Fish and Wildlife Habitat and Harvest Areas

Goals

Ensure Access to Public Lands and Waters. Ensure access to public lands and waters to 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 reduction in the quality and quantity of fish and wildlife habitat.

Contribute to Economic Diversity. Contribute to Alaska's economy by protecting the fish and wildlife resources that 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. The aim is to supply sufficient numbers and 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 species of regional, state, or national significance.

Management Guidelines: Habitat Areas

A. Mitigation. When issuing permits and leases or otherwise authorizing the use or development of state lands, DNR will recognize the requirements of the activity or development and the effects to habitat when determining 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. The underlying integrity of the ecological system and traditional way of life in this region is to be maintained to the maximum extent practicable.

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

The Department will enforce stipulations and measures, and will require the responsible party to remedy 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 department 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 adverse effect 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 will consider requiring 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. Replacement with or enhancement of similar habitats of the affected species in the same region is preferable. 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 only 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 permit review process.

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

- Anadromous fish spawning and rearing areas in fresh water or brackish intertidal zones
- Estuaries important for rearing or schooling of anadromous fish
- Kelp beds covering large areas that are important marine nurseries
- Pacific herring spawning and rearing concentrations areas
- Eel grass beds that are important marine nurseries
- Waterfowl and/or shorebird concentration areas
- Seabird breeding habitat within each colony area of 500 birds and a two-mile radius around major breeding colonies (more than 20,000 birds)
- Bald eagle nest sites or nest site areas, and known concentrations
- Sea lion haulouts and rookeries
- Harbor seal haulouts and rookeries
- Walrus haulouts and rookeries
- Sea otter pupping areas
- Bear concentration areas (including concentrations by season)

- Important wildlife migration corridors, including nearshore migration routes
- Caribou and moose rutting, wintering and calving concentration areas.

The areas designated Habitat (Ha) in Chapter 3 of the plan were defined using the best available information when the plan was written. Most of the areas designated "Ha" are tidelands, shorelands, and submerged land areas; few upland management units were given this designation. It should be noted that many of the large, interior upland management units contain areas of sensitive habitat but were not assigned a Habitat designation. Instead, these large management units were assigned the designation of General Use, reflecting the large size, lack of dominance of any one resource, or absence of known or anticipated development. In these instances, information about the sensitive resource(s) as well as management intent language has been provided. The management intent indicates the kind and level of protection to be afforded the resource(s). It should be emphasized that the use of the Habitat designation does not preclude compatible human uses.

In the designation of habitat areas on tidelands, data sources were sometimes of a generalized nature. Because of this and in order to be conservative in the delineation of habitat areas, large tideland areas were identified. The wildlife and fishery information identified for specific management units in Chapter 3 occupy either part or all of the area of a management unit. The resource that was used to determine that an area should be designated "Ha" is identified in the management unit 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 different portions of the management unit. The spatial distribution of habitat resources is described in the management intent language, if known. Management units are to be managed to protect the resource identified in these tables. Areas of sensitive habitat in management units designated General Use are, similarly, to be managed to protect the resource that is identified.

Since there is a distinct seasonality associated with the critical life periods of certain terrestrial or marine mammals and fish, seasonality shall be taken into consideration during project review and approval. Seasonality and critical life cycle stages are identified in various publications[3]. Thus, it may be possible that uses and facilities may be appropriate within areas designated "Ha" if the seasonality criteria are satisfied by including mitigating measures in project design.

Tideland and upland uses that are not consistent with the approved designation, not authorized in the management intent statement for a specific management unit, and, if permitted, *would* result in the degradation of the resource(s) associated with areas designated "Ha", are to be considered incompatible with the plan's management intent and, specifically, with the "Ha" designation. Degradation of the resource might result from actions involving

[3] These publications include, but are not limited to the following: ADF&G Regional Habitat Guides and NOAA Oil Spill Response Atlas. Consult ADF&G for further information.

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" management unit *can* be allowed *if*:

- ADF&G or the DNR Office of Habitat Management and Permitting determines through new information or more detailed analysis that the area is not "Ha" as defined in the plan; or
- If DNR in consultation with ADF&G or the DNR Office of Habitat Management and Permitting determines that the non-designated use can be made compatible, and significant adverse impacts to the "Ha" area can be avoided with appropriate design, siting, and operating stipulations; or
- Within areas where the ACMP[4] policies are not in effect, the use (project) is determined to be in the best interest of the state.

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

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

E. Hatchery and Aquatic Farm Source Waters. To preserve the quality of an existing hatchery's water supply, uses should not be located on state land where they would risk reducing water quality or quantity below that needed by the hatchery or aquatic farm.

F. Water Intake Structures. When issuing water rights for waters providing fish habitat, DNR 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

[4] The Alaska Coastal Management Program was terminated on July 1, 2011, pursuant to AS 44.66.030.

be used to achieve the intent of this guideline. DNR's DMLW and Office of Habitat Management and Permitting should be consulted to determine screen size, water velocity, and intake design if the intake structure is in fish habitat.

G. 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.

H. 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 mitigation recommendations should be identified through interagency consultation for any land use activity that potentially affects threatened or endangered species. Within the planning area, ten species are under the jurisdiction of the U.S. National Marine Fisheries Service, U.S. Fish and Wildlife Service, or Alaska Department of Fish and Game as threatened (T) or endangered (E) in accordance with the state and federal Endangered Species Acts, as amended. Ten species are identified by the federal government as either Threatened or Endangered, while the state identifies two of these ten as either Threatened or Endangered. The table, below, identifies the species identified by the federal government as Threatened or Endangered. The two species identified as Threatened or Endangered by the state are noted.

Species	**Status**
Short-tailed albatross (*Diomedea albatros*)*	E
Eskimo curlew (*Numenius borealis*)	E
Humpback whale (*Megaptera novaeangliae)**	E
Blue whale (*Balaenoptera musculus*)	E
Fin whale (*Balaenoptera physalus)*	E
North Pacific right whale (*Eubalaena japonica)*	E
Sperm whale (*Physeter macrocephalus)*	E
Stellar sea lion (*Eumetopias jubatus*)	E (western population)
Spectacled eider (*Somateria fischeri*)	T
Steller's eider (*Polysticta stelleri*)	T

* Also included on the State's Threatened and Endangered list.

The U.S. Fish and Wildlife Service, Division of Ecological Services or the National Marine Fisheries Service will be consulted on questions that involve endangered species.

I. 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 U.S. Fish and Wildlife Service (USFWS), or such subsequent standards that may be promulgated. However, the USFWS may not determine them to be

adequate in all circumstances. 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 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.

J. Sea Lion and Walrus Haulouts and Rookeries, and Seabird Colonies. Seabird colonies and walrus, sea lion, and seal haulouts and rookeries shall not be physically altered. Structures or activities that would preclude or significantly interfere with the continued use of these areas should not be authorized and should be situated at least one-half mile distant from haulouts or seabird colonies, except as noted. Uses with high levels of acoustical or visual disturbance should not be allowed within: one mile of seabird colonies from April 15 through August 31; one-half mile of walrus haulouts from May 1 through December 1; and one-half mile of seal or sea lion haulouts from May 1 through July 31. Consult with the U.S. Fish and Wildlife Service and ADF&G prior to granting authorizations to identify marine mammal haulout, rookery and seabird colony locations more specifically, and to define minimum distance separation requirements and specific use restrictions. Consult the 'Resources & Uses' section of tideland management units in the Resource Allocation Tables to determine haulouts, rookeries, or seabird colonies likely to be present in an area.

Individual sea lion and walrus haulouts and rookeries and seabird colonies[5] not contained within specific tideland management units or state protected tideland areas[6] are designated Habitat (Ha) and are to be managed according to Management Guideline B, 'Allowing Uses in Fish and Wildlife Habitats (Ha)' and the restrictions described above.

K. Caribou and Moose Rutting, Wintering, and Calving Areas. Large portions of the planning area contain areas important for caribou and moose calving, wintering, and rutting. Calving typically occurs from May through June, depending upon location. 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 should include seasonal restrictions on activities that would produce significant acoustical or visual disturbance during sensitive periods.

[5] Defined as 500 or more seabirds.
[6] The term 'state protected areas' includes state game refuges, state game sanctuaries, and state critical habitat areas.

Caribou and moose calving, wintering, and rutting areas change over time. In particular, caribou wintering areas show no particular concentration and, in fact, there is a fairly widespread distribution of these habitats throughout the planning area. The location of caribou wintering varies throughout this range from year to year and within years and does not exhibit the same concentrated pattern that is characteristic of moose wintering areas. ADF&G should be consulted prior to issuing an authorization in order to better determine: 1) the location of calving, wintering, 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 an upland management unit's 'Uses and Resources' section in the Resource Allocation Tables to determine whether the presence of a rutting, wintering, or calving area is likely.

L. Tundra Swan Nesting Areas. In tundra swan nesting areas, uses that would disturb nesting swans or detrimentally alter the 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 known nesting sites. Surface entry should also be avoided within one-quarter mile of nesting sites between April 1 and August 31. Leases or permits may require seasonal restrictions on activities to avoid disturbance to swans. Consult with ADF&G to identify current or potential nesting habitat and to determine guidelines to follow and activities to avoid. The standards of Guideline M, 'Activities in Important Waterfowl Habitat', also apply. Refer to an upland management unit's 'Resources and Uses' section in the Resource Allocation Tables to determine if the presence of a nesting area is likely.

M. Activities in Important Waterfowl Habitat. In important waterfowl habitat, activities requiring a lease, permit, or development plan, and producing high levels of acoustical or visual disturbance from sources such as boat traffic, blasting, dredging, and seismic operations, will 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 will consider avoiding significant adverse impacts. Consult with ADF&G to identify areas of important waterfowl in addition to those identified in the tidelands management units in this plan and to determine appropriate mitigation or avoidance measures.

N. 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, should not be granted unless it is determined that the proposed activity will not cause significant adverse impacts to important waterfowl or that no feasible and prudent alternative exists. Where dredging or filling occurs, other mitigation measures are to be used to avoid significant adverse impacts.

O. Eel Grass Beds. Development activities, structures, and facilities should not significantly disturb eel grass beds or interfere with the exchange of nutrients or waters between estuarine lagoons and the marine environment.

P. Soil Erosion. Soil erosion will be avoided by restricting soil disturbance along waterbodies and by stabilizing disturbed soil as soon as possible.

Q. 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 natural values.

R. Grounding of Floating Facilities. Floating tideland facilities will not ground at any tide stage unless the ADF&G determines there will be no significant impact to the habitat values, or the applicant demonstrates to the satisfaction of DNR that there is no feasible and prudent alternative and DNR determines it is in the state's best interest.

S. Protection of Fish and Wildlife Resources - Transportation Facilities. Important fish and wildlife habitats such as those described as riparian areas, 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 the ADF&G and DNR, Office of Habitat Management and Permitting, as appropriate.

T. Conflicts with Traditional Uses of Fish and Game. Decisions to authorize land use activities will consider the effect on and minimize significant conflicts with traditional uses of fish and wildlife resources.

Management Guidelines: Harvest Areas

A. Allowing Uses Within Designated Harvest Areas (Hv). Considerations similar to those identified in the Habitat portion above apply to areas designated Harvest (Hv). Only tideland management units are affected by the Harvest designation. These Harvest areas are defined as areas of intense fish and wildlife harvest (compared to the rest of the planning area) where the level of harvest has reached, or is projected to reach, the harvestable surplus for the resource, or discrete fish and wildlife harvest areas historically important to a community for the harvest of a species where alteration of habitat could permanently limit sustained yield for traditional uses:

- important areas for human use of fish and wildlife,
- areas with multiple uses of fish and wildlife,
- localized areas of subsistence or community harvest,
- localized, very intense, harvest areas,
- intensive sport/personal use fishing areas,

- intensive commercial use fishing areas,
- intensive commercial crab or shrimp harvest areas,
- intensive hunting or trapping areas for a game or furbearer species.

The areas designated "Hv" in Chapter 3 of the plan were defined using the best available information at the time of plan preparation. In the designation of these areas, data sources were of a generalized nature, oftentimes at the 1:250,000 scale. In order to be conservative in the delineation of harvest areas, large tideland areas were identified. In some cases, there is only a single harvest resource, but in other instances several resources exist, with these resources sometimes occupying different portions of the management unit. The spatial distribution of harvest resources is described in the management intent language, if known. The resource(s) used to make the determination that an area should be designated Harvest are identified in the management unit descriptions contained in the Resource Allocation Tables in Chapter 3 under the column, "Resources and Uses".

Management units designated Harvest will be managed to ensure minimal disturbance to the harvest resources identified for a given area. Since there is a distinct seasonality associated with the critical life periods of certain marine mammals and fish, seasonality shall be taken into consideration during project review and approval. Seasonality and critical life cycle stages are identified in various publications[7]. Thus, it may be possible that uses and facilities may be appropriate within areas designated Harvest if the seasonality criteria are satisfied by including mitigating measures in project design.

Tideland and upland uses that are not consistent with the approved designation, not authorized in the management intent statement for a specific management unit, and, if permitted, *would* result in the degradation of the resource(s) associated with areas designated Harvest or Ha/Hv, are to be considered incompatible with the plan's management intent and with the Harvest and Ha/Hv designations. 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 the ADF&G, in making the determination of initial incompatibility.

Uses may be permitted if the proposed use avoids the resource or if, through stipulations, it can be made to have minimal adverse impact on the harvest activity for which the area was designated. In instances when the proposed use cannot avoid the harvest area or cannot mitigate significant impacts through design, siting, or operation stipulations, the use may be permitted if one of the following conditions is satisfied:

- ADF&G determines through new information or more detailed analysis that the area is not Harvest or Ha/Hv as defined in the plan;

[7] These publications include, but are not limited to, the following: ADF&G Regional Habitat Guides and NOAA Oil Spill Response Atlas. Consult ADF&G for further information.

- The use is of sufficient public importance or lacks a feasible and prudent alternative consistent with the applicable management guidelines of this plan; or
- The significant adverse impacts of the use (project) are mitigated under Management Guideline A.

B. Allowing Uses in Other than Designated Harvest Areas. Within the plan boundary, essentially all tidelands and submerged lands are used for some form of subsistence, sport, or commercial harvest at some time during the year. The entire planning area is fully utilized by fisheries for one species or another. Even though only intensively used areas were designated Harvest, significant harvest areas often occur in areas designated General Use (Gu). Under that portion of the "Gu" definition (see Definitions, Chapter 3) applying to intertidal and submerged lands, some lands designated "Gu" are recognized to contain important resources for one or more subsistence, recreational and commercial harvest fisheries. Maps depicting the areas used for harvest (sport, subsistence, and commercial) are identified in the ADF&G publication, "Atlas to the Habitat Management Guide: Southwest Region (1985)". More detailed information on harvest areas is included within ADF&G publications. These reports should be consulted for site-specific decisions.

C. Activities Adjacent to Designated Harvest Areas. To protect access, uses adjacent to intensively used commercial, recreation, community, or subsistence harvest areas will not preclude access for harvest activities during the harvest or use season.

Management Guidelines: Special Management Areas – Tidelands & Submerged Lands; Other

A. Activities in Intensive Purse Seine and Gill Net Areas. Tideland facilities should not be located where they would obstruct drift or set gill net or purse seine use of the shoreline in intensive fishery areas.

B. Activities in Traditional Use Commercial Herring Areas. Activities should avoid disruption of the harvest within traditional herring fishery areas including the sac roe and wild kelp harvest fishery areas.

C. Anchorages. See Management Guidelines for Floating Facilities.

D. Special Management Areas – Tidelands and Submerged Lands. Special management areas termed 'Tideland Resource Management Zones' for tidelands and submerged lands apply where large areas of tide and submerged lands should be managed in a coordinated manner. These areas are significantly larger than typical tideland management units, and do not properly fit into the definition of a "management unit" as used in this plan. There is a single Tideland Resource Management Zone (TRMZ) within the planning boundary. This TRMZ affects tideland and submerged lands adjacent to federal conservation units, including National Wildlife Refuges (Togiak, Alaska Maritime, Alaska Peninsula, Izembek, and

Becharof), and Aniakchak National Monument and Preserve. These areas are depicted on regional plan O-1 through O-4. Management intent language and guidelines are identified for TRMZs, similar to tidelands management units and are contained in Chapter 3. These management statements are contained in the section termed 'Management Summary, Tidelands' in the introduction for Chapter 3. Those parts of the TRMZ specific to a region are described and included as specific management subunits within the Resource Allocation Table for each region.

E. 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.