



**Western
Watersheds
Project**

Western Idaho Office
P.O. Box 1030
McCall, Idaho 83638
Web site: www.westernwatersheds.org

Working to protect and restore Western Watersheds

February 25, 2009

VIA U.S. PRIORITY MAIL

Suzanne C. Rainville
Forest Supervisor
Payette National Forest
Attn: Bighorn Sheep Comments
800 W. Lakeside Ave.
McCall, ID 83638

Re: Draft Supplemental Environmental Impact Statement on Bighorn Sheep
Viability--Comments

Dear Supervisor Rainville:

This letter provides the comments of Western Watersheds Project (“WWP”) on the Payette National Forest’s (“PNF”) Draft Supplemental Environmental Impact Statement on Bighorn Sheep Viability (“DSEIS”). As a 501(c)(3) non-profit organization, WWP works to protect and restore western watersheds and wildlife. WWP members and supporters enjoy opportunities to experience wild bighorn sheep on the PNF and nearby areas, through activities such as hunting and wildlife watching. Consequently, WWP has been deeply involved in seeking to maintain viable populations of Rocky Mountain Bighorn Sheep on the PNF. WWP commends the PNF for its detailed analysis in the DSEIS of the issues surrounding disease transmission potential from domestic sheep to bighorn sheep, and for proposing several meaningful management alternatives which would reduce the risk of disease to bighorn sheep and contribute to their continued viability on the Forest.

WWP supports Alternative 7E, no domestic sheep grazing on the PNF. (See DSEIS, pgs. 3-37-3-41). Accordingly, WWP requests that the PNF select Alternative 7E in its final EIS, rather than Alternative 7G, the agency’s currently-preferred alternative in the DSEIS. The reasons that the PNF should select 7E, the “no grazing alternative” are numerous and compelling, which summarized, include the following:

- The fact of serious respiratory disease transmission from domestic sheep to bighorn sheep is well-established scientifically.
- Even a minimal level of contact between domestic sheep and bighorn sheep can result in deadly disease in bighorns, causing declining numbers, health, and especially lamb recruitment for decades. Alternative 7E reduces the risk to bighorn populations on the PNF to the maximum extent possible.
- While management for separation, both temporally and spatially, of the species is recommended, bighorn movements are unpredictable, and can include covering long distances and extremely rugged terrain. Alternative 7E eliminates the opportunity to the greatest extent possible, for bighorn sheep to encounter domestic sheep on the PNF during their unpredictable movements.
- The National Forest Management Act (NFMA) requires the PNF to manage wildlife habitat to maintain viable populations of existing native and desired non-native species. Alternative 7E provides the best assurance that the PNF can maintain viability of bighorn sheep, while Alternative 7G leaves considerable risk on the landscape.
- The Hells Canyon National Recreation Area Act (HCNRAA) requires the protection of wildlife habitat, and the elimination of domestic livestock grazing where it is incompatible with wildlife. Alternative 7E best fulfills the mandate of the HCNRAA by eliminating the disease risk to the Hells Canyon metapopulation to the maximum extent possible.
- Tribal rights receive appropriate recognition under Alternative 7E, to increase tribal harvest opportunities in traditional hunting locations, and provide maximum fulfillment of cultural practices involving bighorn sheep.
- Economic analysis in the DSEIS is incomplete, and fails to provide adequate information to assess impacts of domestic sheep operations and Alternative E to the area's economy. Specific information about the jobs involved in the sheep operations and costs to administer grazing permits on the Forest are omitted, and the positive effects of increased bighorn hunting and viewing opportunities are understated.

Each of these reasons is discussed in more detail below.

1. Disease Transmission Risk from Domestic Sheep to Bighorn Sheep Is Well-Established.

Extensive scientific literature supports the relationship between disease in bighorn sheep populations and contact with domestic sheep, with bighorn deaths most often caused by bacterial pneumonia found in domestic sheep, *Pasturella* spp and *Mannheimia haemolytica*. (DSEIS, p. 3-10 (these bacteria are referred to hereafter generically as

“pasturella” to include both forms)). These bacterial species have been reported as the number one cause for bighorn sheep decline in North America. (DSEIS, p. 3-10).

Once these bacteria are introduced to bighorn sheep populations, they may become endemic, and continue cycling for decades. (DSEIS, p. 3-12). A pasturella infection leads to significant mortality across all age classes and suppressed recruitment for the following 1-15 years. (DSEIS p. 3-13). Even limited contact between bighorn and domestic sheep can result in a risk to bighorn sheep viability due to disease transmission and prolonged population die-offs. (DSEIS, p. 3-28).

Perhaps due to its relatively recent publication date, a significant USDA report by **Schommer, T.J. and M.Woolever**, 2008, A Review of Disease-Related Conflicts Between Domestic Sheep and Goats and Bighorn Sheep, USDA Forest Service, Rocky Mountain Research Station, General Technical Report, RMRS-GTR-209, (hereafter “2008 Disease Review”), which summarizes current disease research, is omitted from discussion in the DSEIS. This important publication should be added to the list of authorities cited and considered in the section of the SEIS under “Disease Review” at pp. xii-xv.

The 2008 Disease Review at p. 3 notes that although respiratory disease resulting in pneumonia is the most devastating condition shared with bighorn sheep from domestic sheep, other diseases and conditions may be communicable. (Citing Jessup and Boyce, 1993). These other diseases that can be spread between bighorn sheep and domestic sheep include scabies, anaplasma, babesia, ovine parapox (contagious ecthyma) and infectious keratoconjunctivitis (pinkeye). (2008 Disease Review, p. 3).

While all ungulates, except llamas, carry some strains of the offending bacteria, bighorn sheep appear to be behaviorally attracted to domestic sheep and goats, but not cattle or llamas. 2008 Disease Review, p. 7. Bacterial transmission requires very close--less than 60 feet—contact or transfer of mucus through coughing or sneezing, and is more likely to occur between bighorn sheep and domestic sheep that are behaviorally attracted to each another. (2008 Disease Review, p. 7).

Bighorn sheep appear more susceptible to respiratory disease than are domestic sheep. (2008 Disease Review, p. 7). Some experts suggest that bighorn sheep did not co-evolve with the same set of pathogens as domestic sheep due to the evolutionary distance between them, estimated at 5.63 million years. (2008 Disease Review, p. 7). Additionally, bighorn sheep immune response cells have a reduced capacity to kill bacteria, compared to domestic sheep immune function. (2008 Disease Review, p. 7). This difference in immune function provides a “very plausible reason why bighorn sheep may die of bacterial respiratory disease and pneumonia when in contact with domestic sheep while the domestics show no signs of disease.” (2008 Disease Review, p. 7).

Scientists are continuing to research the actual mechanism for transmission of disease between bighorn sheep and domestic sheep. Recent research conducted at Washington State University suggests that mycoplasma is the organism which triggers

pasturella bacteria, already present in bighorns, to cause disease. See Besser, T., et al. **Association of *Mycoplasma ovipneumoniae* Infection with Population-Limiting Respiratory Disease in Free-Ranging Rocky Mountain Bighorn Sheep (*Ovis canadensis canadensis*)**, Journal of Clinical Microbiology, February 2008, p. 423-430, Vol. 46, No. 2.

According to an article in which one of the co-authors of the study, Francis Cassier, was interviewed, “[i]f mycoplasma bacteria are to blame, treating infected sheep may not be possible.... Attempts to develop vaccines for the bacteria for domestic sheep have failed, and even if a working vaccine existed, administering it to wild bighorns would be difficult.” (**Associated Press, YouNews, “WSU biologists identify bacteria that may be killing West's bighorn sheep,”** published: Jul 6, 2007 and updated Aug 14, 2008). As this recent research shows, scientists are continuing to learn more about disease transmission, but while precise causation is being refined, and bighorns continue to suffer mortality, the two species should be separated.

Alternative 7E reduces the greatest risk of disease transmission to bighorn sheep out of all the alternatives. (DSEIS, pp. vii-viii; 3-60).

2. Bighorn Sheep Populations Must Have the Minimum Possible Contacts with Domestic Sheep to Remain Viable.

Modeling by numerous experts suggests that bighorn populations cannot persist unless the frequency of contact between bighorn sheep and domestic sheep is reduced far below one annually. (DSEIS, p. 3-28). A recent expert study by U.C. Davis (Clifford et al. 2007) estimated through modeling that a 2 percent risk of contact in bighorn populations predicted a 50 percent probability of at least one respiratory disease outbreak, causing greater than 40 percent bighorn sheep mortality during the next 70 years. (DSEIS p. 3-28). Other expert studies have “documented that contact with a single domestic ram coincided with a 50 percent die-off in three interconnected herds.” (2008 Disease Review, p. 8).

No population of any species can repeatedly lose nearly half its numbers and remain viable. (DSEIS p. 3-28.) From the studies and modeling cited in the DSEIS, the PNF concludes that “the risk of contact must be absent or extremely low to ensure bighorn sheep viability across the PNF.” (DSEIS, p. 3-28, emphasis added). The PNF expressly states “we can assume that the alternatives that reduce the risk of contact the most also provide for increased viability of bighorn sheep.” (DSEIS, p. 3-28). Alternative 7E provides the greatest assurance of no contact or extremely low risk of contact between domestic sheep and bighorn sheep. (DSEIS, p. 3-60).

Alternative 7G, in contrast, does not offer the maximum possible protection for bighorn sheep to avoid coming into contact with domestic sheep, as considerable risk remains on the landscape, and no buffer zones are established. Despite the expert modeling recommending that risk of contact be less than one annually, and that even a 2% risk of contact leads to nearly 50% mortality among bighorn populations, Alternative

7G results in much more relative risk than is acceptable. Alternative 7G leaves 18% moderate risk of contact, and 30% low risk of contact. (DSEIS, p. 3-60).

Equally unacceptably, Alternative 7G would leave some high risk trailing routes that cross the PNF open. (See DSEIS, p. 3-43). High-risk trailing routes adjacent to the PNF and the Main Salmon would remain open under any alternative, as they are not controlled by the PNF. (DSEIS p. 3-43). However, if all domestic sheep allotments within the PNF were closed, as with Alternative 7E, domestic sheep usage of these trailing routes would be minimized or eliminated. To the extent that private land or land under other federal ownership exists within the PNF's boundaries that allows domestic sheep grazing, domestic sheep producers have an alternative way to reach them--trucking their animals to those sites, rather than trailing them. Minimizing risk to bighorns dictates the closure of ALL trailing routes which the PNF has control over, and taking whatever steps the Forest can to reduce risk outside of its boundaries.

Even requiring permittees to implement best management practices for their domestic sheep will not eliminate the risk remaining under Alternative 7G. As the DSEIS acknowledges at p. 3-69, "Husbandry practices such as removing domestic sheep well before the onset of rut, following vigilant herd management to reduce strays, and responding to wandering bighorn sheep, are other methods to separate the species and reduce risk, but extensive monitoring efforts are required and are not always effective."

Alternative 7G is also based on the concept of "Geographic Population Range" (GPR), an artificial construct that deems bighorn range as "current occupied habitat," which is presently constricted from their historical source habitat. Alternative 7G "utilizes GPRs as boundaries and designates all land within the Hells Canyon and Salmon River GPRs as unsuitable for domestic sheep grazing." (DSEIS, p. 2-11). GPRs are defined as "a range in which a group larger than a herd, but smaller than a metapopulation, occupies or has occupied the habitat in the past. It is the Forest Service's closest approximation of occupied habitat at this time." (DSEIS, p. 2-4). The risk of contact model used in developing the GPR acknowledges that it looked at "where the depressed populations of bighorn sheep have utilized the PNF and surrounding areas over the last 10-25 years." (DSEIS, p. 2-4).

An inherent problem with using "occupied habitat at this time" as the measurement point is that bighorn populations are currently depressed by past disease transmission from domestic sheep. By focusing only on occupied habitat, which is admittedly depressed due to past die-offs, the GPR analysis is unduly restrictive. In other words, "occupied habitat at this time" for bighorns is smaller than it would be if domestic sheep had not grazed on the PNF. Because the current populations at issue here are depressed and acknowledged by bighorn biologists to be below viable levels, the PNF must provide habitat necessary to sustain the larger, viable populations and therefore must provide more habitat than just the habitat occupied at this time.

In the absence of domestic sheep disease effects, bighorn sheep could be expected to be found in the habitat comparable to "source habitat," which is required to be

maintained in forest planning by “The Interior Columbia Basin Strategy” Interagency MOU from 2003. (See DSEIS, pgs. 2-5, 2-6). The PNF map of bighorn source habitat shows that virtually all domestic sheep allotments contain it. The few domestic sheep allotments that do not have source habitat within their boundaries, which appear to be Price Valley and Brundage, are within less than the minimum 9 air mile WAFWA-recommended buffer from it. (See Western Association of Fish and Wildlife Agencies (WAFWA) Wild Sheep Working Group, “Recommendations for Domestic Sheep and Goat Management in Wild Sheep Habitat,” (June 21, 2007), p. 13).

A further problem with the GPR concept is the Management Direction for Wildlife Resources in the Draft Amendment to the Land and Resource Management Plan at p. III-1. WIGU16 states that the GPR will be remapped every 5 years, and WIOB14 states it will be adjusted more often than that if they find bighorns outside the GPR boundary, and will enlarge the boundary as soon as there is a sighting outside the GPR. But these directives are not effective if no measurable monitoring standards and protocols are implemented to ensure a scientific approach to look for bighorns and collect information—the “adaptive management” outlined in WIOB16 references no parameters. Nor should the GPR ever have its boundaries shrink, because the IDT team, the experts who created the GPR (including IDFG biologists), developed it as a conservative estimate of the current GPR based completely on existing data. (DSEIS p. 2-4, 5).

Another problem with using the GPR concept is that it is based on larger groups of bighorns—more than a herd. This factor disregards unpredictable movements of small groups or individual bighorn sheep, which can be over rugged terrain and substantial distances. (See DSEIS at p. 3-9 (Bighorn sheep documented to travel up to nearly 50 miles, through towns and across major rivers; bighorn ewes documented to move nearly 25 miles from winter ranges to lambing areas)).

Oregon Department of Fish and Wildlife Wildlife Biologist, Vic Coggins, who has conducted extensive bighorn sheep research in the Hells Canyon metapopulation, documented one bighorn ram that traveled 75 air miles from Southeast Washington to Oregon and Idaho over the course of a year, interacting with several different herds and crossing the Snake and Grande Ronde Rivers twice. (Declaration of Vic Coggins, dated April 12, 2007, filed in Case No. 07-151-BLW, U.S. District Court for the District of Idaho, ¶ 19 (hereafter “Coggins Declaration”). The WAFWA Recommendations recognize that the use of a buffer zone may not be of utility in managing for the individual movements of bighorn. (WAFWA Recommendations, p. 13).

In the metapopulation structure, discrete local populations interact at some level as a result of limited movements between local populations. (“Risk Analysis of Disease Transmission Between Domestic Sheep and Bighorn Sheep on the PNF,” USDA, February 6, 2006 (hereafter “Risk Analysis”), p. 6). As the Risk Analysis notes, “[i]nteractions among individuals from different populations can have negative effects by facilitating the spread of disease between populations within the metapopulation.” (Risk Analysis, p. 6). Thus, just one individual bighorn that becomes infected from interaction

with domestic sheep can travel from herd to herd, infecting them over long distances, and causing a “domino effect.”

Domestic sheep are also unpredictable and capable of travelling long distances. Domestic sheep may stray outside of allotment boundaries or permitted seasons of use. As the DSEIS notes at p. 70, domestic sheep are known to travel long distances. Indeed, an example is given of a documented instance of a stray ewe that travelled at least 48 kilometers, or nearly 30 miles, from private land to bighorn range through rugged terrain, heavy timber and across at least one river. (DSEIS, p. 3-70). For example, Coggins documents two stray domestic sheep found on the Smith Mountain Allotment in February, 2007, apparently left wandering since their band’s removal in the prior October—and just 4 air miles from important winter bighorn range in Hells Canyon. (Coggins Declaration, ¶ 54).

Bands of permitted sheep are typically large on the 24 PNF allotments, with bands numbering from 800 on Fall/Brush Creek, to 2666 on Vance Creek, Brundage and Bill Hunt, to 3100 on Smith Mountain, and most other allotments numbering over 1000. (DSEIS p. 3-71). Expecting herders to control and account for every single domestic sheep 24 hours per day, 7 days per week is not realistic. (Coggins Declaration, ¶ 53). Consequently, the risk of stray domestic sheep must be taken into account when assessing risk to bighorns. Alternative 7G, because it allows for some or portions of PNF allotments to remain open to domestic sheep grazing, increases the risk of stray domestic sheep compared to Alternative 7E.

Alternative 7G also fails to follow WAFWA Guidelines of allowing at least 9 air miles of separation as a buffer between bighorn sheep and domestic sheep. As the boundary for Alternative 7G is the GPR, which approximates current occupied habitat, WAFWA recommended management would dictate that, at a minimum, a 9 mile buffer be added to that boundary. Consequently, Alternative 7H, which is 7G plus the 9 mile buffer, has a more reasonable basis for selection than 7G. However, Alternative 7H still has the same flaws inherent in using the GPR concept, due to its artificially-depressed bighorn population used as its foundation. Alternative 7H also allows for some allotments to remain open to domestic sheep grazing, resulting in continued relative risk to bighorns of 12% on the Forest. (DSEIS, p. 3-60).

The other Alternatives leave higher risk than either Alternative 7G or 7H, and for that reason, do not merit detailed discussion. They are plainly unacceptable based on the science of disease transmission and sound land management practices.

3. NFMA Regulations Included in the PNF’s 2003 Forest Plan Requires the Forest to Provide Well-Distributed Habitat to Support Bighorn Population Viability.

NFMA regulations incorporated into the 2003 Forest Plan require that “[f]ish and wildlife habitat shall be managed to maintain viable populations of existing native and desired non-native species.” (36 C.F.R. sec. 219.9. (1982)). Furthermore, to maintain

viable populations, “habitat must be provided to support, at least, a minimum number of reproductive individuals and that habitat must be well-distributed so that those individuals can interact with others in the planning area.” (*Id.*)

The PNF is fortunate to still have bighorn sheep present on the Forest, with the Hells Canyon metapopulation on the west side, and the Salmon River Mountains metapopulation on the east. However, disease threatens the viability of both metapopulations. Seven bighorn population die-offs have been reported since bighorn sheep were reintroduced into Hells Canyon in the mid-1990’s, with one band, the McGraw population, no longer extant. (DSEIS, p. 3-14). Disease has reduced the population growth rate of the Hells Canyon metapopulation by at least 40 percent. DSEIS, p. 3-14. Up to 10,000 bighorn sheep were estimated to live in Hells Canyon prior to European settlement, but as of 2005, only about 875 bighorn survived in Hells Canyon. (DSEIS p. 3-1, 2). Biologists involved in the reintroduction had hoped for 2,000 in the Hells Canyon metapopulation by 2007. (Schommer, T. “Bighorn Sheep in Hells Canyon: Historical Background and the Hells Canyon Bighorn Sheep Restoration Project,” originally published in *Wild Sheep Magazine*, Summer 2002, article reprinted on the internet at http://www.fs.fed.us/hellscanyon/life_and_the_land/wildlife/bighorn-sheep.shtml, hereafter referred to as “Hells Canyon Bighorn History”).

Disease has also affected the bighorn populations of South Fork Salmon River, Main Salmon River and Big Creek populations that compose the Salmon River Mountains metapopulation. (DSEIS, p. 3-14). The small number of bighorn sheep remaining within the South Fork Salmon River justify concern over the viability of this population. DSEIS p. 3-14. The Big Creek population experienced 5 years of low lamb-to-ewe ratios from 1987-1991, experienced an all ages die-off in 1990, and continued to have a highly virulent strain of *Pasturella* evident in April 2000. (DSEIS, p. 3-15). The Main Salmon River population is found primarily on the north side of the Salmon River directly across from many of the PNF allotments, and as noted above, bighorns can easily swim across the Salmon River. Thus, all of these bighorn populations within the Salmon River metapopulation are at risk from grazing the PNF east side allotments.

The Salmon River Mountains metapopulation is especially important, because it is native, has never been extirpated, and provides a significant genetic resource. (Risk Analysis, p. 19). The loss of these native wild sheep could affect bighorn sheep persistence and restoration at scales much larger than on the PNF. (DSEIS, p. 3-21).

These native sheep are considered migratory, and historical migration routes are important to their population dynamics. (DSEIS, p. 3-21). This migratory pattern creates opportunities for these bighorn to encounter domestic sheep on the east side allotments. Indeed, the expert panel concluded that existing sheep allotments on the east side of the PNF posed some level of disease transmission risk to the Salmon River Mountains bighorn sheep. (Risk Analysis, p. 19).

Likewise, the Salmon River GPR showed overlap with the majority of domestic sheep allotments on the east side.¹ (DSEIS, p. 3-21). A lack of telemetry data makes it impossible to know the extent of bighorn presence on these allotments (DSEIS, p. 3-21), however, bighorn have been documented on domestic sheep allotments in several recent instances. In 2005, observations of bighorn sheep were confirmed on two domestic sheep allotments on the east side implicating the Salmon River Mountains metapopulation, one in the Josephine allotment (bighorn trapped in wolf trap set by Wildlife Services), and one in the North Fork Lick Creek allotment. (Risk Analysis, p. 13; DSEIS, p. 3-21).

The PNF expressly states “we can assume that the alternatives that reduce the risk of contact the most also provide for increased viability of bighorn sheep.” (DSEIS, p. 3-28). Consequently, Alternative E, as it reduces the risk the most, provides the best way to meet NFMA’s legal viability requirements for these two metapopulations.

4. The Protection of Bighorn Habitat is Required under the HCNRAA and Applicable Regulations, Which Includes Elimination of Incompatible Livestock Grazing.

The HCNRAA was enacted to preserve and enhance the 68 mile segment of the Snake River along the Oregon-Idaho border, and the 652,488 acres of surrounding lands and rivers established as the HCNRA. (16 U.S.C. sec. 460gg(a)). The purpose of the Act was to “assure that the natural beauty, and historical and archeological values of [the HCNRA]...are preserved...and that the recreational and ecologic values and public enjoyment of the area are thereby enhanced.” (*Id.*) The HCNRAA established ecological preservation and recreation as the primary uses of the Hells Canyon area. (United States v. Hells Canyon Guide Service, Inc., 660 F.2d 735, 737 (9th Cir. 1981)).

Under the Act, the Forest Service “shall” administer the HCNRA “in a manner compatible with” seven objectives, two of which are the following: “protection and maintenance of fish and wildlife habitat,” and the continuation of existing uses, including

¹ The DSEIS acknowledges that, in the case of the Salmon River Mountains GPR, it may extend beyond the PNF to the east and south, given the continuous habitat. (DSEIS, p. 3-45). Consequently, management on the east side of the PNF may affect bighorn viability in other forests, including the Salmon-Challis National Forest to the east, and the Boise National Forest to the south. The same principle holds true for the Nez Perce National Forest to the north. Management for the Hells Canyon bighorn metapopulation on the PNF likewise affects the greater Hells Canyon area to the west on the Wallowa Whitman National Forest in Oregon and the Umatilla National Forest in Oregon and Washington. Bighorn viability on the PNF directly affects bighorn populations, and in some cases, are the same animals and herds travelling back and forth. Alternative 7E would ensure the lowest risk of disease transmission to bighorn viability on any of these other forest lands, ensuring NFMA’s viability requirement on them is met.

grazing, “as [is] compatible with the Act.” (16 U.S.C. sec. 460gg-7). The pertinent regulation, 36 C.F.R. sec. 292.48(b) provides in turn:

Where domestic livestock grazing is incompatible with the protection, restoration or maintenance of fish and wildlife or their habitats...the livestock use shall be modified as necessary to eliminate or avoid the incompatibility. In the event an incompatibility persists after modification, or modification is not feasible, the livestock use shall be terminated. (Emphasis added).

The Wallowa-Whitman National Forest, faced with a similar conflict between domestic sheep grazing and bighorn sheep viability under the HCNRAA, closed domestic sheep allotments on the Oregon side of Hells Canyon NRA in the mid-1990s. (Risk Analysis p. 4). The U.S. District Court for the District of Oregon upheld the Forest’s closure of domestic sheep allotments, stating that attempts to restore bighorn herds in the HCNRA “take precedence over domestic sheep grazing where a conflict arises between the two species,” because under the regulations, livestock grazing must “give way” to the protection, restoration, and maintenance of wildlife. (Idaho Wildlife Federation et al. v. Richmond and Idaho Woolgrowers, Civil No. 94-1347-AS (U.S. District Ct. for D. Or., April 10, 1996)).

While only a minimal amount of the HCNRA is located within PNF boundaries, the health of the Hells Canyon bighorn metapopulations in the Hells Canyon NRA is directly affected by PNF management. As amply documented, the Hells Canyon bighorns have been documented in coming on or near the Smith Mountain and Curren Hill Allotments, which were rated in the Risk Analysis as “Very High Risk” and “High Risk.” (Risk Analysis, p. 38). While portions of the Smith Mountain and all of the Curren Hill Allotments have been closed for the 2007 and 2008 grazing seasons, some risk still remains with the allotments remaining on the west side. (See DSEIS, p. 3-54, 55 analyzing risk remaining after implementation of Alternative K, which approximates closures from recent court settlements). Alternative 7E best fulfills the mandate of the HCNRAA by eliminating the disease risk to the Hells Canyon metapopulation to the maximum extent possible.

5. Tribal Obligations Are Best Fulfilled By Alternative 7E Because it Best Protects Harvest And Cultural Opportunities.

The Nez Perce Tribe, Shoshone-Bannock Tribes (Fort Hall Reservation), Shoshone-Piute Tribes (Duck Valley Reservation), and Confederated Tribes of the Umatilla Indian Reservation (collectively, “Tribes”) are federally recognized tribes in the Southwest Ecogroup Area. (DSEIS p. 3-81). The Tribes see the continuation of gathering as an important link to their past, as well as essential to continuing culture. (DSEIS, p. 3-81). Tribal rights are reserved by treaty outside of their established reservations, including fishing, hunting, gathering and grazing rights. (DSEIS, p. 3-80).

According to the Hells Canyon Bighorn History cited above, bighorn sheep were vital to the Nez Perce Tribe’s way of life:

“The Nez Perce Tribe has written that bighorns were the most plentiful large animal in the big river canyons of northeastern Oregon and west Idaho prior to European settlement. The archeological records in Hells Canyon shows that the Nez Perce people had an extended and extensive history of using bighorn sheep. We know they constructed stone corrals for the capture and containment of bighorns and stone blinds for hunting. They used the animals for their meat, hides for warmth, and the horns for spoons (ewes) and bow making (rams). Most petroglyphs and pictographs in Hells Canyon depict scenes of hunters and bighorn sheep. Bighorn sheep were a significant ungulate food item as well as of great cultural value to the Nez Perce Tribe in Hells Canyon.”

Due to the gregarious nature of bighorn sheep and their ability to travel great distances in a short period, the potential for spread of disease and impacts to tribal hunting opportunities are not confined to the boundaries of the PNF. (DSEIS, p. 3-85). Alternative 7E, because it removes all relative risk of contact between bighorn and domestic sheep, long term may provide the greatest ability to harvest bighorn sheep on all traditional locations influenced by the PNF. (DSEIS, p. 3-84). Accordingly, Alternative E best fulfills the PNF’s legal obligation to the Tribes.

6. The Economic Analysis Section is Incomplete, and Fails to Provide Adequate Information to Assess the Impact of Domestic Sheep Operations to the Area’s Economy.

The economic analysis section of DSEIS provides economic profiles for, and reviews the impacts of the proposed management action on, only the small communities of Wilder, Riggins, and Weiser, the locations of the 4 permittees. (DSEIS, pgs. 3-86-3-96). A full economic analysis would include the communities including Boise, McCall, Cascade, Cambridge and Council, which would likely receive increase economic revenues from larger bighorn populations that provide enhanced hunting and wildlife watching opportunities. (See DSEIS, p. 3-95—“Restored bighorn populations could lead to an increase in available hunting permits, the need for additional outfitter and guide services, and an increase in watchable wildlife visitors”).

Although the DSEIS states that “[t]he level of influx is difficult to determine,” “wildlife hunting and viewing is a more than \$100 million dollar industry in ... Idaho.” (DSEIS, p. 3-95). However, recent statistics from U.S. Fish and Wildlife Service (USFWS) are readily available, and show both the numbers of participants who engaged in hunting and wildlife watching in Idaho, and their associated revenues. A USFWS report based on 2006 data shows for Idaho, that hunting had 187,000 participants spending \$259,718,000 total, with an average trip per day expenditure of \$47, and wildlife watchers had 754,000 participants who generated \$265,383,000 in total expenditures, with an average trip per day expenditure of \$37. (U.S. Department of Interior, Fish and Wildlife Service and U.S. Department of Commerce, Census Bureau, 2006 National Fishing, Hunting, and Wildlife-Associated Recreation--Idaho, p. 4.)

Moreover, bighorn hunting itself is a significant business. A Hells Canyon bighorn tag was auctioned at \$180,000 in 2005. (DSEIS, p. 3-99). An average total of 44 bighorn permits were issued in areas on or adjacent to the PNF in the years 2000-2007. (DSEIS, p. 3-99). Many prospective bighorn hunters hire local outfitters at charges ranging from \$6,100 to \$8,600 per hunter. (DSEIS, p. 3-100). Currently, due to the limited populations of bighorn, tags are limited and demand far outstrips supply. (See, e.g, DSEIS at p. 3-99 (in 2008, 374 hunters applied for 2 tags in Hells Canyon Hunt Area 11)) Increased bighorn populations could be expected to lead to expanded hunting opportunities and more revenues for local outfitters, restaurants, lodging and related business. The DSEIS is incomplete, as it omits a similar analysis for revenues generated by rafting, jet boat, or other recreational outfitters or participants whose experiences are motivated or enhanced by the opportunities to watch bighorn sheep in the wild.

Contrast just these statistics from hunting revenues and jobs with the low wages and minimal private revenues associated with the four sheep operations at issue. Reported taxpayer subsidies for over the past decade show that these domestic sheep producers are highly subsidized. The website for the Environmental Working Group reports the following taxpayer subsidies for the four PNF permittees:

Soulen Livestock Co received payments totaling \$1,010,401 from 1995 through 2006 (<http://farm.ewg.org/farm/persondetail.php?custnumber=009379239>)

Ron Shirts received payments totaling \$214,707 from 1995 through 2006 (<http://farm.ewg.org/farm/persondetail.php?custnumber=008358031>)

Frank Shirts Jr received payments totaling \$775,817 from 1995 through 2006 (<http://farm.ewg.org/farm/persondetail.php?custnumber=008376206>)

Guy M Carlson received payments totaling \$110,307 from 1995 through 2006 (<http://farm.ewg.org/farm/persondetail.php?custnumber=008371346>)

The DSEIS states that current levels of domestic sheep grazing provide 21.5 direct jobs in the sheep production industry. (DSEIS, p. 3-93). This is based on an assumption of one worker per 900 head of sheep. (DSEIS, p. 3-91). Present practice is for the use of temporary, foreign workers to fill shepherding jobs due to their seasonal, low-wage status. The current prevailing wage in Idaho for a shepherd job is just \$750 per month. (United States Department of Labor, Agricultural Wage Online Library, <http://www.foreignlaborcert.doleta.gov/reader.cfm>). Moreover, these are temporary jobs engaged in under remote, often harsh conditions, limited to three years under the H-2A visa, engaged in seasonally during warm months, and other than subsistence food provided, generally have no benefits. (See e.g. "In Loneliness, Immigrants Tend the Flock," The New York Times, February 21, 2009, http://www.nytimes.com/2009/02/22/us/22wyoming.html?_r=1&scp=1&sq=shepherd&st=cse; Bedoya, A. "Captive Labor," *Dollars and Sense*, (2003) <http://www.dollarsandsense.org/archives/2003/0903bedoya.html>.) This subsidized labor scheme maintains unprofitable agricultural operations, and prevents local job seekers from holding these jobs should sheep production become more profitable.

The economic analysis section is also incomplete and misleading, as it fails to provide the actual revenues generated from domestic sheep grazing on the Forest, and the cost to taxpayers to administer domestic sheep grazing on the Forest. To provide an accurate economic analysis for informed public review, these numbers should be included.

7. Recreational Use of Domestic Goats Should Be Addressed in Forest Planning.

Evidence exists that domestic goats can transmit diseases to bighorn sheep. (Risk Analysis, p. 14). WWP is not aware of any PNF allotments on which goats are grazed under a permit. However, the same analysis relating to WWP's points about domestic sheep holds true—that risk should be minimized to bighorn sheep to the greatest extent possible. While the Draft Amendment to the Land and Resource Management Plan accompanying the DSEIS does contain direction that neither domestic sheep nor goats should be used as a management tool on the PNF (such as removal of weeds, p.III-1), none of the DSEIS and accompanying documents appears to address the recreational uses of packgoats on PNF lands, and the potential disease transmission risk to bighorn sheep. This issue should be analyzed and addressed as part of forest planning in a manner that eliminates the greatest possible risk to bighorn sheep. However, this relatively minor issue should not delay issuance of the Final SEIS on Bighorn Viability, and reducing to the maximum extent possible the much larger risk posed to bighorn sheep by domestic sheep.

In conclusion, Alternative 7E should be implemented to best maintain viable populations of wild bighorn sheep and fulfill the other legal mandates applicable to the Forest. At a minimum, Alternative 7H offers the next best protection for bighorn viability by adding the WAFWA recommended 9 mile buffer zone to the agency's preferred alternative, 7G, which relies on admittedly "depressed" bighorn populations in current occupied habitat.

Thank you for consideration of these comments. Please keep me on your mailing list for any further communications, and particularly, the Final SEIS.

Sincerely,



Debra Ellers
Western Idaho Director

Tel: (208) 634-9946
Email: debra@westernwatersheds.org

Cc Via e-mail to payettebighorn@fs.fed.us