## British Columbias Use of Ecological Goods and Services Payments as a Tool For Separating Wild Sheep From Domestic Sheep and Goats

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Abstract: British Columbia's Wild and Domestic Sheep Seperation Program's goal is to mitigate the disease risks to wild sheep from domestic sheep and goats, and prevent future disease-related losses. The provincially coordinated program focuses on all regions containing wild sheep populations in British Columbia, Canada. The East Kootenay and South Okanagan bighorn populations have suffered pneumonia related die-offs with mortality rates up to 60-75%. One of the causes of the die-offs may have been infectious disease transmission from domestic to bighorn sheep. All populations have recovered to some degree but some have recovered more rapidly than expected, with high lamb recruitment. The Program began with the assessment of habitat quality and quantity, bighorn carrying capacity, animal health and morphology, location and movement, population dynamics and exposure risks to domestic sheep and goats. This information is used to develop a suite of options to mitigate the risks of disease transmission from domestic sheep and goats to wild sheep. Educational programs involve communication with landowners on short-term solutions (such as double fencing, guard dogs, etc.) and working with governments towards longer-term solutions (resolutions, bylaws etc.). This paper focuses on developing and evaluating another solution; the use of ecological goods and services payments as a tool for separating wild sheep from domestic sheep and goats. Since the initiation of the Program, no new cases of pneumonia have occurred in bighorns in the Project areas.

*Key Words:* bighorn sheep, British Columbia, disease transmission, domestic sheep, ecological goods and services payments.

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