

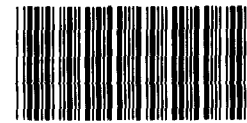
GAO

Fact Sheet for the Chairman,
Environment, Energy, and Natural
Resources Subcommittee, Committee
on Government Operations, House of
Representatives

June 1992

RANGELAND MANAGEMENT

Profile of the Bureau of Land Management's Grazing Allotments and Permits



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Resources, Community, and
Economic Development Division

B-248775

June 10, 1992

The Honorable Mike Synar
Chairman, Environment, Energy, and
Natural Resources Subcommittee
Committee on Government Operations
House of Representatives

Dear Mr. Chairman:

This fact sheet responds to your February 14, 1992, request and subsequent discussions with your office for information on livestock grazing on public rangeland managed by the Department of the Interior's Bureau of Land Management (BLM).

The Taylor Grazing Act of 1934, as amended (43 U.S.C. 315 et seq.), authorizes the Secretary of the Interior to issue permits for livestock grazing on public rangeland managed by BLM and to charge a fee for this grazing. The BLM public rangeland in 16 western states is divided into separate grazing units, called allotments. Livestock operators are authorized to graze their stock on one or more allotments under permits. A permit specifies the allowable level of livestock grazing on each allotment, measured in animal unit months (AUMs).¹ A livestock operator may hold one or more permits in one or more states. BLM offices in 10 western states manage all of BLM's allotments and administer all of BLM's grazing permits.

In discussions with your office, we agreed to provide information on (1) the number, average acreage, and average stocking rate² of BLM allotments and (2) the total and average number of AUMs covered by grazing permits. As agreed with your office, we also grouped the information into several categories, emphasizing the 500 largest and 500 smallest allotments and permits.

¹An AUM is defined as the amount of forage needed to sustain one 1,000-pound cow, a horse, or five sheep for 1 month.

²The average stocking rate is the number of acres required to provide 1 AUM.

You requested similar information on livestock grazing on land managed by the U.S. Department of Agriculture's Forest Service. The Forest Service, however, required more time than BLM to gather the data; therefore, we agreed to provide you with this information at a later date.

On the basis of the allotment information provided to us by BLM, we found that, as of September 30, 1991,

- BLM was administering 22,058 allotments encompassing 163.3 million acres in the 16 western states;
- the average acreage of BLM allotments, 7,404 acres overall, varied by state office, ranging from just over 1,500 acres for Montana State Office allotments to over 56,500 acres for Nevada State Office allotments;
- the 500 largest allotments encompassed over 76 million acres, or nearly 47 percent of BLM's total allotment acreage, and the 500 smallest allotments encompassed about 13,000 acres, or less than 0.01 percent of BLM's total allotment acreage; and
- the average number of acres required to provide 1 AUM on BLM allotments, 12.3 acres overall, ranged from over 20 acres on California and Nevada state office allotments to fewer than 7 acres on Montana and New Mexico state office allotments.

Section 1 contains additional information on BLM allotments.

Because of BLM's concerns about technical difficulties in the data base involving permits that allowed fewer than 2 AUMs (such as vacant permits that should have been removed from the data base but were not), we analyzed only those BLM permits that allowed 2 or more AUMs. This reduced our data base by 282 permits. The resulting data base included 18,822 permits encompassing 13.3 million AUMs. On the basis of this permit information, we found that, as of September 30, 1991,

- the average number of AUMs that could be grazed under a BLM permit, 707 AUMs overall, ranged from almost 4,000

under Nevada State Office permits to less than 325 in Montana State Office permits³ and

- the 500 permits allowing the highest livestock grazing levels encompassed over 4.8 million AUMs, or about 37 percent of the total number of AUMs allowed, and the 500 permits allowing the lowest livestock grazing levels encompassed just over 2,100 AUMs, or less than 0.02 percent of the total number of AUMs allowed.

Section 2 contains additional information on BLM permits.

SCOPE AND METHODOLOGY

The information presented in this fact sheet is based on data generated by BLM's Grazing Authorization and Billing System (GABS), a computerized system used by the Department of the Interior's centralized financial management office to manage the issuance of grazing permits and the billing of grazing fees. The data were current as of September 30, 1991. Because of time constraints, we did not attempt to verify the accuracy of BLM's data. We used a data base program to summarize and analyze the data. We discussed our approach with the GABS Coordinator and officials at BLM's Washington, D.C., headquarters and in the field, who agreed with our approach. Appendix I provides greater detail on the data base, as well as a discussion of some of the limitations of BLM's data.

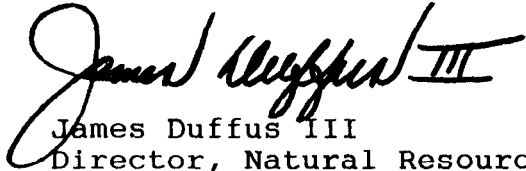
Unless you announce its contents earlier, we plan no further distribution of this fact sheet until 30 days from the date of this letter. At that time, we will send copies to the Secretary of the Interior and the Director of BLM. We will make copies available to others on request.

³BLM state offices are located in Arizona, California, Colorado, Idaho, Montana (for Montana and North and South Dakota), Nevada, New Mexico (for New Mexico, Kansas, and Oklahoma), Oregon (for Oregon and Washington), Utah, and Wyoming (for Wyoming and Nebraska).

B-248775

Please contact me at (202) 275-7756 if you or your staff have any questions. Other major contributors to this fact sheet are listed in appendix II.

Sincerely yours,

A handwritten signature in black ink that reads "James Duffus III". The signature is written in a cursive style with a large initial "J" and a distinct "III" at the end.

James Duffus III
Director, Natural Resources
Management Issues

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ABBREVIATIONS

AUM	animal unit month
BLM	Bureau of Land Management
GABS	Grazing Authorization and Billing System
GAO	General Accounting Office

SECTION 1

BLM ALLOTMENTS

As of September 30, 1991, the Bureau of Land Management's (BLM) 10 state offices were responsible for managing 22,058 allotments. We analyzed the number, acreage, and location of these allotments to determine their distribution throughout the states. We also isolated data on the largest and smallest allotments to see how they differed from the average allotment acreage. Finally, we analyzed the average stocking rate for BLM land managed by each state office to compare the land's productivity for livestock grazing.

OVERALL ALLOTMENT INFORMATION

As shown in table 1.1, the number of allotments located in each state, as well as the average acreage of these allotments, varied widely. BLM's Montana State Office managed the most allotments, and the California State Office managed the least. BLM-wide, an average allotment encompassed about 7,400 acres. On average, the Nevada State Office managed the largest allotments, and the Montana State Office managed the smallest.

Table 1.1: All Allotments Managed by BLM

BLM state office	Number of allotments	Total acres	Average acreage
Arizona	858	11,383,446	13,267
California	851	9,402,563	11,049
Colorado	2,448	7,692,516	3,142
Idaho	2,319	12,379,128	5,338
Montana	5,452	8,234,934	1,510
Nevada	854	48,286,439	56,541
New Mexico	2,312	12,461,292	5,390
Oregon	2,066	13,668,166	6,616
Utah	1,502	22,150,217	14,747
Wyoming	3,396	17,652,462	5,198
Total	22,058	163,311,163	7,404 ^a

^aThis figure is the average for all allotments.

THE LARGEST ALLOTMENTS

The 500 largest allotments accounted for 2.3 percent of all BLM allotments and encompassed over 76 million acres, or nearly 47 percent of BLM's total allotment acreage. As shown in table 1.2, the 500 largest allotments averaged 152,049 acres. The Nevada State Office managed the largest number of allotments and acres in this category, while the Montana State Office managed the least.

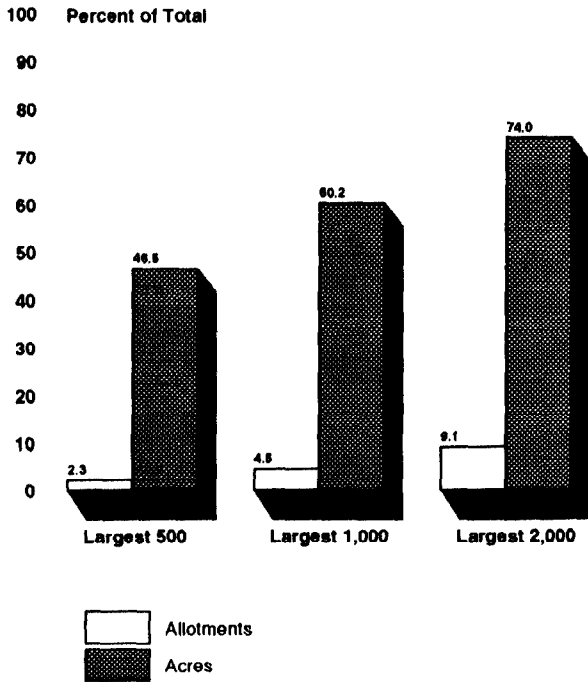
Table 1.2: 500 Largest Allotments Managed by BLM

BLM state office	Number of allotments	Total acreage	Average acreage
Arizona	42	4,529,778	107,852
California	31	5,622,895	181,384
Colorado	11	925,645	84,150
Idaho	31	4,135,042	133,388
Montana	1	130,399	130,399
Nevada	210	37,412,120	178,153
New Mexico	18	1,743,951	96,886
Oregon	49	7,229,794	147,547
Utah	62	7,631,523	123,089
Wyoming	45	6,663,543	148,079
Total	500	76,024,690	152,049 ^a

^aThis figure is the average for all of the largest 500 allotments.

We also calculated the percentage of acres encompassed by the 1,000 and 2,000 largest allotments. Figure 1.1 shows that, compared with the 500 largest allotments, these groups encompass 60.2 and 74.0 percent of BLM's total allotment acreage, respectively.

Figure 1.1: Percentage of BLM Allotments and Acres Encompassed by the Largest Allotments



THE SMALLEST ALLOTMENTS

The 500 smallest allotments accounted for 2.3 percent of all BLM allotments and encompassed 13,175 acres, or 0.008 percent of BLM's allotment acreage. As shown in table 1.3, the 500 smallest allotments averaged 26 acres. The Montana State Office managed the largest number of allotments and acres in this category, while the Nevada State Office managed none.

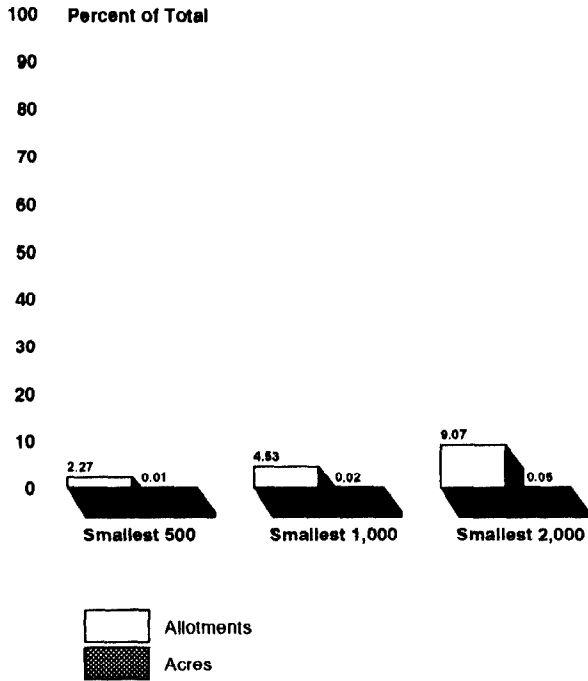
Table 1.3: 500 Smallest Allotments Managed by BLM

BLM state office	Number of allotments	Total acreage	Average acreage
Arizona	13	456	35
California	47	1,458	31
Colorado	103	3,383	33
Idaho	54	1,205	22
Montana	146	3,418	23
Nevada	0	0	0
New Mexico	24	580	24
Oregon	47	1,100	23
Utah	8	118	15
Wyoming	58	1,457	25
Total	500	13,175	26 ^a

^aThis figure is the average for all of the smallest 500 allotments.

We also calculated the percentage of acres encompassed by the 1,000 and 2,000 smallest allotments. As shown in figure 1.2, compared with the 500 smallest allotments, these groups encompass 0.02 and 0.05 percent of BLM's total allotment acreage, respectively.

Figure 1.2: Percentage of BLM Allotments and Acres Encompassed by the Smallest Allotments



AVERAGE STOCKING RATE

We analyzed the average stocking rate on BLM land in each state to compare the land's productivity for livestock grazing. To determine the average stocking rate, we divided the total number of acres managed by each BLM state office by the total animal unit months (AUMs) available under permits administered by each office. Table 1.4 shows that the average stocking rate for all BLM allotments was 12.3 acres per AUM. On average, BLM lands managed by the California and Nevada state offices required the most acreage to provide 1 AUM of forage, while BLM lands managed by the Montana and New Mexico state offices required the least.

Table 1.4: Average Stocking Rate, by BLM State Office

BLM state office	Total acres	Total AUMs	Average stocking rate
Arizona	11,383,446	697,167	16.3
California	9,402,563	449,649	20.9
Colorado	7,692,516	692,056	11.1
Idaho	12,379,128	1,371,403	9.0
Montana	8,234,934	1,399,836	5.9
Nevada	48,286,439	2,402,442	20.1
New Mexico	12,461,292	1,909,063	6.5
Oregon	13,668,166	1,063,175	12.9
Utah	22,150,217	1,314,163	16.9
Wyoming	17,652,462	2,010,207	8.8
Total	163,311,163	13,309,161	12.3 ^a

^aThis figure is the average for all allotments.

SECTION 2

BLM PERMITS

As of September 30, 1991, BLM's 10 state offices were administering a total of 19,104 grazing permits on the Bureau's 22,058 allotments. There were fewer permits than allotments because some permits authorized grazing on more than one allotment. We analyzed the number of permits and the average AUMs allowed under these permits to determine their distribution throughout the western United States. We restricted our analysis to those permits allowing the use of 2 or more AUMs because of BLM concerns about the data base information for permits allowing less than 2 AUMs. For example, a permit allowing only zero or 1 AUM may be a vacant permit that should have been removed from the data base but was not. Eliminating these permits reduced the number of permits in our analysis to 18,822; these permits allowed the use of 13.3 million AUMs. We also grouped the information on permits into several categories and isolated information about the permits allowing the use of the largest number and the smallest number of AUMs.

OVERALL PERMIT INFORMATION

As shown in table 2.1, there was wide variation among the states in the number of BLM permits administered and the average number of AUMs allowed under the permits. The Montana State Office administered more permits than any other state office, but these permits allowed, on average, the use of the smallest number of AUMs. Conversely, the Nevada State Office administered the smallest number of permits, but these permits allowed, on average, the use of the largest number of AUMs.

Table 2.1: All Permits With 2 or More AUMs Administered by BLM State Offices

BLM state office	Number of permits	Total AUMs	Average AUMs
Arizona	736	697,157	947
California	722	449,648	623
Colorado	1,710	692,027	405
Idaho	2,166	1,371,402	633
Montana	4,337	1,399,828	323
Nevada	607	2,402,436	3,958
New Mexico	2,392	1,909,061	798
Oregon	1,718	1,063,167	619
Utah	1,720	1,314,162	764
Wyoming	2,714	2,010,204	741
Total	18,822	13,309,092	707 ^a

^aThis figure is the average for all permits.

THE LARGEST PERMITS

The 500 permits allowing the use of the largest number of AUMs accounted for 2.7 percent of BLM's total permits. About 37 percent of BLM's total AUMs, or over 4.8 million, were allowed under these permits. Table 2.2 shows that the average number of AUMs allowed under permits in this category was 9,731. The Nevada State Office administered the largest number of permits and AUMs in this category, while the Montana State Office administered the smallest number.

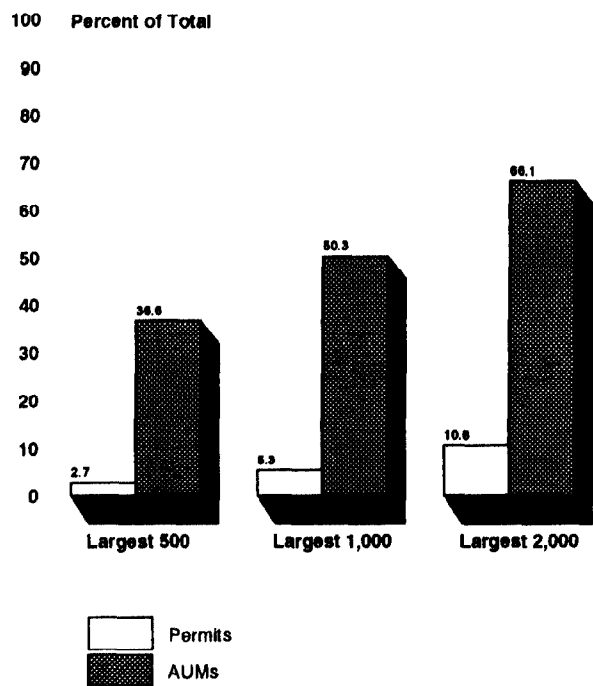
Table 2.2: 500 Permits Allowing the Largest Number of AUMs

BLM state office	Number of permits	Total AUMs	Average AUMs
Arizona	22	189,029	8,592
California	18	138,746	7,708
Colorado	16	143,064	8,942
Idaho	44	388,547	8,831
Montana	13	95,593	7,353
Nevada	147	1,780,989	12,116
New Mexico	70	573,021	8,186
Oregon	44	401,384	9,122
Utah	45	352,437	7,832
Wyoming	81	802,577	9,908
Total	500	4,865,387	9,731 ^a

^aThis figure is the average for all of the largest 500 permits.

We also calculated the percentage of AUMs allowed under the 1,000 and 2,000 largest permits. Figure 2.1 shows that, compared with the 500 largest permits, the 1,000 and 2,000 largest permits--accounting for 5.3 and 10.6 percent of BLM's total permits--allowed the permit holders to use 50 and 66 percent of the total allowable AUMs, respectively.

Figure 2.1: Percentage of Total BLM Permits and AUMs Covered by the Largest BLM Permits With 2 or More AUMs



THE SMALLEST PERMITS

The 500 permits allowing the use of the smallest number of AUMs accounted for 2.7 percent of BLM's total permits. Less than 0.02 percent of BLM's total AUMs, or 2,118 AUMs, were allowed under these permits. As shown in table 2.3, the permits in this category allowed an average of 4.2 AUMs each. (Because we did not include any permits allowing fewer than 2 AUMs in our analysis, all the states' smallest permits were over 2 AUMs.) As table 2.3 shows, the Montana State Office administered the largest number of permits and AUMs in this category, while the Arizona and Nevada state offices administered the smallest number. According to BLM officials, many of the permits in this category were for grazing on small parcels of federal land surrounded by state or private land.

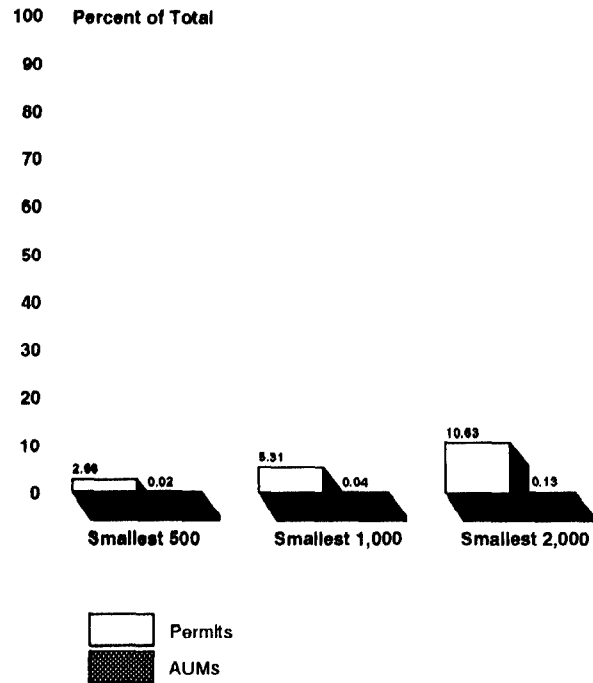
Table 2.3: 500 Permits With 2 or More AUMs Allowing the Smallest Number of AUMs

BLM state office	Number of permits	Total AUMs	Average AUMs
Arizona	2	5	2.5
California	23	91	4.0
Colorado	102	422	4.1
Idaho	77	357	4.6
Montana	119	543	4.6
Nevada	2	7	3.5
New Mexico	31	128	4.1
Oregon	69	272	3.9
Utah	18	69	3.8
Wyoming	57	224	3.9
Total	500	2,118	4.2 ^a

^aThis figure is the average for all of the smallest 500 permits.

We also calculated the percentage of AUMs allowed under the 1,000 and 2,000 smallest permits. Like the smallest 500 allotments, these permits allowed permit holders to use less than 1 percent of the total allowable AUMs, as illustrated in figure 2.2.

Figure 2.2: Percentage of Total BLM Permits and AUMs Covered by the Smallest BLM Permits With 2 or More AUMs



STRATIFICATION OF ALL BLM PERMITS

To determine how the number of permits that BLM administered compared with the number of AUMs allowed under these permits, we stratified the BLM data base into seven categories on the basis of the number of AUMs allowed to be grazed. One BLM official cautioned us not to emphasize permits allowing the use of a small number (2 to 3) of AUMs because these permits generally reflect an estimated amount of grazing allowed on a small piece of federal land located in the middle of private or state land. Another BLM official further advised us not to stratify the data in such a way that a large percentage of the permits would be included in one category because the data would not be meaningful. We believe that the seven categories we selected met these two criteria. Table 2.4 shows that more BLM permits fell into the 11-to-100-AUMs category than any other, and the fewest BLM permits fell into the over-10,000-AUMs category.

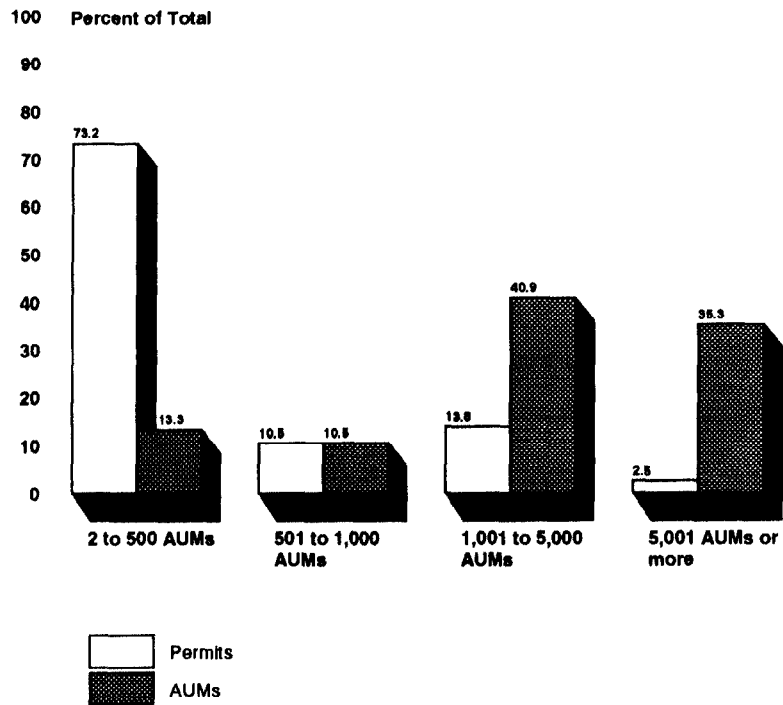
Table 2.4: All BLM Grazing Permits With 2 or More AUMs, by Group

Number of AUMs	Number of permits	Total AUMs	Average AUMs
2 to 10	1,347	9,209	6.8
11 to 100	6,439	283,020	44.0
101 to 500	5,992	1,474,866	246.1
501 to 1,000	1,973	1,394,928	707.0
1,001 to 5,000	2,605	5,448,004	2,091.4
5,001 to 10,000	325	2,190,398	6,739.7
Over 10,000	141	2,508,667	17,792.0
Total	18,822	13,309,092	707.1 ^a

^aThis figure is the average for all permits.

We combined the seven categories into four groups to depict graphically how BLM's permits and allowable AUMs were distributed. As shown in figure 2.3, about 73 percent of BLM's permits allow between 2 and 500 AUMs each. These permits allow the use of about 1.8 million AUMs, or about 13 percent of the total AUMs allowed. In contrast, 2.5 percent of BLM's permits allow the use of more than 5,000 AUMs each. These permits allow the use of about 4.7 million AUMs, or 35 percent of the total AUMs allowed.

Figure 2.3: Percentage of BLM Permits and AUMs, by Group (Permits With 2 or More AUMs)



BLM'S DATA BASE AND ITS LIMITATIONS

To prepare the profile of the Bureau of Land Management's (BLM) grazing allotments and permits, we obtained data from BLM's Denver Service Center, which is the Department of the Interior's centralized financial management office. The Service Center maintains the Grazing Authorization and Billing System (GABS), a data base that contains BLM permit and allotment information. From this data base, the GABS Coordinator provided us with data pertaining to every BLM permit and allotment, including the allotment number, the allotment location, the amount of federal land on the allotment, the permit number, the permit holder's name, and the number of animal unit months (AUMs) authorized by the permit.

There were several limitations to the data that affected the information we could report. These limitations include the following:

- Each entry in the data base represented an individual permit, not an individual livestock operator. We did not consolidate all of the permits that had been issued to a particular livestock operator into one entry. For example, if a livestock operator holds a permit under the name "John Smith" and another permit under the name "Smith Ranch," these permits would show up individually in the data base and in our profile. Consequently, an operator holding more than one permit may be represented in our profile more than once, and the total number of AUMs that an individual operator is allowed may not be accurately reflected in the profile.
- Permits held by grazing associations were counted as one entry in the data base even though several livestock operators may have the authority to graze livestock under that permit. Grazing associations are responsible for determining which individual operators will be allowed to graze their livestock each year and the number of AUMs allowed to each operator, up to the limit specified in the permit. We did not identify how many livestock operators actually used these allotments.
- Total acreage figures for some allotments may be understated. According to the GABS Coordinator, BLM district and resource area offices are not required to enter acreage information into the data base. He said he has found that staff at some BLM offices do not enter such data consistently. Our analysis of these data showed that approximately 1.3 percent of the allotments in this data base did not list acreage information. We found a small percentage of such omissions for each BLM state office. Because of the small number of omissions, we did not attempt to collect the missing information.

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