

Rangeland Resources

Consistent with 36 CFR §219.20(a), the following pages will supplement the Rangeland Capability section, page 3-669, of the Chapter 3 Rangeland Resources section of the 2003 Southwest Idaho Ecogroup Land and Resource Management Plans Final Environmental Impact Statement.

CURRENT CONDITIONS

Rangeland Capability

Domestic Sheep Grazing On the Payette National Forest

Similar to many areas throughout the West, large numbers of domestic sheep (*Ovis aries*) were grazed on Payette National Forest lands during the late nineteenth and early twentieth centuries. This practice significantly changed vegetation structure and composition and soil resources (Hockaday 1968, Jones 1989). Sheep were historically grazed across the entire Payette National Forest, including areas now classified as the Frank Church River of No Return Wilderness (Jones 1989). In 1915, 174,445 sheep were permitted on the Payette National Forest. This number declined throughout the twentieth century to 19,112 in 2005 (Hockaday 1968, USDA Forest Service 2006a).

Currently, domestic sheep are seasonally grazed on 24 sheep allotments on the Payette National Forest (Table RR-1a). Grazing on these allotments is distributed among four permittees, and comprises a total of 490,476 acres of the Payette National Forest. This acreage comprises 21 percent of the total acreage of the Payette National Forest and 32 percent of the nonwilderness acres.

Figure RR-1 displays the spatial location of the sheep allotments on the west zone of the Payette National Forest, and Figure RR-2 displays the sheep allotments on the east zone. Twenty-two percent of summer source habitat and 16 percent of winter source habitat for bighorn sheep is within domestic sheep allotments and trailing routes across source habitat (Figures RR-3 and RR-4). This habitat is essentially unavailable to bighorn sheep when domestic sheep are on the allotments. A risk of contact results from any overlap between source habitat and domestic sheep allotments and the travel corridors that bighorn sheep traverse between their naturally fragmented source habitats.

Like bighorn sheep, domestic sheep are known to travel long distances. A stray ewe traveled a minimum of 48 kilometers from private land to bighorn range, through very rugged terrain and heavy timber, and across at least one river (Coggins 2002).

Table RR-1a. Permit Information for Payette National Forest Sheep Allotments (USDA Forest Service 2006a)

Allotment	Class	Permitted Number	Season On	Season Off	Headmonths
Smith Mountain	Ewe/lambs	1200	5/16	8/10	3432
	Dry ewes	1200	8/17	10/15	2367
	Ewe/lambs	1900	6/18	8/10	3373
	Dry ewes	1900	8/17	10/15	3748
Curren Hill	Dry ewes	1925	9/1	9/30	1899
Boulder Creek	Ewe/lambs	1000	6/16	8/31	2532
Price Valley	Ewe/lambs	895	6/16	8/31	2266
Surdam	Ewe/lambs	1900	4/1	6/30	284
Shorts Bar	Dry ewes	1600	9/20	10/7	907
Hershey-Lava	Ewe/lambs	1333	7/10	9/15	2980
French Creek	Ewe/lambs	833	7/7	10/7	2547
Bear Pete	Ewe/lambs	833	7/7	10/7	2547
Marshall Mountain	Ewe/lambs	834	7/7	10/7	2550
Vance Creek	Dry ewes	2666	9/15	10/15	2717
Little French Creek	Dry ewes	1333	7/10	7/20	444
Josephine	Ewe/lambs	1333	7/10	9/15	2980
Victor-Loon	Dry ewes	1500	8/26	10/10	2268
Grassy Mountain	Ewe/lambs	1333	7/10	9/15	2980
Slab Butte	Ewe/lambs	1333	7/10	9/15	2980
Cougar Creek	Ewe/lambs	1333	7/10	9/15	2980
Twenty Mile	Ewe/lambs	1333	7/10	9/15	2980
Brundage	Dry ewes	2666	9/15	10/15	2717
Bill Hunt	Dry ewes	2666	9/15	10/15	2717
Fall/Brush Creek	Ewe/lambs	800	7/1	8/25	1473
North Fork Lick Creek	Dry ewes	1500	8/25	8/25	50
Lake Fork	Ewe/lambs	817	7/1	8/25	1504
Jughandle	Dry ewes	2000	7/10	10/15	6444

Figure RR-1. Domestic Sheep Allotments and Trailing Routes for the West Zone of the Payette National Forest

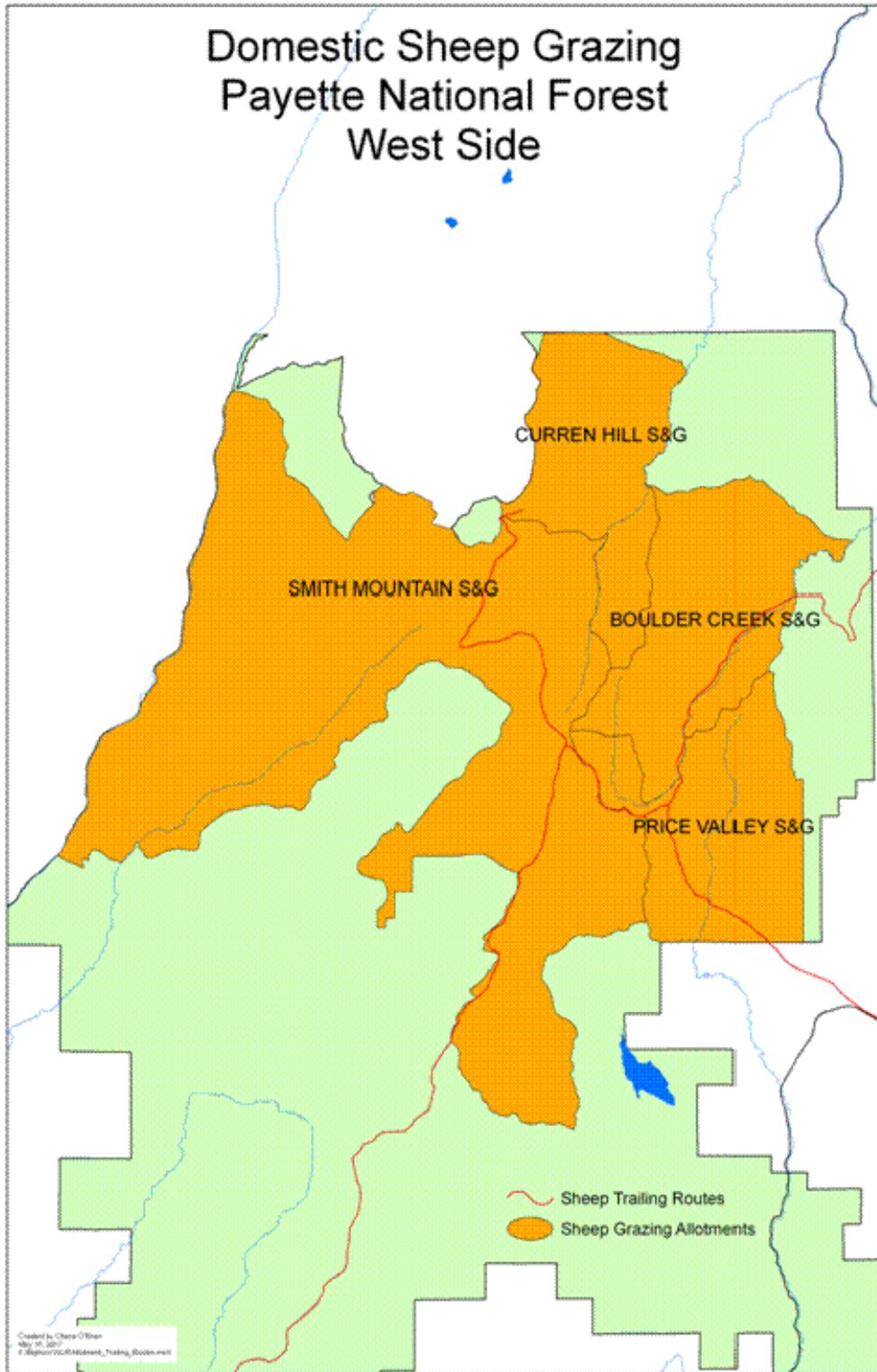


Figure RR-3. Domestic Sheep Allotments and Current Summer Source Habitat on the Payette National Forest

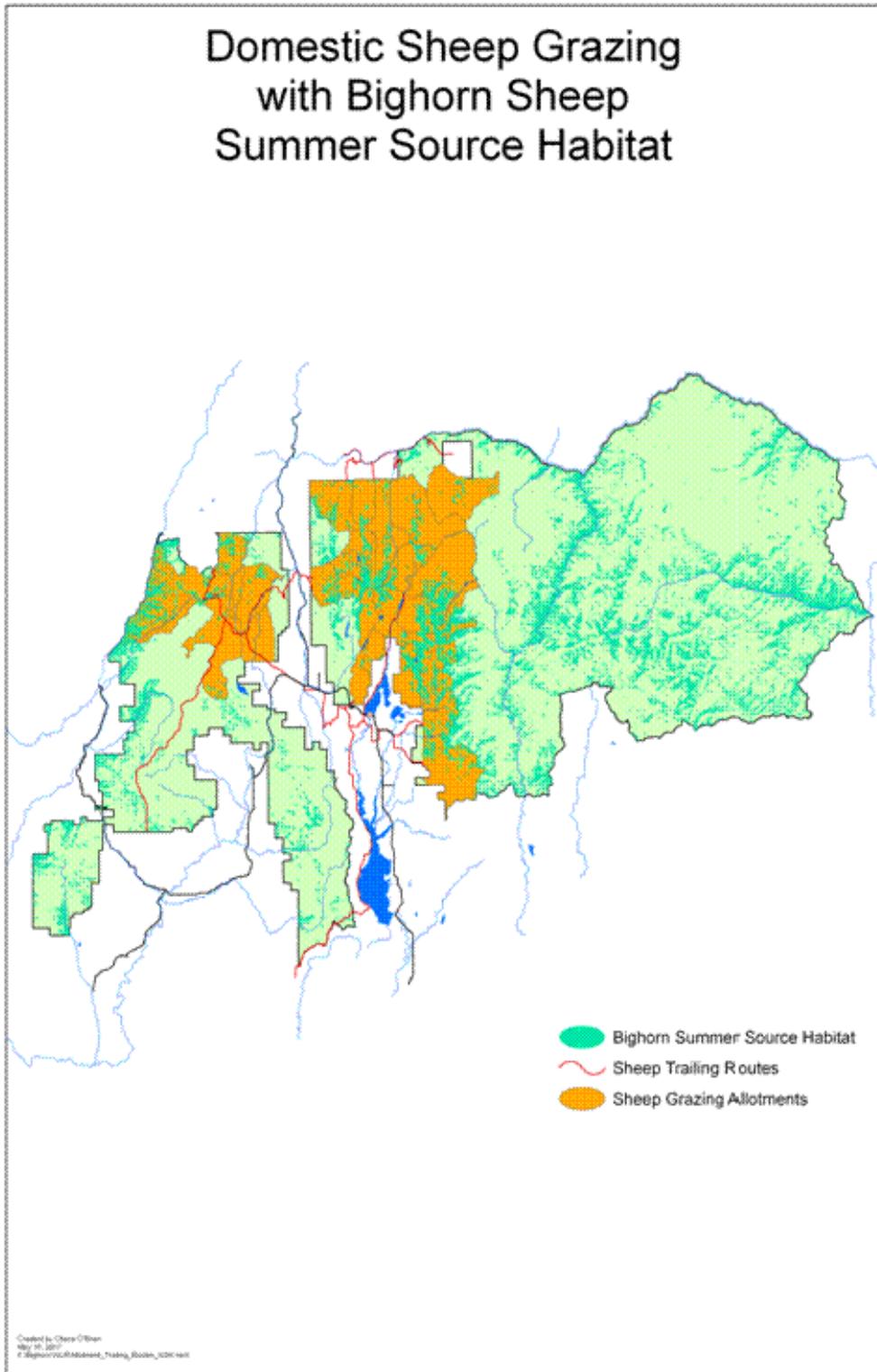
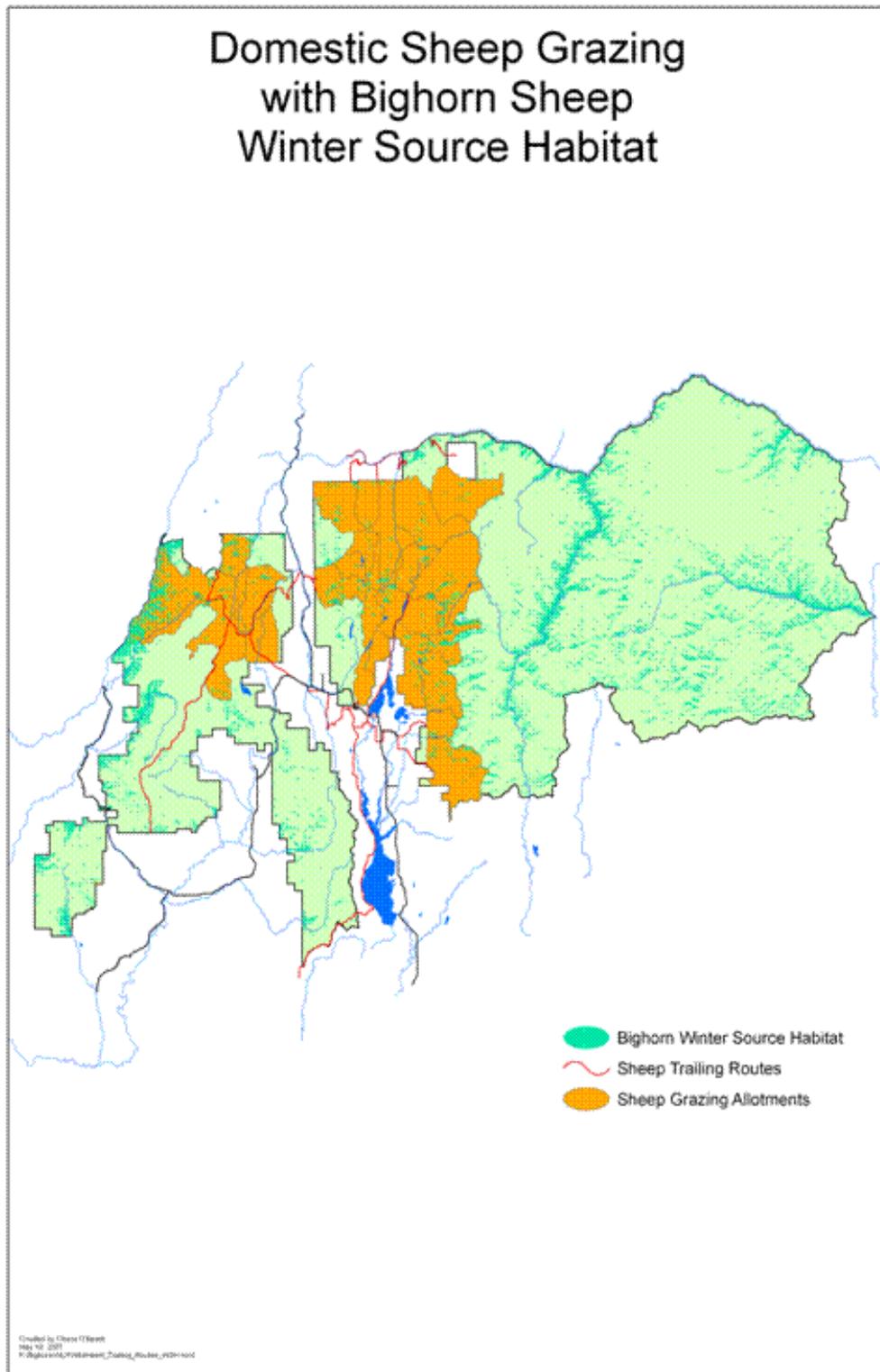


Figure RR-4. Domestic Sheep Allotments and Current Winter Source Habitat on the Payette National Forest



Consistent with 36 CFR §219.20(a), the following paragraph will replace paragraph one of the Current Conditions, Vacant Allotments section and Table RR-6 will replace the existing Table RR-6 of the Vacant Allotment section, page 3-671, of the Chapter 3 Rangeland Resources section of the 2003 Southwest Idaho Ecogroup Land and Resource Management Plans Final Environmental Impact Statement.

Vacant Allotments

There are eight vacant allotments on the Boise National Forest containing 32,041 acres capable of supporting livestock, and one vacant allotment on the Payette National Forest containing 2,413 acres capable of supporting livestock. Most of these allotments have been vacant since the 1980s. An analysis was conducted to determine which of these allotments or portions of the allotments have value from a livestock grazing standpoint and should be retained, and which ones have little to no value and should be closed. See Technical Report No. 3 for information related to allotment analysis. Table RR-6 displays a summary of the vacant allotments considered in determining rangeland suitability.

Table RR-6. Existing Vacant Allotments

National Forest	Allotment Name	Adjacent to Active Allotments	Livestock Type Best Suited for Use	Other Resource Considerations
Boise	Anderson Creek	Yes	Sheep	Yes
Boise	Bull Trout	Yes	Sheep	Yes
Boise	Deadwood East	Yes	Sheep	Yes
Boise	Eight Mile	No	Sheep	Yes
Boise	Five Mile	No	Sheep	Yes
Boise	Fir Creek	Yes	Sheep	Yes
Boise	Sheep Creek	Yes	Sheep	Yes
Boise	Whitehawk	Yes	Sheep	Yes
Payette	Shorts Bar	Yes	Sheep	Yes

Consistent with 36 CFR §219.20(a), these paragraphs and Table RR-9 will replace the corresponding paragraphs and table of the Direct and Indirect Effects by Alternative, Rangeland Suitability section, page 3-676 through 3-678, of the Chapter 3 Rangeland Resources section of the 2003 Southwest Idaho Ecogroup Land and Resource Management Plans Final Environmental Impact Statement. Tables RR-8 and RR-10 are unchanged and can be found in the 2003 Southwest Idaho Ecogroup Land and Resource Management Plans Final Environmental Impact Statement.

Direct and Indirect Effects by Alternative

Rangeland Suitability

The Boise, Payette, and Sawtooth National Forests capable rangelands were analyzed for grazing suitability by alternative. This analysis considered other uses or values of the area and also identified areas where grazing may not be appropriate. See Rangeland Resources

Technical Report No. 3 for detailed information. Tables RR-8 through RR-10 display the acres of suitable rangelands by Forest and the deductions used to determine suitability, by category, for each alternative. Overall, Alternatives 4 and 6 generally have the least amount of suitable rangelands. For the Payette National Forest, Table RR-9 indicates Alternatives 7E, 7G, 7H, 7J, and 7K retain the least amount of capable rangelands as suitable for domestic livestock grazing. Alternatives 7, 3, 4, and 6 retain the most acres of capable rangelands as suitable for domestic livestock grazing. The following paragraphs identify the other resource considerations and their effects on the rangeland environment.

Acres Deducted Due to Closing Vacant Allotments—Closing vacant allotments eliminates the use of these areas for domestic livestock production in the future. Most of the allotments considered under this category are on the Boise National Forest; one, Shorts Bar, is on the Payette National Forest. Areas capable of supporting livestock would be removed from the suitable grazing land base. Closures could have positive effects on other resources but could also have negative effects on livestock management, depending on site-specific conditions. Vegetative composition and vigor would be expected to improve with these deductions, due to the limited amounts of arid or semiarid vegetation cover types. Some southern exposures may not see significant long-term vegetative recovery due to the potential spread of non-native plants and the semiarid conditions. Big-game winter and summer range would follow a similar pattern. Groundcover would continue to increase on more mesic sites, providing for improved soil stability, thereby reducing potential sedimentation to bull trout and other fish habitat. Vegetation management options with livestock would not necessarily be precluded with the closing of allotments. Permits could still be issued for other purposes (FSM 2234, Livestock Use Permits), such as vegetation management, research, and livestock transportation or crossing access. Closing the vacant allotments would not automatically reduce headmonths currently permitted. However, closures could potentially reduce future management flexibility by eliminating the possibility of using the allotments to resolve future conflicts between livestock grazing and other resources on active allotments, or to provide alternative forage in drought years. This reduction could indirectly affect the management and use of private lands surrounding the Payette National Forest, based on the likelihood that livestock would have to leave the Payette National Forest early and return to privately owned or leased lands.

Table RR-6 provides the complete list of vacant allotments considered in this suitability deduction, and Tables RR-8 (Boise National Forest) and RR-9 (Payette National Forest) provide the capable acres associated with the allotments removed as suitable rangeland by alternative. Alternatives 2, 3, 4, 6, and 7 would remove 32,041 acres from the suitable rangelands, based on the closure of eight vacant allotments on the Boise National Forest. Alternatives 1B and 5 would not remove any acres from the Boise National Forest. For the Payette National Forest, Alternatives 7E, 7G, 7H, 7J, and 7K would remove 2,413 acres from the suitable rangelands, based on the closure of one vacant allotment that is within bighorn sheep habitat.

Acres Deducted Due to Bighorn Sheep Habitat—Discontinuing domestic sheep grazing in overlapping areas used by domestic sheep and bighorn sheep would reduce the risk of disease transmitted to bighorn sheep. For the Sawtooth National Forest, domestic sheep grazing would be discontinued by phasing out, on an opportunity basis, suitable rangeland portions of

domestic sheep allotments that overlap current bighorn sheep habitat, or by converting use to cattle, where feasible. This action may help existing bighorn sheep populations stabilize or increase in these areas. See the *Terrestrial Habitat and Species* section for more information. Areas deducted from the suitable rangelands for sheep may have a long-term effect on overall headmonths for domestic sheep with the Ecogroup area. However, the potential effect on existing sheep operators will be minimal, as this will occur on an opportunity basis only, and in relatively small areas. The areas on the Sawtooth National Forest where this situation exists occur in MA 11 (Rock Creek), MA 12 (Cottonwood Creek), and MA 13 (Trapper Creek/Goose Creek) (66,506 acres). Alternatives 3, 4, 6, and 7 include these deductions; Alternatives 1B, 2, and 5 have no deductions (Table RR-10).

Capable rangeland acres within domestic sheep allotments that overlap bighorn sheep habitat occur broadly across the Payette National Forest. Domestic sheep grazing would be discontinued within these areas to reduce the potential risk of contact with bighorn sheep and would result in a long-term effect on the overall headmonths for domestic sheep grazing on the Payette National Forest. The MA’s on the Payette National Forest with capable rangeland within domestic sheep allotments that overlap bighorn sheep habitat and would be deducted from domestic grazing include: MA 1 (Hells Canyon), MA 2 (Snake River), MA 3 (Weiser River), MA 4 (Rapid River), MA 5 (Middle Little Salmon River), MA 6 (Goose Creek/Hazard Creek), MA 7 (Payette Lakes), MA 8 (Kennally Creek), MA 9 (Lake Creek/French Creek), MA 10 (Fall Creek/Warren Creek), MA 11 (Upper Secesh River), and MA 12 (South Fork Salmon River). The amount of capable rangeland deducted from domestic sheep allotments varies by alternative. The total amount of suitable rangeland remaining for domestic sheep and cattle grazing is displayed by alternative in Table RR-9.

Table RR-9. Payette National Forest Rangeland Suitability Acres by Alternative

Criteria	Alt. 7	Alt. 7E	Alt. 7G	Alt. 7H	Alt. 7J	Alt. 7K	Alts. 3, 4, and 6
Capable Acres ¹	233,672	233,672	233,672	233,672	233,672	233,672	233,672
Vacant Allotment Acres Deducted ²	0	2,413	2,413	2,413	2,413	2,413	0
Bighorn Habitat Acres Deducted	0	100,310	61,842	94,231	58,785	24,981	6,113
Total Deductions	0	100,310	61,842	94,231	58,785	24,981	6,113
Total Suitable Acres³	233,672	133,362	171,830	139,441	174,887	208,691	227,559

¹ Includes all capable rangeland for both cattle and sheep allotments.

² The vacant allotment acres deducted are within the area deducted for bighorn habitat and to avoid double counting these acres are therefore not added into the total deductions.

³ Includes all capable rangeland that remains suitable for livestock grazing for both cattle and sheep allotments.

Tribal Rights and Interests

TRIBAL RIGHTS AND INTERESTS INTRODUCTION

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 general federal trust duties and treaty specific statutory obligations. Availability of traditional and/or culturally important terrestrial and aquatic plant and animal species in sufficient and desirable quantities to satisfy off-reservation reserved rights is of particular interest. Tribal interests and uses are protected through various federal statutes, laws, policies and regulations (Appendix H in the Forest Plan [USDA Forest Service 2003]). The federal trust doctrine requires federal agencies to manage the lands under their stewardship with full consideration for all valid tribal rights and interests.

Availability of economically and 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. A more thorough analysis for bighorn sheep is now complete and is provided in Chapter 3 of this DSEIS. The federal tribal statutory duties are also being reassessed to determine the effects on the availability of bighorn sheep for Tribal harvest 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 specifically 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.

Consistent with 36 CFR §219.20(a), the following paragraphs will replace paragraphs one, two, and three of the Governmental Interests in the Boise, Payette, and Sawtooth National Forests section, page 3-800, of the Chapter 3 Tribal Rights and Interests section of the 2003 Southwest Idaho Ecogroup Land and Resource Management Plans Final Environmental Impact Statement.

INTRODUCTION

Governmental Interests in the Boise, Payette, and Sawtooth National Forests

The Nez Perce, Shoshone-Bannock, Shoshone-Paiute, and the Confederated Tribes of the Umatilla Indian Reservation interests goes beyond that of spiritual, cultural, and economic to the unique legal relationship that the United States government has with American Indian tribal governments. Federally recognized tribes are sovereign nations who work with the federal government and its agencies through the process of government-to-government consultation. The federal trust relationship with each tribe was recognized by, and has been addressed through, the Constitution of the United States, treaties, executive orders, statutes,

and court decisions. In general, these mandates protect and enhance interests and uses on the three Forests (see *Resource Protection Methods* below and Appendix H in the Forest Plan [USDA Forest Service 2003]). The federal trust doctrine requires federal agencies to manage the lands under their stewardship with full consideration of tribal rights and interests. In addition, the Forest Service must ensure that the statutory reserved rights of Tribes on National Forest Service lands are provided.

The ancestors of the modern day Nez Perce, Shoshone-Bannock, Shoshone-Paiute, and the Confederated Tribes of the Umatilla Indian Reservation were present in the Ecogroup area long before the establishment of the Boise, Payette, and Sawtooth National Forests. Many of the treaties and executive orders signed by the United States government in the mid-1800s reserved homeland for the tribes. Additionally, the treaties with the Nez Perce, Shoshone-Bannock, and Confederated Tribes of the Umatilla Indian Reservation reserved certain rights outside of established reservations, including fishing, hunting, gathering, and grazing rights.

The following excerpts from the treaties with the Nez Perce, the Shoshone-Bannock, the Confederated Tribes of the Umatilla Indian Reservation, and the Executive Order with the Shoshone-Paiute are provided as examples of the rights that the tribes have, and where they can exercise these rights.

Consistent with 36 CFR §219.20(a), the following paragraph will supplement the Governmental Interests in the Boise, Payette, and Sawtooth National Forests section, pages 3-800 through 3-801, of the Chapter 3 Tribal Rights and Interests section of the 2003 Southwest Idaho Ecogroup Land and Resource Management Plans Final Environmental Impact Statement.

Treaty Between The Cayuse, Umatilla, and Walla Walla Tribes Acting In Confederation of 1855: Article I in this treaty states:

That the exclusive right of taking fish in the streams running through and bordering said reservation is hereby secured to said Indians, and at all other usual and accustomed stations in common with citizens of the United States, and of erecting suitable buildings for curing the same; the privilege of hunting, gathering roots and berries and pasturing their stock on unclaimed lands in common with citizens, is also secured to them.

Consistent with 36 CFR §219.20(a), the following table and paragraph will replace Table TR-1 and paragraph three of the Cultural Interests in the Boise, Payette, and Sawtooth National Forests section, page 3-802, of the Chapter 3 Tribal Rights and Interests section of the 2003 Southwest Idaho Ecogroup Land and Resource Management Plans Final Environmental Impact Statement.

CURRENT CONDITIONS

Cultural Interests in the Boise, Payette, and Sawtooth National Forests

Table TR-1. Federally Recognized Tribes within the Ecogroup Area

Federally Recognized Tribe	Culture Area	Name of Bands within Tribe
Nez Perce Tribe	Plateau	Nez Perce (Ni mii puu)
Shoshone-Bannock Tribes (Fort Hall Reservation)	Great Basin	Eastern Shoshone (Sosoni) (including Lemhi), Bannock
Shoshone-Paiute Tribes (Duck Valley Reservation)	Great Basin	Western Shoshone, Northern Shoshone, Northern Paiute
Confederated Tribes of the Umatilla Indian Reservation	Plateau	Cayuse, Umatilla, and Walla Walla

The gathering of these and other natural resources is still a significant part of the individual cultures of the Nez Perce, Shoshone-Bannock, Shoshone Paiute, and the Confederated Tribes of the Umatilla Indian Reservation. The tribes see the continuation of gathering as an important link to their past as well as an essential ingredient to their continuing culture. Because of their concern with the continuation of this aspect of their cultures, the tribes are taking an increasingly active role in protecting and restoring various species of plants, animals, and fish. Where these treaty-guaranteed resources exist within the tribes aboriginal use areas on the Payette we have a statutory duty to protect and enhance them for the benefit of the Tribe.

Consistent with 36 CFR §219.20(a), the following paragraph will supplement the Cultural Interests in the Boise, Payette, and Sawtooth National Forests section, page 3-803, of the Chapter 3 Tribal Rights and Interests section of the 2003 Southwest Idaho Ecogroup Land and Resource Management Plans Final Environmental Impact Statement.

Factors Affecting Tribal Rights and Interests

The analysis on the effects to tribal rights and interests related to bighorn sheep is tied directly to the following factors: 1) the continued persistence of the species over time in harvestable numbers; 2) the historical number of animals as it relates to present and future habitat carrying capacity; 3) the tribes annual harvest need; 4) the number harvested by non-tribal members; and 5) the historical locations the tribal members wish to utilize for their hunts. The effects are directly related to 1) the analysis discussions found in the *Terrestrial Wildlife Habitat and Species* section of this supplemental analysis; 2) the amount of source habitat available for bighorn sheep; and 3) the distribution of the bighorn sheep source habitat. The *Terrestrial Wildlife Habitat and Species* section provides detailed description of

source habitat, the current GPR of the species on the Payette National Forest, and of modeling methods used to estimate the potential relative risk of contact between bighorn sheep and domestic sheep with the subsequent implications for reasonable numbers of harvestable animals for the Tribes.

Consistent with 36 CFR §219.20(a), the following paragraphs will replace corresponding paragraphs of the Effects Common To All Alternatives section, page 3-803, of the Chapter 3 Tribal Rights and Interests section of the 2003 Southwest Idaho Ecogroup Land and Resource Management Plans Final Environmental Impact Statement.

ENVIRONMENTAL CONSEQUENCES

Effects Common to All Alternatives

Resource Protection Methods

Forest Plan Direction—Management direction for other resource programs—such as vegetation, soils, water, riparian, aquatic, and wildlife—is designed to provide for habitat and watershed conditions that contribute to species populations at sustainable and harvestable levels (see revised Forest Plan, Chapter 3, Forest-wide Management Direction [USDA Forest Service 2003]). Direction has also been provided at the MA level to address special areas of concern to the tribes, such as the South Fork Salmon River, Bear Valley Creek, Hells Canyon, and the main Salmon River Canyon.

General Effects

Species Viability—Under the Endangered Species Act (ESA), the Forest Service must comply with direction to protect threatened and endangered species, including Chinook salmon and steelhead trout, which are of great interest to the tribes. The latest direction from biological opinions and conservation strategies for these species has been incorporated into the Forest Plan (USDA Forest Service 2003), and this direction would be followed under all alternatives. Similar direction exists for a wide range of Region 4 sensitive fish, wildlife, and plant species, and the overall objective is to manage conditions so that these species do not have to be listed under the ESA. Although bighorn sheep have no status under the ESA, the U.S. Fish and Wildlife Service is concerned about their population status and threats to their local viability. Prevention of disease transmission between domestic and wild sheep is an important management concern [36 CFR 219.20(b)].

Many of the species found on the Ecogroup Forests, including salmon, steelhead, and bighorn sheep, are wide-ranging, anadromous, or migratory, only spending part of their lives here. Thus, the primary influence that Forest Service management activities have on these species is related to changes in the habitats they use while they are here or whether or not the habitat is available without the risk of contact between wild and domestic sheep. These changes can be positive or negative, temporary to long term, and they can influence the amount of habitat available, the condition of that habitat, and vulnerability to disturbance or mortality within that habitat. These changes can also occur from natural events, and Forest Service management can indirectly affect the likelihood, size, and timing of such events through activities such as vegetation manipulation, fire suppression, and fire use.

Potential habitat and disturbance effects from Forest Service management activities and natural events are described for species in the following sections of Chapter 3: *Soil, Water, Riparian, and Aquatic Resources, Terrestrial Wildlife Habitat and Species, Botanical Resources, and Range Resources*. In addition, potential effects to vegetation habitat components from management activities and natural events are presented in the *Vegetation Diversity, Vegetation Hazard, and Fire Management* sections. Although effects differ by alternative in these analyses, no alternative would result in significant negative effects to species viability. For listed species, threats are reduced by management direction and the aquatic conservation strategy, which minimize or avoid negative effects on these species. Over the long term, the recovery strategy would contribute to species viability and improvement of watershed conditions. For Chinook salmon and steelhead trout, habitat restoration and protection under all alternatives would contribute positive effects to species viability over the short and long term, although the cumulative off-forest effects from activities such as commercial harvest, or facilities such as hydroelectric dams would still pose serious threats. Short-term or temporary effects from restoration activities would be mitigated by Forest Plan direction, best management practices, and other resource protection methods.

Consistent with 36 CFR §219.20(a), the following paragraphs will supplement the Effects Common To All Alternatives section, page 3-803 through 3-805, of the Chapter 3 Tribal Rights and Interests section of the 2003 Southwest Idaho Ecogroup Land and Resource Management Plans Final Environmental Impact Statement.

The alternatives added for this supplemental analysis contain a range of the effects for the potential risk of contact between bighorn sheep and domestic sheep, with subsequent implications for persistence of bighorn sheep populations over time and their potential distribution across the Payette National Forest, as discussed in the wildlife resources section.

Briefly, Alternative 7E, followed by Alternative 7H, reduce to the greatest extent the potential relative risk of contact between bighorn sheep and domestic sheep. Alternative 7G and Alternative 7J would minimize the potential relative risk of contact, but less so than Alternatives 7E and 7H. However, they do have some differences between them. Alternative 7G does not allow domestic sheep grazing in the bighorn sheep GPR. Alternative 7J, however, allows domestic sheep grazing within the GPR, as much as 15 percent of the Hells Canyon GPR and 5 percent of the Salmon River GPR. This poses a potential risk not reflected by the other numbers for this alternative (such as total risk, risk ratio, category risk, and source habitat). Neither Alternative 7G nor 7J add additional protection around the GPR. Alternative 7K and then Alternatives 3, 4, and 6 would be ranked next for minimizing relative risk, although they both leave a substantial amount of relative risk on the landscape due to the amount open to permitted domestic sheep grazing.

For the reasons listed above related to bighorn sheep, there could be significant direct, indirect, or cumulative negative effects expected to the viability of treaty resources or traditional and cultural species of interest to American Indians as a result of National Forest activities. In this case, the negative impacts are tied to domestic sheep grazing in the current bighorn sheep GPR on the Payette National Forest.

Harvest Ability—Some alternatives could have considerable negative effects on species viability and thus harvest ability. Ample source habitat is well distributed across the Payette National Forest. However, the habitat is not available to bighorn sheep if domestic sheep are present in or nearby the habitat. Current numbers of bighorn sheep are well below historical levels, which also impacts tribal ability to harvest the animal. Current uses of the habitat by domestic sheep, adjacent to known populations of bighorn sheep, impact the ability of the depressed populations to pioneer, explore, expand, or co-mingle with other isolated groups as needed to increase their numbers. The result is a reduced area from which the tribes can hunt that may or may not overlay with areas that were historically and/or traditionally important. The wildlife resources section contains an in-depth discussion of the effects to the potential relative risk of contact and subsequent implications for viability.

Alternatives 1B, 2, 3, 4, 5, 6, 7, and 7K greatly reduce the harvest ability for tribal members. These alternatives continue to have a high risk of the potential relative risk of contact between bighorn sheep and domestic sheep as allotments continue to be grazed within and around the bighorn sheep GPR. Because of the proximity to domestic sheep, bighorn sheep are not afforded the opportunity to pioneer, explore, or expand into adjacent source habitat and thus increase the opportunity for tribes to hunt in traditional areas and at greater harvest levels. These alternatives may have a considerable effect on the harvest ability of bighorn sheep for tribes.

Alternative 7J provides for a greater opportunity for tribal harvest. However, domestic sheep grazing is still permitted within the GPR in some locations, which increases the likelihood of contact between the two sheep species.

Alternative 7G may provide for greater opportunity for tribal harvest. With no domestic sheep grazing permitted within the GPR, contact between the two species is reduced. However, this alternative has the potential for a relative risk of contact between bighorn sheep and domestic sheep due to other factors discussed in the *Terrestrial Wildlife Habitat and Species* section.

Alternative 7H has a minimal potential for the relative risk for contact between the two sheep species and greatly increases the potential area for tribal members to hunt in traditional areas. With domestic sheep grazing not permitted within 9 miles of the GPR, bighorn sheep have a large opportunity to explore and expand into source habitat. However, it is difficult to predict how rapid the exploration and expansion into these areas will be, or if it will ever occur. Once, or if bighorn sheep expand, contact may occur, but the short-term likelihood is minimal.

Alternative 7E removes all relative risk of contact between bighorn and domestic sheep as no domestic sheep grazing is permitted on the Payette National Forest. In the long term, it may provide the greatest ability to harvest bighorn sheep in all traditional locations influenced by the Payette National Forest. However, it is impossible to predict if expansion will occur and if so, how long it could take.

Cumulative Effects—Other federal, state, and private lands in and around the Payette National Forest permit livestock grazing or contain small farm flocks. It is important to be aware of this fact for even if all permitted domestic sheep grazing is removed from the

Payette National Forest, the relative risk of contact may still continue. This in turn affects the continued viability and persistence over time of the bighorn sheep species. This DSEIS and subsequent decision and amendment to the Forest Plan (USDA Forest Service 2003) affect only the Payette National Forest lands. Even so, any increase in the amount of available bighorn source habitat reduces the relative risk of contact with domestic sheep. This allows the species to explore, pioneer, and interact with other members of the population and thus expand and restore to higher numbers over time.

It is important to note, that the gregarious nature of bighorn sheep and their ability to travel great distances in a short period of time, does lead to the potential for spread of disease to be far reaching. The impacts to tribal hunting opportunities are not confined within the boundary of the Payette National Forest. Disease spread that originates within the confines of the Forest has the ability to affect tribal treaty resources off Forest. As infected bighorn sheep move across the landscape, the potential for disease transmission stair-steps from one herd to another as their home ranges overlap one another.

For the reasons described above and in conjunction with those outlined previously, there are varying degrees of direct, indirect, and cumulative effects to the ability of tribal members to harvest bighorn sheep on the Payette National Forest for social, cultural, and subsistence purposes.

Socio-Economic Environment

SOCIO-ECONOMIC ENVIRONMENT INTRODUCTION

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

1. Provide updated economic profiles of 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), the following paragraphs will supplement the National and International section, pages 3-910 through 3-939, of the Chapter 3 Socio-Economic Environment section of the 2003 Southwest Idaho Ecogroup Land and Resource Management Plans Final Environmental Impact Statement.

CURRENT CONDITIONS

National and International

Communities

Introduction—The economic impacts of the sheep allotments on the Payette National Forest under considerations occur in three communities: Riggins, Idaho; Weiser, Idaho; and Wilder Idaho. An economic profile for each community was constructed for this analysis.

Community Profiles—The community profiles of Riggins and Weiser have been updated from those reported in the earlier FEIS. The Wilder profile is a new addition. Several important changes have occurred in both information technology and the government data processes since the FEIS profiles were constructed. First, the United States government switched from the Standard Industrial Classification to the North American Industrial Classification System. This fundamentally altered the way that industry data are calculated and aggregated. It also makes some comparisons difficult before and after the change. Secondly, the prior profiles were based on pre-2000 census data. The 2000 census has provided more accurate baseline data for the community models. Finally, EMSI has adopted new and dynamic innovations in constructing community models. Governmental databases for rural regions extend only to the county level for most data series. EMSI processes take it to the community level.

Riggins

Table SO-0a illustrates the 2006 economic profile of Riggins, Idaho.

Table SO-0a. 2006 Economic Profile of Riggins

Aggregated Industrial Category	Total Jobs Per Industry	Jobs Per Industry (%)	Earnings (\$1,000)	Earnings Per Industry (%)	Total Sales Per Industry (\$1,000)	Sales Per Industry (%)	Earnings Per Worker (\$1,000)
Ag., forestry, fishing, and hunting	127	18.2	1,444	10.0	6,169	11.9	11
Mining	13	1.9	707	4.9	2,526	4.9	56
Utilities	<10	N/A	60	0.4	230	0.4	130
Construction	45	6.4	1,016	7.0	2,312	4.4	22
Manufacturing	<10	N/A	88	0.6	376	0.7	39
Wholesale trade	<10	N/A	78	0.5	198	0.4	15
Retail trade	68	9.7	1,086	7.5	2,321	4.5	16
Transportation / warehousing	13	1.9	379	2.6	937	1.8	28
Information	<10	N/A	18	0.1	53	0.1	23
Finance and insurance	<10	N/A	168	1.2	572	1.1	38
Real estate and rental and leasing	56	8.0	905	6.3	5,201	10.0	16
Professional and technical services	<10	N/A	71	0.5	133	0.3	8
Company management	0	0.0	0	0.0	0	0.0	0
Administrative and waste services	<10	N/A	71	0.5	133	0.3	8
Educational services	12	1.7	246	1.7	444	0.9	21
Health care and social assistance	48	6.9	1,126	7.8	2,000	3.8	23
Arts, entertainment, and recreation	15	2.1	145	1.0	414	0.8	9
Accommodation and food services	82	11.7	831	5.8	2,386	4.6	10
Other services	17	2.4	203	1.4	361	0.7	12
Government	175	25.1	5,707	39.5	25,176	48.4	54
Total	698	100.0	14,440	100.0	52,043	100.0	18

The largest industry is government, providing the community with 175 jobs, \$5.7 million in earnings, and \$25.1 million in sales. The second largest industry is the agriculture, forestry, fishing, and hunting category, providing the community with 127 jobs, \$1.4 million in earnings, and \$6.2 million in sales. Of these jobs, 103 (81 percent) are in production agriculture. The third biggest industry in terms of employment is accommodation and food service (15.2 percent) followed by retail trade (12.6 percent). Riggins has a diverse economy

with strong tourist and agriculture sectors. In total, there are 698 jobs, \$14.4 million in earnings, and \$52 million in sales in Riggins.

Weiser

For Weiser (Table SO-qa), the largest industry is also the agriculture, forestry, fishing, and hunting category that provides the community with 1,185 jobs, \$17.5 million in earnings and \$51.6 million in sales. Of these jobs, 428 (36 percent) are in production agriculture and 756 (64 percent) are in agriculture and forestry support services. The second biggest industry in terms of employment is federal, state, and local government, which supplies 638 jobs. The third largest industry is manufacturing (13.2 percent), with 580 jobs. Weiser has a diverse economy that has strong wood products and agriculture sectors. In total, there are 4,398 jobs, \$106.6 million in earnings, and \$406 million in sales in Weiser.

Table SO-qa. 2006 Economic Profile of Weiser

Industry	Jobs	Jobs Per Industry (%)	Earnings (\$1,000)	Earnings Per Industry (%)	Sales (\$1,000)	Sales Per Industry (%)	Earnings per Worker (\$1,000)
Ag., forestry, fishing, and hunting	1,185	26.9	17,485	16.4	51,578	12.7	15
Mining	<10	N/A	45	0.0	153	0.0	15
Utilities	<10	N/A	275	0.3	1,891	0.5	253
Construction	209	4.8	5,306	5.0	12,071	3.0	25
Manufacturing	580	13.2	21,983	20.6	101,333	25.0	38
Wholesale trade	100	2.3	3,380	3.2	8,606	2.1	34
Retail trade	348	7.9	7,203	6.8	15,388	3.8	21
Transportation / warehousing	193	4.4	7,274	6.8	16,291	4.0	38
Information	22	0.5	635	0.6	2,174	0.5	29
Finance and insurance	60	1.4	2,345	2.2	8,379	2.1	39
Real estate and rental and leasing	176	4.0	2,564	2.4	15,730	3.9	15
Professional and technical services	162	3.7	3,763	3.5	7,893	1.9	23
Company management	<10	N/A	52	0.0	84	0.0	36
Administrative and waste services	61	1.4	847	0.8	2,084	0.5	14
Educational services	<10	N/A	41	0.0	83	0.0	27
Health care and social assistance	296	6.7	6,121	5.7	10,744	2.6	21
Arts, entertainment, and recreation	48	1.1	933	0.9	2,169	0.5	19
Accommodation and food services	209	4.8	1,740	1.6	5,203	1.3	8
Other services	103	2.3	1,573	1.5	3,174	0.8	15
Government	638	14.5	23,001	21.6	140,882	34.7	36
Total	4398	100.0	106,568	100.0	405,910	100.0	24

Wilder

For Wilder (Table SO-r), the largest industry is the agriculture, forestry, fishing, and hunting category that provides the community with 800 jobs, \$18.6 million in earnings, and \$76.8 million in sales. Of these jobs, 704 (88 percent) are in production agriculture. The second biggest industry in terms of employment is manufacturing, with 519 jobs (25.3 percent). The third largest industry is government, which supplies 214 jobs (10.4 percent). Wilder has a

diverse economy that has strong food processing and agriculture sectors. In total, there are 2,048 jobs, \$59.6 million in earnings, and \$281.5 million in sales in Wilder.

Table SO-r. 2006 Economic Profile of Wilder

Industry	Jobs	Jobs Per Industry (%)	Earnings (\$1,000)	Earnings Per Industry (%)	Sales (\$1,000)	Sales Per Industry (%)	Earnings Per Worker (\$1,000)
Ag., forestry, fishing, and hunting	800	39.1	18,587	31.2	76,802	27.3	23
Mining	<10	N/A	9	0.0	23	0.0	39
Utilities	0	0.0	0	0.0	0	0.0	0
Construction	111	5.4	3,012	5.1	6,853	2.4	27
Manufacturing	519	25.3	20,313	34.1	120,672	42.9	39
Wholesale trade	63	3.1	2,931	4.9	7,463	2.7	46
Retail trade	36	1.8	705	1.2	1,507	0.5	20
Transportation / warehousing	40	2.0	1,365	2.3	3,445	1.2	34
Information	<10	N/A	13	0.0	40	0.0	36
Finance and insurance	<10	N/A	344	0.6	1,367	0.5	45
Real estate and rental and leasing	37	1.8	558	0.9	3,594	1.3	15
Professional and technical services	18	0.9	307	0.5	580	0.2	17
Company management	0	0.0	0	0.0	0	0.0	0
Administrative and waste services	13	0.6	299	0.5	539	0.2	23
Educational services	<10	N/A	1	0.0	2	0.0	8
Health care and social assistance	105	5.1	626	1.1	1,149	0.4	6
Arts, entertainment, and recreation	14	0.7	224	0.4	694	0.2	16
Accommodation and food services	21	1.0	278	0.5	832	0.3	13
Other services	49	2.4	1,376	2.3	3,293	1.2	28
Government	214	10.4	8,606	14.5	52,645	18.7	40
Total	2048	100.0	59,555	100.0	281,500	100.0	29

Consistent with 36 CFR §219.20(a), the following paragraphs, tables, and Figure SO-2 will supplement the Employment and Income section, pages 3-950 through 3-958, of the Chapter 3 Socio-Economic Environment section of the 2003 Southwest Idaho Ecogroup Land and Resource Management Plans Final Environmental Impact Statement.

Employment and Income

The Impact of Forest Service Range Management on Local Economies

Management Scenarios

Seven management scenarios were provide by the Forest Service when considering jobs, earnings, and sales impacts on respective local Idaho communities. Sheep headmonths (sheep AUMS) were provided by management region for each scenario. These can be found in Figure SO-2. The analysis assumed approximately 3 months of summer grazing. Thus, the total headmonths were reduced proportionally to account for the portion of the year when the sheep were not grazing on federal lands. As in the previous study, this analysis assumes National Forest summer range is limitational to herd maintenance, meaning no substitute for National Forest summer range, so a loss of range will result in a corresponding reduction in herd size. Forest-dependent herd size is converted to forest-dependent jobs in the livestock sector according to the following labor requirements: 1 worker per 900 head of sheep.

Alternative 7 had the most headmonths at 64,385. The remaining alternatives had the following headmonths: Alternative 7C had 62,738; Alternative 7A had 47,928; Alternative 7B had 47,755; Alternative 7D had 28,444; Alternative 7F had 7,364; Alternative 7E had zero; Alternative 7G had 27, 534; Alternative 7H had 3,801; Alternative 7J had 34,266; and Alternative 7K had 51,434.

Figure SO-2. Headmonths by Alternative

**Current Condition
by MA**

Management Area	Total Head Months
BLM	336
Fall Creek/Warren Creek	1160
Goose Creek/Hazard Creek	9823
Hells Canyon	2328
Hells Canyon Wilderness	1373
Kennally Creek	4520
Lake Creek/French Creek	8294
Middle Little Salmon River	1744
Payette Lakes	15427
Rapid River	3787
Snake River	4675
South Fork Salmon River	1797
Upper Secesh River	3526
Weiser River	5595
Grand Total	64385

**Alt 7A
by MA**

Management Area	Total Head Months
BLM	0
Fall Creek/Warren Creek	0
Goose Creek/Hazard Creek	9823
Hells Canyon	0
Hells Canyon Wilderness	0
Kennally Creek	4520
Lake Creek/French Creek	4152
Middle Little Salmon River	1744
Payette Lakes	15427
Rapid River	1698
Snake River	1507
South Fork Salmon River	1797
Upper Secesh River	1665
Weiser River	5595
Grand Total	47928

**Alt 7B
by MA**

Management Area	Total Head Months
BLM	0
Fall Creek/Warren Creek	0
Goose Creek/Hazard Creek	9823
Hells Canyon	0
Hells Canyon Wilderness	0
Kennally Creek	4520
Lake Creek/French Creek	4152
Middle Little Salmon River	1744
Payette Lakes	15427
Rapid River	1525
Snake River	1507
South Fork Salmon River	1797
Upper Secesh River	1665
Weiser River	5595
Grand Total	47755

**Alt 7D
by MA**

Management Area	Total Head Months
BLM	0
Fall Creek/Warren Creek	621
Goose Creek/Hazard Creek	6006
Hells Canyon	0
Hells Canyon Wilderness	0
Kennally Creek	4520
Lake Creek/French Creek	39
Middle Little Salmon River	853
Payette Lakes	11110
Rapid River	957
Snake River	2
South Fork Salmon River	52
Upper Secesh River	1632
Weiser River	2653
Grand Total	28444

**Alt 7E
by MA**

Management Area	Total Head Months
BLM	0
Fall Creek/Warren Creek	0
Goose Creek/Hazard Creek	0
Hells Canyon	0
Hells Canyon Wilderness	0
Kennally Creek	0
Lake Creek/French Creek	0
Middle Little Salmon River	0
Payette Lakes	0
Rapid River	0
Snake River	0
South Fork Salmon River	0
Upper Secesh River	0
Weiser River	0
Grand Total	0

**Alt 7F
by MA**

Management Area	Total Head Months
BLM	0
Fall Creek/Warren Creek	506
Goose Creek/Hazard Creek	535
Hells Canyon	0
Hells Canyon Wilderness	0
Kennally Creek	4520
Lake Creek/French Creek	0
Middle Little Salmon River	0
Payette Lakes	1108
Rapid River	0
Snake River	0
South Fork Salmon River	25
Upper Secesh River	671
Weiser River	0
Grand Total	7364

**Alt 7C
by MA**

Management Area	Total Head Months
BLM	336
Fall Creek/Warren Creek	1160
Goose Creek/Hazard Creek	9823
Hells Canyon	2328
Hells Canyon Wilderness	10
Kennally Creek	4520
Lake Creek/French Creek	8294
Middle Little Salmon River	1744
Payette Lakes	15427
Rapid River	3514
Snake River	4665
South Fork Salmon River	1797
Upper Secesh River	3526
Weiser River	5595
Grand Total	62738

**Alt 7G
by MA**

Management Area	Total Head Months
BLM	0
Fall Creek/Warren Creek	621
Goose Creek/Hazard Creek	6006
Hells Canyon	0
Hells Canyon Wilderness	1
Kennally Creek	4520
Lake Creek/French Creek	38
Middle Little Salmon River	853
Payette Lakes	10655
Rapid River	957
Snake River	2
South Fork Salmon River	52
Upper Secesh River	1177
Weiser River	2653
Grand Total	27534

**Alt 7H
by MA**

Management Area	Total Head Months
Fall Creek/Warren Creek	0
Goose Creek/Hazard Creek	0
Hells Canyon	0
Hells Canyon Wilderness	1
Kennally Creek	3800
Lake Creek/French Creek	0
Middle Little Salmon River	0
Payette Lakes	0
Rapid River	0
Snake River	0
South Fork Salmon River	0
Upper Secesh River	0
Weiser River	0
(blank)	0
Grand Total	3801

**Alt 7J
by MA**

Management Area	Total Head Months
BLM	0
Fall Creek/Warren Creek	0
Goose Creek/Hazard Creek	9817
Hells Canyon	0
Hells Canyon Wilderness	1
Kennally Creek	4516
Lake Creek/French Creek	37
Middle Little Salmon River	691
Payette Lakes	13629
Rapid River	0
Snake River	6
South Fork Salmon River	4
Upper Secesh River	2
Weiser River	5563
Grand Total	34266

**Alt 7K
by MA**

Management Area	Total Head Months
BLM	336
Fall Creek/Warren Creek	1160
Goose Creek/Hazard Creek	9823
Hells Canyon	0
Hells Canyon Wilderness	1
Kennally Creek	4520
Lake Creek/French Creek	4471
Middle Little Salmon River	1744
Payette Lakes	15427
Rapid River	1527
Snake River	1507
South Fork Salmon River	1797
Upper Secesh River	3526
Weiser River	5595
Grand Total	51434

Community Mapping

Based on geographic proximity and the home address of allotment owners, the employment effects of the management scenarios were mapped to the individual communities of Riggins, Weiser, and Wilder (Tables S0-17a and S0-17b).

For the Current Conditions Alternative, Weiser had 60 percent of the total headmonths, Wilder had 27.2 percent, and 12.8 percent to Riggins.

Table SO-17a. Employment Effects of the Management Scenarios for Riggins, Weiser, and Wilder: Headmonths Sheep

City	Current	Alt 7A	Alt 7B	Alt 7C	Alt 7D	Alt 7E	Alt 7F	Alt 7G	Alt 7H	Alt 7J	Alt 7K
Riggins	8235.5	3323.6	3323.6	8235.5	1459.9	0.0	841.6	1231.9	0.1	23.0	5942.1
Weiser	38650.0	30123.9	30123.9	37276.1	18801.4	0.0	5719.3	18528.8	3800.6	25870.3	30252.1
Wilder	17499.4	14480.2	14307.5	17226.2	8183.0	0.0	803.2	7773.4	0.3	8372.6	15240.0
Total	64385.0	47927.6	47754.9	62737.8	28444.3	0.0	7364.2	27534.0	3800.9	34265.9	51434.1

Table SO-17b. Employment Effects of the Management Scenarios for Riggins, Weiser, and Wilder: Headmonths Sheep Percentage

City	Current (%)	Alt 7A (%)	Alt 7B (%)	Alt 7C (%)	Alt 7D (%)	Alt 7E (%)	Alt 7F (%)	Alt 7G (%)	Alt 7H (%)	Alt 7J (%)	Alt 7K (%)
Riggins	12.8	6.9	7.0	13.1	5.1	0.0	11.5	4.5	0.0	0.1	11.6
Weiser	60.0	62.9	63.1	59.4	66.1	0.0	77.7	67.3	100.0	75.5	58.8
Wilder	27.2	30.2	30.0	27.5	28.8	0.0	10.9	28.2	0.0	24.4	29.6
Total	100.0	100.0	100.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0

Employment and Earnings Income Impacts

The direct jobs dependent on the sheep allotment alternatives are presented in Table SO-17c. Direct jobs are defined as the actual number of jobs in the sheep production industry dependent on grazing allotments (per defined alternative). Under the Current Alternative, 21.5 jobs are directly employed in the sheep production industry. The remaining alternatives had the following jobs directly employed in the sheep production industry: Alternative 7C had 20.9 jobs; Alternative 7A had 16; Alternative 7B had 15.9; Alternative 7D had 9.5; Alternative 7F had 2.5; Alternative 7E had zero; Alternative 7G had 9.2; Alternative 7H had 1.3; Alternative 7J had 11.4; and Alternative 7K had 17.1.

Table SO-17c. Direct Jobs per Scenario

City	Current	Alt 7A	Alt 7B	Alt 7C	Alt 7D	Alt 7E	Alt 7F	Alt 7G	Alt 7H	Alt 7J	Alt 7K
Riggins	2.7	1.1	1.1	2.7	0.5	0.0	0.3	0.4	0.0	0.0	2.0
Weiser	12.9	10.0	10.0	12.4	6.3	0.0	1.9	6.2	1.3	8.6	10.1
Wilder	5.8	4.8	4.8	5.7	2.7	0.0	0.3	2.6	0.0	2.8	5.1
Total	21.5	16.0	15.9	20.9	9.5	0.0	2.5	9.2	1.3	11.4	17.1

The direct jobs derived from the sheep allotments were used as inputs to community economic input-output models of Riggins, Weiser, and Wilder that were produced using EMSI software. The foundation of these models is economic base theory, which bifurcates local economies into their basic and nonbasic sectors. All economic activity is allocated and attributed to the basic sectors. They are defined in the broadest sense as any economic activity that brings money into the community, including (but not limited to) agriculture industries, timber, manufacturing, and federal and state governmental operations. Government operations include transfer payments such as social security.

Nonbasic sectors are economic activities that support the basic sectors. Nonbase industries depend on base industries for income and could not exist without them. Nonbase industries support base industries, local businesses, and local households to the extent that they supply goods and services and keep money in the community that might have gone elsewhere. Nonbase industries generally include most of the retail trade and service sectors. The expenditures made at a grocery store, for example, that supply local consumers and businesses would be considered nonbasic. Some businesses have both basic and nonbasic components. If a grocery store has customers from outside the region these expenditures would be considered basic to the community.

The outputs of the community economic models include 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. Jobs represent the total of both direct and indirect employment of workers. Indirect effects are defined as the downstream economic effects on sales, earnings, and jobs in the regional economy from direct spending. These effects are part of the multiplier effects of direct spending. Induced effects are sometimes included in the indirect effects or identified separately. They are defined as the downstream effects of employee-related consumer spending in the economy. They are also part of the multiplier effects.

The models assess the multiplier effects from basic export activity. Two major factors determine the size and magnitude of export or basic activity: 1) the magnitude in dollars of exports in an industrial sector (e.g., sales outside the region) and 2) magnitude of the multiplier. The multiplier identifies the backward linkages of each industrial sector into the economy, along with the impacts of employee spending. The greater the backward linkages (ceteris paribus), the greater is the size of the multiplier.

Tables SO-17d and SO-17e identify the total jobs and total earnings per scenario, respectively. These include the multiplier effects. Alternative 7 produces 37.2 jobs and

\$672,635 in earnings. Alternative 7C had 36.2 jobs and \$653,922 in earnings. Alternative 7A produces 27.9 jobs and \$518,085 in earnings. Alternative 7B produces 27.8 jobs and \$516,225 in earnings. Alternative 7D produces 16.7 jobs and \$311,126 in earnings. Alternative 7F produces 4.5 jobs and \$78,435 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. Alternative 7K produces 29.6 jobs and \$540,625 earnings.

Table SO-17d. Total Jobs per Scenario (includes the Direct, Indirect, and Induced Impacts, i.e. Multiplier Effects)

City	Current	Alt 7A	Alt 7B	Alt 7C	Alt 7D	Alt 7E	Alt 7F	Alt 7G	Alt 7H	Alt 7J	Alt 7K
Riggins	3.95	1.60	1.60	3.95	0.70	0.00	0.40	0.59	0.00	0.01	2.85
Weiser	24.86	19.38	19.38	23.98	12.10	0.00	3.68	11.92	2.45	16.64	19.46
Wilder	8.40	6.95	6.87	8.27	3.93	0.00	0.39	3.73	0.00	4.02	7.32
Total	37.2	27.9	27.8	36.2	16.7	0.00	4.5	16.2	2.4	20.7	29.6

Table SO-17e. Total Earnings per Scenario (includes the Direct, Indirect, and Induced Impacts, i.e. Multiplier Effects)

City	Current (\$)	Alt 7A (\$)	Alt 7B (\$)	Alt 7C (\$)	Alt 7D (\$)	Alt 7E (\$)	Alt 7F (\$)	Alt 7G (\$)	Alt 7H (\$)	Alt 7J (\$)	Alt 7K (\$)
Riggins	40,519	16,352	16,352	40,519	7,183	-	4,141	6,061	0	113	29,235
Weiser	443,589	345,733	345,733	427,820	215,785	-	65,641	212,656	43,619	296,915	347,205
Wilder	188,527	156,000	154,139	185,584	88,158	-	8,653	83,745	3	90,201	164,185
Total	672,635	518,085	516,225	653,922	311,126	-	78,435	302,462	43,623	387,229	540,625

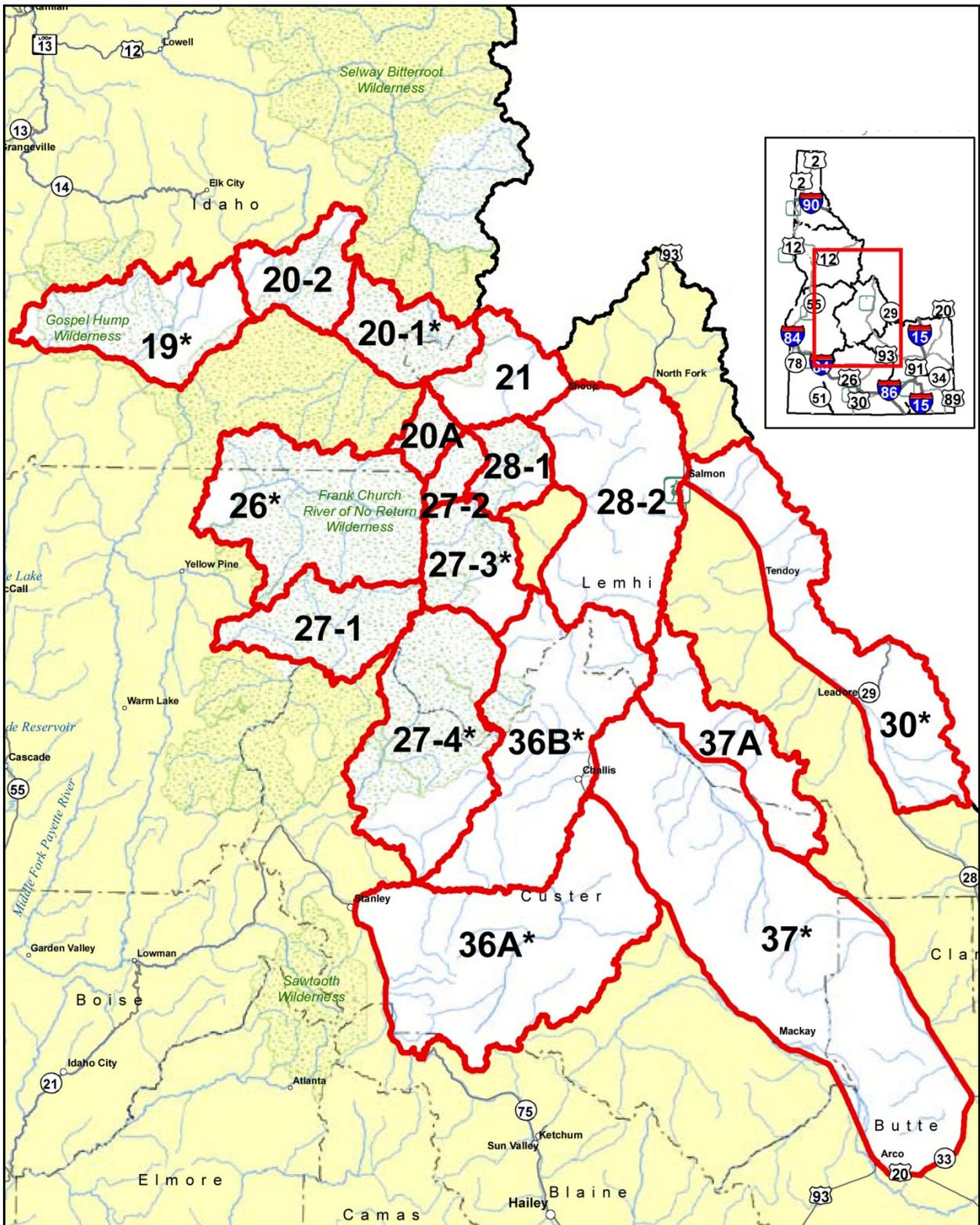
The Impact of National Forest Recreation on Local Economies

Change in bighorn sheep hunting opportunities—Some communities analyzed, such as Riggins, have realized the influx of visitors into their communities due to a large increase in the amount of available salmon and steelhead fishing opportunities. It is assumed that a similar affect could be realized as bighorn sheep populations recover and restore and hunting and viewing opportunities increase. Restored bighorn sheep 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. Each of these uses lead to more expenditures within the area of the Payette National Forest as users travel through and stay in the communities. The level of influx is difficult to determine, but wildlife hunting and viewing is a more than \$100 million dollar industry in the state of Idaho. The trend is expected to continue into the foreseeable future.

Current Conditions—In Idaho, hunting bighorn sheep on and adjacent to the Payette National Forest is relatively limited, but it still provides a source of jobs and revenue. Bighorn sheep hunt areas on and adjacent to the Payette National Forest include units 11, 19, 20A, 20-1, 20-2, 21, 26, 26L, 27-1, 27-2, 27-3, and 27L (Figures SO-3 and SO-4). In these

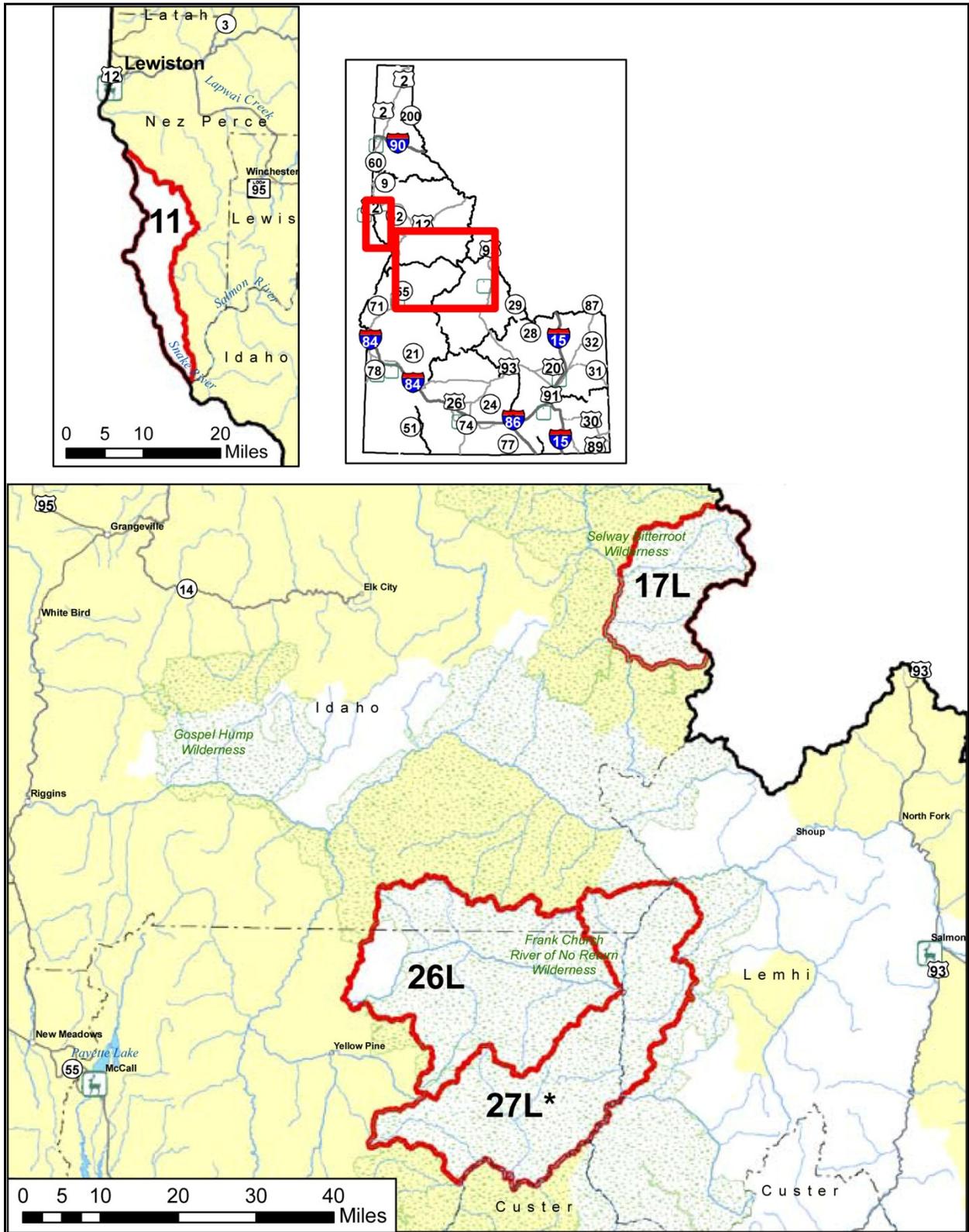
areas, an average of 44 bighorn sheep permits has been issued over the past 6 to 7 years (Table SO-20a). In addition, based on the number of hunters that apply for permits, this number could increase substantially if bighorn sheep populations increased in size and distribution.

Figure SO-3. 2007–2008 Rocky Mountain Bighorn Sheep Hunt Units



(Source: IDFG 2008)

Figure SO-4. 2007-2008 Rocky Mountain Bighorn Sheep Late Hunt Units



(IDF 2008)

Table SO-20a. Idaho Bighorn Sheep Hunting Areas on and adjacent to the Payette National Forest¹

Hunt Area	General Location	Average No. of Permits Past Years of Record	Average No. Days Hunted per Permit (Years of Record)	Percent Successful Hunts Guided (Years of Record)
11	Northwest of Payette National Forest in Hells Canyon	2	1.7	50
19	North of the Main Salmon River	6	10.5	10
20-1	Northeast of Payette National Forest across Middle Fork Salmon River	2	12.5	0
20-2	Northeast of Payette National Forest across Middle Fork Salmon River	2	12.5	0
20A	Northeast portion of Payette National Forest in Wilderness (south of Main Salmon River)	2	12	50
26	Big Creek area, Payette National Forest	3	8.2	26
26L	In the Frank Church Wilderness Area	2	8	50
27-1	Southeast of #26 (on and off Payette National Forest)	13	7	33
27-2	Northeast of #26 (on and off Payette National Forest)	7	7	33
27-3	East of Payette National Forest	3	8.5	29
27L	South of Payette National Forest	2	10	28
		Average total permits year = 44	Average no. of days hunted/year = 9	Average percent guided = 28

¹ Information obtained from Idaho Fish and Game website from hunt statistics from 2000–2007.

Hells Canyon Populations—Hunting bighorn sheep in the Hells Canyon area is limited. The IDFG currently issues only two controlled hunting permits annually. These permits are awarded through a drawing process; 374 hunters applied for the Hells Canyon Hunt Area 11 in 2008. One other bighorn sheep hunting permit for Hells Canyon Hunt Area 11 is auctioned off at an annual benefit auction each season.

The actual dollar cost of these three permits varies greatly. The record amount paid for an auctioned bighorn sheep permit was \$180,000 in 2005. In 2008, the cost for the standard resident permit is \$194.75 and for a nonresident is \$1,779.75. These permits allow a hunter

to legally hunt and take one bighorn ram in this area in their lifetime, making this a truly once in a lifetime hunt.

Due to the limited amount of hunting permits issued for the Hells Canyon Area 11 and the difficulty of accessing the area, most bighorn sheep hunters hire local guides. The exact number of hunters that hire a guide is not tracked. The hunting outfitters licensed in Hells Canyon offer only full-service or all-inclusive hunts for bighorn sheep. The amount charged by these outfitters ranges from \$6,100 to \$8,600 per hunter. With only three permits issued annually in the Hells Canyon area, any other associated costs for hunting bighorn sheep, such as gas, food, and ammunition, would be limited.

Salmon River and Big Creek Populations—The hunt areas and number of permits associated with the Salmon River and Bog Creek populations are displayed in Table SO-20a. Costs for resident and nonresident permits are the same as discussed above. We assume that outfitter and guide charges would also be similar to those above.

Direct Jobs—Comparing these data with the economic analysis of the direct jobs dependent on the sheep allotment alternatives (Table SO-17c) requires an assumption of the number of jobs associated with these bighorn sheep hunts.

Direct jobs associated with sheep production were defined as the actual number of jobs in the sheep production industry dependent on grazing allotments. Forest-dependent herd size was converted to forest-dependent jobs in the livestock sector according to the following labor requirements: 1 worker per 900 head of sheep. Under current conditions of 64,385 headmonths, this resulted in 21.5 jobs directly created by the sheep production industry.

Table SO-20a shows, on average, that 28 percent of the successful hunts were guided. We assumed that a similar number of unsuccessful hunts were gathered. We also assumed that these outfitters and guides were locally operated, thereby returning revenues to the local communities. Based on IDFG statistics (Table SO-20a), the average hunt lasted 9 days; we estimated each hunt resulted in 12 guided work days requiring 2 workers for a total of 24 days per hunt. During the past 6 to 7 years, an average of 44 permits have been issued per year on and adjacent to the Payette National Forest, resulting in 1,056 days or 4 jobs per year (about 264 working days per year) of employment.

Based on these estimates, under current conditions, the outfitting and guiding of bighorn sheep on and adjacent to the Payette National Forest equates to 4 jobs per year.

Environmental Effects—The change in the hunting revenues (to IDFG and to outfitters and guides) and change in economics (via “direct jobs”) associated with each alternative was assumed to correspond with the change in the potential risk of contact between bighorn and domestic sheep (see analysis under *Terrestrial Wildlife Habitat and Species* above). Those alternatives that provided the greatest reduction in potential risk of contact between bighorn and domestic are assumed to provide the greatest increase in revenues and direct jobs associated with bighorn sheep hunting.

Alternative 7E provided the greatest reduction in potential risk of contact. Alternative 7H reduced the potential contact slightly less than Alternative 7E. Alternatives 7G and 7J reduced potential risk of contact to a moderate degree; neither Alternative 7G nor 7J buffer

the occupied habitat. 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, with much smaller expected benefits to outfitter and guided hunting opportunities and revenues.

Over time, it is expected that bighorn sheep populations would increase substantially in size and distribution under those alternatives that reduce the potential risk of contact to the greatest degrees (Alternatives 7E and 7H). As populations increase and expand, permit revenues and direct jobs are also expected to increase, perhaps substantially.

For those alternatives that reduce risk of contact by moderate amounts (Alternatives 7G and 7J), changes in permits and associated revenues are less clear, but some benefits via population increases and increased hunting opportunities are likely.

Alternatives that “leave a substantial amount of risk” (Alternative 7K and Alternatives 3, 4, and 6) may not result in any increase in bighorn sheep numbers and, in fact, may reduce jobs and revenues if bighorn sheep populations actually decline due to contact and subsequent disease.

Consistent with 36 CFR §219.20(a), the following paragraph will supplement the Cumulative Effects section, page 3-970, of the Chapter 3 Socio-Economic Environment of the 2003 Southwest Idaho Ecogroup Land and Resource Management Plans Final Environmental Impact Statement.

Cumulative Effects

Employment

The number of jobs linked to bighorn sheep restoration is tied directly to the potential for the population to recover and persist over time or the amount of relative risk for contact between bighorn sheep and domestic sheep or goat left on the landscape. With Alternatives 1B, 2, 5, and 7 retaining 100 percent of the risk, the assumption is that no more opportunities for employment or income will occur, and the likelihood is that they will decrease as the bighorn sheep populations decline and/or disappear. The change from Alternatives 1B, 2, 5, 7, and 7K is minimal when considering Alternatives 3, 4, and 6. Alternative 7G and 7J provide more opportunity for recovery of the species and thus input into the communities as both employment and income. Alternatives 7H and 7E provide the most opportunity for economic enhancement as no, or nearly no, risk for contact is left on the Payette National Forest. That is not to say, however, that all risk is gone from the landscape as small farm flocks of domestic sheep and goats may still exist on private property or other state and federal lands.