Application of the Bighorn Sheep Risk of Contact Tool and Best Available Science to a Domestic Sheep Allotment Analysis Process

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ABSTRACT The need to maintain effective separation between domestic sheep and Rocky Mountain bighorn sheep (*Ovis canadensis*) in free-range conditions is widely recognized as the most prudent action that can be taken to reduce the potential for interspecies disease transmission. To achieve this objective, the Forest Service currently utilizes a risk assessment process with management objectives that include maintenance or enhancement of bighorn sheep populations. Historical accounts suggest that bighorn sheep were common on what is now the Rio Grande National Forest, Colorado during the early settlement period of the mid- to late 1800s. As in many areas of the western United States, these herds were largely decimated by the early 1900s. Currently, 11 bighorn sheep herds containing an estimated 1,100 individuals occur or partially occur on the Forest with ample unoccupied habitat available. Domestic sheep grazing has also been an important local cultural and economic activity since the early settlement period. Domestic sheep numbers peaked at about 245,000 during the 1920s; however, the Forest still supports approximately 11,500 sheep on roughly 26 different allotments. Some of these allotments occur in proximity to or even overlap known or suspected bighorn sheep core herd range and/or summer source habitat. This paper focuses on: 1) our recent quantitative analysis involving the Fisher-Ivy/Goose Allotment; 2) our use of the recently produced Bighorn Sheep Risk of Contact Tool to help inform the risk analysis and decision; and 3) the qualitative aspects of the analysis that we consider important. Our use of the Risk of Contact Tool is a first for the Forest Service Rocky Mountain Region and we discuss why we suggest its use and application to be representative of the best available science in informing this issue on a larger landscape.

Biennial Symposium of the Northern Wild Sheep and Goat Council 19:8; 2014

KEY WORDS bighorn sheep, Colorado, domestic sheep, effective separation, risk of contact, Rio Grande National Forest, *Ovis canadensis.*

For copies of the environmental analysis and supporting National Environmental Protection Act documentation for this project please contact the Rio Grande National Forest, 1803 W. Highway 160, Monte Vista, CO, 81144 (phone: 719-852-5941). Please reference the Fisher-Ivy/Goose Sheep & Goat Allotment Analysis, September 2013. Information can also be found on the Rio Grande National Forest website at:
http://www.fs.usda.gov/wps/portal/fsinternet/projects/riogrande/landmanagement/projects?sortby=1&archive=1

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