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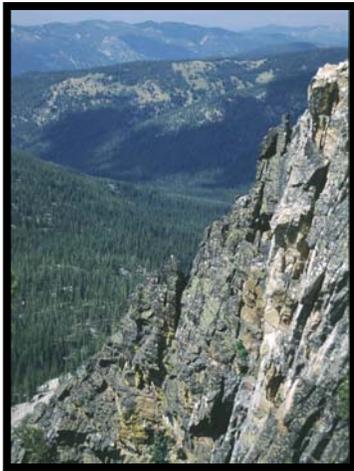
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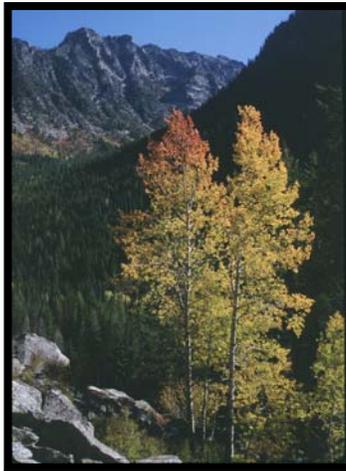
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Southwest Idaho Ecogroup Land and Resource Management Plans

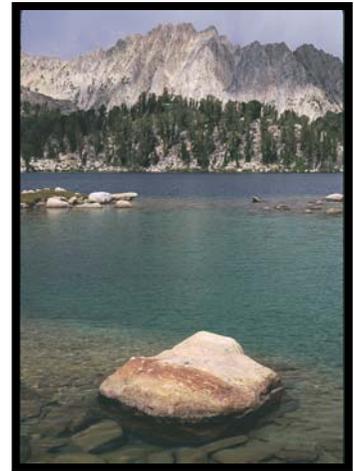
Draft Supplemental Environmental Impact Statement



Boise National Forest



Payette National Forest



Sawtooth National Forest

Photos by David Ede

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Draft Supplement to the Final Environmental Impact Statement for the Southwest Idaho
Ecogroup Land and Resource Management Plans

USDA Forest Service, Intermountain Region

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Abstract: This Draft Supplemental Environmental Impact Statement has been written to supplement the Southwest Idaho Ecogroup Land and Resource Management Plans Final Environmental Impact Statement completed in 2003. The Intermountain Region Forester received five appeals of the decision to implement Alternative 7 as described in the Record of Decision, with appellants contending that the Regional Forester violated the National Forest Management Act and the Hells Canyon National Recreation Area Act on the Payette National Forest by allowing grazing of domestic sheep within or near the range of bighorn sheep, thus threatening the viability of bighorn sheep through disease transmission.

On March 9, 2005, the Chief of the Forest Service concurred that the effects analyses and cumulative effects discussion pertaining to bighorn sheep presented in the Final Environmental Impact Statement did not adequately address viability and reversed the Intermountain Regional Forester's 2003 decision to approve revised management direction for the Hells Canyon Management Area as it pertains to bighorn sheep and its habitat. The Regional Forester was instructed analyze bighorn sheep viability in the Payette National Forest commensurate with the concerns and questions discussed in the appeal review and amend the 2003 Payette National Forest Land and Resource Management Plan accordingly to ensure bighorn sheep viability. The analysis was to be thorough enough to determine compliance with applicable laws and regulations, specifically the Hells Canyon National Recreation Area Act.

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Executive Summary

This Draft Supplemental Environmental Impact Statement (DSEIS) reanalyzes the effects of current and proposed Payette National Forest management on Rocky Mountain bighorn sheep (*Ovis canadensis canadensis*) (bighorn sheep) viability within the Payette National Forest. Specifically, the DSEIS presents additional information concerning the following:

- Viability of bighorn sheep at the planning unit scale
- Compliance with the Hells Canyon National Recreation Area (HCNRA) Act (PL 94-199)
- Compliance with 36 CFR 292.48 (domestic livestock grazing activities on Other Lands, Wild and Scenic Rivers, and Wilderness Lands in the HCNRA)
- Compliance with the National Forest Management Act (NFMA)
- Compliance with 36 CFR 219.19 (ecological, social, and economic sustainability)

Currently, the effects of management alternatives 1B, 2, 3, 4, 5, 6, and 7 are documented in the 2003 Southwest Idaho Ecogroup Land and Resource Management Plans Final Environmental Impact Statement (FEIS). However, this DSEIS analyzes the effects of these alternatives on bighorn sheep viability. These seven alternatives can be combined into two categories based on how they affect the risk of contact between domestic and bighorn sheep. The first category contains Alternatives 1B, 2, 5, and 7, which did not designate any acres on the Payette National Forest as unsuitable for grazing by domestic sheep or goats; all trailing routes remain open in these alternatives. The second category contains Alternatives 3, 4, and 6, which determined suitable rangeland in all of Management Area (MA) #1 and a portion of MA #2 that overlapped current bighorn sheep habitat as unsuitable for domestic sheep grazing. Areas inside and outside of current grazing allotments were determined to be unsuitable for domestic sheep grazing as were trailing routes from the areas.

To better address the issue of bighorn sheep viability, several alternative management approaches were developed and analyzed. In developing a reasonable range of alternatives, the Payette National Forest used public comments, science panel information, guidance from Fish and Game agencies, and available telemetry data on bighorn sheep movements to model the utility distributions (probability distributions) of bighorn sheep populations with 50 to 100 percent (in 10 percent increments) fixed kernel estimators. The objective was to describe the areas that bighorn sheep would be utilizing and/or moving through, known as herd home ranges, based on the actual occurrence data. These data were used to develop two geographic population ranges (GPRs): one for Hells Canyon and one for the Salmon River. The GPR term was created because the home range term is typically used for an individual, not a herd group or larger.

Alternative 7E determines all lands within the Payette National Forest as unsuitable for domestic sheep grazing and all trailing routes within the Payette National Forest as closed for domestic sheep use. Alternative 7G utilizes the GPRs and designates all land within the Hells Canyon and Salmon River GPRs as unsuitable for domestic sheep grazing and all trailing routes within the GPRs as closed for use. Alternative 7H designates the Hells Canyon and Salmon River GPRs and the area for 9 miles outside of the GPRs as closed for domestic

sheep grazing. All trailing routes within the GPRs and 9 mile area are considered unsuitable for domestic sheep use. Areas unsuitable for domestic sheep grazing in Alternative 7J were determined by overlaying a map of the probability for contact onto a map showing bighorn sheep habitat and removing the watersheds that occurred within the very high and high risk areas. Unsuitable areas were then adjusted for expected animal behavior. Trailing routes within the areas unsuitable for grazing were also considered unsuitable for domestic sheep use. Alternative 7K represented the similar use patterns as approved for the 2007 and 2008 grazing seasons. The only trailing route considered unsuitable for domestic sheep use was the Salmon River Driveway south of the intersection with the Hornet Creek Road and Marshal Mountain.

The effects analysis of these alternatives indicates that 7E, followed by 7H reduce the potential risk of contact between bighorn and domestic sheep to the greatest extent and may provide the greatest opportunity for tribal harvest in all traditional locations influenced by the Payette National Forest. However, they also have the largest effect on domestic sheep and goat allotments. Alternatives 7G and 7J minimize the potential risk of contact with intermediate effects to the livestock allotments and a greater opportunity for tribal harvest. However, some differences exist between 7G and 7J. Alternative 7G does not consider the modeled occupied habitat (GPR) to be suitable for domestic sheep grazing but does leave slightly more risk on the landscape outside of the alternative. Alternative 7J, however, leaves occupied habitat outside of the alternative, as much as 15 percent of the Hells Canyon GPR and 5 percent of the Salmon River GPR. Grazing in the GPR poses a potential risk not reflected by the other numbers for GPR. Alternative 7K and then Alternatives 3, 4, and 6 are ranked next for minimizing risk, although they both leave a substantial amount of risk on the landscape. These alternatives do have much smaller effects to livestock allotments, but greatly reduce the harvest ability for tribal members.

The economic impact of each alternative to the agriculture sector was analyzed for Riggins, Weiser, and Wilder. The economic analysis began by updating the community profiles and examining the headmonths for each alternative. Alternative 7E had the fewest headmonths at zero. The remaining alternatives had the following headmonths: Alternative 7G (27, 534), Alternative 7H (3,801), Alternative 7J (34,266), and Alternative 7K (51,434). The economic analysis then examined the outputs of the community economic models that included sales, earnings, and jobs. Sales are defined as the total transactions in dollars from direct and indirect economic activity, earnings are defined as the wage and salary payments (direct and indirect) for labor income to individuals, and jobs represent the total of both direct and indirect employment of workers. According to the model, Alternative 7 produces 37.2 jobs and \$672,635 in earnings; Alternative 7E produces zero jobs and zero dollars in earnings; Alternative 7G produces 16.2 jobs and \$302,462 earnings; Alternative 7H produces 2.4 jobs and \$43,623 earnings; Alternative 7J produces 20.7 jobs and \$387,229 earnings; and Alternative 7K produces 29.6 jobs and \$540,625 earnings.

Supplemental Environmental Impact Statement Introduction

BACKGROUND

Completed in July 2003, the Southwest Idaho Ecogroup Land and Resource Management Plans FEIS and Record of Decision (ROD) were the product of regional planning efforts to revise the Payette National Forest Land and Resource Management Plan (Forest Plan) as required by the 1982 NFMA implementing regulations (36 CFR 201). The Intermountain Region Forester received five appeals of the decision to implement Alternative 7 as described in the ROD, with appellants contending that the Regional Forester violated NFMA and the HCNRA Act on the Payette National Forest by allowing grazing of domestic sheep within or near the range of bighorn sheep, thus threatening the viability of bighorn sheep through disease transmission. The HCNRA Act provides direction for the “administration, protection, and development” of the HCNRA (16 USC §460gg-4).

On March 9, 2005, the Chief of the Forest Service (Chief) concurred that the effects analyses and cumulative effects discussion pertaining to bighorn sheep presented in the FEIS did not adequately address viability and reversed the Intermountain Regional Forester’s 2003 decision to approve revised management direction for the Hells Canyon MA as it pertains to bighorn sheep and its habitat. The Chief stated that allowing continued domestic sheep grazing in or near occupied bighorn sheep habitat threatened the viability of bighorn sheep populations within the Hells Canyon area and across the Payette National Forest.

The HCNRA and the Hells Canyon MA are two separate and distinct delineations on a map. Only a small portion of the Hells Canyon MA overlaps into the HCNRA. However, the HCNRA does extend alongside the western boundary of the Hells Canyon MA for a considerable distance. Bighorn sheep have repeatedly been documented traversing back and forth across the boundaries of these two areas and coming into contact with domestic sheep allotments on the Payette National Forest during the permitted grazing season. Since the Chief instructed the Payette National Forest to conduct a viability analysis at the planning unit scale, the entire Payette National Forest was analyzed, which affected the Salmon River Mountain bighorn sheep population.

To address the issue of bighorn sheep viability, the Regional Forester was instructed to reanalyze bighorn sheep viability in the Payette National Forest; amend the FEIS accordingly; and evaluate and adopt, as necessary, changes in the Forest Plan (USDA Forest Service 2003) management direction for the Hells Canyon MA and adjacent areas. Specifically, the Regional Forester was instructed to complete a supplement (Supplemental Environmental Impact Statement [SEIS]) to the FEIS for the Southwest Idaho Ecogroup Revised Land and Resource Management Plans.

Development of the Supplemental Environmental Impact Statement

Typically, a DSEIS or SEIS does not contain a range of alternatives. However, in this situation, the Chief remanded only a small portion of the selected alternative—bighorn sheep viability on the Payette National Forest. Therefore, the Payette National Forest developed

several alternatives (7A through 7K) in addition to those analyzed in the FEIS. One of these alternatives, or a variation of one of the alternatives, will be selected and then will eventually become part of Alternative 7, the selected alternative in the ROD for the FEIS tied to the Forest Plan (USDA Forest Service 2003).

In the DSEIS, the alternatives from the FEIS—1B, 2, 3, 4, 5, 6, and 7—are considered in addition to the alternatives developed for this process—7A through 7K. Because the FEIS analysis for bighorn sheep viability was deemed inadequate, the FEIS alternatives and the action alternatives from the DSEIS will be analyzed, and the effects to bighorn sheep will be disclosed in this document.

Alternate management strategies to Alternative 7 were developed utilizing the issues developed and comments received on the FEIS and comments received on the products of the DSEIS process. The issues used for this process are found in the FEIS pages 1–14, 15, 19, and 23 and are as follows:

1. Terrestrial Wildlife Habitat and Species

Issue Statement 1: Forest Plan management strategies may affect habitat for terrestrial wildlife species, including species that are listed or proposed for listing under the Endangered Species Act, Region 4 sensitive species, species of special interest, species at risk, and Forest Management Indicator Species.

Issue Statement 2: Forest Plan management strategies may affect disruption, vulnerability, and disease risk to terrestrial wildlife species.

2. Rangeland Resources

Issue Statement: Forest Plan management strategies may affect rangeland resources, including lands considered suitable for livestock grazing and the form of livestock grazing management authorized under permit for the Forests.

3. Tribal Rights and Interests

Issue Statement: Forest Plan management strategies may affect the availability of resources and the use of traditional places important to American Indian rights and interests.

Terrestrial, Wildlife, Habitat, and Species

To better address the issue of bighorn sheep viability, several alternative management approaches were developed and analyzed. To develop a reasonable range of alternatives, the Forest Service developed a potential risk of contact model that incorporated three risk components: 1) where bighorn sheep are expected to be found, 2) where they may interact with domestic sheep, and 3) where habitat for bighorn sheep occurs. The potential risk of contact model was then used to analyze the effects of each alternative on bighorn sheep viability.

Tribal Rights and Interests

The *Tribal Rights and Interest* section of the FEIS included an analysis of the effects Forest Service management would have on the ability of the agencies to meet federal trust responsibilities. Of particular interest was the availability of traditional and/or culturally important terrestrial and aquatic plant and animal species in sufficient and desirable quantities. Cultural interests and uses are protected through various federal statutes, laws, policies, and regulations (Appendix H in USDA Forest Service 2003). The federal trust doctrine requires federal agencies to manage the lands under their stewardship with full consideration for tribal rights and interests, particularly reserved rights, where they have been exercised since time immemorial.

Availability of culturally important species, in particular bighorn sheep, depends on the persistence of the species over time. Species viability depends on the distribution of quantity and quality habitat (CFR §219.19) that is available to the bighorn sheep. The FEIS included an analysis of species in the *Terrestrial Wildlife Habitat and Species* section, which was used in determining effects to tribal rights and interests. However, a more thorough analysis for bighorn sheep is now complete and is provided in Chapter 3 of this DSEIS. As such, the federal tribal trust responsibilities are also being reassessed to determine the effects on the availability of bighorn sheep and on the use of traditional cultural properties.

Consistent with 36 CFR §219.20(a), this analysis will supplement the Tribal Rights and Interests section of the FEIS to 1) identify other affected tribes; 2) identify the effects on the availability of bighorn sheep; and 3) disclose the effects on the associated use of traditional cultural properties important to American Indian rights and interests.

Socio-Economic Analysis

Economic Modeling Specialists, Incorporated (EMSI) conducted a socio-economic analysis for the Payette National Forest for the alternatives described in the DSEIS, which included the job and earnings impact of various alternatives provided by the Payette National Forest. Specifically, the analysis had three primary goals:

1. Provide updated economic profiles for the communities of Riggins, Idaho and Weiser, Idaho.
2. Develop an economic profile for Wilder, Idaho.
3. Calculate the direct employment effects of several alternative range management scenarios.
4. Calculate the economic impacts of the alternative range management scenarios on the communities of Riggins, Idaho; Weiser, Idaho; and Wilder Idaho.

Consistent with 36 CFR §219.20(a), this analysis will supplement the Socio-economic Environment section of the FEIS.

Public Participation

The Notice of Intent (NOI) to prepare an SEIS and amend the Forest Plan (USDA Forest Service 2003) was published in the Federal Register in April 2007 (FR 72:18197–18198). Public scoping and involvement on the FEIS was extensive and spanned a 7-year period.

The risk for disease transmission from domestic sheep to bighorn sheep and the subsequent population declines was identified early and noted as a concern by the U.S. Fish and Wildlife Service (USFWS). It was assumed for the FEIS that disease transmission can occur. Only one comment was received during the 7-year period questioning that assumption. Tribal consultation, both informal and formal, was also extensive during the Forest Plan (USDA Forest Service 2003) development process.

To begin the SEIS process, the Forest Service completed an analysis on the risk for contact between domestic sheep and bighorn sheep on the Payette National Forest. The *Risk Analysis for Disease Transmission Between Bighorn Sheep and Domestic Sheep on the Payette National Forest* (risk analysis) (USDA Forest Service 2006a) was completed in February 2006 and released for a 96-day comment period. Sixty-two comments were received on the document. In November 2006, the Payette National Forest contracted the setup and facilitation of a science panel composed of veterinary, livestock, and wildlife experts to discuss the risk analysis and the science-based comments received on the risk analysis. The scientists provided the Forest Service with dialogue and a set of consensus statements (USDA Forest Service 2006b). Further science meetings were organized and held by the scientists to continue discussion on the disease transmission issue in Davis, California; Tucson, Arizona; Salt Lake City, Utah; and Boise, Idaho. The Western Association of Fish and Wildlife Agencies (WAFWA) also convened and discussed the issue.

Comments, concerns, insights, and information gathered from all of the public involvement efforts, science panels, and fish and game meetings were considered in developing the alternatives for bighorn sheep management.

The Forest Service has a long standing policy supporting the commitment to encourage cooperation among federal, state, local and tribal governments (USDA Forest Service 1998). Continuing on with the policy, as of August 2007, the DSEIS Interdisciplinary Team (IDT) was comprised of U.S. Department of Agriculture (USDA) Forest Service employees and representatives of cooperating states and sovereign tribes. The entities included the states of Idaho, Oregon, and Washington and the tribal governments of the Nez Perce Tribe, Shoshone–Bannock Tribes, Shoshone–Paiute Tribes, and the Confederated Tribes of the Umatilla Indian Reservation. The DSEIS IDT adopted roles and responsibilities. The Forest Service retained the authority to make the decisions for the SEIS, act as an expert, and author the document. The states and tribes were to act as technical experts, bringing their knowledge to the table, and to provide comments and review information.

Disease Review

Considerable debate about the science has surrounded the disease transmission issue since the SEIS process began. Even so, the preponderance of science literature still supports the notion that the issues are significant and warrant consideration of effects analysis and management direction.

Bighorn sheep are a New World species and are closely related to domestic sheep, which are an Old World species. Domestication and intense artificial selection have probably helped domestic sheep develop a resistance to important diseases (Jessup 1985; USDA Forest

Service 2006a). However, bighorn sheep can be highly susceptible to diseases carried by domestic sheep.

A long history of large-scale, sudden, all-age die-offs in bighorn sheep exists across Canada and the United States, many associated with domestic animal contact (Shackleton 1999). Although limited knowledge of transmission dynamics exists (Garde et al. 2005), extensive scientific literature supports the relationship between disease in bighorn sheep populations and contact with domestic sheep, including both circumstantial evidence linking bighorn die-offs in the wild to contact with domestic animals and controlled experiments where healthy bighorn sheep exposed to domestic sheep displayed subsequently high mortality rates (Foreyt 1989, 1990, 1992; Foreyt et al. 1994; Onderka et al. 1988; Onderka and Wishart 1988; Garde et al. 2005).

In a summary of risk to wild sheep from *Pasteurella* and *Mannheimia* spp., Garde et al. (2005) makes the following conclusions:

- These bacteria can cause pneumonia in bighorn sheep, but there are benign commensal strains in the upper respiratory tract
- Domestic sheep, goats, and llamas have been reported with these bacteria species
- Wild sheep and mountain goats have been reported with these bacteria species
- Transmission is by direct contact and aerosolization
- These bacteria species do not persist in the environment
- Acute-to-chronic die-offs in bighorn sheep can result in low to 100 percent mortality, although they can be present in healthy sheep
- These bacteria are considered opportunistic and can result in pneumonia outbreaks
- These bacteria can cause clinical disease in domestic sheep and goats but are rarely primary pathogens

Pertinent Findings

While much of the evidence for competition between domestic sheep and bighorn sheep is circumstantial, it is sufficient to have prompted the following discussions.

Payette Science Panel Findings and Recommendations

A science panel was convened in November 2006 to provide additional science-based information regarding disease transmission and the associated risks for the Payette National Forest. Although focused specifically on the Payette risk analysis, the panel's conclusions are applicable to all areas where domestic sheep or goats and bighorn sheep co-exist. The panelists, who were scientists from the livestock and wildlife disease communities, focused on disease and mortality concerns and jointly developed the following statements (USDA Forest Service 2006b):

- 1a. Scientific observation and field studies demonstrate that “contact” between domestic sheep and bighorn sheep is possible under range conditions. This contact increases the 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 the potential for disease introductions and transmission.
4. Dispersal, migratory, and exploratory behaviors of individual bighorn sheep traveling between populations may exacerbate the potential for disease introduction and transmission.
5. There are factors (for example, 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 and other bacteria, viruses, and other agents may occur in healthy, free-ranging bighorn sheep.

Western Association of Fish and Wildlife Agency Findings

In January 2007, WAFWA—a group of 23 state and provincial wildlife agencies from the western United States and western Canada—established a Wild Sheep Working Group (WSWG). Comprised of bighorn sheep managers and veterinarians, WSWG was requested to provide a comprehensive, west-wide assessment of all facets of wild sheep management. The following conclusions from their June 21, 2007, final report, which WAFWA unanimously endorsed in July 2007, are relevant to this disease overview:

1. Over the past 30 years, there has been a steadily increasing body of anecdotal and empirical evidence underscoring the potential risk of disease transmission from domestic sheep and goats to wild sheep.
2. There is a preponderance of evidence, taken collectively from a wide variety of observations that indicates significant risk of disease transmission from domestic sheep and goats to wild sheep exists.
3. Effective separation (both temporal and/or spatial) between wild sheep and domestic sheep and goats should be a primary management goal of state and provincial agencies responsible for wildlife management.
4. We concur with statements developed and adopted by the interdisciplinary Payette National Forest Science Panel (listed above).
5. We recognize that it is impossible to achieve zero risk of contact or disease transmission; however, we also recognize there are many ways to work proactively toward minimizing or eliminating interaction between these species.
6. We developed management guidelines for use by all agencies, organizations, domestic producers, and private land owners.

Management Recommendations

The separation, either spatially, temporally, or both of bighorn sheep from domestic sheep has been recommended by leading bighorn sheep disease experts (Schommer and Woolever 2001; USDA Forest Service 2006b; WAFWA 2007). Experts also recommend developing site-specific solutions for each bighorn sheep population and domestic sheep allotment and developing a management strategy appropriate for the complexity of the management situation (Schommer and Woolever 2001; WAFWA 2007). Each of the alternatives takes this approach; however, given the complexity of the issue on the Payette National Forest, each alternative has pros and cons associated with minimizing the risk of contact between domestic and bighorn sheep. Data are limited and it is hard to draw inferences about a wide-ranging species such as the bighorn sheep.