ENVIRONMENTAL CONSEQUENCES

Elk

Direct and Indirect Effects

Bull elk prefer mature and old forest as cover, and would benefit from the higher retention of old growth and the provision for old growth recruitment blocks found in Alternatives B, C, D, and E. The reduction of timber harvest in Alternative F (and to a lower degree in Alternative E) will provide for abundant mature and old forest. Logged and burned areas provide forage in the late spring through mid-fall. Logged acres would be highest in Alternatives B and C, but these alternatives would provide the fewest acres of burned forest. Alternative F would create little recently-logged habitat, but the most burned acres. Alternatives D and E combine some tolerance of natural processes (fire) with an intermediate amount of logging.

All alternatives will reduce roads and create security areas that will benefit elk. This is likely to occur most quickly in Alternatives E and F and most slowly in Alternatives A, B, and C. Alternative D DEIS is intermediate. An objective of reduction of 150 miles of road in the 10 to 15 year life of the Revised Plan was added to Alternative D FEIS. Winter disturbance has adverse effects on elk's ability to survive the winter and for cows to carry successful pregnancies. Mapping of winter range based on the latest maps of elk locations in winter was used to map crucial winter range in alternatives B, C, D DEIS and D FEIS, and E. Alternatives A and F are based on older information.

Motorized use in crucial winter range is forbidden off roads or trails except on travelways designated by the Forest Supervisor in Alternatives B, C, D, and E. Alternative F closes winter range (MA5.41) to all human activity, including passing through the area to reach higher elevation land. Alternative A allows use on all roads and trails in winter range and provides the least protection to wintering elk.

Cumulative Effects

Potential development of adjacent agricultural land into residential use would decrease the winter range available to the elk herds that use the MBNF.

Within the life of the Revised Plan, it is possible that wolves will disperse onto the MBNF from the Yellowstone population, with consequent reduction in the size of elk herds and change in the behavior of the animals.

Chronic Wasting Disease has spread into Wyoming from Colorado and is present at low frequency in elk in Wyoming (about 1%, Williams, pers. comm 2003). The effects on CWD on big game populations is uncertain. Hunting pressure may decrease on elk as some people may be less interested in hunting in areas with the

disease, though transmission to humans from consuming meat from infected animals has not been demonstrated. Hunting pressure may increase on herds that are relatively free of CWD. Either trend would alter efforts by Wyoming Game and Fish to manage the size of specific herds. It is also possible that the disease will become common enough that the herd size will decrease over time as animal are less resistant to other stressors like extreme winter cold and average lifespan shortens.

Conclusions for Elk

Big game management was not a major revision topic because the 1985 Plan was considered to provide adequate conditions of game species. Some alternatives emphasize protection from disturbance in winter, others emphasize increases in summer forage or old/mature forest cover. All alternatives provide for burning to improve winter forage. All alternatives are expected to provide habitat for abundant elk, at or above the State's objectives.

Mule Deer

Mule deer are affected by many of the same factors addressed in the elk analysis above. In herds that use the Laramie Peak Unit and Pole Mountain, the disease is endemic (an infection rate of about 10%). The disease is rare in the Medicine Bow Range and the Sierra Madre but has been reported as far west as Baggs (west of the Forest). Alternatives providing summer forage (following logging or fire), security areas, reduction of disturbance along roads, and protection from disturbance in winter benefit mule deer. Direct, indirect, and cumulative effects are similar to those for elk, described above. All alternatives are expected to provide habitat for mule deer, at or above the State's objectives.

Bighorn Sheep

Environmental consequences on bighorn sheep are considered in Appendix D under "Species of Local Concern."

Black Bear

Maintaining key riparian, aspen and wet meadow habitat is key to minimizing impacts to black bear. All of the alternatives incorporate Forestwide standards, guidelines, and objectives to protect and improve these habitats.

Black bears may abandon winter den sites, even abandoning cubs, in response to disturbance during the winter. Alternatives that limit the extent of disturbance in winter reduce this risk. Alternative F is the only alternative that limits motorized winter recreation to designated roads and trails. Population size is controlled primarily by state hunting policy, though an occasional black bear may be removed in predator control near livestock (see Effects of Predator Control on Wildlife at the end of the Wildlife section).