NWPPC COUNCIL PRESENTATION - WILDLIFE CRITERIA FOR PROTECTED AREAS

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Members of the Council, I appreciate this opportunity to describe Montana's wildlife portion of the protected areas program and to explain our concerns with your proposed "no net loss" standard for wildlife. There are 3 major objectives for this presentation: 1. to highlight the wildlife species which we have chosen for protection; 2. to explain why we have selected these species, that is, their national or statewide significance and their dependence on stream and streamside habitat; and 3. to describe the impacts of hydroelectric development and explain why mitigation is not a feasible or acceptable alternative for these specific streams.

Our process for determining "protected" areas for wildlife was highly selective. Initially, we used the Hydro Assessment Steering Committee's (HASC) guidelines (slide 2) for our criteria. These guidelines were used in developing Montana's portion of the Pacific Northwest Rivers and outlined protection for significant habitats for threatened and endangered species, species of special concern, and big game. However, we found in Montana that if we had just used the wildlife data base of the Montana Rivers Study, we would have recommended protection for more than 50% of the basin. Realizing the need to list only the most critical wildlife habitats we adopted much more stringent criteria, examples of which I will explain as I go along.

In our program, we selected only those species among these 3 groups who depend on the stream and/or streamside habitat for survival (slide 3). Among the 30 species which meet these general criteria, our final list included 3 threatened and endangered species, 6 species of special concern, and 5 big

game animals. I will now highlight a few examples of these species and describe our concerns about future hydroelectric development.

Bald Eagle: (Slide 4) The bald eagle, a federally endangered species, is currently staging a major comeback in Montana. Bald eagle nest sites have increased from 12 to more than 60 statewide during the last 10 years. More than 40 of these nests are found in western Montana. In addition to providing an important breeding population, Montana supports an estimated 450 to 500 wintering bald eagles along its open rivers and big game winter ranges.

To insure recovery, Montana recently adopted a Bald Eagle Management Plan which calls for protection of existing bald eagle nesting sites and important wintering areas so that we can "recover" these populations (slide 5). Bald eagles nest adjacent to water and feed primarily on fish and waterfowl. Most of the eagles food resources are located along waterways within 2 1/2 miles of the nest site as shown in this example. Using the guidelines of the state's plan, we recommended protection for only those streams within this 2 1/2 mile radius. In addition, we listed for protection only those river segments which support the state's highest winter eagle concentrations.

What would the impacts of hydroelectric development be to bald eagles? Dams or diversions on streams or rivers within nesting territories or on key wintering rivers would impact bald eagle food resources. Any project which would (slide 6) impede fish movements, reduce fish populations, increase turbidity or freezing, thereby, reducing prey availability, would be highly detrimental to eagles. Research has shown nesting failures are directly related to inadequate food availability. Because it is usually impossible to recreate the fish or waterfowl habitats which would be impacted by hydroelectric projects, mitigation is not a feasible alternative.

River Otter (Slide 7) Another animal highly dependent on productive stream environments is the river otter. Protected under international trade regulations, Montana has been studying this very popular animal's distribution for several years. River otters den in stream banks and feed primarily on fish and other aquatic life (slide 8). Like the bald eagle, hydroelectric projects which affect fishery abundance or availability will impact river otter habitat. Again, without recreating a new river environment for these animals, mitigation is not a feasible alternative.

Harlequin Duck (Slide 9). The harlequin duck is one of Montana's species of special concern. This unusual duck makes its way 600 miles inland from the coast, much like the steelhead and salmon, just to nest along Montana's cascading streams. Less than 6 nesting sites have been confirmed in Montana. This uncommon bird requires fast flowing turbulent streams for feeding. Harlequins forage exclusively on aquatic insects found under rocks.

Hydroelectric projects would have a direct and adverse effect on nesting harlequins. Changes in stream flows (slide 10), sedimentation rates, water temperatures, water velocities, for example, would negatively impact aquatic insect populations and, thereby, harlequin duck food sources. Without recreating an entire stream system elsewhere exactly like the one impacted, these direct effects of hydroelectric developments are impossible to mitigate. Because of this species rarity, its dependence on such a narrow set of environmental conditions, and its sensitivity to development, mitigation is not a realistic or acceptable alternative.

Amphibians of Special Concern (slide 11) One unique amphibian in Montana is the Coeur D'Alene salamander. Like the harlequin duck, this species has a

very limited distribution in Montana and is found only in 3 types of wet habitats: splash zones of waterfalls (slide 12), exposed seepages, and the edges of cascading streams. These salamanders need stable moist conditions to survive the summer.

Two of the habitats in which these animals are found, waterfalls and cascading creeks, are highly preferred sites for small hydroelectric development. Projects which reduce stream flows (slide 13) would likely result in a corresponding reduction in salamander populations. Again, preventing an impact to these sensitive animals is not feasible or realistic for most hydropower developments.

Grizzly Bear (Slide 14) Montana supports some of the largest remaining grizzly bear populations in the lower 48 states. Two of these populations are found in western Montana; these include the Cabinet-Yaak region (slide 15) and the Northern Continental Divide area. The grizzly bear is a federally threatened species.

Although a wide-ranging animal, grizzlies key into stream habitats (slide 16) during much of the year. The early greening vegetation along streams form the mainstay of the bears spring diet. The production of berries by shrubs along streams and the persistent green vegetation draw bears into the creek bottoms during late summer and early fall.

Because nearly 40% of western Montana lies within occupied grizzly bear habitat, our criteria focused on protecting only the most essential riparian habitats. We used the results of major research efforts and the input of these research teams to list the most important riparian areas.

Hydroelectric projects which inundate streamside vegetation (slide 17) would reduce food availability for grizzly bears. Diversion projects could reduce water flows sufficiently to affect the growth of streamside vegetation.

The loss of security through road and rights-of-way construction is also a major consideration for this animal which does not do well with human conflicts. The threatened status of the grizzly bear coupled with its intensive use of riparian areas warrants protection of its most essential habitat. Allowing hydroelectric development in these listed streams would pose an unacceptable risk.

Big Game (Slide 18) Montana is home to some of the largest and most productive big game populations in the country. In terms of numbers, variety, and economic value of big game hunting, we are in the top 6 states nationwide. Protecting essential or critical winter and spring habitats for our deer, elk, sheep, and moose is a major priority within the state.

At first it might seem strange that streams should be protected for their big game values. However, (slide 19) big game populations in western Montana have to move from the high country to the lower elevations in the winter and early spring to survive the severe winters. During winter, these animals concentrate in relatively small geographic areas which contain both food and cover. These concentration areas, or winter ranges, often include lower elevation creek bottoms.

For big game (slide 20), we chose to protect only those areas which winter our most outstanding statewide populations. Within these areas, we selected only the portion of the streams which were integral to the wintering or reproduction area. In most cases, only the lower 1 to 3 miles of the streams were listed.

Hydroelectric projects (slide 21) which would inundate or dewater streamside vegetation would also greatly reduce habitat diversity associated with these winter ranges. In the case of white-tailed deer which rely heavily

on riparian shrubs for food, this impact would be most severe. The presence of road, flume and powerline rights-of-way could increase human disturbances during the critical winter or spring periods. As with grizzly bears, allowing hydroelectric development in these crucial areas would present an unacceptable risk to these wildlife populations.

CONCLUSION

I have described for you several examples of Montana's wildlife resource which were selected for the protected areas program. All of these wildlife species hold national or statewide significance and all depend on streamside environments for at least a critical portion of the year. I have also described how these animals might be impacted by future hydroelectric development and how replacement of these habitats would be virtually impossible. It is important to keep in mind we are not proposing protection for all or these species occurrences. Rather we have selected only the most critical or essential streams. This represents approximately 18% of the available stream base in western Montana (slide 22). Because selected streams are very important to these species and because riparian habitat is difficult to replace, we believe mitigation is not a feasible or acceptable alternative in these situations.