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*Conserving biological
diversity by ensuring the
persistence of imperiled
species and their habitats
with an emphasis on
private lands.*

In the proposed plan to administer term livestock grazing on all or portions of the Weminuche Landscape in a manner consistent with the Forest Plan direction, five key issues relating to livestock grazing on the landscape were noted: 1.) soil/water impacts, 2.) vegetation impacts, 3.) recreational experience impacts, 4.) wildlife impacts, and 5.) socio-economic impacts.

In regards to the fourth issue, wildlife impacts, an effective management scheme will need to account for how the presence of livestock alters the suitability of a landscape for large carnivores, including bears, mountain lions, coyotes, and any gray wolves that might be restored to western Colorado. The presence of large carnivores on landscapes creates both healthier ecosystems and healthier ungulate populations, and predator-prey relationships make possible the rich biodiversity of complex ecosystems (Allesina and Tang 2012). But the introduction of livestock onto western landscapes has altered ecosystems and often led to conflicts, which have historically resulted in the lethal control and removal of large carnivores.

However, evidence abounds in the Forest Service's multiple-use mandate and restoration directives (that include imperiled wildlife like the gray wolf) that livestock should not have precedence over native wildlife. This is especially so for species listed under the Endangered Species Act, which mandates that all federal agencies, including the Forest Service, follow a prescriptive duty to recover listed species like the gray wolf which could be restored to the Weminuche Landscape. Consequently, use of non-lethal methods to resolve conflicts with large carnivores, including the gray wolf, should be a requirement of grazing on public land.

Forest Service mandates notwithstanding, the success of non-lethal control to resolve conflict between livestock and large carnivores is supported by the best available science. Recent findings show that the killing of large carnivores to resolve conflicts actually may exacerbate the problem. Wielgus and Peebles (2014) found that, in the Northern Rockies, with each wolf killed, the odds of sheep depredations rose 4% and 5% and 6% for cattle in the following year. It has been surmised that lethal control of wolves disrupts social bonds within packs, which brings about social instability and an eventual fracturing of pack structure. This in turn leads to an increase in the number of breeding pairs of younger adults and pups that increases the odds of depredations on livestock. In the same vein, mountain lion populations that experience high levels of lethal control are often unstable and dominated by young, inexperienced and non-territorial animals that are more likely to have negative interactions with livestock (and humans).

Non-lethal control of large carnivores using proven conflict avoidance and coexistence strategies has been shown to enable healthy ecosystems, viable ranching opportunities and sustainable carnivore populations. Successful coexistence strategies include: reducing attractants; facility design such as erecting barriers, fladry, fencing and penning; herd management; livestock guard dogs; increasing human presence (range riders and herders); stockmanship (low stress livestock handling and rekindling the herding instinct); timed calving; and investing in cooperative agreements between agencies and permittees to temporarily switch or permanently retire grazing allotments can help reduce livestock-predator conflicts and provide benefits to other wildlife species such as elk and deer (Stone et al. 2016).

In sum, we recommend that livestock permittees be required to employ non-lethal control and coexistence strategies to resolve conflicts with large carnivores. Using non-lethal strategies as the first and primary carnivore management strategy, with lethal control as a distant and last resort strategy, will improve ecosystem health, carnivore population sustainability and, most important for this EIS, ranching viability.

Thank you,

Cheney Gardner, Turner Endangered Species Fund



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