



American Lamb Council



American Sheep Industry Association, Inc.  
www.sheepusa.org



American Wool Council

June 16, 2016

***Via Electronic Submission and Certified Mail***

Andrew C. Hammond  
Area Director, ARS, Pacific West Area  
800 Buchanan St.  
Albany, CA 94710-1105

**RE: U.S. Sheep Experiment Station Grazing and Associated Activities Project  
2016 Revised Draft Environmental Impact Statement**

Dear Director Hammond:

This letter contains the comments of the American Sheep Industry Association (“**ASI**”) on the U.S. Sheep Experiment Station Grazing and Associated Activities Project 2016 Revised Draft Environmental Impact Statement (“**Draft EIS**”) as issued by the U.S. Department of Agriculture, Agricultural Research Station (“**USDA**,” “**ARS**,” “**Station**” or the “**agency**”). These comments are submitted pursuant to the Notice of Availability published at 81 Fed. Reg. 14850 (March 18, 2016). The comment period initially ended on May 2, 2016 but was extended to June 16, 2016 by the ARS per the Comment Period Extension Letter dated April 20, 2016. Thus, these comments are timely.

**Introduction**

ASI is a national trade organization representing the interests of nearly 90,000 sheep ranchers located throughout the country who produce America’s lamb and wool. ASI is a federation of forty-five state sheep associations and individual members.

On behalf of its members, ASI advocates for public policy that protects and supports the economic viability of the sheep industry, creates strong national and international markets for wool through advertising, promotion and marketing, advances and coordinates science and technology of production and marketing, and supports communication and cooperation between all segments of the industry, related business and government agencies.

ASI recognizes and commends ARS for the important role it has played in the development and success of the U.S. sheep industry. ARS listens and responds to the demands of numerous stakeholders, including advocacy organizations, such as ASI, environmental organizations, the meat and wool industry, seedstock producers, and governmental agencies. This allows ARS to provide research and resources where they are most needed and of the greatest value. ARS has provided a critical venue for sheep breed development, evaluation and improvement. Because the majority of America’s sheep are bred and raised west of the 100th meridian, mostly in the Intermountain West, the research and development conducted at the

Station is invaluable. For example, the Station has made germplasm available to ranchers and has developed three of the most important sheep breeds—the Columbia, the Targhee and the Polypay. ARS has also conducted extensive research on the effects of fire on rangelands, the health and recovery of the sage grouse and its habitat, controlling invasive and noxious plants, and limiting impacts of livestock grazing practices on natural resources.

ASI fully supports selection of the preferred alternative as described in the Draft EIS as it allows the Station to continue fulfilling its purpose. ASI appreciates the opportunity to comment on the Draft EIS and applauds the ARS’s efforts to further its mission by continuing grazing and related activities at the Station.

ASI’s comments generally track the order of presentation in the Draft EIS, though not all aspects of the document are addressed here. Although the majority of the following comments are important to enhancing the clarity and technical accuracy of the Draft EIS, they do not significantly impact the Draft EIS’s assessment of potential impacts to the quality of the human environment or ARS’s assessment of the likelihood or magnitude of such impacts.

## **I. NEPA Framework**

The Draft EIS provides a thorough analysis of potential environmental impacts from the Station’s grazing operations, thereby satisfying the National Environmental Policy Act’s (“NEPA”) twin aims of (1) requiring that BLM take a “hard look” at the environmental impacts of the project, and (2) informing the public of the potential impacts and explaining how those impacts will be addressed. *Churchill County v. Norton*, 276 F.3d 1060, 1072 (9th Cir. 2001).

NEPA requires that federal agencies prepare an environmental impact statement (“EIS”) for “major Federal actions significantly affecting the quality of the human environment.” 42 U.S.C. § 4332(2)(C). A “detailed statement” must be included in the EIS regarding “the environmental impact of the proposed action” and “any adverse environmental effects which cannot be avoided.” *Id.* NEPA does not require that agencies come to a particular substantive decision. Instead, it provides the process by which agencies must consider environmental impacts of a proposed action. *Idaho Wool Growers Ass’n v. Vilsack*, 7 F. Supp. 3d 1085, 1089 (D. Idaho 2014) *aff’d*, 14-35445, 2016 WL 805683 (9th Cir. Mar. 2, 2016).

NEPA requires that agencies take a “hard look” at potential environmental impacts. Under the “hard look” requirement, agencies must “explain the conclusions it has drawn from its chosen methodology, and the reasons it considered the underlying evidence to be reliable.” *Id.*

## **II. Purpose and Need**

The USDA properly identifies and defines the purpose and need of the EIS, which is in part determined by the statutory obligations of the agency. The USDA is required to “acquire and to diffuse among the people of the United States useful information on subjects connected with agriculture, rural development, aquaculture, and human nutrition, in the most general and comprehensive sense of those terms[.]” 7 U.S.C. § 2201. The Secretary of Agriculture must “procure and preserve all information concerning agriculture, rural development, aquaculture,

and human nutrition which he can obtain by means of books and correspondence, and by practical and scientific experiments. 7 U.S.C. § 2204.

The purpose and need of the EIS are also defined by the mission of ARS and the Station itself. ARS's mission is to "conduct research to develop and transfer solutions to agricultural problems of high national priority and provide information access to and dissemination to:

- ensure high-quality, safe food, and other agricultural products;
- assess the nutritional needs of Americans;
- sustain a competitive agricultural economy;
- enhance the natural resource base and the environment and provide economic opportunities for rural citizens, communities, and society as a whole."<sup>1</sup>

The Station, as it now operates, furthers this mission. The Station helps pursue the goal of providing abundant, safe and competitively priced animal products in a viable and sustainable way by, for example, evaluating reproduction efficiency, end-product quality, health and longevity of sheep breeds and by studying phenotypic and generic marker-based evaluation of various paternal sheep breeds. Draft EIS at 9-10. The Station also seeks to improve natural resources by developing practices and tools that improve range, pasture, forage and turf. Draft EIS at 10-11. This is done, in part, by studying the effects of fire on rangeland, evaluating the use of herbicides on non-native species, understanding restorative mechanical practices, and developing range management programs that are sustainable. Draft EIS at 11.

As the Draft EIS accurately notes, the Station is not a land management agency required to balance multiple purposes and public uses. Draft EIS at 11. The Station's overarching purpose is to conduct research on sheep grazing practices, genetics, breeding and production. It is this purpose that informs the purpose and need of the EIS, the alternatives considered and the ultimate proposed action.

### III. Alternatives

"An EIS must describe and analyze alternatives to the proposed action." *Ilio'ulaokalani Coalition v. Rumsfeld*, 464 F.3d 1083, 1095 (9th Cir. 2006). The range of alternatives that an agency must consider is determined by the proposed action's nature and scope. *HonoluluTraffic.com v. Fed. Transit Admin.*, 742 F.3d 1222, 1231 (9th Cir. 2014). An agency is not "obligated to consider every possible alternative to a proposed action, nor must it consider alternatives that are unlikely to be implemented or those inconsistent with its basic policy objectives." *Id.*

In evaluating such alternatives, an EIS must consider both the direct and indirect effects of the proposed action. See 40 C.F.R. § 1502.16(a), (b). Direct effects are those "which are caused by the action and occur at the same time and place." *Id.* § 1508.8(a). Indirect effects are "caused by the action and are later in time or farther removed in distance, but are reasonably

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<sup>1</sup> U.S. Department of Agriculture, *Agricultural Research Service: About Us* (Sep. 8, 2015) <http://www.ars.usda.gov/AboutUs/AboutUs.htm> (last visited April 11, 2016).

foreseeable.” *Id.* § 1508.8(b). Effects include ecological, aesthetic, historic, cultural, economic social, or health impacts. *Id.* An agency must also consider the cumulative impact of alternatives, which is defined as the “impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.” 40 C.F.R. § 1508.7.

The ARS adequately considered a range of alternatives to the proposed action. It reviewed thirteen alternatives, and of those thirteen, the agency selected four alternatives for detailed analysis. The Draft EIS reflects the comprehensive consideration given to each of these alternatives, including their direct, indirect and cumulative impacts, and correctly identifies the reasons why Alternative 1 is the preferred alternative.

#### **A. Alternative 1 – Proposed Action and Preferred Alternative**

ASI fully supports ARS in its selection of Alternative 1 as its preferred alternative. Under Alternative 1, historical and ongoing grazing and associated activities will continue, including grazing at all ARS lands – Headquarters pastures, Henninger and Humphrey Ranches, and East and West Summer Ranges – and on three National Forest Service allotments. Draft EIS at 45.

This alternative allows the ARS to further its dual mission of, first, providing research and development of sheep breeding and production in the Intermountain West and, second, learning how to raise sheep in an environmentally-sensitive and sustainable manner so as to maintain the health and longevity of our rangelands and wildlife. The Station is the only research center of its kind in the country and it provides an invaluable service. Alternative 1 recognizes the Station for what it is meant to be – an integrated research facility that seeks to better understand the interactions between the human world and its interface with the natural environment.

As this letter discusses, the environmental impacts under the preferred alternative are limited and fully mitigatable with proper conservation measures. Under all other alternatives, ARS is required to unnecessarily sacrifice its research efforts without any benefit in return. Grazing, and its associated beneficial research, will be curtailed for no rational reason. As a result, the preferred alternative provides the best path for achieving the Station’s mission.

#### **B. Alternative 2 – No Grazing Alternative**

Under Alternative 2, grazing on all ARS lands and National Forest Service allotments is discontinued. This alternative fails to appreciate the statutory obligations of the USDA and the mission of the ARS. The Station was created, in part, for the purpose of developing a better understanding of sheep production in this climate, where most of our nation’s sheep are bred and raised. Raising sheep in the arid Intermountain West, which requires grazing, is a challenge and the Station provides the much needed information and research to make such activities as productive and sustainable as possible. “The Sheep Station is the only USDA, Agricultural Research Service location that is focused solely on sheep research, and the only USDA,

Agricultural Research Service location that can address range sheep and sheep grazing issues in the Intermountain West that are focused on the region where most of the nation's sheep are produced." Draft EIS at 42-43. Without the ability to graze sheep, the Station's efforts to further its mission will be significantly hampered if not precluded altogether.

### **C. Alternative 3 – No Grazing in the Centennial Mountains**

Alternative 3 eliminates grazing in the Centennial Mountains. Specifically, grazing would not occur on a portion of the Humphrey Ranch, East Summer Range, and West Summer Range, and on the Meyers Creek and East Beaver Forest Service allotments. Such a reduction in grazing lands would require a fifty percent reduction in sheep numbers at the Station, from 3,000 to 1,500.

The ARS already grazes sheep at a rate well below carrying capacity to protect range, soil and water conditions. Draft EIS at 14. The ARS grazing practices mostly result in removal of less than 10 percent of annual forage. *Id.* At most, ARS allows for removal of 25 percent of forage. *Id.* On Forest Service allotments, the Station uses less than half the permitted animal unit months. *Id.* ARS lands are grazed on a rest and rotation basis. *Id.*

As discussed further below, the potential benefits of Alternative 3's grazing reductions are limited. This is so because the Station's grazing practices and impacts under the status quo are so minimal. But the negative impacts of Alternative 3 would be significant. The reduction in sheep numbers would severely limit the Station's ability to conduct the sheep production research it is responsible for carrying out. Additionally, a reduction in sheep numbers and curtailment of grazing would impede the Station's efforts to develop sustainable rangeland practices. For these reasons, the agency correctly chose the preferred alternative over Alternative 3.

### **D. Alternative 4 – The Grizzly Bear Alternative**

In response to public suggestions that grazing be discontinued on lands adjacent to or within habitat of the Greater Yellowstone Area ("GYA") grizzly bear, Alternative 4 eliminates grazing on the East Summer Range and the Meyers Creek allotment. Such restrictions are unnecessary and would inhibit the ability of the agency to achieve its statutory obligations and the mission of the Station. As discussed in more detail below, the agency adequately considered the potential impacts under all alternatives to the grizzly bear and found them to be minimal and mitigatable.

Additionally, most of the Draft EIS was developed before the U.S. Fish and Wildlife Service (the "Service") announced its proposal to delist the GYA grizzly bear. On March 3, 2016 the Service proposed removing the grizzly bear from the list of endangered and threatened species as defined under the Endangered Species Act. 81 Fed. Reg. 13,173. This delisting is appropriate as the best available science shows strong recovery of the species. The grizzly bear's population has increased to more than 700 bears and its occupied range has more than tripled since it was listed. This is further evidence that the ARS was correct in selecting the no-action alternative as its preferred alternative. Not only is the grizzly bear no longer in need of

heightened protection, the species was able to fully recover as the Station's activities continued. Limiting these activities under Alternative 4, or any other alternative, is not necessary.

#### **E. Alternative 5 –The Bighorn Sheep Alternative**

The agency developed Alternative 5 in response to public suggestions that grazing be eliminated to avoid interactions between domestic sheep and the Rocky Mountain Bighorn Sheep. Under this alternative grazing on the Snakey-Kelly allotment would be discontinued and sheep would be kept and fed harvested feed at the Mud Lake Feedlot during winter months. To accommodate this change, sheep numbers would be reduced from 3,000 to 2,000.

As more fully addressed below, this alternative marginally limits direct and indirect impacts that are minimal to begin with. The closest bighorn sheep herd's core habitat is twenty miles away from the Station lands. The possibility of contact between the Station's domestic sheep and the distant bighorn sheep is extremely limited. Effective conservation measures and an adaptive management protocol are in place to prevent even a remote possibility that disease transmission may occur on the Snakey-Kelly allotment while domestic sheep are present. Further, there is an even lesser chance, under the preferred alternative, that bighorn sheep would actually come into contact with domestic sheep in a manner sufficient enough to result in transmission of any respiratory disease-associated bacteria that are not already carried by the bighorn sheep. Limiting grazing under Alternative 5 would do little to protect bighorn sheep populations. At the same time, Alternative 5 would prevent the Station from furthering its mission.

### **IV. Environmental Consequences**

#### **A. Cumulative Impacts**

The USDA is required to consider the cumulative impacts of alternatives that result from the "incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions." 40 C.F.R. § 1508.7. While the Draft EIS's discussion of cumulative impacts is adequate, ASI recommends some additional analysis in the final EIS. The agency should consider expanding its analysis of the possible spatial or temporal scope of impacts for threatened and endangered species and other wildlife, hydrology, botany and heritage resources. It should also consider the cumulative impacts of uses on non-federal actions, such as grazing on private lands. If ARS believes this analysis to be unnecessary, it should explain why.

ARS correctly notes that it is not required to consider the direct and indirect effects of grazing on the federal allotments because a NEPA analysis has already been completed for those federal actions. ARS should consider referencing and incorporating where appropriate the NEPA analysis from those determinations in the final EIS. ARS correctly and adequately considers the cumulative impacts of all alternatives in the Draft EIS.

While ARS's discussion of cumulative impacts in the context of climate change is adequate, the agency should consider expanding this analysis in the final EIS. The Council for

Environmental Quality recommends that agencies consider the “implications of climate change for the environmental effects of a proposed action.” Revised Draft Guidance for Greenhouse Gas Emissions and Climate Change Impacts at 3. While ARS correctly notes that the proposed action is unlikely itself contribute to climate change, the discussion of how climate change will contribute the environmental effects of an action could be bolstered.

ARS should also explain how the Station can contribute to a better understanding of the potential effects of climate change. ARS has already conducted decade’s worth of research on water, botany, wildlife and range resources. Under Alternative 1, this research will continue, allowing ARS to better understand climate change and to learn how to adapt to a changing climate. Such research fits the Station’s mission and the mission of the USDA.

## **B. Range**

The Draft EIS adequately considered the direct and indirect effects on rangelands under each alternative. The overall use of the rangelands is limited. Under Alternative 1, forage used by sheep grazing is less than 10 percent on Headquarters, East Summer Range, and West Summer Range and less than 20 percent on Humphrey Ranch and Henninger Ranch. Draft EIS at 68. Even more intense activities, such as bedding, water and trailing, still use only a small fraction of the total acreage of rangeland. Draft EIS at 76 (less than 50 of the 27,930 acres at Headquarters is used for trailing, watering or bedding); 77 (less than 20 acres of the 2,600 acres at Humphrey Ranch and less than 10 acres at Henninger Ranch sees heavy use); 78 (less than 50 acres at both the East and West Summer ranges is used for bedding, trailing and watering).

The agency did recognize that there are portions of the rangelands that see high traffic and suffer in quality as a result, or that, for other reasons unrelated to Station activities, are degraded. On these degraded areas, the ARS has identified appropriate mitigation measures.

It is unsurprising that, because of this limited use, the effects of all alternatives on rangelands are expected to be minimal. Because there is little difference of impact between alternatives, the Station correctly selected Alternative 1 as its preferred alternative. Doing so will allow the Station to further its own mission and the mission of the ARS.

In its final EIS, the agency should consider including a discussion of the potential beneficial effects grazing has on reducing invasive plant species. ARS should refer to the peer-reviewed paper, *The United States Sheep Experiment Station: Shedding Light on Rangeland Ecosystems*, published by Steven S. Seefeldt and William Laycock, for information about the use of strategic sheep grazing to control weeds and exotic plant species. As these authors point out, there is a potential role for livestock grazing in efforts to control invasive species and the Station is well-poised to conduct this research.

While the agency’s discussion of range cumulative effects is extensive, it may be incomplete. Draft EIS at 81-85. Rather than simply detailing the actions that would be taken under each alternative, ASI recommends that, in the final EIS, the agency provide a more thorough consideration of all possible cumulative effects, including the possible effects of climate change on changing range conditions to the extent known.

## C. Species Concerns

### 1. Grizzly Bear

The concern about conflicts between the GYA grizzly bear and sheep has permeated the debate around the Station's grazing and related activities, as recognized in the Draft EIS. Draft EIS at 3, 35-38, 43, 86-88. In response to this concern, the USDA provided extensive discussion and analysis of the potential impacts to the grizzly bear under all alternatives. The agency, in cooperation with the Service, concluded that the preferred alternative and Alternatives 4 and 5, may effect, but are not likely to adversely affect the Yellowstone grizzly bear. Draft EIS at 59; U.S. Fish and Wildlife Service Biological Opinions for U.S. Sheep Experiment Station Grazing ("**BiOp**" or "**Biological Opinion**") at 36-37.

The Draft EIS fully considers the potential effects that each proposed alternative might have on the grizzly bear. The potential direct and indirect impacts identified include direct mortality from a herder defending his life, changing availability of food or habitat for bears, habituation of bears to humans and sheep, and increased bear mortality or removal as a result of conflict. Draft EIS at 96-98, 99-100. The USDA and the Service properly concluded that these impacts can be effectively mitigated through the implementation of conservation measures and that the preferred alternative is not likely to adversely affect the continued existence of the grizzly bear.

Effects are expected to be minimal and mitigatable because the proposed project involves a relatively small portion of overall grizzly bear habitat. The Summer Range (Tom's Creek, Big Mountain and O'Dell pastures), Henninger Ranch and the Meyers Creek allotment are the only Station lands where grizzly bear use is observed. This area is, relative to all grizzly bear habitat, very small – less than one percent of the Centennial Mountain Range will be used for grazing at any given time. BiOp at 29. Further, the ARS lands that provide potential habitat to grizzly bears are outside the grizzly bear Recovery Zone as identified by the Service's Grizzly Bear Recovery Plan. BiOp at 12. Generally, while areas outside recovery zones may provide habitat, they are "not considered necessary for the survival and recovery of the species." BiOp 12. While the Meyers Creek allotment is within the grizzly bear recovery zone, under the preferred alternative and Alternatives 4 and 5, the Station will only utilize the Meyers Creek allotment for a total of six days per year – three in the spring and three in the fall – solely for the purpose of trailing sheep. BiOp at 21; Draft EIS at 102.

The Service closely considered historical interactions between sheep and bears in the GYA and determined that the risk of conflict is minimal. BiOp at 16-17. Documented conflicts between grizzly bears and sheep are very rare. Approximately 80,000 sheep are grazed in the GYA range of the grizzly bear, a small fraction of which are harmed or killed by grizzly bears. BiOp at 17. In 2012 and 2013, only 27 sheep were killed or injured. BiOp at 17. And, as the Service points out, not all sheep interactions led to actions against bears. Of the 239 known and probable grizzly bear deaths between 1997 and 2009, only four were attributable to sheep grazing activities. BiOp at 17; Draft EIS at 92. No grizzly bear mortalities were the result of bear-sheep conflict on any of the ARS lands or Station's Forest Service Allotments. BiOp at 17;

Draft EIS at 95. And, in the past five years, no grizzly bear/livestock conflicts on the Meyers Creek allotment have been reported. Draft EIS at 95.

The Draft EIS and the Biological Opinion considered the increasing interactions between humans and bears due to a growing grizzly bear population and wider and more intense human use and development. BiOp at 16. It also recognized that, due to changes in food availability, human-bear interactions might increase as grizzly bears search for other sources of nutrition. BiOp at 16. A change in grizzly bear diet may lead, the Service recognizes, to an increased probability that bears would predate on livestock. BiOp at 6.

While there is the possibility of encounters and conflicts between sheep and grizzly bears and project lands, the conservation and mitigation measures the USDA has committed to implementing will limit this risk. These measures, which were recognized by the Service in its Biological Opinion, include modifying grazing schedules and rotations, employing good husbandry practices to keep sheep healthy, keeping sheep herders, working dogs and guard dogs with sheep full-time when on rangelands, minimizing all unnatural bear attractants, providing formal training for employees and herders, encouraging herders to carry bear spray, allowing herders to discharge rifles to frighten inquisitive bears, and gathering and reporting information on bear activity and encounters. Draft EIS at 93-94; BiOp at 6-7; Range Report at 21. Additionally, the herds will not remain in any one place for very long; they are moved regularly. BiOp at 29; Draft EIS at 98. Such movements have been shown to reduce conflict between bears and humans. Draft EIS at 98.

After a thorough review of the Station's proposed action, anticipated effects of the project and scientific literature, the Service concluded that the practice of grazing sheep on the ARS lands and the Meyers Creek allotment is not likely to jeopardize the continued existence of the grizzly bear. BiOp at 36. The Service issued an incidental take statement allowing the Station to take up to three bears over the 10 year project term with certain conditions, including monitoring and annual reporting on sheep-bear conflicts and incidental takes and data gathering and analysis. BiOp at 39.

While the Draft EIS addresses connectivity in a stand-alone section, ARS should consider including a discussion of impacts to connectivity specific to the grizzly bear in the final EIS in this section. ARS should elaborate on why Alternative 1 will not inhibit the grizzly bear from using the ARS lands or the federal allotments to traverse its habitat.

ASI also recommends that ARS rely on the most recent version of the Service's biological opinion. The ARS provides an opinion dated May 30, 2014 with the Draft EIS. However, the Service issued an amended version on February 25, 2015 that considered additional documents. The Service maintained its no jeopardy conclusion, even with this new information.

## **2. Rocky Mountain Bighorn Sheep**

The USDA adequately considered the possible threats to the bighorn sheep under all alternatives. The agency concluded that, under Alternatives 1, 3, and 4, the potential interaction

between domestic and bighorn sheep ranged from non-existent to minimal. Draft EIS 115-116. The core habitat of the nearest bighorn sheep herd is approximately twenty miles away from the ARS properties. Draft EIS at 115. Because of this geographical separation, no interaction is expected to occur on the ARS properties. Draft EIS at 116.

There is one location where contact is possible—the Forest Service Snakey-Kelly allotments—but the probability of such contact is minimal. Draft EIS at 116. Seasonal and geographic separation, and the implementation of appropriate methods of minimizing contact, limit this possibility.

Discontinuing grazing on the Snakey-Kelly allotment would eliminate one theoretical instance where bighorn sheep might acquire microbial agents. However, it would likely not eliminate the chances of respiratory disease in bighorn sheep. Other factors determine the overall health of the bighorn sheep population, including endemic disease, other sources of disease, immunity to disease, nutrition, fragmented migration routes and limited winter ranges. Draft EIS at 116. As the USDA notes, it is “speculative that [Alternatives 2 and 5] would result in an observable change in the existing bighorn sheep herds’ condition, health, or population.” Draft EIS at 116.

Additionally, limiting sheep to the Mud Lake Feed Lot, as is proposed under Alternative 5, would impair the Station’s ability to further its dual mission of evaluating genetic development of sheep in the arid mountain west and developing sustainable range management systems. See Draft EIS at 43. The Station also provides a context in which to research and better understand the interactions between domestic and bighorn sheep and to develop ways to minimize and mitigate potential negative effects of this interaction. Limiting sheep to the Mud Lake Feed Lot would preclude this research.

The agency fully considered the potential impact to the bighorn sheep under all alternatives. The potential benefits for bighorn sheep under Alternative 5 is limited and the agency can more fully realize its statutory obligation and mission under the preferred alternative. This conclusion was based on “high quality” and “accurate scientific analysis” – the standard required under NEPA for evaluating alternatives in an environmental impact statement. 40 C.F.R. § 1500.1(b); 40 C.F.R. § 1500.1. *Lands Council v. Powell*, 395 F.3d 1019, 1031 (9th Cir. 2005). While future NEPA analysis might include the use of additional modeling, such as the Risk of Contact Analysis currently under development by the U.S. Forest Service, such modeling is not required for the Draft EIS as it is not yet available. The agency’s decision is based on high quality, available data and analysis.

The Station is to be commended for its collaborative work with Dr. Donald Knowles at ARS’s Animal Disease Research Unit in Pullman, Washington. The Animal Disease Research Unit possesses the best available science on infectious diseases. The Station is encouraged to provide this revised Draft EIS directly to Drs. Knowles and Highland at the Animal Disease Research Unit so that their special expertise may be fully exploited prior to issuance of the revised final EIS. Drs. Knowles and Highland should in turn provide written comments on the discussion of the effect of domestic sheep grazing at the Station on bighorn sheep both as to the

affected environment and the direct, indirect, and cumulative effects as a result of domestic sheep grazing under all alternatives.

### 3. Sage Grouse

The Draft EIS adequately considers the potential direct, indirect and cumulative effects of all alternatives to the sage-grouse. The USDA makes clear that negative effects to the sage-grouse under any alternative selected will be minimal, if not completely neutral. If anything, the Draft EIS fails to fully consider the beneficial effects continued grazing will have on the sage-grouse, as discussed below.

Under the preferred alternative, grazing may negatively affect sage-grouse from mid-April through mid-June on the Headquarters pasture, from late June to early July on the Henninger Ranch property and from September to November again on the Headquarters pasture. Wildlife Report at 39-40. Potential negative effects of grazing amount to temporary displacement of sage-grouse. Wildlife Report at 39-41.

There are benefits to continued grazing on the ARS lands that are only given limited discussion by the ARS. The agency recognizes that sheep grazing can lead to increased forb and herb cover and significantly greater live shrub cover. Wildlife Report at 40. The agency should review studies that discuss the potential benefits of grazing on sage-grouse habitat. Impacts to sage-grouse under Alternatives 4 and 5 are similar or the same as the preferred alternative.

The Draft EIS concludes that overall effects under Alternative 2, which discontinues grazing on all ARS lands and Forest Service allotments, would be essentially neutral. The potential positive benefits of avoiding sage-grouse displacement by eliminating grazing in sage-grouse habitat would be offset by the loss of the benefits of grazing – increased forb and herb cover, greater live shrub cover and an increase in the mosaic among forb, grass and shrub cover created through Station activities.

Under Alternative 3, grazing patterns at Headquarters pastures and Henninger Ranch would change, resulting in long-duration low-intensity grazing and increased long-term avoidance by sage-grouse. Wildlife Report at 40. The long-duration low-intensity grazing would result in decreased forb availability for sage-grouse. Wildlife Report at 40. Additionally, this increased duration would make implementing conservation measures difficult. The planned prescribed burning under this alternative would only exacerbate the problem, leading to a short-term decrease in forb abundance and diversity. Wildlife Report at 40-41.

The Draft EIS recognizes that prescribed burning may negatively affect sage-grouse by causing temporary loss of nesting, brood-rearing, fall, and winter habitat for sage-grouse on 160 acre patches of ARS land. Draft EIS at 121; Wildlife Report at 40. That said, prescribed burning, like rotational and limited grazing, will likely result in long-term benefits for sage-grouse. The prescribed burning will increase the existing mosaic of shrubs, forbs and grasses on the ARS lands and will help maintain lek sites. Draft EIS at 40. ASI suggests that ARS consider the 2015 paper, *Postfire Shrub Cover Dynamics: A 70-Year Fire Chronosequence in Mountain Big Sagebrush Communities*, authored by Corey A. Moffet, J. Bret Taylor and D. Terrance

Booth, for information on the interaction between fire and sage grouse habitat. ASI also recommends that ARS consider the science produced by Idaho Governor Otter's Sage-Grouse Task Force and include the latest available science from the Idaho Department of Fish and Game as it relates to mapping of core, important, and general sage-grouse habitat in the vicinity of the Station.

#### **D. Soils**

The Draft EIS adequately considers the potential direct and indirect effects that each alternative may have on soil quality on the ARS lands. The agency appropriately highlights the fact that grazing on the ARS lands has taken place for decades – some lands have been grazed for over eighty years. Draft EIS at 144. Soil conditions have remained consistent or improved in some cases. Draft EIS at 144. Under the preferred alternative, the agency properly concludes that soil quality will remain consistent.

ASI commends ARS for its discussion of a 2008 study conducted by A.B. Leytem and S.S. Seefeldt on the effects of sheep bedding on soils and recommends ARS consult a 2011 publication by the same authors – *Sheep Bedding in the Centennial Mountains of Montana and Idaho: Effects on Vegetation*. This study suggests that, while bedding does have an impact on vegetation, vegetation is resilient and long-term use of sites does not have a significant impact on vegetation.

There seems to be an inconsistent conclusion regarding the use of herbicides under the alternatives. The Draft EIS states that herbicide use would decline or cease altogether under Alternatives 2-5. Draft EIS at 143. Later in the document, the agency explains that the use of the herbicide tebuthiuron would occur under all alternatives. Draft EIS at 170. The agency should clarify what herbicide applications will be used under each alternative.

While the agency does consider mitigation measures throughout its discussion of impacts to soil, the final EIS should consider a separate subsection where the agency provides that full discussion in a single location. The agency should also explain what mitigation measures it will take, those it will not, and why.

#### **E. Hydrology**

ASI commends the agency for providing a comprehensive consideration of the effects each alternative may have on they hydrologic resources in the project area. In the nearly thirty pages dedicated to effects on hydrology, the ARS fully explains the existing conditions on the lands, including degraded areas such as along sheep trails OD4 and OD5, the road to Blair Lake and the head of the North Fork of Tom's Creek.

In the final EIS, the agency may consider including a discussion of or reference to a 2012 publication titled *Water Quality Effects of Herded Stream Crossings by Domestic Sheep Bands*, authored by P.E. Clark, C.A. Moffet, G.S. Lewis, M.S. Seyfried, S.P. Hardegree and F.B. Pierson which looked at water quality in the context of sheep stream crossing in the Centennial Mountains. This paper notes that, while sheep crossings do lead to an increase in total suspended

solids and Escherichia coli, such increases only affect the immediate segment of the stream and do not last long. The paper provides insight on mitigation measures, such as selecting naturally hardened crossing points for sheep crossings and encouraging sheep to jump across small streams.

While there is some discussion of mitigation measures, the agency should include an additional section in its final EIS listing the conservation measures it considered to minimize sediment transport and maintain water quality.

### **Conclusion**

ASI appreciates this opportunity to comment on the USDA's Revised Draft EIS for the U.S. Sheep Experiment Station Grazing and Associated Activities Project. USDA has devoted significant staff resources and expertise to the development of the document.

Sincerely

THE AMERICAN SHEEP INDUSTRY  
ASSOCIATION

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