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C. Minimization and Mitigation for Other Federally Listed Species in All Planning Units

In addition to the northern spotted owl and marbled murrelet, seven species listed by the federal government as threatened or endangered occur, or may occur, on DNR-managed lands in the area covered by the HCP. The geographical ranges or habitats of five of these — the Oregon silverspot butterfly, Aleutian Canada goose, gray wolf, grizzly bear, and Columbian white-tailed deer — are peripheral to DNR-managed forest lands, and DNR management will have little effect on the viability of their populations in Washington. The other two federally listed species, the bald eagle and peregrine falcon, occur in or near DNR-managed forests, and adequate conservation of their habitats is expected to result from adhering to DNR policies, state regulations, and the conservation strategies of this HCP. Nevertheless, DNR seeks protection from prosecution for incidental take of these seven federally listed species throughout the entire area covered by the HCP.

Oregon Silverspot Butterfly

Conservation of Oregon silverspot butterflies and their habitat is currently achieved by DNR policies that mandate general protection for riparian areas, wetlands, and upland wildlife habitat, and specific commitments to respect state and federal requirements for protection of threatened and endangered species (Policies Nos. 20, 21, 22, and 23 of the Forest Resource Plan, DNR 1992). DNR complies with state Forest Practices Rules, which currently require a SEPA environmental checklist for harvesting, road construction, aerial application of pesticides, or site preparation, within 0.25 mile of an occurrence of an individual Oregon silverspot that has been documented by the Washington Department of Fish and Wildlife (WAC 222-16-080). Under this HCP, all DNR forest management activities in the area covered by the HCP shall comply with state Forest Practices Rules and state wildlife regulations and shall be consistent with the policies set forth by the Board of Natural Resources.

In addition, DNR will not harvest timber, construct roads, or apply pesticides within 0.25 mile of an individual occurrence of an Oregon silverspot butterfly, documented by the Washington Department of Fish and Wildlife. In places where DNR believes that effective conservation can be provided in a more efficient way, DNR may present to the the U.S. Fish and Wildlife Service a site-specific management plan that provides adequate protection for the species or habitat occurring at that site. If the the U.S. Fish and Wildlife Service does not approve of the plan, then a multi-agency science team will be convened. The team will evaluate the plan and determine if it is adequate, and if it is not, recommend additional measures that should be taken.

Although this species rarely occurs on DNR-managed lands, DNR seeks protection from prosecution for incidental take of Oregon silverspot butterflies. DNR expects that inadvertent incidental take will be minimal because distribution of the species and its potential habitat is peripheral to DNR-managed forest lands and current and proposed management of DNR-managed lands is generally neutral to beneficial to Oregon silverspot habitat.

Aleutian Canada Goose

The conservation of this species is peripheral to DNR's forest management, but some of the foraging and resting habitats that the Aleutian Canada goose uses during its migration will be protected through the HCP riparian conservation strategy which: (1) commits to no overall net loss of naturally occurring wetland acreage and function, and (2) protects lakes and ponds classified as Types 1, 2, or 3 waters.

Although the Aleutian Canada goose may rarely stop on or near DNR-managed lands, DNR seeks protection from prosecution for incidental take of this species. DNR expects that inadvertent incidental take of Aleutian Canada geese will be minimal.

Bald Eagle

Conservation of bald eagles and their habitat is currently achieved by DNR policies that mandate general protection for riparian areas and upland wildlife habitat and specific commitments to respect state and federal requirements for protection of threatened and endangered species (Policy Nos. 20, 22, and 23 of the Forest Resource Plan, DNR 1992) and by compliance with state Forest Practice Rules (WAC 222-16-080) and state wildlife regulations (WAC 232-12-292) to protect nest and communal roost sites. Under this HCP, all DNR forest management activities in the area covered by the HCP shall comply with state Forest Practices Rules and state wildlife regulations and shall be consistent with the policies set forth by the Board of Natural Resources. When developing a site-management plan for bald eagle habitat pursuant to WAC 232-12-292 DNR will, where appropriate, consider perch/pilot trees and foraging areas associated with nesting sites, winter roost trees, and winter feeding concentration areas, in addition to protection of nesting trees and the immediate vicinity.

In the west-side planning units, further conservation of bald eagles and their habitat is likely to result from the HCP riparian conservation strategy and the retention of very large old trees as described in the multispecies strategy on uncommon habitats. These measures should increase abundance and distribution of large trees in streamside areas for nesting and roosting and increase abundance and distribution of favorable salmonid habitat for foraging.

DNR expects that inadvertent incidental take of bald eagles will be minimal because DNR shall actively conserve known sites. Nevertheless, DNR seeks protection from prosecution for incidental take of bald eagles.

Peregrine Falcon

Conservation of peregrine falcons and their habitat is currently achieved by DNR policies that mandate general protection for riparian areas and upland wildlife habitat and specific commitments to respect state and federal requirements for protection of threatened and endangered species (Policy Nos. 20, 22, and 23 of the Forest Resource Plan, DNR 1992). DNR complies with state Forest Practices Rules, which currently require a SEPA environmental checklist for harvesting, road construction, aerial application of pesticides, or site preparation within 0.5 mile of a known active nest site between March 1 and July 30 or within 0.25 mile of the nest at other times of the year (WAC 222-16-080). Known sites are based on documentation by the Washington Department of Fish and Wildlife. Under this HCP, all DNR

forest management activities in the area covered by the HCP shall comply with state Forest Practices Rules and state wildlife regulations and shall be consistent with the policies set forth by the Board of Natural Resources.

In the five west-side planning units and the Olympic Experimental State Forest, additional conservation of peregrine falcons on DNR-managed lands will be provided by the generally improved wildlife habitat that will result from the HCP and Olympic Experimental State Forest riparian conservation strategies and from the site-specific conservation of cliff habitat as described in the multispecies strategy on uncommon habitats. In addition, in east- and west-side planning units and the Olympic Experimental State Forest, DNR shall where practicable:

- review and, where necessary, manage public access to DNR-managed lands within 0.5 mile of a known peregrine falcon aerie;
- conduct field review, by staff knowledgeable of peregrine biology and requirements, of all cliffs in excess of 150 feet, and conduct surveys for peregrine falcon aeries at cliffs judged to have likely potential for use;
- protect ledges on cliffs judged suitable for aeries;
- retain trees along the base and top of cliffs judged suitable for aeries, especially perch trees along the top of cliffs; and
- keep the location of peregrine falcon aeries on DNR-managed lands confidential to the extent permitted by law.

Although peregrine falcons rarely nest near DNR-managed lands, DNR seeks protection from prosecution for incidental take of this species. DNR expects that inadvertent incidental take of peregrine falcons will be minimal because most known peregrine sites and potential habitat are far from DNR-managed lands. Management of DNR-managed lands is generally neutral to peregrine falcon habitat, however, DNR shall actively conserve known sites.

Gray Wolf

The status of the gray wolf within the HCP area is unknown. However, it is likely that even if absent now, wolves will emigrate and reside in this area during the permit period. Biologically, the fate of the wolf is linked to that of its prey, which includes large herbivores such as elk and deer, and smaller mammals such as the snowshoe hare. No "recovery areas" have yet been designated for the gray wolf in the Washington Cascades. DNR will evaluate the amount of habitat for preferred wolf prey species and prioritize areas that have a higher likelihood of providing adequate habitat for the preferred prey species.

Conservation of gray wolves and their habitat is currently achieved by DNR policies that mandate general protection for riparian areas and upland wildlife habitat and specific commitments to respect state and federal requirements for protection of threatened and endangered species (Policy Nos. 20, 22, and 23 of the Forest Resource Plan, DNR 1992). DNR complies with state Forest Practices Rules, which currently require a SEPA environmental checklist for harvesting, road construction, or site preparation within 1 mile of a known active den site between March 15 and July 30

or within 0.25 miles of the den at other times of the year (WAC 222-16-080). Known den sites are based on documentation by the Washington Department of Fish and Wildlife. Under this HCP, all DNR forest management activities in the area covered by the HCP shall comply with state Forest Practices Rules and state wildlife regulations and shall be consistent with the policies set forth by the Board of Natural Resources.

DNR believes that the combination of riparian and marbled murrelet strategies in western Washington, and the spotted owl strategy and improved road management plan in both western Washington and the eastside planning units will provide support to gray wolves. Additionally, DNR will attempt to avoid or minimize potential impacts to gray wolves by maintaining habitat in a condition that allows wolves and their important prey species to meet their essential biological needs by providing:

- Den site and rendezvous site protection.

- Within 8 miles of a class 1 wolf observation, DNR shall establish a wolf habitat management area on DNR-managed lands. Class 1 observations are confirmed by a biologist and/or photograph, carcass, track, hair, or food cache (Almack et al. 1993).

- DNR, in cooperation with the U.S. Fish and Wildlife Service, shall develop and implement practicable site-specific plans to limit human disturbance within the wolf habitat management area. If the U.S. Fish and Wildlife Service does not approve of the plans, then a multi-agency science team will be convened. The team will evaluate the plans and determine if they are adequate, and if not, recommend additional measures that should be taken to make them adequate.

- Measures to limit disturbance shall remain in effect until five years after the last class 1 wolf observation in the wolf habitat management area.

- Provisions for Prey Habitat Conditions - Habitat management for wolves is primarily directed at habitat for its prey species (USFWS 1984). The most important prey species in the HCP area are deer and elk. The species use edges between cover (older forest) and forage habitats (stand initiation, shrub/sapling, and younger forest). The creation and maintenance of edge habitat through timber harvest activities will provide adequate habitat for wolf prey species.

- Road Management - DNR will attempt to provide more secure conditions for both prey species and wolves. Minimal contact with humans has been cited as the second most important biological necessity for wolf recovery (USFWS 1984). DNR has been involved in cooperative road closures with the Washington Department of Fish and Wildlife and the U.S. Forest Service to restrict vehicular activity to maintain or increase big game security and reduce hunting pressure. DNR will continue to participate in such cooperative activities. Ungulate fawning/calving and wintering areas are areas where wolves are most likely to occur. To the extent practicable, DNR will schedule forest management activities, including road construction and use, to occur at times of the year when wolves are least likely to be present.

The additional conservation measures described in this HCP should benefit the gray wolf because: the generally older forest cover in riparian ecosys-

tems resulting from the riparian conservation strategies will provide increased travel and hiding opportunities for wolves; the generally lower frequency of disturbance in the spotted owl nesting, roosting, and foraging areas, which are adjacent to gray wolf habitat on federal lands along the Cascade Range, will improve the potential of these areas as habitat; and the measures to reduce disturbance in areas of documented gray wolf use will improve the habitat values of these areas.

Although there have been only three observations of gray wolves on DNR-managed lands in the area covered by the HCP (WDFW PHS GIS Database 1989-93), DNR seeks protection from prosecution for incidental take of gray wolves. DNR expects that inadvertent incidental take of this species will be minimal because very few gray wolf occurrences have been recorded on DNR-managed lands in the area covered by the HCP. In addition, current and proposed management of DNR-managed lands is generally neutral to beneficial to gray wolf habitat, and DNR will actively implement conservation measures in areas where wolves occur.

Grizzly Bear

Conservation of grizzly bears and their habitat is currently achieved by DNR policies that mandate general protection for riparian areas and upland wildlife habitat and specific commitments to respect state and federal requirements for protection of threatened and endangered species (Policy Nos. 20, 22, and 23 of the Forest Resource Plan, DNR 1992). DNR complies with state Forest Practices Rules, which currently require a SEPA environmental checklist for harvesting, road construction, aerial application of pesticides, or site preparation within 1 mile of a known active den site between October 1 and May 30 or within 0.25 mile of a den at other times of the year (WAC 222-16-080). Known sites are based on documentation by the Washington Department of Fish and Wildlife. Under this HCP, all DNR forest management activities in the area covered by the HCP shall comply with state Forest Practices Rules and state wildlife regulations and shall be consistent with the policies set forth by the Board of Natural Resources.

The federal and state wildlife agencies believe that grizzly bears occur, at least occasionally, within the North Cascades Grizzly Bear Recovery Zone (hereafter referred to as the Recovery Zone). The Recovery Zone contains in excess of 6,000,000 acres including approximately 260,000 acres of DNR-managed forest lands. Less than 100,000 acres of the DNR-managed land, representing less than 2 percent of the Recovery Zone, is included within the area covered by the HCP.

The DNR-managed lands covered by the HCP and within the Recovery Zone can be described as occurring in four locations: Skagit Valley, Spada Lake, the west side of the Methow Valley, and a group of separate sections between Wenatchee and Lake Chelan and are surrounded by U.S. Forest Service land. In each of these areas, the DNR-managed lands lie on the periphery of the Recovery Zone between federal ownership and areas of human occupancy and related activity. DNR believes the best use of the lands it manages is to serve as a buffer between the federal ownership, where active recovery efforts are most likely to occur, and the areas of increased public use. DNR believes that this role will be sufficiently supported by the combination of other strategies contained within the HCP.

DNR believes that the combination of riparian and marbled murrelet strategies in western Washington, and the spotted owl strategy and improved road management plan in both western Washington and the east-side planning units will provide support to grizzly bears. In addition, DNR proposes to provide the following site-specific measures:

- Within 10 miles of a class 1 grizzly bear observation, DNR shall establish a grizzly bear habitat management area on DNR-managed lands within the North Cascades Grizzly Bear Recovery Area. Class 1 observations are confirmed by a biologist and/or photograph, carcass, track, hair, dig, or food cache (Almack et al. 1993).

- DNR, in cooperation with the U.S. Fish and Wildlife Service, shall develop and implement practicable site-specific plans to limit human disturbance in the grizzly bear habitat management area.

- Measures to limit disturbance shall remain in effect until five years after the last class 1 grizzly bear observation in the grizzly bear habitat management area.

The additional conservation measures described in this HCP should benefit grizzly bears because: the improved function of riparian ecosystems resulting from the riparian conservation strategies will provide increased foraging, travel, and hiding opportunities for bears; the generally lower frequency of disturbance in the spotted owl nesting, roosting, and foraging areas, which are adjacent to grizzly bear habitat on federal lands along the Cascade Range, will improve the potential of these areas as habitat; and the measures to reduce disturbance in areas of documented grizzly bear use will improve the habitat values of these areas.

Although there has been only one observation of a grizzly bear on DNR-managed lands in the area covered by the HCP (WDFW PHS GIS Database 1990-93), DNR seeks protection from prosecution for incidental take of grizzly bears. DNR expects that inadvertent incidental take of this species will be minimal because only one grizzly bear occurrence has been recorded on DNR-managed lands in the area covered by the HCP. In addition, current and proposed management of DNR-managed lands is generally neutral to beneficial to grizzly bear habitat, and DNR will actively implement conservation measures in areas where grizzlies occur.

Columbian White-tailed Deer

Conservation of Columbian white-tailed deer and their habitat is currently achieved by DNR policies that mandate general protection for riparian areas, wetlands, and upland wildlife habitat and specific commitments to respect state and federal requirements for protection of threatened and endangered species (Policies Nos. 20, 21, 22, and 23 of the Forest Resource Plan, DNR 1992). Although the current range of the Columbian white-tailed deer is peripheral to DNR-managed forest lands, DNR seeks protection from prosecution for incidental take of this species. Under this HCP, all DNR forest management activities in the area covered by the HCP shall comply with state Forest Practices Rules and state wildlife regulations and shall be consistent with the policies set forth by the Board of Natural Resources.

Additional conservation of Columbian white-tailed deer and their habitat on DNR-managed lands will result from the HCP riparian conservation strategy that describes management beneficial for the riparian and tidal forests that are potential habitat for these deer.

DNR expects that inadvertent incidental take of Columbian white-tailed deer will be minimal because:

(a) Columbian white-tailed deer are not currently known to inhabit DNR-managed forest lands.

(b) Current and proposed management of DNR-managed forest lands is generally neutral to beneficial to Columbian white-tailed deer habitat.

(c) DNR-managed forest lands near the range of the Columbian white-tailed deer are currently occupied by black-tailed deer, which are displacing the white-tailed deer through competition in upland sites like those managed by DNR (WDW 1991).