



Summary of the Science Panel Discussion November 2, 2006 USGS/Bureau of Reclamation Office 230 Collins Road, Boise, ID

Meeting Objectives

- 1) Clarify the science-based concerns regarding *Risk Analysis of Disease Transmission between Domestic Sheep and Bighorn Sheep on the Payette National Forest* (February 6, 2006).
- 2) Allow panelists to provide additional science-based information regarding disease transmission and its risk of occurring on the Payette National Forest that the Forest Supervisor should consider in conjunction with the risk analysis.

Executive Summary

Prior to the meeting, specific science-based concerns with the *Risk Analysis of Disease Transmission between Domestic Sheep and Bighorn Sheep on the Payette National Forest* (February 6, 2006) were compiled and arranged into categories for science panelists to discuss. Panelists focused on concerns in the disease/mortality category and developed statements to address these concerns:¹

- 1a) Scientific observation and field studies demonstrate that "contact" between domestic sheep and bighorn sheep is possible under range conditions. This contact increases² risk of subsequent bighorn sheep mortality and reduced recruitment, primarily due to respiratory disease.
- 1b) The complete range of mechanisms/causal agents that lead to epizootic disease events cannot be conclusively proven at this point.
- 1c) Given the previous two statements, it is prudent to undertake management to prevent contact between these species.
- 2) Not all bighorn sheep epizootic disease events can be attributed to contact with domestic sheep.
- 3) Gregarious behavior of bighorn sheep and domestic sheep may exacerbate potential for disease introduction and transmission.
- 4) Dispersal, migratory, and exploratory behaviors of individual bighorn sheep traveling between populations may exacerbate potential for disease introductions and transmission.
- 5) There are factors (e.g., translocation, habitat improvement, harvest, weather, nutrition, fire, interspecies competition, and predation), some that can be managed and some that cannot, that can influence bighorn sheep population viability.
- 6) Pasteurellaceae, other bacteria, viruses, and other agents may occur in healthy, free-ranging bighorn sheep.

These statements were drafted and then revised until the group was satisfied. Throughout the discussion, the facilitator tracked suggested actions, suggested management strategies, and items to discuss further if time permitted. In addition, key literature provided by the panelists for consideration by the U.S. Forest Service was presented in two binders.

¹ References to domestic sheep also apply to domestic goats, which are not currently an issue on the Payette National Forest.

² Refer to the concern that this should read "can increase risk..." on page 12, 2nd paragraph under comments 38 and 40.
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