Conservation Northwest
Keeping the Northwest Wild

Okanogan-Wenatchee National Forest
Domestic Sheep Grazing EIS
215 Melody Lane
Wenatchee, WA 98801

July 1, 2019

RE: Okanogan-Wenatchee National Forest plan amendment for planning and management of domestic sheep and goat grazing within the range of bighorn sheep.

Hello,

I am writing on behalf of Conservation Northwest to thank you for initiating this action to ensure the conservation of bighorn sheep on the Okanogan-Wenatchee National Forest. Below, we provide scoping comments on the proposed Forest Plan amendment.

Conservation Northwest is a regional conservation organization working to advance projects on federal lands that restore ecological resilience to forests and watersheds, conditions that support healthy wildlife populations and local communities. We have a strong interest in the proposed plan amendment, in line with our longstanding efforts to protect, connect, and restore wildlife and habitat in the Pacific Northwest. We support a collaborative approach to problem solving that rigorously applies the best available science to ensure bighorn sheep viability, and works together with allotment permittees and others on practical solutions to eliminate disease occurrence and spread.

Bighorn sheep (*Ovis canadensis*) are among the most iconic species of the west, with important social and cultural value to the Colville Confederated Tribes and Yakama Nation and many other Washington residents. Once widespread in the eastern Cascade foothills, bighorn sheep populations declined shortly after sheep grazing became common in the high country. By the 1930s, there were few if any bighorn sheep remaining in the state. Reintroduction efforts started in the 1950s eventually established a population that today includes about 1,700 wild bighorn sheep in 17 herds that occupy a fraction of their historic range. About 70% of the state's population occurs in the 10 herds that are on or proximate to the Okanogan-Wenatchee National Forest (OWNF).

The range of several bighorn sheep herds on the OWNF overlaps with domestic sheep and goat grazing allocations. Domestic grazing is an established purpose and use for national forest lands. Contact between domestic and wild sheep poses a grave threat to wild sheep due to the high risk of disease transmission from domestic sheep to wild sheep. Disease related die offs have decimated (i.e. large-scale, rapid, all-age mortality) bighorn sheep herds in Washington and

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across the west for years, with disease transmission from domestic animal contact frequently identified as the cause.

For example, the four Washington herds associated with the Hells Canyon meta-population all experience significant mortality from disease, and continue to suffer poor lamb recruitment. Near the OWNF, domestic sheep transmitted disease recently caused significant die-offs in two herds. In 2009, disease reduced the Umtanum herd by half, where low lamb recruitment remains a problem today. In 2013, disease rapidly decimated the Teiton herd, which WDFW then eliminated to prevent disease spread to the Cleman Mountain herd. Then just last March, nearly a dozen Mount Hull bighorn died from the disease, a first for this northernmost herd co-managed by WDFW and the Colville Confederated Tribes.

Scientific research has shown the pathogens *Mycoplasma ovipneumoniae* and *Mannheimia haemolytica* can be transferred from domestic sheep to bighorn sheep, triggering highly contagious pneumonia that can rapidly spread through the herd. Female bighorns exposed to the disease can become carriers and transmit the disease to lambs during pregnancy for years, causing persistent high mortality after birth[1]. Different strains of *M. ovipneumonia* exist and bighorn sheep may be infected again, if they are exposed to a new strain. Domestic sheep can carry multiple strains of *M. ovipneumonia*.

Bighorn sheep make forays 20 miles or more outside their typical home range, which facilitates disease transmission if a bighorn encounters a domestic sheep and then returns to its herd or encounters other bighorn sheep. Domestic and wild sheep are related and gregarious, so encounters between domestic and wild sheep are likely as they seek each other out.

Bighorn sheep are a federally designated sensitive species based on concerns about its long-term viability. Federal law, regulation, and policy require the Forest Service to maintain viable populations of bighorn. A viable population is a population with more than 80% likelihood of continued persistence, well distributed across its historic range, over the next 100 years (FEMAT, p. IV-40). We request an analysis and determination that the proposed rule will provide for a bighorn sheep population that has an 80% likelihood of continued persistence, well distributed across its historic range on the OWNF, over 100 years. In addition, we request analysis and determination for maintaining and restoring habitat connectivity between herds for viability.

We ask that agency officials work closely with researchers to incorporate recommendations from Washington Department of Fish and Wildlife and the Washington State University College of

[1] June 2019. https://bighornhealth.org/about-pneumonia

Veterinary Medicine to update a comprehensive plan that works towards management of the disease while limiting any future exposure or reintroduction of the disease from domestic livestock (Wild Sheep Foundation, 2019)[2].

Consider use of shared stewardship agreement between USDA Forest Service and Washington's Department of Fish and Wildlife, which directs agencies to focus on forest and watershed restoration projects that improve ecosystem health, reduce wildfire risks, and benefit fish and wildlife habitat, among other priorities.

To scientifically inform decisions, please review and apply the information contained within the attached papers and other scientific literature in the environmental review:

- Besser et al. 2012. Causes of Pneumonia Epizootics among Bighorn Sheep, Western United States, 2008–2010. Emerging Infectious Diseases. Vol. 18, No. 3.
- Wehausen et al. 2011. Domestic sheep, bighorn sheep, and respiratory disease: a review of the experimental evidence. California Fish and Game. Vol. 97, No. 1.
- Wild Sheep Working Group. 2012. Recommendations for Domestic Sheep and Goat Management in Wild Sheep Habitat. Western Association of Fish and Wildlife Agencies.
- O'Brien et al. 2013. Incorporating Foray Behavior Into Models Estimating Contact Risk Between Bighorn Sheep and Areas Occupied by Domestic Sheep. Wildlife Society Bulletin. 9999
- Lyons et al. 2016. Final Report: Application of the Bighorn Sheep Risk of Contact Model on the Okanogan-Wenatchee National Forest. Washington Conservation Science Institute.

There is potential for the proposed amendment to cause hardship on grazing permittees. We request alternatives to ensure bighorn sheep viability also consider ways to minimize impacts to permittees, including:

- Exploring alternative grazing rotations to see if there are ways to maximize distance between herds, eliminating contact risk, during domestic sheep grazing.
- With financial support from state, federal, and/or private sources, initiate a breeding program to establish disease-free stock.
- For landscape and portions of landscapes where encounters and disease transmission are unavoidable, examine ways to keep allotment permittees whole, through voluntary allotment exchanges, voluntary buyouts as a last resort, and other options.

We request thorough analysis of where grazing allotments of domestic sheep overlap with the potential range of wild bighorns. Where domestic sheep grazing allotments overlap with wild

[2] June 2019. https://www.wildsheepfoundation.org/cache/DOC47_2019-05-13UpdatedVetMovisamplingprotocol.pdf?20190514031711

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sheep, there should be equivalent commitments to reduce the spread of infection for both domestic herds and wild ones. Wild infections are address through culling the herd. For domestic sheep, methods considered should include mandatory testing and removal of any carriers from domestic herds and the range. Manage disease-free herds as a 'closed herd' to avoid any potential contact with disease infected sheep or goats, and retest as the incubation and infection of individuals may vary over time. A disease-free standard within all domestic herds allowed to utilize grazing allotments would be a great step towards improving resiliency, reducing the reintroduction of disease from domestic herds to bighorn populations, and the long-term recovery of this iconic species of the west.

We encourage the Okanogan-Wenatchee National Forest to take a strong stand to ensure a viable bighorn sheep population comprised of many connected herds, while working with stakeholders to minimize hardship and embrace best management practices to eliminate the spread of disease from domestic animals to wild bighorn. Thank you for considering these comments.

Sincerely,

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