MONTANA FISH AND WILDLIFE COMMISSION
FWP PROPOSAL AND INFORMATION SHEET

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Meeting Date: Aug. 16, 2024

Agenda Item: 2024–2027 Highland Mountains Management Removal of Diseased Bighorn Sheep

Action Needed: Final

Time Needed on Agenda for this Presentation: 15 minutes

Background: Montana Fish, Wildlife & Parks is conducting a management experiment in the Highland Mountains of southwest Montana to test the effectiveness of removing bighorn sheep chronically infected with *Mycoplasma ovipneumonia* (*Movi*) from struggling populations. As part of this experiment, FWP is proposing the removal of 15 bighorn sheep from within the Highland Mountain population. The goal is to increase lamb survival, which will promote population growth. Bighorn sheep herd recovery after disease related die-offs has had mixed results. If this experiment is successful, the results may be applicable to other struggling bighorn sheep populations within Montana and the Intermountain West.

Movi is believed to cause chronic respiratory disease in wild sheep. *Movi* is transmitted via close contact with other infected animals and is associated with all-age die-offs as well as chronic infections that spark recurring pneumonia in lambs, which reduces recruitment and population performance. Recent work in nearby states indicates that chronic respiratory disease may be maintained in bighorn sheep populations by a few, identifiable chronic carriers and removal of chronic carriers may improve population performance. A chronic carrier is defined as an animal that tests positive for exposure to *Movi* in more than one year.

The department is currently in the third year of the Highland Mountains bighorn sheep management experiment, which is part of a larger study including eight populations. To date staff have collected 207 disease samples from 163 unique bighorn sheep in the Highland Mountains. The estimated *Movi* infection rate is 0.28. Forty females and nine males have been tested in two or more years, and to date, staff have identified seven individuals (six females, one male) as chronic carriers. One of the chronic carriers died of natural, non-disease related causes in spring 2023. Six chronic carriers remain within the population. Additional animals may be identified as chronic carriers as the study progresses.

Public Involvement Process and Results: This project was developed as part of a joint effort that included the Montana Wild Sheep Foundation, the Montana Wool Growers Association, and the department. Public comment will be solicited for a four-week period following the June commission meeting. Public comments will be posted online and provided to commissioners at least two weeks prior to the August commission meeting.

Analysis and Alternatives: *Movi* is believed to be the primary causative agent involved in chronic-endemic respiratory disease in wild sheep. Experimental evidence supports the prediction that removal of chronic carriers may improve bighorn sheep population performance.

Alternative A: The commission may approve the removal of up to 15 bighorn sheep identified as chronic carriers in the Highland Mountains over the next three years.
Alternative B: The commission may approve the removal of fewer bighorn sheep identified as chronic carriers in the Highland Mountains over the next three years.
Alternative C: The commission may choose to deny the proposed removal of bighorn sheep in the Highland Mountains, regardless of chronic carrier status.

Agency Recommendation and Rationale: The department recommends the commission approve the removal up to 15 bighorn sheep, regardless of sex, identified as chronic carriers in the Highland Mountains over the course of the next three years.

Proposed Motion*:* I move the Fish and Wildlife Commission approve the department's request to remove up to 15 bighorn sheep, regardless of sex, if identified as a chronic carrier of *Movi* during 2024 through 2027 within the Highland Mountains, Montana.