

BY THE COMPTROLLER GENERAL

Report To The Congress

OF THE UNITED STATES

Public Rangeland Improvement-- A Slow, Costly Process In Need Of Alternate Funding

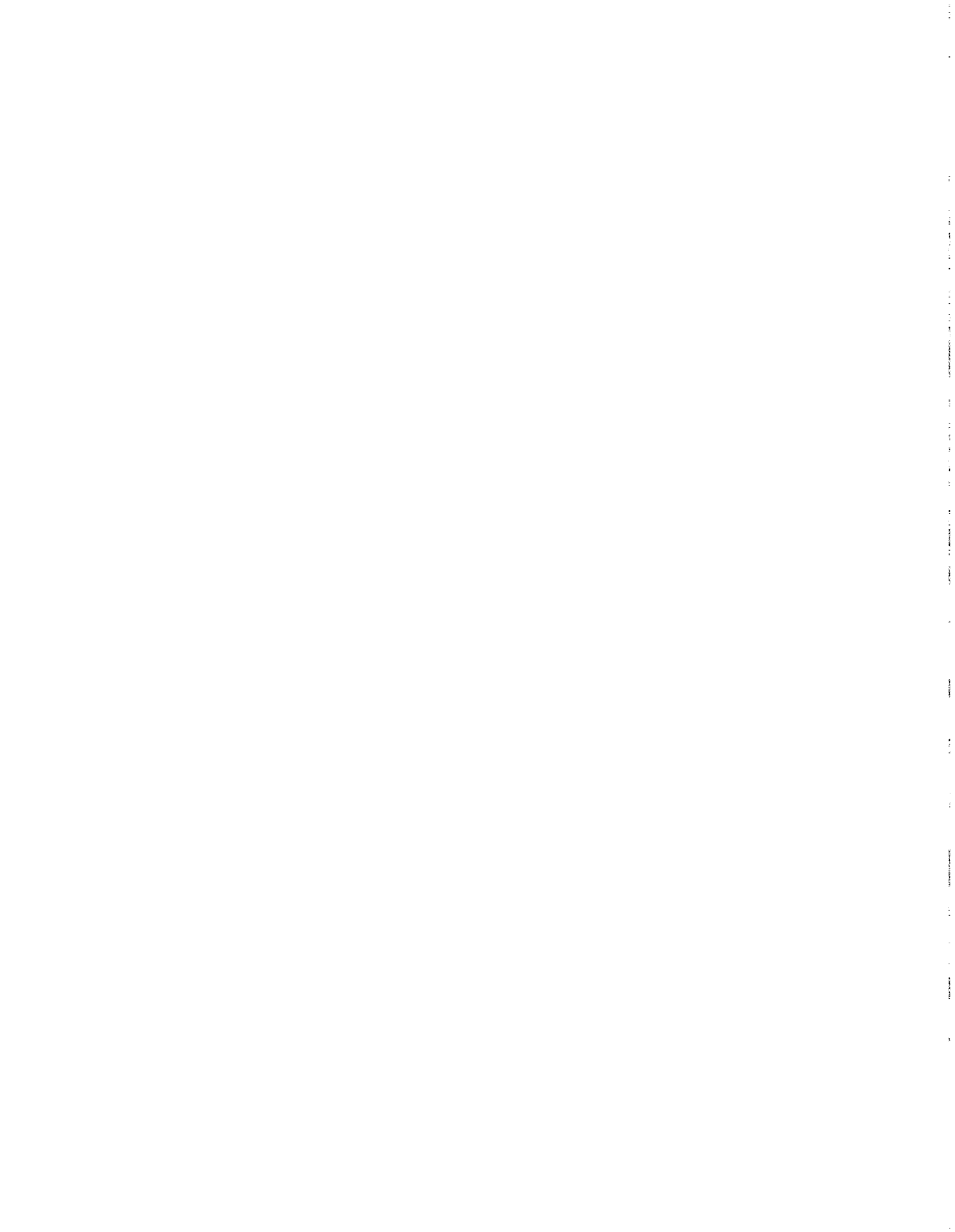
Assessments by the Department of the Interior's Bureau of Land Management indicate that most of the public rangelands it manages are in an unsatisfactory condition and are producing less than their potential. Although the Bureau has made some progress in improving range conditions, it lacks consistent data showing the overall effects of its management actions.

Since 1975 the Bureau has been preparing site-specific environmental impact statements and land use plans which have identified needed range improvements. There is a backlog of \$34.7 million in range improvement projects, and the cost of additional needed projects is estimated to be over \$148 million. Reduced grazing fees and budget cuts, together with rising costs due to inflation, will make it difficult for the Bureau to meet the Congress' goal of making the rangelands as productive as feasible before the beginning of the next century.

GAO recommends alternative ways the Bureau could make range improvements. The Congress should assess three alternative funding sources for range improvements.



GAO/RCED-83-23
OCTOBER 14, 1982





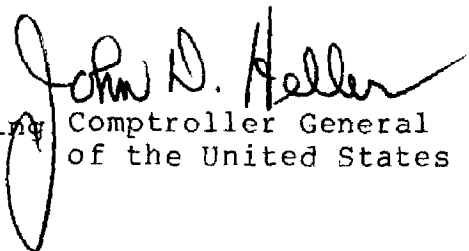
COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON D.C. 20548

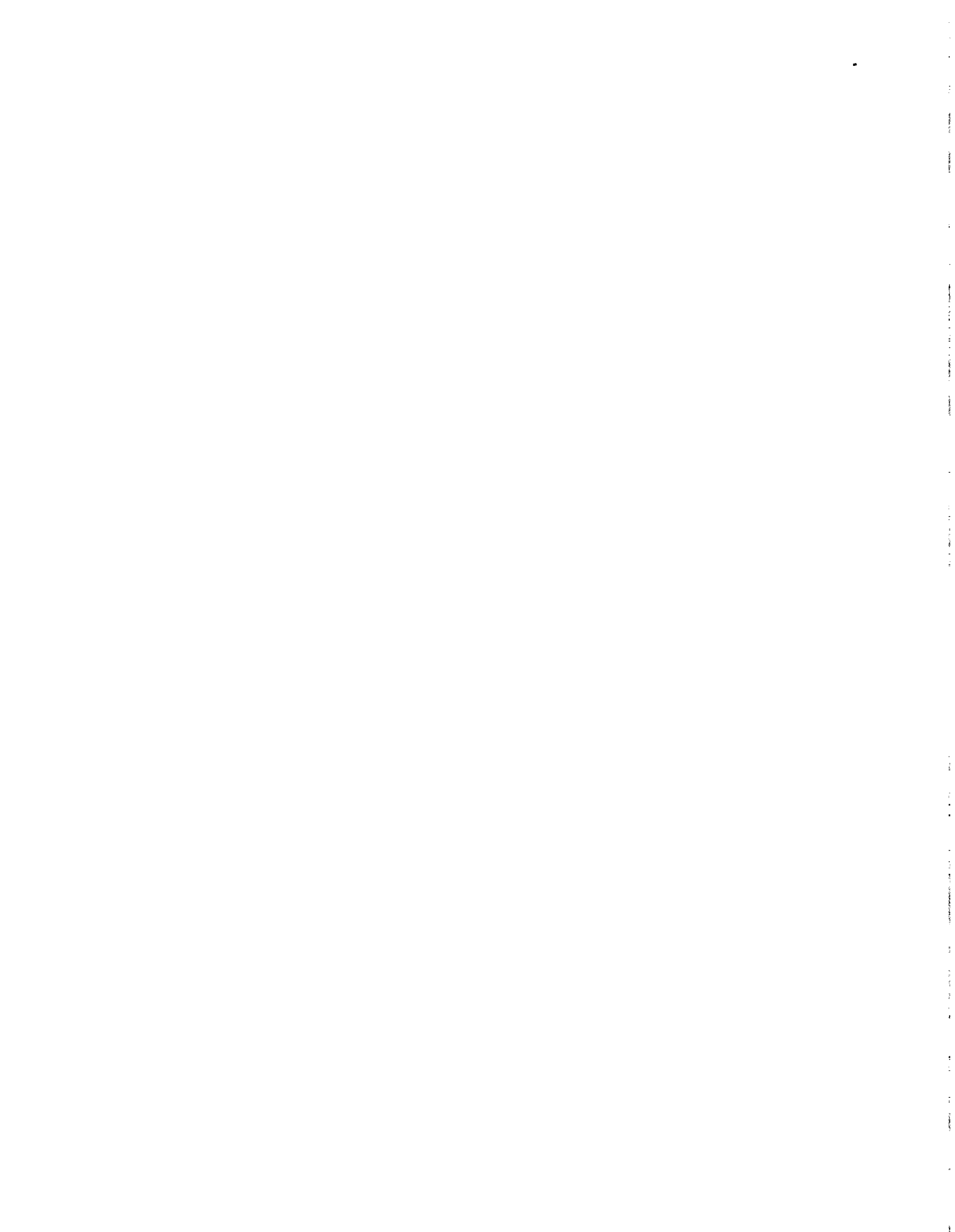
B-204997

To the President of the Senate and the
Speaker of the House of Representatives

This report discusses the problems the Department of the Interior has had improving the condition of the public rangelands it manages and presents the views of a representative group of ranchers holding Bureau of Land Management grazing permits. It recommends certain areas in which the Department could improve program effectiveness and discusses alternative funding sources for making range improvements.

We are sending copies of this report to the Director, Office of Management and Budget, and the Secretaries of the Interior and Agriculture.


Acting Comptroller General
of the United States



D I G E S T

Since July 1977, when GAO issued a report entitled "Public Rangelands Continue To Deteriorate" (CED-77-88), the Department of the Interior's Bureau of Land Management has made some progress in meeting the congressional mandate of improving the unsatisfactory conditions of the 170 million acres of public rangelands in 16 Western States. But progress is slow and costly. GAO made this review to determine the status of, and progress being made under, the Bureau's programs for managing and protecting these rangelands.

RANGELAND LEGISLATION AND USE

Federal rangelands, once considered to be excess wastelands, provide habitat for countless millions of animals, birds, fish, and other wildlife. They are also extremely valuable for livestock grazing, cultural resources, recreation, and minerals.

Several laws affect how the lands are managed. The main ones are the 1934 Taylor Grazing Act, the Federal Land Policy and Management Act of 1976, and the Public Rangelands Improvement Act of 1978. The 1934 act--the first major effort to control grazing on the public domain--was enacted as a result of the damage that unregulated domestic livestock grazing had caused. The 1976 and 1978 acts established a national commitment to maintain the rangelands, improve their condition, and make them as productive as feasible for all rangeland values.

The Bureau has issued over 20,000 grazing permits or leases to about 20,000 individuals and corporations to use these lands. Permittees with allotments range from large operators with thousands of cattle or sheep to some with a few animals. About 5.6 million cattle, sheep, and horses, including about 4 percent of the Nation's beef cattle and 28 percent of its sheep, depend on the rangelands for all or part of their yearly forage requirement. (See pp. 1 to 6.)

BETTER RANGE CONDITION DATA
NEEDED FOR MANAGEMENT DECISIONS

Because the Bureau has used different methods over the years to assess range conditions, the assessments' results cannot be directly compared to show the overall effects of the Bureau's management actions. Nevertheless, the assessments indicate that most of the rangelands are in an unsatisfactory condition and producing less than their potential. (See pp. 10 to 13.)

As required by the 1976 and 1978 acts, the Bureau has been inventorying resources and developing district monitoring systems to obtain data on range conditions and trends. This data is needed to provide information to the Congress and the public on the results and effectiveness of Bureau actions to achieve such management objectives as producing desirable forage for livestock grazing and providing suitable wildlife habitat.

The Bureau's current method of determining and classifying range conditions--comparing a site's existing vegetation with what is believed to be its potential vegetation in a natural state--is not directly related to management objectives, such as producing livestock forage. Consequently, it has little value for determining whether the Bureau has been effective in achieving its management objectives. (See pp. 13 to 15.)

Further, because the Bureau has allowed its field offices considerable flexibility in developing individual district monitoring systems, its field offices are using different methods for gathering rangeland trend and forage consumption data. GAO believes more consistency in data gathering is needed among districts with the same rangeland types and with similar resource conditions and problems. This would help assure that Bureau grazing decisions will result in consistent and equitable treatment of permittees and comparable data will be obtained for the Bureau's reports to the Congress and the public. (See pp. 15 to 18.)

Recommendation

To collect and provide more useful data on range conditions and trends, the Secretary of the Interior should direct the Bureau to:

- Develop an additional assessment method that will classify rangeland conditions in relation to management objectives.
- Require Bureau State offices, to the extent possible, to obtain consistent rangeland data to be used for (1) determining whether management objectives, such as bringing grazing use in line with grazing capacity, are being met and (2) reporting to the Congress and the public on the rangelands' overall condition. (See p. 19.)

Agency comments and GAO evaluation

Both Interior and the Department of Agriculture, which also manages grazing land, said that a new grazing monitoring concept, resource value rating, will enable them to classify range conditions in relation to management objectives and will be used in reports to the Congress and the public on overall rangeland condition. GAO agrees that this method, if properly developed and implemented, would respond to its recommendation.

Interior said that its policy provides for gathering data that is consistent in the sense that it is gathered at prescribed intervals but that the policy allows field offices to employ different study methods to collect it. Because each study method yields data of varying statistical reliability, GAO believes that consistent methods should be used on similar types of rangeland. (See pp. 19 and 20.)

ADDITIONAL OR ALTERNATIVE FUNDS NEEDED TO MAKE MORE TIMELY RANGE IMPROVEMENTS

In the mid-1960's the Bureau began an intensive grazing management program to improve the rangelands. A 1975 U.S. district court order, however, delayed development and implementation of range management plans until 144 site-specific environmental impact statements could be completed. As of May 1, 1982, 50 impact statements had been completed. The other 94 are to be completed by 1988.

The 1976 and 1978 acts required the Bureau to develop generalized land use plans and make periodic inventories of range conditions and trends.

Although the Bureau has concentrated its efforts since 1975 on developing environmental impact statements and land use plans and on inventorying resources, it installed \$22 million worth of improvements from 1978 through 1981. About 84 percent of these funds went for water facilities and fences.

However, the decreasing availability of improvement funds caused by budget cuts and declining grazing fees, coupled with the increasing cost of range improvements, can be expected to further delay the Bureau's progress in improving range conditions and productivity once the range management plans are completed. At the 1981 funding level (\$8 million), it could take the Bureau over 20 years to install an estimated \$183 million in needed range improvement projects. (See pp. 21 to 30.)

An accelerated range improvement program would result in less overall capital costs, assuming continuation of inflation, and make the rangelands more productive sooner, which would benefit range users like permittees, recreationists, and wildlife. To more fully accelerate the improvement program, alternative sources of funds for improvement projects would be required. (See pp. 30 to 39.)

Recommendations

The Secretary of the Interior should:

- Test and evaluate the feasibility of expanding the Experimental Stewardship Program authorized by the 1978 act, which allows permittees to receive up to a 50-percent credit of their annual grazing fees for making range improvements.
- Provide those incentives which the Department determines to be needed to encourage permittees to make range improvements. This could include such things as providing investment protection and identifying and removing undue administrative constraints that may discourage private investments. (See p. 44.)

Agency comments and GAO evaluation

Both Interior and Agriculture stated that it would not be appropriate to expand the Experimental Stewardship Program's fee incentive segment because

they did not want to separate this segment from the overall experimental program.

During the last 4 years, little progress has been made to test the program's fee incentive segment. In response to a GAO questionnaire, 83 percent of the large and 61 percent of the small permittees indicated that they would be willing to make improvements if they received a fee credit. GAO therefore believes that the Bureau should take action to test the feasibility of expanding the program's fee incentive segment to provide timely range improvements, especially since other funding sources are declining. (See pp. 41 and 42.)

MATTERS FOR CONSIDERATION BY THE CONGRESS

In a draft of this report, GAO proposed that the Secretary of the Interior determine the feasibility of requesting congressional action on three alternative sources for funding an accelerated range improvement program. Interior does not believe these alternatives are viable at this time. (See pp. 42 and 43.) If the Congress still wants to achieve the national commitment to make rangelands as productive as feasible and do it at an accelerated rate, it should assess alternative funding sources, such as:

- Amending the 1978 act to provide an interim increase in grazing fees, provided the funds are used to make range improvements where they are collected.
- Appropriating special funds already authorized by the 1978 act for range improvements.
- Amending the 1976 act to allow the Bureau to use a higher percentage or amount of grazing fees for making improvements. Currently authorized is the greater of 50 percent or \$10 million.

The latter two alternatives would result in increased Federal funding or decreased revenue and may not be practicable at this time in view of the Congress' and the administration's current efforts to control Federal spending. (See p. 44.)



C o n t e n t s

		<u>Page</u>
DIGEST		i
CHAPTER		
1	INTRODUCTION	1
	Federal laws and programs	1
	Bureau administration	3
	Rangeland uses	4
	Our prior reports	6
	Objectives, scope, and methodology	7
2	RANGE CONDITIONS--LIMITED DATA AVAILABLE FOR MANAGEMENT DECISIONS	10
	Range conditions	11
	Range conditions need to be classified according to management objectives as well as ecological conditions	13
	Need for consistent monitoring data	15
	Conclusions	18
	Recommendation to the Secretary of the Interior	19
	Agency comments and our evaluation	19
3	MAKING RANGE IMPROVEMENTS--A COSTLY AND TIME-CONSUMING TASK	21
	Improving public rangelands is a long-term process and is costly	22
	Alternative funding sources	30
	Conclusions	40
	Agency comments and our evaluation	41
	Recommendations to the Secretary of the Interior	44
	Matters for consideration by the Congress	44
APPENDIX		
I	GAO questionnaire and large permittees' responses	45
II	GAO questionnaire and small permittees' responses	52
III	Rangeland condition assessments made in the Drewsey Resource Area in Oregon from 1955 through 1976	59
IV	History of grazing fees	60

APPENDIX

Page

V	Letter dated August 4, 1982, from Deputy Assistant Secretary, Land and Water Resources, Department of the Interior	62
VI	Letter dated August 2, 1982, from Chief, Forest Service, Department of Agriculture	67

ABBREVIATIONS

AUM	Animal unit month
EIS	Environmental impact statement
FLPMA	Federal Land Policy and Management Act
GAO	General Accounting Office
NEPA	National Environmental Policy Act
PRIA	Public Rangelands Improvement Act

CHAPTER 1

INTRODUCTION

Our Nation owns vast acreages of largely fragile, uninhabited, deteriorated, but highly sought after public rangelands in 16 Western States. 1/ Since 1934 the Congress, reacting to changing public interests, has enacted a variety of laws covering use and management of the rangelands. These laws, initially directed by a custodial philosophy, now reflect the national commitment to maintain and improve the condition of public rangelands and to make them as productive as feasible for all rangeland values. The Bureau of Land Management in the Department of the Interior administers 170 million acres of the public rangelands. 2/

FEDERAL LAWS AND PROGRAMS

For a long time the Federal Government considered the public rangelands as wastelands that were being held for ultimate disposal. In 1934 the Congress enacted the Taylor Grazing Act, the first in a series of laws that have increased the Federal Government's role in administering these lands. This act was intended to provide control over the use of open rangelands, which had been subject to heavy and detrimental use, and to stabilize the livestock industry that depends on the public range.

The act directed the Secretary of the Interior to stop injury to the lands caused by unrestricted grazing; regulate their occupancy and use; and provide for their orderly use, improvement, and development. The act also directed the Secretary to establish and charge fees for grazing and authorized him to issue grazing permits. The act further provided that fences, wells, reservoirs, and other improvements necessary to the care and management of the permitted livestock could be constructed on the public land.

1/Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Utah, Washington, and Wyoming.

2/The Department of Agriculture's Forest Service administers additional Federal rangelands associated with the National Forest System. The Forest Service's rangelands were not included in the scope of our review, although Agriculture was given the opportunity to comment on a draft of this report. Agriculture's and Interior's comments are printed as appendixes to this report and have been incorporated in the body of the report as appropriate.

Grazing privileges are based on such factors as the historical use pattern of public rangelands and ownership of nearby privately owned ranch property or water resources at the time the act was passed. Grazing privileges are thus commonly described as land-based or water-based. These grazing privileges pass to others through sales or leases of the land or water ownership.

From enactment of the Taylor Grazing Act until 1976, the Federal interest in public rangelands was essentially limited to a custodial role and the Government paid little attention to these lands. In 1976 the Congress changed the management policy by enacting the Federal Land Policy and Management Act (FLPMA). This act established a broad policy that public lands be retained in Federal ownership unless it is determined that disposal of a particular parcel will serve the national interest.

In FLPMA the Congress said that the quality of a substantial amount of the Federal rangelands was deteriorating. It added that implementing range improvements could stop much of the deterioration and lead to substantial improvement of forage conditions, with resulting benefits to wildlife, watershed protection, and livestock production. To improve the rangelands' unsatisfactory condition, FLPMA set aside 50 percent of the grazing fee receipts to be used for on-the-ground range rehabilitation, protection, and improvements, including but not limited to seeding and re-seeding, fence construction, weed control, water development, and fish and wildlife habitat enhancement.

FLPMA further required that present and future uses be determined through land use planning and that the lands be managed under the principles of multiple use and sustained yield, unless otherwise specified by law. This requirement intended that land be managed so that the resource values are used in the combination that will best meet the present and future needs of the American people. The combination of balanced and diverse uses is to take into account the long-term needs for renewable and nonrenewable resources, including but not limited to recreation; range; timber; minerals; watershed; wildlife and fish; and natural scenic, scientific, and historical values.

In the 1978 Public Rangelands Improvement Act (PRIA), the Congress reaffirmed the national policy and commitment to manage, maintain, and improve the condition of the public rangelands so that they become as productive as feasible for all rangeland values. PRIA amended FLPMA to provide that the greater of 50 percent or \$10 million a year of grazing fee receipts be made available for appropriation for on-the-ground range rehabilitation, protection, and improvements. PRIA also authorized additional appropriations, over and above the Bureau's basic authorization, of at least \$360 million over the next 20 years.

For PRIA the term "range improvement" was defined as any activity or program on or relating to rangelands which is designed to improve forage production, change vegetative composition, control use patterns, provide water, stabilize soil and water conditions, and provide habitat for livestock and wildlife. The term includes but is not limited to structures, treatment projects, and use of mechanical means to accomplish the desired results.

In addition to complying with the Taylor Grazing Act, FLPMA, and PRIA, the Bureau must comply with several other laws that affect its range management program. These include the Wild Free-Roaming Horse and Burro Act of 1971, the Endangered Species Act of 1973, and the National Environmental Policy Act of 1969 (NEPA).

NEPA requires Federal agencies, including the Bureau, to prepare detailed environmental impact statements (EIS's) for all proposed major Federal actions significantly affecting the quality of the human environment. In response to NEPA, the Bureau developed a single EIS in 1974 covering grazing on all public rangelands. However, a U.S. district court subsequently found the statement to be inadequate to meet the intent of the act. Ultimately, the court required the Bureau to complete, by 1988, 144 site-specific grazing EIS's covering the public rangelands. Bureau officials told us that as of May 1, 1982, the Bureau had completed 50 site-specific statements covering almost 68 million acres.

BUREAU ADMINISTRATION

The Bureau has management responsibility for a variety of programs concerning 325 million acres of public lands in 28 States.

The Bureau's budget is complex. Its 1983 budget request amounts to \$1.26 billion, of which \$756 million is estimated for payments to States and counties in the form of shared revenue and \$45 million is proposed for in-lieu-of-taxes programs. About \$455 million has been requested for land and resource management programs, which include range management programs. The Bureau's funding for grazing management is small compared with its overall funding. For 1983 only \$32.3 million has been requested for grazing management, or about \$3.3 million less than the \$35.6 million authorized for 1982.

The Bureau also receives an appropriation for making on-the-ground range improvements. This appropriation is derived from grazing fees and certain mineral leasing receipts collected during the previous year. About \$13.2 million was appropriated in fiscal year 1982 for such improvements. However, the Bureau estimates that because of lower grazing fees, this appropriation will decrease in fiscal year 1983 to about \$11 million.

The Bureau's headquarters is in Washington, D.C. It has field operations in the Western States and a data processing financial center in Denver. State operations are directed by 12 State offices, and activities are carried out locally through 55 district and 162 resource area offices.

RANGELAND USES

Of the 174 million acres of Bureau land in the 16 Western States, about 170 million are classified as rangelands. Rangelands include grasslands, woodlands, meadows, shrublands, and deserts. Public rangelands provide habitat for countless millions of animals, birds, fish, and other forms of wildlife. Early settlers established a predominant and still existing use of the land for livestock (cattle, sheep, and horse) grazing. Recently, increased emphasis has been placed on public rangelands for their mineral value; their value as watersheds, wilderness areas, and scenic preserves; and their rich recreational, historical, and cultural resources.

Livestock users

Beginning in the mid-1700's, intensifying in the 1800's and continuing into the 1900's, livestock interests in the West have made heavy, and sometimes destructive, use of the rangelands. The greatest impact was caused by severe drought and extensive overgrazing in the 1800's.

During the 1981 grazing season, approximately 20,000 individuals and corporations held a total of about 20,600 grazing permits to use Bureau-managed land. This land provided all or part of the yearly forage for about 5.6 million cattle, sheep, and horses. About 4 percent of the Nation's beef cattle and 28 percent of its sheep graze on public rangelands.

The livestock permittees with allotments of Bureau land range from extremely large operations that have thousands of cattle and sheep to permittees with only a few animals. Our analysis of the Bureau's permittee master file provided the information shown in the following table on the makeup of grazing permits for the 1981 grazing season. The permittees included full-time family farm operators, large agribusiness corporations, speculators, hobby interests, and persons who depend on the permit for subsistence.

Bureau of Land Management
Active Grazing Permits for the 1981 Grazing Season

Adminis- trative State (note a)	Size of permit in animal unit months (note b)								Total
	0 to <u>49</u>	50 to <u>99</u>	100 to <u>499</u>	500 to <u>999</u>	1,000 to <u>1,999</u>	2,000 to <u>4,999</u>	5,000 to <u>9,999</u>	10,000 and up	
Arizona	235	90	279	125	117	68	19	4	937
California	303	147	266	70	67	44	18	5	920
Colorado	596	272	638	179	103	59	14	4	1,865
Idaho	648	309	824	250	189	122	33	9	2,384
Montana	1,546	668	1,583	410	261	87	11	3	4,569
Nevada	38	19	148	93	121	130	87	76	712
New Mexico	680	282	823	300	285	192	48	16	2,626
Oregon	863	236	454	150	114	118	34	7	1,876
Utah	313	229	768	229	162	152	35	12	1,900
Wyoming	898	326	816	290	204	171	47	29	2,781
Total	<u>6,018</u>	<u>2,578</u>	<u>6,599</u>	<u>2,096</u>	<u>1,623</u>	<u>1,143</u>	<u>346</u>	<u>165</u>	<u>20,570</u>
Percent	29	12	32	10	8	6	2	1	100

a/The administrative States manage all the Bureau's grazing permits, some of which cover lands in other States.

b/An animal unit month (AUM) is the estimated amount of forage required to sustain one cow or five sheep for 1 month.

Livestock permittees vary in how much they depend on Federal land for continued operations. Many depend largely or totally on public rangelands; others depend little on them. The degree of dependence generally relates to the degree to which operators need to provide forage for use in the nongrazing season or when other forage sources are not sufficient to fill their needs. An economic dependency may also exist because Federal forage generally costs less than private forage. (See ch. 3 for a discussion of grazing fees.)

Besides the grazing permit's forage value, other economic benefits accrue to permit holders. These include providing security for loans from financial institutions and increasing the value of the holder's property. Some permit holders do not own livestock but continue to hold permits. Additionally, some ranchers pay for their full grazing preference even when they use less forage in order to protect their grazing privileges and the value of the permit.

Other users of public rangelands

In recent years the general public and a number of industries have shown a growing interest in public rangelands. Increasingly, the public has attached importance to conserving natural resources, including watershed, virgin soil, native vegetation, and wildlife. The public has also expressed considerable concern about the need to protect the environment and wilderness areas and about the importance of preserving cultural, archeological, and historical values.

At the same time greater demands are being made for outdoor recreation, including camping, boating, fishing, hiking, nature study, and use for off-road activities involving motorcycles and four-wheel-drive vehicles. Also, industry is demanding more access to the land to develop commercially valuable resources such as oil, gas, energy minerals, and geothermal sources. Developing these resources involves considerable Bureau effort and produces significant income to the Government and the States.

OUR PRIOR REPORTS

In a July 1977 report entitled "Public Rangelands Continue To Deteriorate" (CED-77-88), we concluded that the Nation's public rangelands had been deteriorating for years and for the most part were not improving. We said that these lands needed to be protected through more aggressive and effective management. The report dealt with the need for the Bureau to update land management plans, discontinue destructive grazing practices, seek assistance from livestock operators for range improvements, and keep the Congress informed about Bureau actions to improve range conditions and the effects of insufficient staffing.

In a July 1980 report entitled "Changes in Public Land Management Required To Achieve Congressional Expectations" (CED-80-82), we concluded that public land managers, including the Department of the Interior, were having difficulties meeting congressional and executive department expectations of improving the condition of the range. We pointed out that recent developments had complicated public land management and made it increasingly more difficult to strike an appropriate balance between development, conservation, and environmental protection. We said that legislative requirements for public participation and a growing interest in the way public lands are managed had prompted private citizens and special interest groups to become more involved and to exert greater influence on Bureau decisions. We added that although this involvement had undoubtedly been beneficial, it had nevertheless resulted in significant limits on resource use and development and in unpredictable events, such as court challenges and administrative appeals with which the Bureau had to deal. We also pointed out that limited Bureau staff and funds had hampered

effective land management activities. Although staff and funds had increased, they had not kept pace with the unprecedented number of new responsibilities and specific tasks assigned to the Bureau by legislation, executive orders, and court decisions.

OBJECTIVES, SCOPE, AND METHODOLOGY

Our main review objective was to determine the status of, and progress being made under, Federal programs for managing and improving public rangelands. Other objectives were to find out the Bureau's plans for financing range improvements and who benefits from the improvements. We also examined the controversy over Federal grazing fees. We made the review in accordance with generally accepted government auditing standards.

We made our review at the Bureau's headquarters in Washington, D.C., and at various field sites. We selected some field sites because earlier EIS's had been completed for them and improvements had been made there. We anticipated that reviewing the older improvements would provide the greatest chance of showing the impacts of range management. We selected other field sites where no EIS's had been prepared to determine whether range improvements had been inhibited. We consulted with Bureau officials and accepted their advice for selecting some sites. The field sites we visited were as follows:

<u>State</u>	<u>Bureau organization</u>	<u>Planning area</u>
California	State Office, Sacramento District Office, Susanville Resource Area, Cedarville	Tuledad-Homecamp Cowhead-Massacre
Colorado	State Office, Denver Bureau Data Center, Denver District Office, Canon City Resource Area, Alamosa	San Luis
Idaho	State Office, Boise District Office, Salmon Resource Area, Salmon	Challis-MacKay
Montana	State Office, Billings District Office, Miles City Resource Area, Miles City	Powder River
Nevada	State Office, Reno District Office, Carson City Resource Area, Carson City	Lahontan

New Mexico	State Office, Santa Fe District Office, Albuquerque Resource Area, Albuquerque	Rio Puerco
Oregon	State Office, Portland District Office, Burns Resource Area, Burns	Drewsey-Riely

While visiting these sites, we interviewed Bureau officials; inspected the rangelands with Bureau range conservationists, range scientists, Bureau management officials, and environmental group representatives; and met with bankers, State officials, and permittees. We also reviewed and analyzed EIS's; allotment management plans; permittee files; maintenance files; financial records; rangeland condition, trend, and utilization records; and various other documents, reports, and studies. We accessed data files in the Bureau's Denver Service Center to obtain information on permittees and range usage.

We met with range scientists from universities and the Department of Agriculture and with representatives of environmental groups and the National Cattlemen's Association to obtain their views and concerns. We also reviewed applicable legislation, regulations, Bureau policies and procedures, and material relating to rangeland and range management prepared by Agriculture's Soil Conservation Service, the National Academy of Sciences, and the Office of Technology Assessment. We also discussed with officials of Agriculture's Forest Service a fee study being done by the Service and the Bureau.

During the initial stages of our review, it became apparent that little broad-scope, statistically projectable information was available on range conditions and permittees' operations. Therefore, we sent a questionnaire to 646 holders of Bureau grazing permits and leases. (See apps. I and II for a copy of the questionnaire and the aggregate results.) The purpose of the questionnaire was to determine the permittees' attitudes and opinions on such issues as their allotments' forage condition, Bureau management practices, the multiple-use impact on rangelands, and grazing fees.

We selected our sample from a computer listing of 20,570 holders of grazing permits and leases. This listing, furnished by the Bureau, contained information current at July 1981 on the grazing year ended March 31, 1981. We identified all large permit holders (those with 10,000 or more AUM's) and asked each to respond to the questionnaire. (See app. I.) The smaller permit holders were randomly sampled by using a systematic selection procedure with a random start. This statistical sample enables us to draw conclusions about the universe of interest on the basis of information in a sample of that universe. (See app. II.)

The results from a statistical sample are always subject to some uncertainty or sampling error because only a portion of the

universe has been selected for analysis. This sampling error consists of two parts: confidence level and range. The confidence level indicates the degree of confidence that can be placed in the estimates derived from the sample. The range, or precision, is the plus or minus range within which the universe value would be expected to be found. For example, from our sample of permittees with less than 10,000 AUM's, 50 percent reported 21 or more years' experience with grazing conditions on their Bureau allotment. Our sample size permits us to be 95-percent confident that the true percentage of permittees with 21 or more years' experience is within plus or minus 5 percent of the sample result (or within a range of 45 to 55 percent).

As the completed questionnaires were returned, we edited them and keypunched the responses to create a computerized data base. We reviewed the data base for obvious errors and consistency within each instrument and verified a 5- to 10-percent random sample of the data elements back to the original questionnaire. This verification process indicated a negligible keypunch error rate (.0001). All detected errors were corrected before the data was analyzed.

Additional quality control procedures could have included data validation. This could have involved validating a sample of specific question responses back to agency records or other documentation to establish the degree of data credibility. We did not validate the responses because most of the questions asked for opinions rather than verifiable facts.

The universe of large permittees and random sample of small permittees are referred to separately throughout this report.

The 514 usable responses represented 83 percent of the net potential respondents. The following table shows summary information on our sampling methods and response rates.

	<u>Permittees with over 10,000 AUM's</u>	<u>Smaller permittees</u>
Method of selection	Universe	Sample
Questionnaires mailed out	148	498
Less nondeliverable, duplicate, and uncompleted questionnaires	<u>4</u>	<u>19</u>
Net potential respondents	<u>144</u>	<u>479</u>
Usable responses	131	383
Usable responses as a percent of net potential respondents	91%	80%

CHAPTER 2

RANGE CONDITIONS--LIMITED DATA

AVAILABLE FOR MANAGEMENT DECISIONS

Although it is widely accepted that past overgrazing damaged our Nation's rangelands, records are not available to show the past conditions of vegetation, soils, and watershed. At various times over the years, the Bureau has assessed range conditions and trends. These assessments indicate that most of the rangelands are in an unsatisfactory but relatively stable condition and are producing less than their potential. These assessments, however, have not been made consistently and consequently have not produced information to measure the effectiveness of the Bureau's overall management of the rangelands.

As required by FLPMA and PRIA, the Bureau has been inventorying resources and developing district monitoring systems to obtain data on range conditions and trends. The Bureau needs the data to effectively manage public rangelands and to provide periodic comprehensive information to the Congress and the public on the results and effectiveness of its management activities.

The Bureau's current method of classifying rangeland conditions according to potential natural vegetation is not directly related to management objectives. Consequently, it has little value for determining the effectiveness of Bureau actions to achieve such objectives as producing desirable forage for livestock grazing and providing suitable wildlife habitat. We believe that the Bureau also needs to make condition assessments that can be related to management objectives so it can determine whether its actions have been effective in achieving its objectives.

The monitoring systems that are being developed are intended to provide information that can be used to supplement inventory data, establish grazing patterns, and evaluate trends and Bureau actions to meet management objectives such as determining proper grazing use levels. Because the Bureau has allowed its field offices considerable flexibility in developing individual district monitoring systems, these systems differ in the methods used for gathering rangeland trend and vegetation consumption data and evaluating it to determine proper stocking levels and grazing use adjustments.

Field offices need some flexibility to select monitoring methods applicable to their resource conditions and problems, and somewhat different methods may be warranted for different rangeland types, such as those with mostly perennial grasses and those with annual grasses. However, we believe more consistency is needed among the districts with the same rangeland types and with similar resource conditions and problems. Without consistent monitoring systems, the Bureau has little assurance that its

decisions will result in consistent and equitable treatment of range users. Further, the Bureau has little assurance that the existing monitoring systems will result in the districts' providing comparable data which can be used to summarize the overall effect of grazing on range conditions and trends.

RANGE CONDITIONS

Accurate scientific records are not available on what the specific range conditions were before livestock grazing was introduced in the 1700's and 1800's. However, it is widely accepted that past overgrazing permanently damaged our Nation's public rangelands and that they cannot be restored to their pregrazing state. Through intensive, uncontrolled domestic livestock grazing that intensified in the late 1800's and continued into the early 1900's, much of the fragile rangelands--remarkably stable for thousands of years--were in a very short time reduced from their perceived historic grassland state to a more desert-like state. The greatest impact was caused by severe drought and extensive overgrazing in the 1800's.

Livestock tend to graze on grasses needed for ground cover and graze only around areas with adequate water rather than spreading their grazing over wider areas. If not controlled, they will follow these patterns, grazing repeatedly on more desirable plants. According to range scientists, overgrazing caused severe depletion and, in some cases, total eradication of extensive stands of native grasses. This led to an increase in less desirable plants and caused soil and watershed loss to the point where it is impossible to return much of the rangelands to their pregrazing state.

Not only have the rangelands been damaged by the combined effects of drought and overgrazing, but many of the permittees expressed strong beliefs that the current multiple use of the range is causing deteriorated grazing conditions. Of the permittees responding to our questionnaire, 54 percent of the large permittees and 31 percent of the small permittees responded to this effect. Permittee comments included the following:

- The greatest deterioration to Bureau grazing land is the trespassing of off-road vehicles and vandalism to our wells, houses, and fences. There should be some kind of law giving the ranch operator control over who enters his ranch.
- In my opinion, the disturbing of grazing livestock by hikers, rock hounds, and other traffic will deteriorate the grazing.
- Wild horse and burro overpopulation is a major problem.

- Too much vandalism. In some places people take the steel posts; in other places they take posts and wire, too. Also, commercial gates disappear.
- I would like more protection when it comes to protecting my few head--when it comes down to cattle rustling. When I raise four cows for my own use and someone steals one, I do not benefit.
- The racing by motorcycles sanctioned by the Bureau is very disruptive, and they never regrade the roads after races--it causes erosion problems.
- Skidding tire tracks, killing perennial grass, making ruts that start a chain reaction of erosion and loss of top soil--this is from hunters and oil men both.
- Wild horses are being ignored and are a big problem.

According to Bureau officials, a 1975 report that the Bureau prepared for the Senate Committee on Appropriations, while old, is the best report available on overall range conditions and trends. The report indicates the rangelands' livestock forage conditions as of December 1974. Livestock forage condition is a measure of a rangeland's well-being in relation to its potential under ideal grazing management. According to the report, 83 percent of the rangeland was in fair or worse condition and therefore unsatisfactory because both soil and plant cover were deteriorated. The report shows the condition of about 163 million acres of rangeland in five condition classes as follows:

	Condition classes				
	<u>Excellent</u>	<u>Good</u>	<u>Fair</u>	<u>Poor</u>	<u>Bad</u>
Acreage (in millions)	3.2	24.4	81.5	45.6	8.2
Percent	2	15	50	28	5

The report also contains trend data showing that livestock forage conditions were improving on 19 percent of the land, indefinite or stable on 65 percent, and declining on 16 percent.

At a meeting which included Interior's Deputy Assistant Secretary for Land and Water Resources and the Bureau's Deputy Director, Land and Renewable Resources, Interior headquarters officials told us that the 1975 report reflects conditions caused by events long before the 1934 Taylor Grazing Act. According to the officials, when the act was passed the condition of the range was at its worst. They said that since then it has started to come back but still has a long way to go to become as productive as

feasible. This belief is supported by permittees' questionnaire responses which indicated that although many more range improvements are needed, the forage conditions have improved during the permittees' span of experience, which for half was more than 20 years.

More recent Bureau assessments of range conditions are based on the rangelands' ecological condition. Ecological condition is unlike livestock forage condition in that it is a measure of the rangeland's well-being in relation to its potential natural vegetation. A 1980 Bureau analysis of the first 22 grazing EIS's showed that 69 percent of the public rangeland covered by these statements was in fair or worse ecological condition--that is, producing less than half its potential natural vegetation.

RANGE CONDITIONS NEED TO BE CLASSIFIED
ACCORDING TO MANAGEMENT OBJECTIVES AS
WELL AS ECOLOGICAL CONDITIONS

Range conditions need to be classified not only according to potential natural vegetation but also according to management objectives so the results can be used to evaluate the effectiveness of the Bureau's actions and adequately portray changes in range conditions. Because the Bureau has not consistently assessed range conditions and trends over the years, the data that has been collected cannot be used to show the overall results of the Bureau's range management actions. (See app. III for a description of the assessments made in one resource area from 1955 through 1976.)

PRIA requires the Bureau to

- periodically identify and categorize range conditions and trends as part of the inventory process required by FLPMA, keep the inventories current on a regular basis to reflect changes in range conditions, and make the information available to the public;
- periodically review the effectiveness of allotment management plans to determine whether they are improving range conditions; and
- manage, maintain, and improve the public rangelands' condition so that they become as productive as feasible for all rangeland values in accordance with management objectives and the FLPMA land use planning process.

The Bureau's management objectives generally include such things as producing desirable forage for grazing, providing suitable wildlife habitat, stabilizing the watershed, and providing recreation opportunities.

The Bureau's past range condition and trend studies measured the rangelands' livestock forage condition by comparing existing forage and soil characteristics to those believed attainable through ideal grazing management. However, the Bureau's more recent condition assessments, made as part of its inventory process, measure the rangelands' ecological condition--the degree of difference between existing vegetation and potential natural vegetation. This basis for making range condition assessments will continue as part of the Bureau's range monitoring program, which calls for periodic assessments of range conditions and trends. These assessments, to be made over a number of years, will tend to show whether the rangelands are returning to their natural state.

According to Bureau officials, ecological condition assessments are more consistent with the multiple-use concept because they do not depend on use as did the grazing forage assessments made for the 1975 Senate Committee report. (See p. 12.) Ecological ratings also provide the Bureau with a basis for determining the rangelands' potential for improvement. In addition, these assessments can be integrated with Forest Service and Soil Conservation Service condition ratings which are also based on ecological condition assessments.

In most areas, however, the Bureau is not trying to return rangelands to a natural state. The Bureau's objective in some areas is to maintain or develop higher proportions of certain native plants that are more desirable for livestock and wildlife grazing than the proportions available in these areas in their natural state. For example, in one area of New Mexico, the natural vegetation is pinon pine, which is not good vegetation for livestock grazing. The Bureau's management objective in this area is to reduce the amount of pinon pine and allow other native plants to grow.

In other areas the rangelands have been seeded with a nonnative plant, crested wheat grass, to provide better livestock grazing forage than that which natural vegetation would provide. Because ecological assessments do not consider nonnative plants in determining range conditions, such seedings would cause the rangeland they are located on not to be classified because there are no native plants or to be given other than an ecological classification, such as forage condition, which does not indicate the condition of the rangeland.

In still other areas like the Central Valley of California, where the plant communities consist of mostly annual plants, the ecological approach also has little value. Bureau officials told us that annual ranges cannot be properly evaluated in the ecological assessment of range conditions because of the great variability in annual production caused by highly varying precipitation.

For those rangelands not being returned to their natural state, measuring the ecological condition without relating it to management objectives will not allow the Bureau to adequately

determine whether its management actions are improving range conditions in relation to these objectives. Further, unless related to management objectives, ecological condition ratings will not fully reflect changes in range conditions brought about by the Bureau's management actions. According to the Soil Conservation Service's National Range Handbook, the ecological approach has little value if the plant community consists largely of annual plants or of nonnative species.

According to a Department of Agriculture range scientist, the current ecological approach is also very insensitive to short-term changes, either improvement or decline, in the vegetation resource. Because changes in range vegetation often occur very slowly and changes of up to 25 percentage points are required to change a site's condition rating, it could take several years before the ecological reporting system shows a change and thus reflects the results of the Bureau's management activities. Bureau officials told us that this insensitivity is greater when going from good to excellent condition rather than from poor to fair condition. They said that short-term change is often more evident at the poor and fair end of the scale.

NEED FOR CONSISTENT MONITORING DATA

Information obtained through monitoring systems is intended to be used to supplement inventory data; establish grazing patterns; evaluate trends; and identify, in the short term, the need for adjustments in management actions and/or grazing use levels. These systems must be related to management objectives if they are to provide data that is useful in determining the Bureau's success in meeting its objectives. If sufficient monitoring data had been gathered in past years on grazing allotments, the Bureau would have the information necessary to more properly manage grazing and assess the impacts of grazing on vegetation and soils. However, this information has not been obtained consistently in the past.

Current Bureau efforts to improve range conditions and productivity are focused on the management objective of bringing livestock use and other consumptive uses into line with estimated grazing capacity. This is done through management actions which include monitoring systems and grazing use adjustments. Although the Bureau is establishing grazing monitoring systems, its policy is to let each district office develop its own monitoring system with State office supervision.

As of May 1, 1982, four of the Bureau's State offices had developed monitoring plans that provide guidance to their district offices on the monitoring systems that should be developed. In reviewing these plans, we noted similarities and differences in their approaches to gathering monitoring data and in ways to interpret the results for determining stocking rates and making grazing

use adjustments. Besides climatic data, basically four types of monitoring data are used in Bureau monitoring systems: range condition, range trend, percent of vegetation consumed, and actual grazing use by the permittee. The following table shows how the State plans differed from being very specific to very general in recommending the methods to be used to gather monitoring data and interpret the results.

Comparison of State Offices' Range Monitoring Guidance

<u>State</u>	<u>Recommended method of obtaining data</u>				<u>Criteria for determining proper grazing use</u>
	<u>Condition</u>	<u>Trend</u>	<u>Vegetation consumed</u>	<u>Actual use</u>	
Arizona	(a)	(b)	(b)	(c)	No
California	(a)	(c)	(c)	(c)	No
Nevada	Ecological	Frequency	Key forage plant	Permittee supplied	Yes
Utah	(a)	Photo trend plot	Key forage plant	Permittee supplied	No

a/No specific method identified. However, as discussed on p. 14, the Bureau's range monitoring program calls for ecological condition assessments.

b/Establishment of new vegetation consumption studies is limited to grazed class or key forage plant and new trend studies to paced frequency and photo-plot measurement. Existing studies using other methods may be continued.

c/No specific method suggested. Districts may choose any method contained in the Bureau's draft monitoring manual (Monitoring Studies 4430). The draft manual contains nine methods for doing trend studies, eight for doing vegetation consumption studies, and two for doing permittee actual use studies. These methods vary in the time required to gather the data and in the confidence level of the results. All methods provide compatible but not directly comparable data.

As a result of the variance in the State offices' guidance, the district offices' individual monitoring plans also varied. For example, because of the California State office's general guidance, the district offices in that State were using three different methods for determining range trend and vegetation consumption data. According to a California district official, no criteria have been developed for making grazing use adjustments. On the other hand, all district offices in Nevada, where the State office had provided specific guidance, were using the same methods to collect monitoring data and the same criteria for making grazing use adjustments.

Although Bureau officials told us that different types of rangeland may require different methods of collecting monitoring data, some State offices have not taken action to ensure that consistent methods are used for similar types of rangeland, such as those with annual or perennial grasses. Unless consistent methods of collecting monitoring data and evaluating the results to make grazing use adjustments are adopted Bureau-wide to the extent possible, the Bureau has little assurance that its decisions on similar types of rangeland will result in consistent and equitable treatment of permittees. Further, there is little assurance that the existing monitoring systems will provide the Bureau with comparable data which can be used to summarize and report to the Congress and the public on the overall effect of management actions on range conditions and trends.

In its August 4, 1982, comments (see app. V), Interior said that the Bureau had recently developed a national level monitoring and inventory policy for guidance to all the State and field offices, dated April 16, 1982, and had developed a draft monitoring manual section that identifies specific approved monitoring methods. It added that each State office had developed or was developing monitoring plans for more specific guidance to the field offices. It said that from this guidance, each field office was tailoring a site-specific monitoring plan that was responsive to its needs.

According to Interior, the draft manual section identifies various monitoring methods to give the field offices flexibility in selecting a method. It said that each method is applicable to differing resource conditions and yields data of varying statistical reliability. It added that it was important for the Bureau to allow the field offices flexibility in selecting monitoring methods that are applicable to their resource conditions and problems and that will yield a level of data commensurate with their needs.

Interior also said that:

"Rather than using the same monitoring methods in similar types of rangeland, it is more important that once monitoring studies are initiated, those studies be continued. Gathering data with the same method, in the same area over a span of years is what results in reliable data.

"Similar methods do not assure equitable treatment of permittees/lessees. Approved methods must be utilized, but most importantly, the permittees/lessees must be given the opportunity to understand and participate in the monitoring program."

We agree that the field offices need some flexibility in selecting monitoring methods and that once a good grazing monitoring system has been implemented, it is important to continue to

use the same system to gather comparable data. We also agree that similar methods, in themselves, will not assure equitable, treatment of permittees. Rather, good decisions based on reliable, compatible data are what result in equitable treatment. We agree that permittees/lessees must be given the opportunity to understand and participate in any monitoring program established.

However, because its grazing monitoring systems are in the developmental stages, the Bureau has an opportunity to emphasize development of monitoring processes that will, to the extent possible, provide consistent methods among districts with the same rangeland types and with similar resource conditions and problems. This will provide comparable data which can be used to make equitable decisions and to summarize and report to the Congress and the public on the overall effect of management actions on range conditions and trends.

CONCLUSIONS

The Bureau's range management program has not had consistent data on range conditions and trends on which to base sound management actions for improving the deteriorated range conditions caused by past overgrazing. Although the Bureau has assessed range conditions over the years, the assessment methods have changed, causing a lack of comparability in the information gathered. Consequently, information is not available to measure the effectiveness of the Bureau's efforts to improve range conditions.

To develop data on conditions and trends, the Bureau is evaluating rangeland ecological conditions as part of its inventory and monitoring processes. These condition assessments could be more effective if they were also tied to management objectives. Without linking condition and trend assessments to management objectives, the Bureau will be unable to adequately assess or report on the effectiveness of its management actions to improve range conditions.

The Bureau's monitoring systems are intended to provide information needed to determine adequate stocking levels and make grazing use adjustments. However, the Bureau has not ensured that the data collected will be consistently gathered and applied to reach consistent and equitable grazing decisions. The Bureau should emphasize development of monitoring processes that will, to the extent possible, provide consistent monitoring methods to obtain condition, trend, vegetation consumption, and actual use data so it can more effectively manage the public rangelands. It should develop a consistent basis for evaluating monitoring data to determine stocking rates and make grazing use adjustments.

RECOMMENDATION TO THE SECRETARY
OF THE INTERIOR

We recommend that the Secretary of the Interior direct the Bureau to

- develop an additional rangeland condition assessment method that will classify conditions in relation to management objectives and
- require Bureau State offices, to the extent possible, to obtain consistent rangeland data to be used for (1) determining whether management objectives, such as bringing grazing use in line with grazing capacity, are being met and (2) reporting to the Congress and the public on the rangelands' overall condition.

AGENCY COMMENTS AND OUR EVALUATION

Both Interior and Agriculture commented on this recommendation. (See apps. V and VI.) Interior said that it was developing a new grazing monitoring concept, called resource value rating. ^{1/} According to Interior, this rating will allow progress reports on a local or national basis that express whether conditions are improving, static, or deteriorating in relation to the management objectives as measured by trend studies. Agriculture added that:

"The Forest Service is working toward the use of ecological status and/or resource value rating as a combined rating of range condition * * *. We feel this approach will be compatible with your recommendation.

"For your information, the Society for Range Management has taken a position of leadership to draw agencies, universities and land management organizations together to promote uniform methodology and terminology for range management inventories and assessments. The Forest Service is using the results of this effort in developing standards for classifying, defining and mapping ecological sites, and their use in data collection for range management inventory and monitoring needs. The results of this work are expected to be published by the Society for Range Management later this year."

^{1/}The value of vegetation present on an ecological site for a particular use or benefit. According to Agriculture, resource value ratings may be established for each plant community capable of being produced on an ecological site, including exotic or cultivated species.

Interior added that reports to the Congress and the public on the overall condition of the rangeland would be based on the resource value rating concept. It also said that reports on changes of rangeland condition would be based on trend studies and would be in relation to management objectives through use of the resource value rating. We agree that the resource value rating method, if properly developed and implemented, would respond to our recommendation.

On the matter of obtaining consistent data, Interior said that current Bureau policy provides for gathering rangeland data, by field offices, that is consistent in the sense that data on the percentage of forage used will be gathered annually and data on range condition trends will be gathered on a long-term basis. It said that although different study methods would be employed based on the local resource management circumstances, all studies would result in data on percent of use or trend of condition. It said that the use data would be used in determining that grazing use is in line with grazing capacity.

Agriculture said that:

"There are a number of specific methods to use in measuring vegetation and soil characteristics. Each of these methods has advantages and disadvantages depending on how used and the vegetation types it is used in. Consequently, it is not practical to have one method that can be used for monitoring changes in vegetation and soil as a result of livestock grazing.

"The Forest Service has delegated to the Regional Foresters the latitude to select the most suitable methods for their situations. Regional methods must meet national criteria for inventory standards, and be adequate to form a consistent base line from which to build a monitoring program."

As stated on page 17, we agree that field offices need some flexibility in selecting monitoring methods. We also agree that consistency in the sense of gathering data at prescribed intervals is important. It is not that type of consistency, however, at which our recommendation is directed. We believe that the data collection method needs to be consistent, to the extent possible. As Interior said in its comments (see p. 17), each method yields data of varying statistical reliability. Using consistent methods where possible should help limit variance and increase assurance that Bureau decisions are based on reliable, compatible data that results in equitable treatment.

CHAPTER 3

MAKING RANGE IMPROVEMENTS--A

COSTLY AND TIME-CONSUMING TASK

The Public Rangelands Improvement Act of 1978 sets forth a national commitment to maintain and improve the condition of public rangelands and to make them as productive as feasible for all rangeland values. The Bureau has made some progress toward achieving PRIA's objectives by establishing grazing systems and by making \$22 million in improvements since PRIA's enactment.

Since the mid-1970's the Bureau has been developing generalized land use plans for its rangelands as called for by the Federal Land Policy and Management Act of 1976. Also, since 1975 the Bureau has been preparing site-specific EIS's for 144 resource areas, which evaluate the environmental impacts of alternative uses of the range. The Bureau plans, after completing the statements, to develop allotment management plans, which identify the grazing systems to be used and site-specific land management objectives. As of May 1, 1982, 50 EIS's (34 percent) had been completed; the remainder are to be completed by 1988. As the EIS's and subsequent allotment management plans are completed, the demand for funds for range improvements can be expected to accelerate.

In fiscal year 1982 the Bureau had an estimated \$34.7 million backlog in range improvement projects. The Bureau also estimated that it would need an additional \$148 million or more for range improvement projects to achieve PRIA's objectives. If yearly expenditures for range improvements continue at the 1981 level of \$8 million, it would take the Bureau over 20 years to fund the range improvements necessary to make the rangelands as productive as feasible. An accelerated range improvement program would result in less overall capital costs, assuming continuation of inflation, and make rangelands more productive sooner, which would benefit permittees, recreationists, and wildlife. To make the rangelands more productive sooner, alternative sources of funds for improvement projects would be required. We identified the following four alternatives:

- Test and evaluate the feasibility of expanding the use of a PRIA provision that allows permittees to receive a credit on grazing fees for making range improvements.
- Request the Congress to amend PRIA to increase grazing fees for making range improvements.
- Request the special funding that PRIA authorizes for range improvements.

- Request the Congress to amend FLPMA to allow a higher percentage or amount of grazing fees to be used for making improvements.

The latter two alternatives would result in increased Federal funding or decreased revenue and may not be practicable at this time in view of the Congress' and the administration's current efforts to control Federal spending.

The Deputy Assistant Secretary for Land and Water Resources told us that Interior is considering another alternative--providing incentives to permittees to make range improvements. These incentives could include

- providing investment protection through either cooperative agreements or a rangeland improvement permit;
- assigning higher implementation priority to these projects when determining a schedule for implementing rangeland improvements of equal economic return;
- allocating resultant forage increases to permittees in proportion to their contributions;
- recommending that district offices, in consultation with grazing advisory boards, consider setting aside range betterment funds to be used to match investments;
- planning appropriate Bureau staff assistance and involvement in district office annual work plans to implement these projects; and
- identifying and removing undue administrative constraints that may discourage private investments.

IMPROVING PUBLIC RANGELANDS IS A LONG-TERM PROCESS AND IS COSTLY

During the last 30 years, the Bureau has spent an estimated \$100 million for range improvements; \$22 million has been spent since PRIA's enactment. In response to our questionnaire, 70 percent of the large permittees and 32 percent of the small permittees reported that the Bureau had made improvements on their allotments since 1965. This was about the time the Bureau began an intensive grazing management program to improve the rangelands.

The Bureau is preparing 144 site-specific EIS's and developing allotment management plans. This process is at a point where the Bureau is identifying projects for improving rangelands in the 50 areas with completed EIS's. The Bureau had a \$34.7 million backlog of range improvement projects in fiscal year 1982 and estimates

that an additional \$148 million or more will be needed to make range improvements that will be identified as more EIS's and subsequent allotment management plans are completed. Permittees responding to our questionnaire also identified many improvements needed on their allotments. At the 1981 level of funds spent for on-the-ground improvements (\$8 million), it could take the Bureau well into the next century to improve rangelands to the point where they are as productive as feasible.

Range conditions can be improved

According to various studies and reports, potential exists to improve the rangelands' conditions and productivity. Restoring the public rangelands depends heavily on the regeneration of desirable vegetation. Plants need to store food during their growing season to provide for nourishment during dormant periods and for growth at the start of the new growing season. If a plant is rested periodically, it can withstand grazing. However, if a plant is not rested, its food reserves become depleted and it ultimately dies. When a plant dies, its place may be taken by less desirable plants or--even worse--its loss could allow erosion to destroy the land resource and the watershed.

Improving the public rangelands' condition often involves a mix of adjustments in grazing management with investments in improvements. The Bureau has reduced some grazing privileges, obtained a better understanding of the scientific aspects of plant growth, implemented management systems, and constructed or provided range improvements. These actions have led to some improvements in range conditions for both livestock and other multiple-use interests. The following are examples of improved conditions in the resource areas we visited:

- An allotment in the Powder River Resource Area (Montana) had a rest-rotation grazing system implemented in 1974. Four years later increased vegetation and ground cover was found on a site that was previously considered deteriorated. The additional available forage also helped increase the wildlife population. Three years after the system was implemented, the elk population had increased from 20 to over 150.
- An allotment in the Drewsey Resource Area (Oregon) had a two-pasture rest-rotation grazing system implemented in 1977. This system had improved plant health and lessened conflict with recreational users along a reservoir. A 1981 survey showed that forage capacity had increased by over 1,600 AUM's since the new system was installed.
- An allotment in the Rio Puerco Resource Area (New Mexico) had a three-pasture rest-rotation grazing system implemented in 1975. A 1981 survey found that 41 percent of the allotment had improved from fair to good condition.

Vegetation manipulation projects have also improved range conditions where native grass stands were too deteriorated to respond to management. In the Burns District in Oregon, 43,000 acres had been cleared of undesirable plants and reseeded in crested wheat grass. The area has been managed primarily for forage production. Surveys in 1981 showed that forage production had increased by 16,500 AUM's since the seeding. This additional production was being used to help improve other pastures by allowing them to rest.

EIS and allotment management planning processes delayed improvements

Before 1975 the Bureau had been developing allotment management plans (1,158 as of June 1975) and installing improvements. However, this process was changed by a June 1975 U.S. district court order which followed a finding that the Bureau had violated the National Environmental Policy Act of 1969 by failing to prepare EIS's for specific areas of public lands. The Bureau had tried to comply with NEPA by developing a single grazing EIS for 13 Western States. In finding this approach out of compliance with NEPA, the court directed the Bureau to prepare 212 grazing EIS's and to complete them by 1988. Subsequently, this order was modified to require the Bureau to prepare 144 resource area EIS's.

The court-ordered EIS program essentially terminated development and implementation of about 4,300 additional allotment management plans until completion of the individual EIS's. Although the order permitted minor projects under certain circumstances, it precluded most of the significant improvements on rangeland where allotment management plans had not been prepared. This situation benefited some areas by giving them early priorities for EIS planning activities. However, it also resulted in areas with lower priorities having their allotment management planning and improvement programs stopped--not to be restarted until the EIS's were or are completed.

The EIS process, with its intensive, indepth gathering of information on many attributes of the land, including vegetation types, climatic data, wildlife, and other aspects, is expected to cost \$26 million. As of May 1, 1982, the Bureau had completed 50 statements at an estimated cost of \$12 million. It expects that the remaining 94 statements will cost an additional \$14 million when completed by 1988. Earlier EIS's cost as much as \$500,000 each, but the Bureau has streamlined its EIS process which has resulted in the average cost of statements being reduced from \$390,000 in 1978 to \$219,000 in 1980.

In reviewing seven resource areas in seven States, we noted delays in making needed improvements. For example:

--In the Rio Puerco Resource Area in New Mexico, it is unlikely that the Bureau will meet its goal of improving range conditions within 5 to 10 years, even though the planning essentially has been completed. Following the

1975 court order, the area was one of the Bureau's first EIS areas. Accordingly, planning activities were accelerated. The Bureau conducted extensive inventories in 1975, completed 61 allotment management plans, and prepared the final grazing EIS in May 1978. From 1975 to May 1978, over a 3-year period, planning activities halted implementation of allotment management plans and installation of improvement projects and grazing management systems. Even after the EIS was completed, implementation of improvements was further delayed by legal challenges; appeals on grazing use decisions; and, more recently, budgetary cutbacks.

--In the San Luis Resource Area in Colorado, also one of the first areas designated for an EIS, implementation was delayed for almost 3 years while the EIS process was under way. The process started in 1975 with formation of a special team to do the work. The EIS was filed in May 1978. The last of the management plans are scheduled for completion in 1986. While some improvements can be made as the individual plans are completed, the final stages of improvements will be installed after 1986. It is anticipated that improvements will cost \$1.23 million, exclusive of inflationary factors.

--The Powder River Resource Area in Montana is not scheduled to have an EIS until 1984, so few range improvements have been made since 1975. This means at least a 9-year delay will be experienced in that area, while inventorying, land management planning, and EIS writing are completed. In addition to the 9-year delay, actual on-the-ground construction time frames are unknown because local Bureau officials cannot anticipate the Bureau's priorities and funding levels. At the time of our review, the area had 664 allotments with only 31 allotments having management plans which were developed before the court order. Many other allotments will require management plans and intensive management, but this cannot be accomplished for an unknown number of years.

After an EIS is completed, the Bureau decides on the appropriate level of grazing use during consultations with the permittees. The Bureau and permittee then jointly prepare an allotment management plan to identify grazing systems and needed range improvements. The Bureau monitors range production on appropriate allotments to measure the success or lack of it in reaching management goals for grazing and other uses. The Bureau's approach, called selective management, recognizes that vegetation, soil types, and precipitation vary considerably. Due to the extreme range of potential for improving range conditions, these factors dictate that different types of methodology and management goals be selected to reach feasible and cost-effective management objectives. In its selective management approach, under which allotments are classified in one of three management categories,

the Bureau uses criteria based on similar characteristics of the resource, existing conflicts, and the potential for improvement. The three categories are:

- Custodial management, which permits grazing as currently authorized, excluded, or curtailed.
- Maintenance management, which permits grazing as currently authorized with limited improvements.
- Improvement management, which requires intensive range management and improvements.

The exact number of allotments needing improvement is not known. The Bureau plans to have 1,690 allotment management plans completed as of the end of fiscal year 1982. According to the Bureau's 1983 budget justifications, an additional 3,810 allotment management plans will be implemented in and after fiscal year 1983.

Significant funding needed
to improve range conditions

Bureau officials do not have precise cost estimates for needed on-the-ground range improvements. An estimate made for us, however, indicated that, overall, \$183 million or more could be needed for fiscal year 1983 and beyond. This estimate was made by multiplying the estimated number of allotment management plans that will need to be implemented (3,810) by \$48,000--the average cost estimate used by the Bureau for making improvements on an allotment. Of the \$183 million, \$34.7 million represents the estimated backlog of improvement projects on those allotments for which allotment management plans have already been written.

Bureau officials and permittees recognize the need for more on-the-ground improvements to further improve range conditions. The time needed to satisfy the congressional mandate to improve range conditions depends to a large extent on the amount of funds available for this purpose. During the last 4 fiscal years, the Bureau invested \$22 million for range improvements, as shown in the following table.

Bureau Range Improvement Investments
Fiscal Years 1978-81

Improvement type	Fiscal year				Total
	1978	1979	1980	1981	
----- (000 omitted) -----					
Fences and enclosures	\$1,208	\$1,232	\$1,503	\$2,098	\$ 6,041
Water facilities	2,022	2,696	3,141	4,716	12,575
Vegetation manipulation	212	296	583	1,009	2,100
Management facilities	<u>370</u>	<u>323</u>	<u>295</u>	<u>418</u>	<u>1,406</u>
Total	<u>\$3,812</u>	<u>\$4,547</u>	<u>\$5,522</u>	<u>\$8,241</u>	<u>\$22,122</u>

As the table shows, the Bureau spent \$18.6 million, or 84 percent of the range improvement funds during the last 4 years, to develop water facilities and fences and enclosures. In this period the average costs for these improvements increased significantly, as shown below.

Range Improvement Cost Increases
Fiscal Year 1978 to Fiscal Year 1981

Improvement type	Average cost (note a)		Percent of increase
	1978	1981	
Water facilities	\$5,465	\$8,020	47
Fences and enclosures	\$1,529	\$3,828	150

a/Cost per water project and per mile of fencing.

These cost increases reduced the Bureau's purchasing power. Range improvement expenditures more than doubled from fiscal year 1978 to fiscal year 1981; however, the number of completed projects did not. The number of water facilities completed increased by only 59 percent; the miles of fences and enclosures built, by 45 percent.

Until the needed on-the-ground improvements are constructed and grazing systems fully implemented, the Bureau's management programs will not effectively protect and improve rangelands to their full potential. According to the Chief of Biological Resources in the Bureau's California office, failure to improve the

rangeland could result in loss of soil through erosion, reduced plant life, loss of wildlife populations, increase in threatened and endangered wildlife and plant species, pollution of water sources by siltation, reduced aquifer recharge because of accelerated surface runoff, and reduced livestock grazing opportunities.

Improvements identified by permittees

Permittees responding to our questionnaire also indicated that improvements are needed on their allotments. It was not practical to develop information to show the specific amounts of improvements needed, such as miles of fences or acres of revegetation. The following table, however, shows the percentages of permittees who cited various range improvement needs.

Permittees Needing Range Improvements

<u>Type</u>	<u>Percentage of large permittees</u>	<u>Percentage of small permittees</u>
Fencing	59	28
Cattle guards	34	12
Springs	49	20
Pipelines	58	20
Wells	59	18
Reservoirs	63	31
Seedings	47	26
Brush control	72	40
Other	15	8

Need for project priority system

To protect range resources and expend range betterment funds in a cost effective way, the Bureau needs a priority system for implementing range improvement projects. A Bureau task force is studying the feasibility of setting priorities.

The Bureau has many resource areas with a high degree of variability in range site potential which are competing for range improvement funds. The competition for funds is becoming greater as the planning processes are completed in more resource areas and as range improvement costs increase. Thus, the Bureau is faced with the difficult problem of deciding which range improvements should be implemented, in what order they should be implemented, and how much should be spent.

Our inquiry into the basis for selecting projects to be developed in the various resource areas disclosed that no uniform policy or criteria are used. The Manager, Surprise Resource Area, California, told us that in some cases projects are initiated because a particular rancher may be cooperative or that installing

a given project may elicit future cooperation by setting an example that would cause other ranchers to participate. The current practice is to let the various field locations decide which projects to undertake. This raises a question as to whether the projects of greatest impact are undertaken, given the many variables such as vegetative potential and protection of resources with nonquantifiable values, such as archeological sites.

Since 1976 the Bureau's policy has called for the field offices to use cost-benefit analyses in setting priorities for range improvement projects. Some offices disregarded this; others used the process as provided; and still others modified the process. Bureau officials told us that in some cases these analyses were highly subjective and did not provide an objective measure of each project's worth. Some Bureau field staff were skeptical of the cost-benefit attempts and regarded them as nonproductive exercises.

With encouragement from the Office of Management and Budget, the Bureau created a task force to streamline the cost-benefit analyses process. The new process is intended to allocate available range improvement funds according to a rational process that considers all benefits and costs and places range improvements where they are most needed and will achieve the greatest return. The task force planned to issue its policy statement in September 1982.

Narrative comments from permittees responding to our questionnaire indicated concerns about the Bureau's improvement program. Generally, they were concerned that money has not been spent for on-the-ground improvements. Examples of their comments follow:

- Too much money is spent on administration. Primarily, most grazing fees carry the biggest share of the load, yet they pay for the administration of all other multiple-use programs.
- The Bureau has used range improvement monies to control wild horses.
- The Bureau keeps talking about making improvements but they never materialize.
- The Bureau has spent too much time and money using inexperienced personnel on environmental impact statements when the money could have been used to improve the grazing situation and in turn improve multiple-use aspects.

The validity of the permittees' concerns is indicated by the Bureau's fiscal year 1983 budget justifications, which state that beginning in 1983 the rangeland improvements account will be used exclusively for on-the-ground development and project survey and design. Other expenses associated with placing improvements on

the ground, such as contracting, typing, filing, and environmental analysis, will be borne by the grazing management program or other appropriate resource programs.

The Bureau's selective management policy (see p. 25) provides for varying the degree of management an allotment will receive based on its potential for improved condition and productivity. Specific criteria for determining the degree of management required are to be developed at the district level, approved by the State director, and made available to the public before analysis begins. Allotments selected for the improvement management category will have greater access to range improvement funds.

ALTERNATIVE FUNDING SOURCES

Bureau officials estimate that \$183 million or more will be needed for range improvement projects to achieve PRIA's objective of improving the public rangelands' condition and making them as productive as feasible. PRIA authorized special appropriations totaling at least \$360 million for fiscal years 1980-99 in addition to regular appropriations. As EIS's and subsequent allotment management plans are completed, the funding demands for range improvements will accelerate. At the 1981 expenditure level for improvements (\$8 million), it could be well into the next century before the Bureau achieves PRIA's objectives. To make the rangelands more productive sooner, alternative sources of funds for improvement projects would be required. Some of the alternatives are discussed below.

Expand use of an experimental reduced fee incentive

Expanding the use of PRIA's provision that authorizes permittees in the Experimental Stewardship Program to pay up to 50 percent of their grazing fees in the form of range improvement work would be one alternative for providing additional funds for range improvements. Our questionnaire results indicated that 61 percent of the small and 82 percent of the large permittees would make range improvement investments if they received a 50-percent credit against their grazing fees.

Section 12 of PRIA directs the Secretaries of the Interior and Agriculture to establish in areas they select an experimental program which provides incentives to, or rewards for, permittees whose stewardship results in improved range conditions. The program is to explore innovative grazing management policies and systems which might provide incentives that include but are not limited to

--cooperative range management projects designed to foster a greater degree of cooperation and coordination between

Federal and State agencies charged with managing the range-lands and with local private range users,

--the payment of up to 50 percent of a permittee's grazing fee in the form of range improvement work, and

--other incentives as deemed appropriate.

The Secretaries were directed to report to the Congress the results of this program no later than December 31, 1985.

In November 1979 the Bureau, in cooperation with the Forest Service, designated three areas as joint stewardship areas--Challis in Idaho, East Pioneer in Montana, and Modoc/Washoe in California. The Bureau also established stewardship programs with one permittee in each of five resource areas in New Mexico.

We visited the three designated joint stewardship areas, but as of August 1982 none had implemented the grazing fee incentive.

In response to permittee requests from the Modoc/Washoe stewardship area to implement the reduced fee incentive, the Bureau Director issued implementing guidelines in March 1982. Also in March 1982, the Bureau Director issued a memorandum which stated that the Modoc/Washoe was the only joint stewardship area authorized to test the reduced fee incentive. The approach and procedures to implement this incentive are being developed by the Modoc/Washoe Stewardship Committee which hopes to start testing the reduced fee incentive in 1983.

The Bureau's Deputy Director of Land and Renewable Resources attributed the delay in implementing the program to a concern that it might be abused. This concern developed when some permittees proposed that credit be granted for forage used for wildlife, including horses and burros, and that credit also be given for improvements made in the past. The Bureau has approved the experimental program in the Modoc/Washoe area to develop guidelines and controls.

Although none of the joint stewardship areas had implemented the reduced fee incentive, the five resource areas in New Mexico had begun a stewardship program with one permittee each. Four of these permittees were authorized to apply for the 50-percent credit if they make range improvements while the fifth permittee was not. The Chief, Branch of Biological Resources, in the Bureau's New Mexico office told us that three permittees had made improvements during 1982 and that one had received a credit in 1982. The other two will receive a credit against their 1983 grazing fee.

The Bureau believes that testing the reduced fee incentive in one joint stewardship area and with four permittees in New Mexico will provide an adequate sample for it to report to the Congress.

The permittees responding to our questionnaire strongly supported the idea of providing their own improvements if they received a 50-percent credit against their grazing fee. Our questionnaire results indicated that 61 percent of the small and 82 percent of the large permittees said they would be willing to make needed improvements if provided a grazing fee credit. Examples of the permittees' comments follow:

- We have in the present law rules that provide a very good way to return part of the fee to the land, and we should implement this option. Each operator should have his fair share back to invest in his allotment. If given an incentive, we would invest in the land.
- The fees should be kept low so the rancher can improve the ranch himself. This way it costs the Government nothing and the rancher can put the same improvements on the ranch for about half of what it costs the Government.
- We have made over \$500,000 of improvements. We do not need the Bureau to make improvements.
- The Bureau will not allow us to make improvements with our own money or Federal funds.
- Grazing fees should not be increased; rather operators should be encouraged to invest private capital in improvements.
- If the Bureau would permit the operator to make the improvements and deduct it from fees, he would be willing to make needed improvements. The operator can make improvements much cheaper than the Bureau can. Most operators would invest if they could be assured of the benefits. Many promises have been made by Bureau personnel which have not been kept--especially by the past two administrations. I do not think the blame is local but came from the top. I know my range can be greatly improved and will gladly help do it if some stability can be developed in the Bureau.

If permittees receive fee reductions in return for range improvement work, grazing receipts deposited to the U.S. Treasury and distributed to the States could be reduced. However, permittees may be able to make improvements faster and at less cost than the Government, which could lower the total investment needed to install range improvements.

Request funds for an accelerated
range improvement program

A second alternative for providing additional range improvement funds would be to accelerate the funding authorized by PRIA. Section 5 of PRIA authorizes the appropriation of at least \$15 million annually for fiscal years 1980-86 and \$20 million

annually for fiscal years 1987-99. These funds, which total at least \$360 million, are to be in addition to other funds appropriated to the Bureau for range management and range improvements. Of these special funds, 80 percent is to be used for on-the-ground rehabilitation, maintenance, and construction of range improvements, including project layout, project design, and project supervision.

The Congress appropriated \$5.6 million in special funds in fiscal year 1980 and \$9.4 million in fiscal year 1981. No special funds were appropriated in fiscal year 1982; none were requested by the Bureau in fiscal year 1983; and none are expected to be requested in fiscal year 1984.

In view of the estimated cost of \$183 million for range improvements, the Bureau could request such funds each fiscal year at the minimum authorized level or at higher levels. However, in view of congressional and administration efforts to control Federal spending, this alternative does not appear practicable at this time.

Raise grazing fees for range improvements

Another alternative for providing additional range improvement funds would be to increase grazing fees. For example, a \$1 increase above the current \$1.86 fee for an animal unit month could result in additional revenue of about \$10 million.

The most controversial area existing in Federal rangeland management is the issue of fees charged for livestock grazing. (See app. IV.) Over the years historical privileges, agency policy, Presidential direction, public opinion, and congressional mandates have resulted in many different methods being used to determine grazing fee rates. Consequently, at times wide variations existed in fees charged for Federal forage. At times these fees were less than the fair market value, thus not permitting a reasonable return to the Federal Government. To try to correct this situation, in 1978 the Congress provided in PRIA for a 7-year trial fee formula that the Bureau and the Forest Service are currently using. A major element of the formula is livestock production costs.

Although grazing fee rates on nearby private, State, and other Federal lands on the average are significantly higher and increasing, PRIA's grazing fee formula rates, which rose from \$1.51 to \$2.36 per AUM from 1978 to 1980, have since been decreasing. The formula's reaction to depressed livestock prices and increased production costs caused the grazing fee to be lowered to \$2.31 per AUM in 1981 and \$1.86 in 1982. This will reduce 1982 grazing receipts by \$4 million from the 1980 level.

The law provides for grazing fees to be linked to livestock production costs. The current situation of reduced grazing fees coupled with increased costs of range improvements will reduce

funding needed to make significant progress in the congressional objective of improving range conditions.

Our questionnaire results indicate that many permittees believed that the 1981 grazing fee of \$2.31 was too high or was set at about the right level. However, more than half the permittees, small and large, were neutral or supportive of a fee increase if the additional funds were used for improvements. Bureau headquarters officials noted that although the permittees may believe that the fees are about right, the general public and many ranchers who do not have Bureau permits believe that the fees are very low. They said that after each publication of a rate change, the Bureau receives correspondence from the general public and ranchers complaining that the rates are too low and that the persons writing offer to obtain the forage at these rates, if available. Similar comments were made by Bureau field officials.

PRIA requires the Bureau and the Forest Service to evaluate the 7-year trial fee formula and report to the Congress by December 1985 with recommendations for a fee to be used in 1986 and subsequent years. This study is under way and is expected to be completed by December 1984. The Bureau estimates that it will need \$183 million for range improvement projects to achieve PRIA's objectives, including its backlog of needed improvements of \$34.7 million. The Bureau could ask the Congress to amend PRIA to allow the Bureau on an interim basis to raise grazing fees, provided the increases are used to make improvements in those locations where the fees are collected. The increased receipts could then be used to complete some of the \$34.7 million in the backlog of needed improvements.

Current fee formula

The fee formula mandated by PRIA in 1978 was established on a 7-year trial basis because many groups and individuals concerned with range improvement disagree with the concept of basing grazing fees on cattle prices and the ranchers' ability to pay. In establishing the formula, the Congress stated that to prevent economic disruption and harm to the western livestock industry, it was in the public interest to charge a fee for livestock grazing on public lands which reflects annual changes in livestock production costs.

During the trial period, 1979-85, the Secretaries of the Interior and Agriculture are to charge a fee for domestic livestock grazing that, according to the Congress, represents the economic value of use of the land to the user. According to PRIA, the Congress found that the fair market value for an AUM equals the \$1.23 base established by the 1966 Western Livestock Grazing survey multiplied by the result of a Forage Value Index added to a Combined Index (Beef Cattle Price Index minus the Prices Paid Index) and divided by 100. Annual increases or decreases in the fee are limited to 25 percent of the previous year's fee. PRIA also requires that

a report on the results of the use of the fee formula be provided by the end of 1985 along with recommendations for implementing a grazing fee schedule for 1986 and subsequent years.

The fee formula contains three elements. One, the Prices Paid Index, represents production costs for all ranches for selected production items. This includes prices paid for commodities and services, interest, taxes, and farm wages. The second element, the Forage Value Index, is an index of the change from the previous year in the cost for pasturing cattle on privately owned leased lands. The third element, the Combined Index, is an index combining the average annual price for beef minus the Prices Paid Index mentioned above.

During the first 3 years that the formula was used, the fee increased from \$1.51 to \$2.36 per AUM. In the last 2 years the fee has decreased to \$1.86. These reductions are due to higher production costs and lower livestock prices. A summary of fees charged using the formula follows.

Grazing year (note a)	Fee per AUM	Total Bureau fiscal year grazing receipts
1978	\$1.51	\$16,317,000
1979	1.89	19,877,000
1980	b/2.36	24,602,000
1981	2.31	24,884,000
1982	1.86	c/20,593,000

a/A grazing year runs from March through February of the following year.

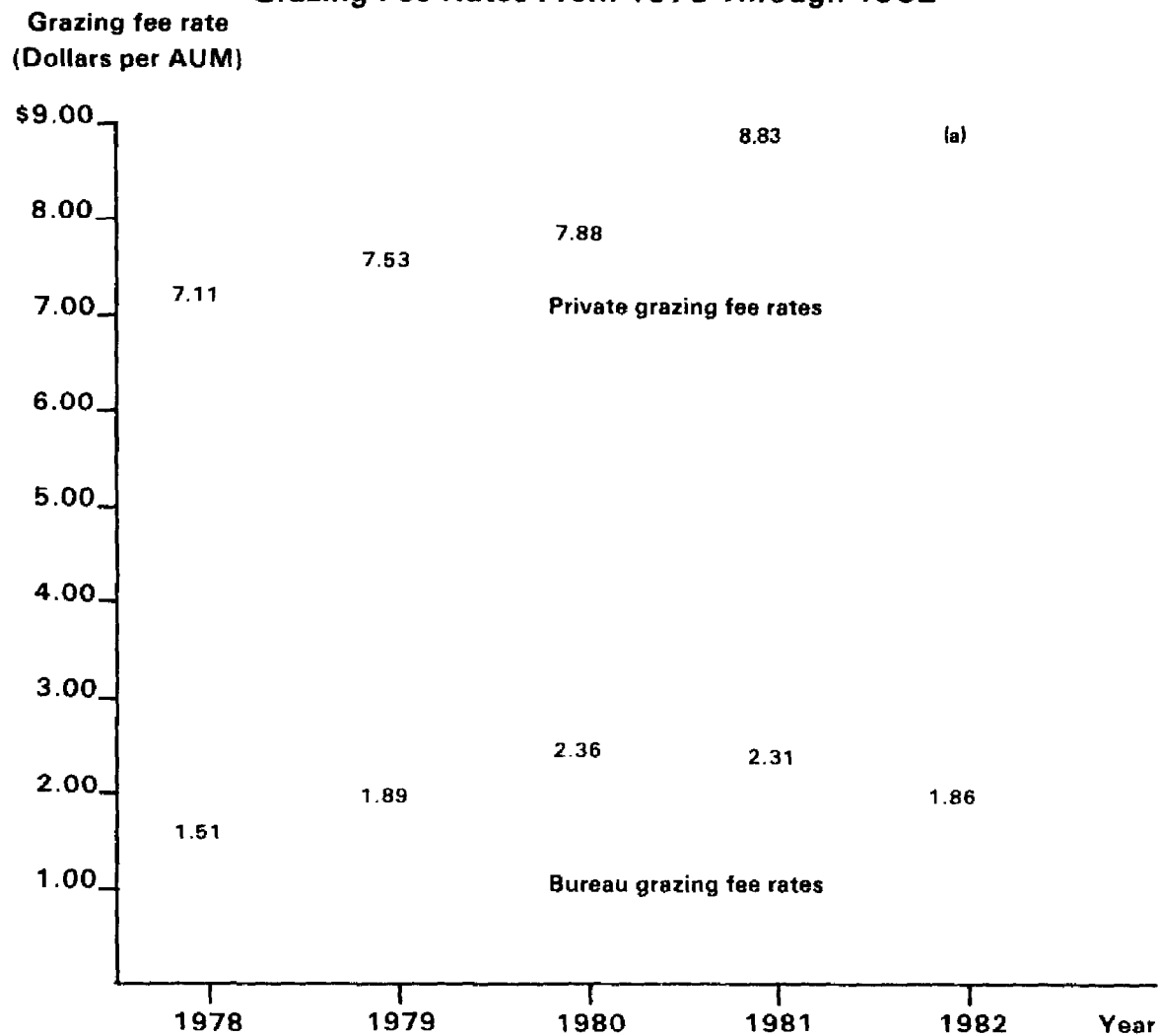
b/Under the formula the fee for 1980 was computed at \$2.77. However, due to the limit on grazing fee increases of 25 percent in any one year, the fee for 1980 was held to \$2.36.

c/Estimated grazing receipts.

Grazing fees on adjacent lands

Bureau surveys of rates charged for grazing on nearby privately owned, nonirrigated lands show that the rates on the average are significantly higher, exclusive of inflationary trends, and are increasing. Because of the formula, the Bureau's grazing fee is decreasing. The following graph illustrates these trends.

Trend in Bureau Fee and in Private Grazing Fee Rates From 1978 Through 1982



(a) Not available.

The following examples show how other grazing rates differed from the Federal fee of \$2.31 per AUM in 1981:

--Idaho charged from \$3 to \$6 per AUM in 1981.

--The Bureau of Indian Affairs charged between \$7 and \$9 per AUM on the Fort Hall Indian Reservation in Idaho during the 1981 grazing season.

At times the rates charged for grazing on private, State, and other Federal lands may include services not provided by the Bureau. Rangeland leases in the West cover the entire spectrum, from the lessor providing only raw, unimproved rangeland to a situation where the lessor provides the land and forage, labor, management of animals, or other services. Private rates generally vary according to differences in forage quality while the Bureau rate does not, even though the quality of Bureau rangeland varies considerably. Further, private rates are generally based on the lessees' exclusive use of the land while permittees must accommodate the multiple-use aspects of public rangeland.

Permittees' views on fees

In our questionnaire we asked permittees to address several issues dealing with grazing fees. 1/ These included

- the comparability of the Bureau's grazing fee to fees charged on non-Federal rangelands;
- whether they would support a fee if the increase was used only to make improvements for grazing; and
- if fees were increased, where they would like to see the additional funds spent.

The responses, which are discussed in more detail below, varied somewhat between large and small permittees. Overall, the large permittees were stronger in their belief that Bureau fees were too high compared with others' fees. However, more than half the permittees, small and large, either would be neutral or would be supportive of an increase in fees if the funds were used for improvements.

While 23 percent of the large and 50 percent of the small permittees believed that the \$2.31 fee (now \$1.86, see p. 35) was about right, 75 percent of the large and 42 percent of the small believed the fee was too high. Very few responded that the fees should be higher. Many of the written comments explaining the responses indicated that permittees were being adversely affected by a depressed livestock industry, that Federal rangelands produce less forage and are more costly to use than private rangelands, and that multiple use affects the permittees' use of the rangeland. Examples of their comments follow:

- I'm paying for feed that is not there.
- When forage is good and cattle prices good, the fee's fine. Forage and prices of cattle have not warranted these high fees.
- Everything is going up and cattle prices are going down, down, down.
- The economic relationship between privately owned ranch land and public domain is such that the grazing fee doesn't truly reflect the cost of running an animal on the range. The

1/See apps. I and II, questions 21 through 25.

Bureau acreage required to maintain each animal is so large that when compared with types of purchased pasture, our management costs increase while our efficiency of production declines. Therefore, although the grazing fee appears to be a bargain, it often is unequitable. Considering the variations in forage quality and quantity over the millions of acres of public domain coupled with the yearly climatic changes in each region, one wonders how one specific fee can apply to all permittees under all conditions.

--Rules, regulations, and general hassle disproportionately raise the costs of grazing on public lands above grazing on private lands.

Even though most permittees believed the fee was too high or just about right, a few indicated they believed the fee was somewhat low. One percent of the large permittees and 2 percent of the small permittees responded in this manner. Some of their comments were as follows:

--State fee somewhat higher than Bureau fee.

--On Indian land, cost of an animal unit is \$10 per head per month so this is a lot higher than cost on Bureau land.

Although permittees predominantly believed fees were about right or too high, their beliefs about a fee increase used exclusively for range improvements were much more mixed. Of the small permittees responding, 61 percent said that they were neutral or would support a fee increase. Of the large permittees responding, 53 percent were neutral or would support an increase, while 47 percent were against a fee increase.

The permittees indicated that if Federal grazing fees were increased, they would like to see the money spent for improvements in their general area. About 72 percent of the large and 44 percent of the small permittees said they would like to see any increased fees spent on their allotment(s). Another 15 percent of the large and 24 percent of the small said they would like to see the money spent within their resource area. The remainder--13 percent of the large and 32 percent of the small--said they would like the money spent in their district, in their State, or for general range use.

Progress toward new fee study

In 1981 the Departments of the Interior and Agriculture issued a plan reflecting their intent to complete the evaluation of the 7-year trial fee formula and issue a report by December 1984, a year ahead of the congressional mandate. This will be done to permit time for the Congress to review the options and to provide for public comment.

The Forest Service began intensive efforts to develop the fee evaluation report by assigning full-time staff to the project in April 1980. The Bureau assigned full-time staff in January 1981. Criteria and time frames were developed during 1981. This early work included reviewing legislation, identifying issues, acquiring information from earlier studies, and designing outlines of the data needed.

The Bureau's major study objectives to evaluate the current fee formula and new fee proposals are the same as those used in a 1977 study. They are to (1) collect a fee that represents fair market value as required by law, (2) provide equity--that is the fee should be fair to both those who use the range and those who cannot and it should consider the value of the land to the rancher and to the public, considering that the public should receive a fair return, (3) prevent future discrepancies between Federal fees and fair market value--that is, the fee system should include needed adjustments to provide for changes in future values, (4) be common to the Bureau and the Forest Service, (5) be administratively feasible and readily understandable to all parties, and (6) use common data.

Increase range improvement funds provided from grazing fee receipts

A fourth alternative to provide additional funds for range improvements would be to increase the percentage or amount of grazing fees that FLPMA allows to be used for range improvements.

PRIA amended FLPMA to provide that the greater of 50 percent or \$10 million a year of grazing fee receipts be available for appropriation to make range improvements. The Bureau collected about \$25 million in grazing fees in 1981, of which \$13 million was appropriated for range improvements, \$4 million was returned to the States where the money was collected, and \$8 million went into the General Fund of the U.S. Treasury.

The \$24.9 million in grazing fees collected in 1981 represents the peak in an upward trend of fees. With the reduction of the grazing fee to \$1.86, fee receipts are expected to amount to only \$20.6 million in 1982. (See p. 35.) Because of this reduction, funds available for appropriation from FLPMA will amount to only about \$10 million, or a drop of nearly \$3 million from the previous year.

To assure a greater amount of funds for range improvements, the Congress may want to consider raising either the 50-percent factor or the overall \$10 million factor to provide for a greater flow of funds to the Bureau for on-the-ground improvements. However, any increase in funds for on-the-ground improvements would result in a decrease of funds going into the General Fund of the U.S. Treasury.

CONCLUSIONS

Although the Bureau has improved some range conditions through implementing grazing systems, much more needs to be done to make the range as productive as feasible. Even though precise figures cannot be developed, it is apparent that the costs will be great and that under current funding levels it will be well into the next century before all needed improvements are installed. Funding is becoming a problem as the Bureau faces budget cuts and reduced range improvement funding because of declining grazing fees.

Existing law authorizes the Bureau to experiment with an alternative form of improvement investment, the use of permittee-funded improvements with a corresponding reduction in grazing fees. Permittees responding to our questionnaire strongly indicated a desire to make range improvements. If permittees' fees were reduced in return for range improvement work, grazing receipts deposited to the U.S. Treasury and distributed to the States could be reduced. However, permittees may be able to make improvements faster and at less cost than the Government which could lower the total investment needed to install range improvements.

Although many permittees believed the Federal fee was too high in relation to other grazing fees, less than 40 percent of the small and 50 percent of the large permittees would oppose a fee increase if the additional revenues were used only for range improvements. Thus, permittees would tend to support or be neutral to fee increases if they believed they would receive some tangible benefit from such increases.

At the same time that fees are decreasing, the Federal Government is increasing its emphasis on investing in rangelands and seeking to improve them to their highest potential. Some progress is being made in this direction and these improvements have protected some rangeland from further deterioration and in some areas increased its productivity. Further, the Bureau is developing a range improvement priority system. Raising the percentage or the amount of grazing fees authorized for improvements would provide additional funds for improvement projects.

Considerable investments still need to be made if the rangelands' productivity is to be increased to its full potential. However, given current fee and funding levels, reaching this potential will be slow. With the prospect that Federal budgets will continue to be cut, more reliance will be placed on making range improvements out of the revenues derived from grazing fees. If fees stay the same or continue to decrease, the time needed to improve range conditions and productivity will become longer and longer.

We identified four alternative sources of funds for an accelerated range improvement program. The Bureau is exploring another alternative--providing incentives to permittees to make range improvements. We agree that this is a viable alternative.

AGENCY COMMENTS AND OUR EVALUATION

In a draft of this report, we proposed that the Secretary of the Interior determine the feasibility of and take action on one or more of the following alternatives for accelerating range improvements:

- Test and evaluate the feasibility of expanding the Experimental Stewardship Program, which allows permittees to receive up to a 50-percent credit of their annual grazing fees for making range improvements. This program should be implemented with proper fiscal safeguards and in line with the Bureau's range improvement priority system.
- Determine and request the funding necessary to accomplish PRIA's objectives within a shorter period than indicated in that act. The act authorizes special funding for range improvements through 1999.
- Request the Congress to amend PRIA to permit the Bureau to increase grazing fees, provided that the additional revenue is used for making range improvements in areas where the fees are collected.
- Request the Congress to amend FLPMA to allow a higher percentage or amount of grazing fees to be used for making improvements. The act now authorizes the greater of 50 percent of the grazing fees or \$10 million.

Both Interior and Agriculture stated in their comments (see apps. V and VI) that they do not believe that it is appropriate to expand that part of the Experimental Stewardship Program that tests the feasibility of the 50-percent credit of annual grazing fees for permittee installation of improvements. Both said that the sites to test the program were selected on the basis of a broad spectrum of ranges and conditions to test various programs that could produce incentives.

In the almost 4 years since PRIA's enactment, little progress has been made to test the Experimental Stewardship Program's fee incentive segment. In the one joint program area where the fee credit is currently authorized to be tested, the impetus for implementing the credit arose from the area itself. The area asked Bureau headquarters for criteria in 1981, but when the Bureau responded in March 1982, it advised the local program to devise appropriate criteria. In mid-August 1982 the Bureau's resource area

manager told us that the stewardship committee was still working on an approach and that the program had not yet been implemented.

In New Mexico, where four permittees have been authorized to apply for the fee credit, the Chief, Branch of Biological Resources, in the Bureau's State office told us that the State office had noted the fee credit provision in PRIA and had obtained approval from the Bureau's headquarters office to initiate the program. The State office plans to monitor the effectiveness of these permittees' improvements over the next few years and provide Bureau headquarters with an assessment of the improvements for inclusion in the PRIA-required report due in 1985.

While progress on the Experimental Stewardship Program's fee credit incentive has been slow and evaluation of the results is not expected to be available until December 31, 1985, when the PRIA-required report is due, the Bureau permittees responding to our questionnaire indicated strong support for permittees' making improvements if they are provided credits. Of the large permittees, which control much of the Bureau's land, 83 percent indicated that they would be willing to make improvements if they received a fee credit; 61 percent of the small permittees expressed the same position. It appears that the permittees are a potential source of funding for range improvements if encouraged with economic incentives.

We believe that this segment of the Experimental Stewardship Program should be evaluated to determine if it should be accelerated or set out as a separate program to provide timely improvements, especially given the current situation in which other funding sources are declining. As currently planned, it will not be until the overall Experimental Stewardship Program evaluation report is filed that the results of the program will be known and consideration will be given to implementing an expanded version of the fee incentive. We believe that rather than relying on State offices to take the initiative, the Bureau should take action to test the feasibility of expanding the Experimental Stewardship Program's fee credit incentive.

On our proposal to accelerate the funding authorized by PRIA, Interior said that it would not be appropriate to request funding under the PRIA authorization considering current deficits in the Federal budget and the administration's goal of reducing increases in Federal spending. We agree that at this time it may not be practicable to ask for increased Federal funding for range improvements. However, should the Federal budget picture change, this would be a viable alternative funding source already authorized by the Congress. Interior said that as an alternative it was taking steps to encourage more private investments in range improvements. (See p. 22.) Interior added that it believed our report should include recommendations to provide incentives for private investments by concentrating on and emphasizing activities which would support and encourage these investments. Although this

new Bureau policy is in the developmental stage, we agree that it could be a viable alternative for making range improvements.

On our proposals to ask the Congress to amend PRIA and FLPMA to provide additional funds for range improvements, Interior and Agriculture said that they believed it would not be appropriate to ask the Congress to amend the grazing fee formula or to allow a higher percentage of grazing fees to be used for making improvements until the grazing fee study, which will address the issue of revenue available for range improvements, is completed in December 1984.

We did not propose that the fee formula be changed or that Interior and Agriculture not complete the fee study. Our proposals were directed at finding additional sources of funds for financing needed range improvements. One alternative was to seek legislative authority for an interim increase in grazing fees, or a surcharge, provided the additional funds were used to make range improvements where the funds were collected. The fee formula establishes the rate to be charged permittees for using public rangeland, whereas the proposed surcharge would be used solely to make range improvements in the areas where fees are collected. Establishing a fee surcharge could be done without affecting the fee study or present fee formula. More than half the permittees responding to our questionnaire were neutral toward or would be supportive of a fee increase if the additional funds were used for improvements. To delay a fee increase until the fee study is completed will result in missing three opportunities to raise grazing fees starting with the grazing seasons in March 1983, 1984, and 1985.

Another alternative was to seek legislative authority to use a higher percentage or amount of collected fees to make range improvements. However, any increase would correspondingly result in a decrease in funds going into the U.S. Treasury. Funding sources for range improvements needed for more timely restoration of the range are becoming increasingly less available while greater needs are being identified. Federal budgets are being reduced; inflation is raising the costs of making improvements; and funds available from grazing fees are decreasing because annual grazing fees are being reduced. If the national commitment in PRIA--to maintain and improve the condition of public rangelands and to make them as productive as feasible--is to be achieved, considerable investments will be required.

The Bureau has a \$34.7 million backlog of range improvement projects and estimates that an additional \$148 million will be needed to make range improvements.

RECOMMENDATIONS TO THE
SECRETARY OF THE INTERIOR

We recommend that the Secretary of the Interior:

- Test and evaluate the feasibility of expanding the Experimental Stewardship Program which allows permittees to receive up to a 50-percent credit of their annual grazing fees for making range improvements. This program, if feasible for expansion, should be implemented with proper fiscal safeguards and in line with the Bureau's range improvement priority system.
- Provide those incentives listed on page 22 which the Department determines to be needed to encourage permittees to make range improvements.

MATTERS FOR CONSIDERATION BY THE CONGRESS

We proposed three alternative funding sources requiring congressional action for consideration by the Secretary of the Interior. Interior, however, does not believe the proposed alternatives are viable at this time. If the Congress still wants to achieve the national commitment to make rangelands as productive as feasible and do it at an accelerated rate, it should assess alternative funding sources such as

- amending PRIA to provide an interim increase in grazing fees, provided the funds are used to make range improvements where they are collected;
- appropriating the special funds already authorized by section 5 of PRIA for range improvements; and/or
- amending FLPMA to allow the Bureau to use a higher percentage or amount of grazing fees for making improvements.

The latter two alternatives would result in increased Federal funding or decreased revenue and may not be practicable at this time in view of the Congress' and the administration's current efforts to control Federal spending.

GAO QUESTIONNAIRE AND LARGE (note a)

PERMITTEES' RESPONSES



U.S. GENERAL ACCOUNTING OFFICE

SURVEY OF BUREAU OF LAND MANAGEMENT
GRAZING OPERATORS

1 (1-4)

INSTRUCTIONS

The U.S. General Accounting Office (GAO) is reviewing for the Congress the management of public rangeland. As part of its review, GAO is sending this questionnaire to ranchers who hold grazing permits with the Bureau of Land Management (BLM). The purpose of the questionnaire is to find out about forage conditions on your BLM allotment(s), BLM management practices, use of rangelands, and grazing fees.

Information you give will be presented in summary form only in our report to the Congress. The questionnaire can be completed in about 20 minutes. The questions can be answered quickly and easily by checking boxes, filling in blanks or, in a few instances, by writing short answers.

Each questionnaire is numbered so that we can exclude questionnaire respondents from followup procedures. Throughout this questionnaire, following each question, are numbers printed within parentheses to assist us in computer analysis. Please ignore these numbers. If you have any problems with the questionnaire, feel free to call Don Hunts collect at (916) 484-4454 or Mary Quinlan at (202) 376-8212.

We appreciate your time and help.

IDENTIFICATION

1. What is your main job or function with this grazing operation? (Check one.) (5)
- 104 1. Owner/co-owner
- 10 2. Manager/foreman
- 1 3. Trustee
- 8 4. Other authorized agent such as accountant, attorney, etc. (please specify)

2. What type of business arrangement best describes your operation? (Check one.) (6)
- 2 NONRESPONSES
- 49 1. Sole proprietor (e.g., individually-owned, family-owned)
- 30 2. Partnership
- 38 3. Corporation
- 1 4. Cooperative grazing association membership
- 1 5. Trust
- 10 6. Other (specify) _____

PLEASE NOTE: Throughout this questionnaire, please base your answers on the BLM permit (or permits) held during the 1980 grazing season (March 1, 1980 through February 28, 1981.) Please respond only for the grazing operator to whom the cover letter was addressed.

GRAZING CONDITION

Several questions ask you to judge the general grazing condition of your BLM allotment(s). By grazing condition we mean the actual grazing capacity or forage productive capacity of land. We know that season-of-use, drought and other factors influence land conditions. When making your judgments of grazing condition, please include all of these factors.

a/ Those with 10,000 or more AUM's.

3. Over the span of your knowledge, what has been the general grazing condition of your BLM allotment(s)? (Your best estimate will be good enough.) (Check one.) (7)

- 25 1. Very good condition
- 80 2. Good condition
- 23 3. Fair condition
- 2 4. Poor Condition
- 0 5. Very poor condition

- 1 6. Cannot judge

4. Over the span of your knowledge, has the general grazing condition of your BLM allotment(s) improved, deteriorated, or remained about the same? (Your best estimate will be good enough.) (Check one.) (8)

- 1 NONRESPONSE
- 31 1. Very much improved condition
 - 52 2. Somewhat improved condition
 - 36 3. Little or no change in condition
 - 8 4. Somewhat deteriorated condition
 - 2 5. Very much deteriorated condition

 - 1 6. Cannot judge

5. How many years of experience are your responses to questions 3 and 4 based upon? (Check one.) (9)

- 20 1. 1 to 5 years
- 21 2. 6 to 10 years
- 9 3. 11 to 15 years
- 13 4. 16 to 20 years
- 68 5. 21 years or more

BLM IMPROVEMENTS

6. Since 1965, to your knowledge, has BLM installed any fences, wells, or pipelines, seeded, or made other kinds of improvements on your allotment(s)? (Do not include maintenance.) (10)

- 2 NONRESPONSES
- 91 1. Yes (GO TO QUESTION 7)
 - 38 2. No (GO TO QUESTION 16)

7. From 1965 through 1975, to your knowledge, did BLM make any improvements to your allotment(s)? (11)

- 41 NONRESPONSES
- 80 1. Yes, improvement(s) made (CONTINUE)
 - 9 2. No, improvement(s) not made
 - 1 3. Not sure if any improvements were made
- } (GO TO QUESTION 9)

8. If yes, which of the following kinds of improvements did BLM make?

(Check each kind of improvement made.)

Improvements		
62	1. Fencing	(12)
35	2. Cattle guards	(13)
20	3. Springs	(14)
38	4. Pipelines	(15)
23	5. Wells	(16)
26	6. Reservoirs	(17)
21	7. Seedings	(18)
23	8. Brush controls	(19)
7	9. Other (specify)	(20)

9. Since 1976, to your knowledge, did BLM make any improvements on your allotment(s)? (21)

41 NONRESPONSES

56 1. Yes, improvement(s) made (CONTINUE)

32 2. No, improvement(s) not made
 2 3. Not sure if any improvements were made } (GO TO QUESTION 11)

10. If yes, which of the following kinds of improvements did BLM make?

(Check each kind of improvement made.)

Improvements	(Check each kind of improvement made.)
34 1. Fencing	(22)
18 2. Cattle guards	(23)
12 3. Springs	(24)
16 4. Pipelines	(25)
11 5. Wells	(26)
15 6. Reservoirs	(27)
4 7. Seedings	(28)
2 8. Brush controls	(29)
3 9. Other (specify)	(30)

11. In your opinion, to what extent, if at all, did the BLM improvement(s) improve the general grazing condition of your allotment(s) or prevent the general grazing condition from deteriorating? (Consider all improvements made on your BLM allotments from 1965 on.) (Check one.)

42 NONRESPONSES (31)

- 12 1. To a very great extent
- 20 2. To a great extent
- 20 3. To a moderate extent
- 17 4. To some extent
- 19 5. To little or no extent
- 1 6. Cannot judge

MAINTENANCE

12. On your BLM allotment(s), have you contributed labor (your own or others') to maintain the BLM improvement(s)?

41 NONRESPONSES (32)

86 1. Yes (CONTINUE)

4 2. No (GO TO QUESTION 14)

13. If yes, for what kinds of maintenance jobs did you contribute labor? (Check all that apply.)

(Check each job for which you contributed labor)

Maintenance Jobs	(Check each job for which you contributed labor)
70 1. Fencing repair	(33)
28 2. Cattleguard repair	(34)
22 3. Reservoir repair	(35)
25 4. Repair to springs	(36)
37 5. Pipeline repair	(37)
26 6. Well repair	(38)
6 7. Other (specify)	(39)

14. On your BLM allotment(s), have you contributed materials to maintain the BLM improvement(s)? (40)

42 NONRESPONSES

78 1. Yes (CONTINUE)

11 2. No (GO TO QUESTION 16)

15. If yes, for what kinds of maintenance jobs did you contribute materials? (Check all that apply.)

Maintenance jobs	(Check each job for which you contributed materials)
65 1. Fencing repair	(41)
17 2. Cattleguard repair	(42)
16 3. Reservoir repair	(43)
20 4. Repair to springs	(44)
34 5. Pipeline repair	(45)
27 6. Well repair	(46)
3 7. Other (specify)	(47)

IMPROVEMENTS NEEDED

REMEMBER: By improvements we mean fence building, pipeline installation, seedings, etc. Do not include maintenance.

16. At the present time, which of the following kinds of improvements, if any, are needed on your BLM allotment(s)? (If none are needed, go to Question 18.)

	(Check each kind of improvement needed)
77 1. Fencing	(48)
45 2. Cattle guards	(49)
64 3. Springs	(50)
76 4. Pipelines	(51)
77 5. Wells	(52)
83 6. Reservoirs	(53)
62 7. Seedings	(54)
94 8. Brush controls	(55)
20 9. Other (specify)	(56)

17. In your opinion, which, if any, of the following reasons caused the needed improvement(s) not to be made?(Check all that apply.)

- 11 1. Have not asked BLM to make improvement(s) (57)
- 8 2. Allotments of other ranchers in greater need of improvements (58)
- 39 3. Improvements have low BLM priority (59)
- 76 4. BLM funds not available (60)
- 3 5. Political pressure on BLM staff (61)
- 46 6. Other (specify) _____ (62)
- _____
- _____
- _____
- 3 7. Not sure (63)

BLM MANAGEMENT

18. Grazing regulations require that BLM staff consult with operators about the management of grazing allotments. To what extent, if at all, have BLM staff consulted with this operation for views and opinions about your BLM grazing allotment(s)? (Check one.)

- 1 **NONRESPONSE** (64)
- 19 1. To a very great extent
- 22 2. To a great extent
- 36 3. To a moderate extent
- 24 4. To some extent
- 29 5. To little or no extent
- 0 6. Not sure

19. Overall, how satisfied or not is this operation with BLM's management of your allotment(s)? (Check one.)

5 NONRESPONSES (65)

- 19 1. Very satisfied
- 25 2. Somewhat satisfied
- 27 3. Neither satisfied nor dissatisfied
- 29 4. Somewhat dissatisfied
- 26 5. Very dissatisfied

(GO TO QUESTION 21)

(CONTINUE)

20. If you are somewhat dissatisfied or very dissatisfied, describe briefly the reason (or reasons) for this dissatisfaction. (66)

53 _____

GRAZING FEES

21. Considering the fees presently charged to graze on State, Indian, and private lands, in your opinion, is the grazing fee charged by BLM higher than warranted, lower than warranted, or set at about the right level? (Check one.) (67)

2 NONRESPONSES

- 30 1. BLM fee greatly higher than warranted
- 29 2. BLM fee moderately higher than warranted
- 39 3. BLM fee somewhat higher than warranted
- 30 4. BLM fee set at about the right level
- 1 5. BLM fee somewhat lower than warranted
- 0 6. BLM fee moderately lower than warranted
- 0 7. BLM fee greatly lower than warranted

22. Please briefly explain the reason(s) for your response to question 21. (68)

116 _____

23. Do you support or oppose a grazing fee increase if monies from this increase were used only to make improvements for grazing? (Check one.) (69)

4 NONRESPONSES

- 17 1. Very much support
- 32 2. Somewhat support
- 18 3. Neither support nor oppose
- 24 4. Somewhat oppose
- 36 5. Very much oppose

24. If fees were increased, which distribution method would you most prefer for the increased revenues? (Check one.) (70)

6 NONRESPONSES

- 94 1. Each operator's grazing fee monies should only be used for grazing improvements on the operator's allotments
- 20 2. Grazing fee monies should be pooled and used for grazing improvements within the operator's resource area
- 5 3. Grazing fee monies should be pooled and used for grazing improvements within the operator's district
- 0 4. Grazing fee monies should be pooled and used for grazing improvements within the operator's State
- 0 5. Grazing fee monies should go to the U.S. Treasury for general range purposes
- 6 6. Other (specify) _____

27. Overall, to what extent, if at all, has multiple use affected the grazing condition of your BLM allotment(s)? (That is, did multiple use improve, cause deterioration, or make little or no difference to grazing conditions.) (Check one.)

3 NONRESPONSES (15)

2 1. Greatly improved grazing condition

3 2. Moderately improved grazing condition

2 3. Somewhat improved grazing condition

50 4. Little or no change in grazing condition

33 5. Somewhat deteriorated grazing condition

23 6. Moderately deteriorated grazing condition

15 7. Greatly deteriorated grazing condition

COMMENTS

28. If you have additional comments on any of the items within this questionnaire or on related topics not covered, please tell us below. (16)

91 _____

29. Would you like to receive a copy of our final report? (17)

2 NONRESPONSES

127 1. Yes

2 2. No

**QUESTIONNAIRE SHOULD
BE RETURNED TO:**

Roy J. Kirk, Senior Group Director
US General Accounting Office
Community & Economic Development
Division
441 G Street, N.W. - Room 6814
Washington, DC 20548

3. Over the span of your knowledge, what has been the general grazing condition of your BLM allotment(s)? (Your best estimate will be good enough.) (Check one.) (7)

11 NONRESPONSES

- 48 1. Very good condition
- 195 2. Good condition
- 99 3. Fair condition
- 27 4. Poor Condition
- 3 5. Very poor condition
- 0 6. Cannot judge

4. Over the span of your knowledge, has the general grazing condition of your BLM allotment(s) improved, deteriorated, or remained about the same? (Your best estimate will be good enough.) (Check one.) (8)

9 NONRESPONSES

- 51 1. Very much improved condition
- 146 2. Somewhat improved condition
- 156 3. Little or no change in condition
- 14 4. Somewhat deteriorated condition
- 5 5. Very much deteriorated condition
- 2 6. Cannot judge

5. How many years of experience are your responses to questions 3 and 4 based upon? (Check one.) (9)

6 NONRESPONSES

- 34 1. 1 to 5 years
- 58 2. 6 to 10 years
- 42 3. 11 to 15 years
- 52 4. 16 to 20 years
- 191 5. 21 years or more

BLM IMPROVEMENTS

6. Since 1965, to your knowledge, has BLM installed any fences, wells, or pipelines, seeded, or made other kinds of improvements on your allotment(s)? (Do not include maintenance.)

4 NONRESPONSES (10)

124 1. Yes (GO TO QUESTION 7)

255 2. No (GO TO QUESTION 16)

7. From 1965 through 1975, to your knowledge, did BLM make any improvements to your allotment(s)? (11)

261 NONRESPONSES

106 1. Yes, improvement(s) made (CONTINUE)

13 2. No, improvement(s) not made } (GO TO QUESTION 9)

3 3. Not sure if any improvements were made }

8. If yes, which of the following kinds of improvements did BLM make?

(Check each kind of improvement made.)

Improvements		
73 1. Fencing		(12)
30 2. Cattle guards		(13)
30 3. Springs		(14)
34 4. Pipelines		(15)
26 5. Wells		(16)
36 6. Reservoirs		(17)
30 7. Seedings		(18)
25 8. Brush controls		(19)
9 9. Other (specify)		(20)

9. Since 1976, to your knowledge, did BLM make any improvements on your allotment(s)? (21)

261 NONRESPONSES

75 1. Yes, improvement(s) made (CONTINUE)

40 2. No, improvement(s) not made

7 3. Not sure if any improvements were made } (GO TO QUESTION 11)

10. If yes, which of the following kinds of improvements did BLM make?

(Check each kind of improvement made.)

Improvements	(Check each kind of improvement made.)
37 1. Fencing	(22)
16 2. Cattle guards	(23)
15 3. Springs	(24)
25 4. Pipelines	(25)
12 5. Wells	(26)
24 6. Reservoirs	(27)
8 7. Seedings	(28)
6 8. Brush controls	(29)
4 9. Other (specify)	(30)

11. In your opinion, to what extent, if at all, did the BLM improvement(s) improve the general grazing condition of your allotment(s) or prevent the general grazing condition from deteriorating? (Consider all improvements made on your BLM allotments from 1965 on.) (Check one.)

260 NONRESPONSES (31)

- 6 1. To a very great extent
- 31 2. To a great extent
- 45 3. To a moderate extent
- 19 4. To some extent
- 19 5. To little or no extent
- 3 6. Cannot judge

MAINTENANCE

12. On your BLM allotment(s), have you contributed labor (your own or others') to maintain the BLM improvement(s)? (32)

263 NONRESPONSES

115 1. Yes (CONTINUE)

5 2. No (GO TO QUESTION 14)

13. If yes, for what kinds of maintenance jobs did you contribute labor? (Check all that apply.)

(Check each job for which you contributed labor)

Maintenance Jobs	(Check each job for which you contributed labor)
81 1. Fencing repair	(33)
18 2. Cattleguard repair	(34)
30 3. Reservoir repair	(35)
28 4. Repair to springs	(36)
28 5. Pipeline repair	(37)
17 6. Well repair	(38)
8 7. Other (specify)	(39)

14. On your BLM allotment(s), have you contributed materials to maintain the BLM improvement(s)? (40)

260 NONRESPONSES

96 1. Yes (CONTINUE)

27 2. No (GO TO QUESTION 16)

15. If yes, for what kinds of maintenance jobs did you contribute materials? (Check all that apply.)

Maintenance jobs	(Check each job for which you contributed materials)	
60 1. Fencing repair		(41)
10 2. Cattleguard repair		(42)
20 3. Reservoir repair		(43)
18 4. Repair to springs		(44)
21 5. Pipeline repair		(45)
14 6. Well repair		(46)
4 7. Other (specify)		(47)

IMPROVEMENTS NEEDED

REMEMBER: By improvements we mean fence building, pipeline installation, seedings, etc. Do not include maintenance.

16. At the present time, which of the following kinds of improvements, if any, are needed on your BLM allotment(s)? (If none are needed, go to Question 18.)

	(Check each kind of improvement needed)	
108 1. Fencing		(48)
47 2. Cattle guards		(49)
75 3. Springs		(50)
75 4. Pipelines		(51)
70 5. Wells		(52)
119 6. Reservoirs		(53)
99 7. Seedings		(54)
154 8. Brush controls		(55)
31 9. Other (specify)		(56)

17. In your opinion, which, if any, of the following reasons caused the needed improvement(s) not to be made?(Check all that apply.)

- 88 1. Have not asked BLM to make improvement(s) (57)
- 17 2. Allotments of other ranchers in greater need of improvements (58)
- 87 3. Improvements have low BLM priority (59)
- 100 4. BLM funds not available (60)
- 52 5. Political pressure on BLM staff (61)
- 67 6. Other (specify) _____ (62)
- _____
- _____
- _____
- 23 7. Not sure (63)

BLM MANAGEMENT

18. Grazing regulations require that BLM staff consult with operators about the management of grazing allotments. To what extent, if at all, have BLM staff consulted with this operation for views and opinions about your BLM grazing allotment(s)? (Check one.)

- 14 **NONRESPONSES** (64)
- 11 1. To a very great extent
 - 33 2. To a great extent
 - 73 3. To a moderate extent
 - 101 4. To some extent
 - 136 5. To little or no extent
 - 15 6. Not sure

19. Overall, how satisfied or not is this operation with BLM's management of your allotment(s)? (Check one.)

24 NONRESPONSES (65)

- 77 1. Very satisfied
- 99 2. Somewhat satisfied
- 73 3. Neither satisfied nor dissatisfied
- 81 4. Somewhat dissatisfied
- 29 5. Very dissatisfied

(GO TO QUESTION 21)

(CONTINUE)

20. If you are somewhat dissatisfied or very dissatisfied, describe briefly the reason (or reasons) for this dissatisfaction. (66)

119 _____

GRAZING FEES

21. Considering the fees presently charged to graze on State, Indian, and private lands, in your opinion, is the grazing fee charged by BLM higher than warranted, lower than warranted, or set at about the right level? (Check one.) (67)

18 NONRESPONSES

- 35 1. BLM fee greatly higher than warranted
- 51 2. BLM fee moderately higher than warranted
- 78 3. BLM fee somewhat higher than warranted
- 193 4. BLM fee set at about the right level
- 6 5. BLM fee somewhat lower than warranted
- 1 6. BLM fee moderately lower than warranted
- 4 7. BLM fee greatly lower than warranted

22. Please briefly explain the reason(s) for your response to question 21. (68)

284 _____

23. Do you support or oppose a grazing fee increase if monies from this increase were used only to make improvements for grazing? (Check one.) (69)

20 NONRESPONSES

- 40 1. Very much support
- 101 2. Somewhat support
- 79 3. Neither support nor oppose
- 57 4. Somewhat oppose
- 86 5. Very much oppose

24. If fees were increased, which distribution method would you most prefer for the increased revenues? (Check one.) (70)

29 NONRESPONSES

- 168 1. Each operator's grazing fee monies should only be used for grazing improvements on the operator's allotments
- 91 2. Grazing fee monies should be pooled and used for grazing improvements within the operator's resource area
- 63 3. Grazing fee monies should be pooled and used for grazing improvements within the operator's district
- 9 4. Grazing fee monies should be pooled and used for grazing improvements within the operator's State
- 5 5. Grazing fee monies should go to the U.S. Treasury for general range purposes
- 18 6. Other (specify) _____

25. Suppose your BLM allotment(s) was (were) in need of improvements. In general, would you be willing to make these improvements if the Federal government gave you a 50% credit against your grazing fee?

22 NONRESPONSES (71)

235 1. Yes

37 2. No

89 3. Not sure

2 (1-4)

MULTIPLE USE

26. Over the last five years, to what extent, if at all, has each of the following multiple uses occurred on your BLM allotment(s)? (If no multiple use at all has occurred, go to Question 28.)

(Check one rating or not sure for each type of multiple use.)

Type of Multiple Use		NONRESPONSES To little or no extent To some extent To a moderate extent To a great extent To a very great extent Not sure						
		1	2	3	4	5	6	
1. Providing forage for deer, antelope, dove, quail and other large or small animals	74	26	33	110	70	66	4	(5)
2. Wild horse grazing	201	157	4	5	3	7	6	(6)
3. Wild burro grazing	205	168	0	0	1	2	6	(7)
4. Recreational use by hikers, rock collectors, etc.	162	56	73	37	25	24	6	(8)
5. Recreational use by hunters	103	19	51	77	72	58	3	(9)
6. Mining operations	182	127	19	29	11	9	6	(10)
7. Logging and firewood sales	193	139	10	18	12	8	3	(11)
8. Sand and gravel sales	203	152	9	9	3	0	7	(12)
9. Geothermal digging	205	144	11	9	3	3	8	(13)
10. Other (specify)	325	15	3	10	8	14	8	(14)

27. Overall, to what extent, if at all, has multiple use affected the grazing condition of your BLM allotment(s)? (That is, did multiple use improve, cause deterioration, or make little or no difference to grazing conditions.) (Check one.)

54 NONRESPONSES (15)

- 1 1. Greatly improved grazing condition
- 10 2. Moderately improved grazing condition
- 6 3. Somewhat improved grazing condition
- 194 4. Little or no change in grazing condition
- 76 5. Somewhat deteriorated grazing condition
- 29 6. Moderately deteriorated grazing condition
- 13 7. Greatly deteriorated grazing condition

COMMENTS

28. If you have additional comments on any of the items within this questionnaire or on related topics not covered, please tell us below. (16)

184 _____

29. Would you like to receive a copy of our final report? (17)

24 NONRESPONSES

- 331 1. Yes
- 28 2. No

QUESTIONNAIRE SHOULD BE RETURNED TO:

Roy J. Kirk, Senior Group Director
US General Accounting Office
Community & Economic Development
Division
441 G Street, N.W. - Room 6814
Washington, DC 20548

RANGELAND CONDITION ASSESSMENTS MADE IN THE DREWSEYRESOURCE AREA IN OREGON FROM 1955 THROUGH 1976

The following methods were used for making condition assessments over a 22-year period in the Drewsey Resource Area in Oregon:

- During the period from 1955 to 1965, two evaluations were made using the Deming Two-Phase Method to determine rangeland condition. This method compared existing and desired livestock forage and soil characteristics to arrive at numerical values for determining rangeland conditions in one of six categories from excellent to waste.
- From 1965 to 1976 no range condition studies were made.
- In 1976 two condition studies were completed. The first, an Apparent Trend and Condition survey, measured the number of desirable grazing plants, vigor, ground cover, and watershed characteristics to determine rangeland conditions. This method had only three condition categories--good, fair, and poor. The second study, an Ecological Condition survey, determined rangeland condition in terms of the percentage of existing vegetation to the potential natural vegetation. This method had four condition categories ranging from excellent to poor. While this method arrived at a condition rating, its results cannot be compared with the results of the other methods because this method has nothing to do with the types of vegetation livestock graze or prefer to graze.

HISTORY OF GRAZING FEES

From the early 1900's to the late 1960's, considerable and often controversial differences existed between the requirements for fees being charged and the systems used by the two Federal agencies who manage the bulk of Federal livestock grazing--the Departments of the Interior and Agriculture. We noted this situation in a 1959 report (B-125053) in which we recommended that fair compensation be obtained for use of Federal lands, a more consistent approach be used in establishing fees charged by various Federal agencies, and a joint agency study be made to arrive at a uniform fee system. A system to accomplish this was initiated by the Congress in 1978 on a 7-year trial basis.

Agriculture's Forest Service was the first of the two agencies to impose grazing fees. The fees were first applied to forest reserve land transferred from the public domain to Agriculture. These fees were authorized by regulations implemented on January 1, 1906, which provided that a reasonable fee be established.

From 1906 until the late 1960's, the Forest Service used various methods for determining fees for grazing domestic livestock on forest land. These methods included formulas based on rental values of private land and later included factors which adjusted the fee based on prevailing livestock prices. During this time fees increased from 5 cents per AUM in 1906 to 13 cents in 1966 and 56 cents in 1968. During the 1960's pressure increased for developing a uniform rate system for the Forest Service and the Bureau. Such a fee was eventually adopted in 1968, as discussed below.

It was not until passage of the Taylor Grazing Act in 1934 that public rangelands now administered by the Bureau were subject to a grazing fee. The act directed the Secretary of the Interior to set a reasonable grazing fee, taking into consideration public benefits over and above those accruing to permittees.

The first fee, 5 cents per AUM, was imposed in 1936 and remained at that level until 1946. Growing administrative costs and increased pressures for a larger fee made reassessment of the fee necessary. A sliding fee based on commercial value per AUM and productivity of the rangeland was proposed. This suggestion caused controversy not only between permittees and the Government, but also among congressional committees.

A recommendation was ultimately accepted that fees be based on the permittees' share of public land administration cost. This resulted in a total fee of 8 cents per AUM; 6 cents represented the grazing fee and 2 cents was for range improvements. The Taylor Grazing Act was amended in 1947 to formally recognize the two-fee

structure. It was intended that grazing receipts approximate the cost of grazing administration which previously had not been true. It was also intended that fee rates be adjusted from time to time for changing circumstances.

As time passed, complaints and pressures for increased fees again developed from several sources, including the Congress and the executive branch. The method for determining the fee rate was changed from time to time and the fee rose to 19 cents in 1958 and to 33 cents in 1966 where it remained until 1968. The methods used to set the fees included factors based on prevailing livestock prices similar to the Forest Service's approach.

During the early 1960's, interests and policies started to develop which led to efforts to develop a uniform basis for grazing fees on Federal rangelands. Both the Forest Service and the Bureau participated in these efforts in cooperation with other Federal agencies and various private interests, including permittees. As a result of these efforts, in 1968 a fee of \$1.23 was established to be phased in over a 10-year period.

The primary reasons for the phase-in period were to ease the economic impact on the users and to arrive at the same fee level for both the Forest Service and the Bureau. This phase-in period was delayed four times due to difficult economic conditions facing the western livestock industry caused by decreased prices. However, before the phase-in period ended, the Congress in 1978 mandated a new experimental fee formula designed to take into account the permittees' costs of production and ability to pay.



United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

AUG 4 1982

Mr. Henry Eschwege
Director, Community and
Economic Development Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Eschwege:

We have reviewed the draft of your report to Congress entitled "Public Rangeland Improvement--A Slow, Costly Process in Need of Alternate Funding." The following comments are offered for your consideration in developing the final document:

Chapter 2

Page 10, Fourth Paragraph: It is stated, "Because the Bureau has not overseen its district offices' development of individual monitoring systems, these systems differ in methods used for gathering rangeland trend and vegetation consumption data and evaluating it to determine proper stocking levels and grazing use adjustments."

[GAO COMMENT: This sentence was revised.]

The Bureau has recently developed a national level monitoring and inventory policy for guidance to all the State and field offices (BLM Information Memorandum No. 82-169, dated April 16, 1982), and has developed a draft monitoring Manual Section that identifies specific approved monitoring methods. In addition, each State Office has developed, or is in the process of developing monitoring plans for more specific guidance to the field offices. From this guidance, each field office is tailoring a site-specific monitoring plan that is responsive to their needs.

Various monitoring methods are identified in the draft Manual Section in order to give the field offices flexibility in selection of a method. Each method is applicable to differing resource conditions and yields data of varying statistical reliability. It is important for the Bureau to maintain flexibility for the field offices to select monitoring methods that are applicable to their resource conditions and problems, and that will yield a level of data commensurate with their needs. For example, if an allotment is in good condition and no major resource conflicts are identified, the kind of monitoring method selected and the intensity of data collection will differ in contrast to the monitoring method selected for an allotment in poor condition with identified conflicts.

[GAO COMMENT: See p. 17 for discussion of this matter.]

Page 17, Second Paragraph: Same comments as above. Rather than using the same monitoring methods in similar types of rangeland, it is more important that once monitoring studies are initiated, those studies be continued. Gathering data with the same method, in the same area over a span of years is what results in reliable data.

Similar methods do not assure equitable treatment of permittees/lessees. Approved methods must be utilized, but most importantly, the permittees/lessees must be given the opportunity to understand and participate in the monitoring program.

[GAO COMMENT: See p. 17 for discussion of this matter.]

Page 19:

Recommendation

Develop an alternative rangeland condition assessment method that will classify conditions in relation to management objectives.

Response

The Bureau is currently developing a concept termed Resource Value Rating. As presently structured, this will consist of a matrix with the seral stages (condition classes) of a given range site on one axis and the potential resource uses on the other axis. The body of the matrix will show, in qualitative terms, the relative value of a given seral stage for each resource use (livestock grazing, deer winter range, production of quality water, etc.).

This will allow progress reports on a local or national basis that expresses whether conditions are improving, static or deteriorating, in relation to the management objectives, as measured by trend studies.

[GAO COMMENT: See p. 19.]

Recommendation

Require Bureau State Offices to obtain consistent rangeland data to be used for: (1) determining whether management objectives are being met such as bringing grazing use in line with grazing capacity; and (2) reporting to Congress and the public on the overall condition of the rangelands.

Response

Current Bureau policy provides for the gathering of rangeland data, by field offices, that is consistent in the sense that data on the percentage of forage utilized will be gathered on an annual basis and data on the trend of range condition will be gathered on a long-term basis. Although different study methods, based on the local resource management circumstances will be employed, all studies will result in

data on percent of utilization or trend of condition. The utilization data will be used in determining that grazing use is in line with grazing capacity.

Reports to Congress and the public on the overall condition of the rangeland will be based on the Resource Value Rating concept discussed above. Reports on changes of rangeland condition will be based on trend studies and will be in relation to management objectives through use of the Resource Value Rating.

[GAO COMMENT: See p. 20.]

Chapter 3

Page 44:

Recommendation

Test and evaluate the feasibility of expanding the Experimental Stewardship Program (ESP) which allows permittees to receive up to a 50-percent credit of their annual grazing fees for making range improvements. This program should be implemented with proper fiscal safeguards and in line with the Bureau's range improvement priority system.

Response

We do not feel it is appropriate to expand that portion of the ESP program that tests the feasibility of the 50-percent credit. The ESP authorized by the Public Rangelands Improvement Act (PRIA) of 1978 was to be implemented on an experimental basis on selected areas of the public rangelands which are representative of the broad spectrum of range conditions, trends, and forage values. We feel the areas selected by the Bureau are adequate to test various programs that could provide incentives to the permit/lease holders for their stewardship efforts, and provide a report to Congress in 1985. The 50 percent credit is only one aspect of the experimental program.

We feel the report should include recommendations to provide incentives for private investments (Sec. 4 Range Improvements) by concentrating on and emphasizing planning activities which would support and encourage these investments.

[GAO COMMENT: See pp. 41, 42, and 44.]

Recommendation

[Now a Matter for Consideration by the Congress, p. 44.]

Determine and request the funding necessary to accomplish PRIA's objectives within a shorter period than indicated in that Act. The Act authorizes special funding for range improvements through 1999.

Response

We do not feel it would be appropriate to request funding under the PRIA authorization considering current deficits in the Federal budget and the Administration's goal of reducing increases in Federal spending. As an alternative, we are taking steps to encourage more private investment in range improvements, both in new developments and in the maintenance of existing developments. This will have the effect of accelerating improvement in rangeland condition without a proportionate increase in Federal spending.

[GAO COMMENT: See p. 42.]

Recommendation

[Now a Matter for Consideration by the Congress, p. 44.]

Request the Congress to amend PRIA to permit the Bureau to increase grazing fees provided that the additional revenue is used for making range improvements in areas where the fees are collected. For example, a \$1 increase above the current \$1.86 fee for an animal unit month would result in additional annual revenue of about \$10 million which could be used for range improvements.

Response

We do not feel that it is appropriate to ask Congress to amend the grazing fee formula at this time. The PRIA established the current formula on a 7-year trial basis, through February 1986. The BLM and Forest Service are currently in the process of studying the grazing fee formula and other fee systems used in the western United States. The results of this study are scheduled to be reported to Congress by January 1985.

[GAO COMMENT: See p. 43.]

Recommendation

[Now a Matter for Consideration by the Congress, p. 44.]

Request the Congress to amend the Federal Land Policy and Management Act (FLPMA) of 1976 to allow a higher percentage or amount of grazing fees to be used for making improvements. The Act now authorizes the greater of 50 percent of the grazing fees or \$10 million.

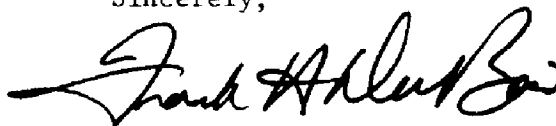
Response

We feel it will be appropriate to analyze the results of the grazing fee study discussed above before requesting any change in the percentage or amount of grazing fees to be used for making range improvements. The issue of revenue available for range improvements along with other pertinent issues will be addressed in a comprehensive fashion in the report to Congress following completion of this study.

[GAO COMMENT: See p. 43.]

Thank you for allowing us the opportunity to provide you our comments on the draft report. We have appreciated your staffs' cooperation throughout the preparation of the report.

Sincerely,



Deputy Assistant Secretary, Land
and Water Resources

GAO note: Page references in this letter have been changed to correspond to page numbers in the final report.



United States
Department of
Agriculture

Forest
Service

Washington
Office

P.O. Box 2417
Washington, D.C. 20013

Reply to 2200

Date AUG 2, 1982

Mr. Henry Eschwege
Director, Community and Economic Division
General Accounting Office
Washington, D.C. 20548

Dear Mr. Eschwege:

We have reviewed the draft of your report to Congress entitled "Public Rangeland Improvement -- A Slow Costly Process in Need of Alternate Funding."

During the informal review discussion, our findings were discussed with Mary Quinlan of your office. The draft notes provided by her reflect this discussion (see enclosed). Several provisions of the Federal Land Policy and Management Act of 1976 and the Public Rangelands Improvement Act of 1978 apply equally to Bureau of Land Management (BLM) and Forest Service (FS) livestock grazing programs. Thus, recommendations from this report could affect the FS, as well as the BLM.

Our comments on the report recommendations are as follows:

BETTER RANGE CONDITION DATA NEEDED FOR MANAGEMENT DECISIONS

Recommendation

(p. 19)

To collect and provide more useful data on range conditions and trends, the Secretary of the Interior should direct the Bureau to

-- Develop an alternative assessment method that will classify rangeland conditions in relation to management objectives.

The Forest Service is working toward the use of ecological status and/or resource value rating as a combined rating of range condition (see definitions enclosed). We feel this approach will be compatible with your recommendation.

For your information, the Society for Range Management has taken a position of leadership to draw agencies, universities and land management organizations together to promote uniform methodology and terminology for range management inventories and assessments. The Forest Service is using the results of this effort in developing standards for classifying, defining and mapping ecological sites, and their use in data collection for range management inventory and monitoring needs. The results of this work are expected to be published by the Society for Range Management later this year.

[GAO COMMENT: This information was added. See p. 19.]

- Require Bureau State offices to obtain consistent rangeland data to be used for (1) determining whether management objectives are being met, such as bringing grazing use in line with grazing capacity and (2) reporting to the Congress and the public on the overall conditions of the rangelands. (See p. 19.)

There are a number of specific methods to use in measuring vegetation and soil characteristics. Each of these methods has advantages and disadvantages depending on how used and the vegetation types it is used in. Consequently, it is not practical to have one method that can be used for monitoring changes in vegetation and soil as a result of livestock grazing.

The Forest Service has delegated to the Regional Foresters the latitude to select the most suitable methods for their situations. Regional methods must meet national criteria for inventory standards, and be adequate to form a consistent base line from which to build a monitoring program.

[GAO COMMENT: See p. 20.]

ADDITIONAL OR ALTERNATIVE FUNDS NEEDED TO MAKE TIMELY RANGE IMPROVEMENTS

Recommendation

(p. 44.)

The Secretary of the Interior should study the feasibility of, and take action on one or more of the following alternative funding sources for range improvements.

- Test and evaluate the feasibility of expanding the use of a provision in the Public Rangelands Improvement Act which allows permittees to receive up to a 50-percent credit of their annual grazing fees for making range improvements. Almost two-thirds of the small and over three-fourths of the large permittees responding to a GAO questionnaire said they would be willing to make range improvements under this condition.

We do not feel it is appropriate to expand that portion of the Experimental Stewardship Program (ESP) that tests the feasibility of the 50-percent credit. The 50-percent credit is only one aspect of the ESP. The ESP, authorized by the Public Rangelands Improvement Act, was to be implemented on an experimental basis on selected areas of the public rangelands which are representative of the broad spectrum of range conditions, trends, and forage values. We feel the areas selected are adequate to test various programs that could provide incentives, including grazing fee credits to permittee holders for their stewardship efforts.

[GAO COMMENT: See p. 41.]

- Determine and request the funding necessary to accomplish the objectives of the Public Rangelands Improvement Act. The Act authorizes special funding of \$360 million for range improvements through 1999.

[GAO COMMENT: This is now a Matter for Consideration by the Congress, p. 44.]

This provision of the Public Rangelands Improvement Act applies only to the BLM. We see no need to expand this authority to include the Forest Service.

- Request the Congress to amend the 1978 Act to permit the Bureau to increase grazing fees provided that the additional revenue is used for making range improvements in areas where the fees are collected. For example, a \$1 increase above the current \$1.86 fee for an animal unit month would result in additional annual revenue of about \$10 million which could be used for range improvements.

[GAO COMMENT: This is now a Matter for Consideration by the Congress, p. 44.]

The FS and BLM are presently engaged in an evaluation of the current grazing fee formula and other fee options, as required by Congress, in the Public Rangelands Improvement Act. The Report of Fees is to be submitted to Congress by December 1984. To ask Congress for an increase in fees before the results of the review are completed would be premature as data is not available to support a change in the grazing fee formula.

[GAO COMMENT: See p. 43.]

- Request the Congress to amend the Federal Land Policy and Management Act to allow a higher percentage or amount of grazing fees to be used for making improvements. The Act now authorizes the greater of 50-percent of the grazing fees or \$10 million.

[GAO COMMENT: This is now a Matter for Consideration by the Congress, p. 44.]

The issues of revenue available for range improvements, along with returns to the treasury and counties (25% fund) will be addressed during the grazing fee study. We feel it would be inappropriate to seek a change in the Federal Land Policy and Management Act requesting changes in the percent of grazing fees to be used for range improvement until the fee study is complete.

[GAO COMMENT: See p. 43.]

We thank you for allowing us to comment on the draft report.

Sincerely,

F. Dale Robertson
 For: R. MAX PETERSON
 Chief
 Enclosure

GAO note: Page references in this letter have been changed to correspond to page numbers in the final report.

Range Condition -- is a generic term relating to present status of a unit of range in terms of specific values or potentials. The specific values or potentials must be stated. (See ecological status and resource value rating)

Ecological Status -- the present state of vegetation and soil protection of an ecological site in relation to the potential natural community of the site. Vegetation status is the expression of the relative degree to which the kinds, proportions and amounts of plants in the community resemble that of the potential natural community. If classes are used, they should be described in ecological rather than utilitarian terms. Soil status is a measure of present vegetation and litter cover relative to the amount of cover needed on the site to prevent accelerated erosion.

Resource Value Rating -- the value of vegetation present on an ecological site for a particular use or benefit. RVR's may be established for each plant community capable of being produced on an ecological site, including exotic or cultivated species.

[GAO COMMENT: Definition added. See p. 19.]

Request for copies of GAO reports should be sent to:

**U.S. General Accounting Office
Document Handling and Information
Services Facility
P.O. Box 6015
Gaithersburg, Md. 20760**

Telephone (202) 275-6241

The first five copies of individual reports are free of charge. Additional copies of bound audit reports are \$3.25 each. Additional copies of unbound report (i.e., letter reports) and most other publications are \$1.00 each. There will be a 25% discount on all orders for 100 or more copies mailed to a single address. Sales orders must be prepaid on a cash, check, or money order basis. Check should be made out to the "Superintendent of Documents".

