** These habitats are defined as areas
42 that serve as a concentration area for a single or multiple species of fish and wildlife during a
43 sensitive life history stage or are highly important to the maintenance or management of a
44 single or multiple species of fish or wildlife. Fish and wildlife categories used, in part, to
45 identify Habitat (Ha) designations in this plan include the following:

- 1 • Anadromous and high value resident fish spawning, rearing, overwintering, and
2 migration areas.
- 3 • Bison foraging, wintering, calving areas, and movement corridors.
- 4 • Swan nesting, molting, and migration concentrations.
- 5 • Other waterfowl nesting and molting areas, and areas important for waterfowl
6 migration.
- 7 • Fish streams frequented by bears (including concentrations by season).
- 8 • Moose rutting, wintering and calving areas.
- 9 • Caribou wintering⁴ and calving areas.
- 10 • Dall sheep lambing and wintering areas, and mineral licks.
- 11 • Important wildlife migration corridors.

12
13 The areas designated Habitat (Ha) in Chapter 3 of the plan were defined using the best
14 available information when the plan was written. In the granting of authorizations within
15 areas designated Habitat, DNR adjudicators should attempt to acquire more detailed and
16 more recent information pertaining to habitat resources and values if there is some question
17 as to the appropriateness of the use that is under consideration for authorization.

18
19 The resource that was used to make the determination that an area should be designated “Ha”
20 is identified in the parcel descriptions contained in Resource Allocation Tables in Chapter 3
21 under the column, “Resources and Uses”. In some cases, there is only a single resource but
22 in other instances, several resources exist, with these resources sometimes occupying
23 differing portions of the parcel. The spatial distribution of habitat resources is described in
24 the management intent language, if known. Units are to be managed to protect the
25 resource(s) identified in these tables. The fish and wildlife associated with the Habitat
26 designation are listed in the Glossary under the term ‘Habitat’.

27
28 There is a distinct seasonality associated with the critical life periods of certain species;
29 seasonality shall be taken into consideration during project review and approval. Seasonality
30 and critical life cycle stages are identified in various publications. Thus, it may be possible,
31 through consultation with ADF&G and other agencies, that uses and facilities may be found
32 appropriate within areas designated Habitat if the seasonality criteria are satisfied by
33 including mitigating measures in project design.

34
35 Uses not consistent with a plan designation or not authorized in a management intent
36 statement and that, if permitted would result in the degradation of the resource(s) within
37 areas designated “Ha”, are to be considered incompatible and are not to be authorized unless
38 determined to be necessary and in the best interest of the state. Degradation of the resource
39 might result from actions involving one or more of the following factors: dredging, filling,

⁴ Where such areas are concentrated spatially and particularly where they coincide with calving areas.

1 significant compaction of vegetation and sediment, alteration of flow patterns, discharge of
2 toxic substances, or disturbance during sensitive periods. If there is a question as to whether
3 a use would be appropriate or whether it would degrade a listed resource, DNR shall consult
4 with ADF&G in making the determination of initial incompatibility.

5
6 Non-designated uses that cause significant adverse impacts to the resources identified within
7 a given “Ha” parcel can be allowed if:

- 8
- 9 • DNR in consultation with ADF&G determines that the management unit in question
10 does not possess those attributes characteristic of a Habitat designation as defined in
11 the plan; or
 - 12 • If DNR in consultation with ADF&G determines that the non-designated use can be
13 made compatible and significant adverse impacts to the “Ha” area avoided with
14 appropriate design, siting, and operating stipulations; or
 - 15 • If after consideration of the above statements, the project is then found to be in the
16 best interest of the state under AS 38.05.035(e) or similar department authorizations
17 and significant adverse impacts are mitigated under Management Guideline A.
- 18

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

22
23 **D. Habitat Manipulation: General Requirements.** Habitat alteration through water
24 control, timber management practices, removal of pollution sources, prescribed fire, or other
25 measures may be used to improve habitat for fish and wildlife species where ADF&G
26 determines that it is beneficial to the species or habitat and DNR determines that it is
27 compatible with other primary uses.

28
29 **E. Habitat Manipulation: Management of Invasive Plant and Animal Species.** The
30 state shall manage its lands and waters to avoid the introduction of and reduce the spread of
31 invasive non-native plants and animals, consistent with the requirements of 11 AAC 34.
32 Although the strategic management plan for noxious and invasive plant species recognizes
33 this as a statewide issue, in most instances this problem is best handled at the local level. The
34 Fairbanks and Salcha-Delta Soil and Water Conservation Districts have a program in place
35 that currently concentrates on surveying areas of infection and providing landowners with
36 treatment options and Best Management Practices in an effort to manage these species.
37 Contact them for more information.

38
39 **F. Hatchery and Aquatic Farm Source Waters.** To preserve the quality of an existing
40 hatchery’s water supply, land uses should be limited to those that reduce the risk of reducing
41 water quality or quantity below that needed by the hatchery.

1 **G. Water Intake Structures.** When issuing water rights for waters providing fish habitat,
2 DNR a will require that practical water intake structures be installed that do not result in
3 entrainment, entrapment, or impingement of fish and will maintain in-stream flows needed
4 to sustain existing fish populations. The simplest and most cost-effective technology may be
5 used to implement this guideline when consistent with all applicable permits.

6
7 Water intake structures should be screened, and intake velocities will be limited to prevent
8 entrapment, entrainment, or injury to fish. The structures supporting intakes should be
9 designed to prevent fish from being led into the intake. Other effective techniques may also
10 be used to achieve the intent of this guideline. The DMLW (Water Section) and ADF&G
11 Division of Habitat should be consulted to determine screen size, water velocity, and intake
12 design if the intake structure is in fish-bearing waters. ADF&G will continue to determine
13 and permit the appropriate intake structures for specific locations and projects.

14
15 **H. Alteration of the Riverine Hydrologic System.** To the extent feasible, channelization,
16 diversion, or damming that will alter the natural hydrological conditions and have a
17 significant adverse impact on important riverine habitat will be avoided. If projects like this
18 are proposed they will require a review and permit from the ADF&G Division of Habitat and
19 other agencies.

20
21 **I. Threatened and Endangered Species.** All land use activities will be conducted
22 consistent with state and federal Endangered Species Acts to avoid jeopardizing the
23 continued existence of threatened or endangered species of animals or plants, to provide for
24 their continued use of an area, and to avoid modification or destruction of their habitat.
25 Specific mitigations recommendations should be identified through interagency consultation
26 for any land use activity that potentially affects threatened or endangered species. There are
27 no known threatened or endangered species under either federal or state statute or regulation
28 within the planning area. The U.S. Fish and Wildlife Service (USFWS), Division of
29 Ecological Services, should be consulted on questions that involve endangered or threatened
30 species of federal interest and the ADF&G for those listed by the state.

31
32 **J. Eagles.** Authorizations or disposals that potentially affect bald eagles will be consistent
33 with the state and federal Endangered Species acts and the Bald Eagle Protection Act of 1940
34 as amended. Applicable standards are drawn from a cooperative agreement signed by the
35 U.S. Forest Service and the USFWS or such subsequent standards that may be promulgated.
36 These standards, however, may not be adequate in all circumstances, and the USFWS may
37 determine that additional measures are necessary. In addition, meeting the guidelines does
38 not absolve the party from the penalty provisions of the Bald Eagle Protection Act; therefore,
39 the USFWS should be consulted when activities may affect bald or golden eagles.

- 40
41 **1. Siting Facilities to Avoid Eagle Nests.** Facilities determined by the U.S. Fish and
42 Wildlife Service to cause significant disturbance to nesting eagles will not be allowed
43 within 330 feet and up to one-half mile of any bald eagle nest site, whether the nest is
44 currently active or not.

- 1 **2. Activities Disturbing Nesting Eagles.** Activities the U.S. Fish and Wildlife Service
2 determines likely to cause significant disturbance to nesting eagles will be prohibited
3 within 330 feet of active bald eagle nests between March 15 and August 31.
4 Temporary activities and facilities that do not alter eagle nesting habitat or disturb
5 nesting eagles, as determined by the USFWS, may be allowed at other times.
6

7 **K. Moose, Caribou Dall Sheep, and Bison Wintering and Calving Areas.**
8

9 **Moose.** Moose are present throughout the planning area, and many portions are important
10 for moose calving and rutting, or are used as winter concentration areas. Calving typically
11 occurs from May through June, while rutting occurs late September to October. Uses that are
12 likely to produce levels of acoustical or visual disturbance sufficient to disturb calving,
13 rutting, or post-calving aggregations that cannot be seasonally restricted should not be
14 authorized in these areas. Uses may be authorized in these areas at other times of the year.
15 DNR authorizations shall include seasonal restrictions on activities that would produce
16 significant acoustical or visual disturbance during wintering, calving (including post-
17 calving), or rutting periods.
18

19 Moose calving and rutting areas may change over time. Consult ADF&G prior to issuing an
20 authorization in an area suspected to contain such concentrations in order to better determine:
21 1) the location of calving and rutting areas; 2) when activities within these areas should be
22 avoided; and 3) identify appropriate mitigation measures if no feasible or prudent alternative
23 site exists. Refer to a management unit's 'Uses and Resources' section in the Resource
24 Allocation Tables to determine whether the presence of a rutting or calving area is likely or if
25 it is a winter concentration area.
26

27 **Caribou.** With the exception of Fairbanks, areas west of Fairbanks, and North Pole, caribou
28 wintering and calving areas are present and widely distributed throughout the planning area.
29 Calving typically occurs from May through June, and areas of particular importance include
30 the Tanana Hills north of the Alaska Highway (Forty mile Herd) and the Alaska Range
31 southeast of Delta Junction (Macomb Herd). Authorizations in these areas are to use the
32 same management requirements as those for moose calving and winter concentration areas,
33 described above.
34

35 **Dall Sheep.** Dall sheep are present throughout the mountainous terrain and open alpine
36 ridges within the East Alaska Range region and the Tanana Hills north of the Tanana River.
37 Within these areas, sheep are widely distributed and there are numerous areas that are
38 important for lambing, rutting, and winter habitats. Lambing typically occurs in May and
39 June. Ewes and lambs are especially vulnerable and sensitive to disturbances (i.e.,
40 helicopters) and other environmental factors at this time. Authorizations in these areas are to
41 use the same management requirements as those for moose/caribou calving, rutting and
42 winter concentration areas, described above. ADF&G should be consulted in determining a
43 course of action for authorizations occurring during this time.
44

1 **Bison.** Bison are can be found throughout the Delta region from the lower Shaw Creek and
2 Goodpaster drainages in the north to the foothills on the northern flank of the Alaska Range,
3 and they occupy small portions of adjacent regions. Within the larger habitat range, the
4 Delta bison herd regularly utilizes a much smaller area that is important as a calving and
5 wintering area. This concentrated habitat area encompasses the Jarvis Creek and Gerstle,
6 Tanana, and Delta river floodplains, forested and wildlife burn areas south of the Alaska
7 Highway and west of the Gerstle River, the relatively flat agricultural areas of primarily
8 private land south of the Tanana River and occasionally the mountainous areas of the Granite
9 Mountains. Calving typically occurs in secluded meadows beginning in May.

10 Authorizations in the bison movement corridors and concentration areas are to use the same
11 management requirements as those for moose calving and winter concentration areas,
12 described above.

13
14 **L. Protection of Mineral Licks.** Mineral licks identified within specific management units
15 are used by significant numbers of wildlife primarily during the spring and early summer.
16 Known mineral licks occur in the Fairbanks, Delta, Upper Tanana and East Alaska Range
17 regions. The regular use of these areas suggests that the licks play an important role in the
18 life history of the animals that use them. These same areas may also have significant mineral
19 values. Management Intent should protect the area around the licks for their wildlife value.
20 Stipulations should be developed on a case-by-case basis, in consultation with ADF&G, for
21 specific leases or permits. The stipulations should address the following: 1) the avoidance of
22 direct and indirect impact on the mineral licks, the animal tracks leading to them and other
23 areas of concentrated animal use that is associated with the mineral lick; 2) the method and
24 routing of mining-related access to these areas.

25
26 **M. Trumpeter and Tundra Swan Nesting Areas.** In swan nesting areas, uses that would
27 disturb a significant number of nesting swans or detrimentally alter their nesting habitat
28 should be avoided. The siting of permanent facilities, including roads, material sites, storage
29 areas, and other forms of permanent structures should be avoided within one-quarter mile of
30 these known nesting sites. Surface entry should also be avoided within one-quarter mile of
31 these nesting areas between April 1 and August 31. Both of these should be evaluated on a
32 case-by-case basis. Some areas are more open and susceptible to noise and visual
33 disturbances and therefore require larger protection areas. Leases or permits may require
34 seasonal restrictions on activities to avoid disturbance to swans. Consult with ADF&G and
35 USFWS to identify current or potential nesting habitat and to determine guidelines to follow
36 and activities to avoid. The standards of Guideline N, 'Activities in Important Waterfowl
37 Habitat', also apply. Refer to the management unit's 'Resources and Uses' section in the
38 Resource Allocation Tables to determine if the presence of a nesting area is likely.

39
40 **N. Activities in Important Waterfowl Habitat.** In important waterfowl habitat, activities
41 requiring a lease permit, or development plan, and producing habitat disturbance or high
42 levels of acoustical or visual disturbance from sources such as boat traffic, vegetation
43 clearing, construction, blasting, dredging, and seismic operations, should be avoided during
44 sensitive periods such as nesting, staging, or brood-rearing periods. Where it is not feasible
45 and prudent to avoid such activities, other mitigation measures may be required to avoid

1 significant adverse impacts and the activity may be denied. If it is likely that a waterfowl
2 concentration exists within the area affected by a potential project, consult with ADF&G and
3 USFWS to identify areas of important waterfowl in addition to those identified in the
4 management units in this plan and to determine appropriate mitigation or avoidance
5 measures.

6
7 **O. Fish and Wildlife Enhancement on State Lands.** Fish and wildlife enhancement
8 activities on state lands, whether by ADF&G or other parties, should be consistent with the
9 management intent for those lands. Enhancement activities likely to attract significant public
10 use, including sport fishing use, will be designed and located to minimize the impact of
11 additional public use on the existing recreation resources, including anchorages, campsites,
12 and existing and intended wilderness values.

13
14 **P. Protection of Fish and Wildlife Resources - Transportation Routes and Facilities.**
15 Important overwintering, calving, lambing, or mineral lick areas, fish and wildlife habitats in
16 riparian areas, fish and wildlife movement corridors, important wintering areas, and
17 threatened or endangered species habitat should be avoided in siting transportation routes
18 unless no other feasible and prudent alternatives exist. Location of routes and timing of
19 construction should be determined in consultation with ADF&G. Transportation corridors
20 that intersect or cross fish or wildlife movement areas shall be equipped with appropriate
21 crossing devices or structures to allow the free and efficient passage (in both directions) of
22 the species using the corridor.

23
24 **Q. Protection of Riverine Areas.** Riverine areas perform a variety of important functions
25 related to recreation, habitat protection, and water quality/quantity maintenance. To the
26 maximum extent feasible and prudent, the protection of these areas is important and DMLW
27 and DOA authorizations are to ensure the maintenance of these areas in any authorizations
28 that may be issued. See Management Guidelines D, E, F, H, and I in the ‘Shorelands and
29 Stream Corridors’ section in this Chapter for guidance and standards pertaining to riverine
30 areas. These standards are to apply to authorizations issued by DMLW and the Division of
31 Agriculture.

32
33 **R. Protection of Resources and Balancing of Impacts with Potential Development.**
34 DNR, in its consideration of resources and in the management of state land, shall consider
35 the impacts of such use upon fish and wildlife populations and human uses of those
36 populations, habitat and soil degradation, and upon other forms of use that may occupy the
37 area that is under consideration in an authorization. Uses that are not compatible with these
38 uses and resources are to be made compatible through the use of stipulations. The ability of
39 the Department to manage the subsequent activities that may result from the issuance of an
40 authorization is to be taken into consideration in the adjudication of an application that
41 requires a written determination by DNR.

42
43 It is recognized that the use and development of resources will create some level and area of
44 impact. Nonetheless, the state may determine through its authorization processes that the
45 development of specific surface or subsurface resources is appropriate, even with some level

1 of impact, and may approve such developments, with appropriate stipulations. It is also
2 recognized that the development of specific subsurface resources may take precedence over
3 surface uses. Material site development and construction access may also take precedence in
4 certain instances.

5
6 **S. Conflicts with Traditional Uses of Fish and Game.** The harvesting of fish and game
7 resources is an important part of the subsistence lifestyle within the planning area, with
8 concentrations of this activity occurring outside of the Fairbanks North Star Borough
9 boundary, generally along the upper reaches of the Tanana River and its major tributaries.
10 The underlying integrity of the ecological system and traditional way of life within the
11 planning area is to be maintained to the maximum extent practicable. DNR decisions are to
12 carefully consider the effects of a proposed project or activity upon these uses and resources,
13 and authorizations are to ensure that adverse impacts are avoided, minimized, or mitigated
14 consistent with the requirements of this section of Chapter 2 and, specifically, with
15 Management Guideline A within areas designated or co-designated Habitat.

16
17 **T. Other Guidelines Affecting Fish and Wildlife Habitat.** Other guidelines may affect
18 the protection and management of fish and wildlife habitat. See other sections of this
19 chapter.
20