RANGELAND MANAGEMENT

BLM's Range Improvement Project Data Base Is Incomplete and Inaccurate

RESTRICTED--Not to be released outside the General Accounting Office unless specifically approved by the Office of Congressional Relations.
The Honorable Mike Synar  
Chairman, Environment, Energy,  
and Natural Resources Subcommittee  
Committee on Government Operations  
House of Representatives

Dear Mr. Chairman:

According to financial records, the Department of the Interior's Bureau of Land Management (BLM) obligated about $18 million in range improvement funds in fiscal years 1990 and 1991 for projects to improve the public rangeland. Such funds come from fees paid by those who graze their livestock on BLM land. The Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701-1784) states that the funds are to be used for projects—such as fencing, weed control, and water development—that benefit rangeland resources, including wildlife, watersheds, and livestock.

In your February 14, 1992, letter, you expressed concern about how range improvement funds are being used and managed. As subsequently agreed, we are providing you with information about how range improvements are accounted for, or tracked, including (1) the types of range improvement projects funded, (2) the cost of each of the projects, and (3) the rangeland resources benefiting from these projects. You also requested information on the role that grazing advisory boards play in determining which range improvement projects are funded each year. (See app. I.)

Results in Brief

BLM uses two automated systems to track range improvements—the Federal Financial System (FFS) and the Range Improvement Project System (RIPS). Although FFS provides summarized information about the funds that are obligated for range improvement projects according to broad accounting classifications, RIPS is BLM's only bureauwide source of data on individual range improvement projects, including their costs and primary benefits.

According to the RIPS data base, 1,353 projects were completed with range improvement funds during fiscal years 1990 and 1991, including water developments, fences, cattleguards, and land treatments. However, our review of RIPS showed that this list is not comprehensive. Of the 158 completed project files we judgmentally selected to review at 10 BLM
resource area offices, 22, or 14 percent, were not included in the RIPS data base. Similarly, while the RIPS data base showed that projects completed during these 2 years cost about $6 million, our review disclosed that RIPS data on project costs were incomplete and inaccurate. Of the remaining 136 project files that we reviewed and that were included in RIPS, 64, or 47 percent, did not have accurate cost data reflected in RIPS. Some reported costs were higher than actual costs and some were lower. Furthermore, RIPS reports indicate that 71 percent of all the projects in RIPS primarily benefited the management of livestock grazing. However, RIPS can track only one project benefit, even though our discussions with BLM staff and reviews of project files showed that many projects benefit multiple rangeland resources.

RIPS does not provide complete and accurate information because BLM has not issued guidance about the cost data to be entered into the system; nor has BLM established accountability for the accuracy and completeness of the data base. Furthermore, BLM officials do not agree on the usefulness of RIPS project-specific cost data.

Background

BLM manages about 163 million acres of land in the 16 contiguous western states. This land is divided into approximately 22,000 grazing units, referred to as allotments, which are used by about 19,000 livestock permittees. Under the Taylor Grazing Act of 1934 (43 U.S.C. 315 et seq.), livestock permittees pay BLM a fee per animal unit month (AUM) to graze their livestock on public land. The fee is computed annually using a formula mandated by Executive Order 12548. For grazing year 1989 (Mar. 1989 through Feb. 1990), the fee was $1.86 per AUM. For grazing years 1990, 1991, and 1992, the fee was $1.81, $1.97, and $1.92, respectively. For grazing year 1993, the fee is $1.86 per AUM. The Federal Land Policy and Management Act of 1976 directs that at least 50 percent of each year's grazing fee revenues, but not less than $10 million, be credited to BLM's range improvement fund to pay for on-the-ground range improvement projects.

Range improvement funds are administered by BLM through 10 state offices, 51 district offices, and 142 resource area offices. Each resource area is responsible for annually developing a prioritized list of projects to be funded and for estimating their cost. These projects include items such as fences, wells, and weed control treatments. Depending on the amount

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1An AUM is defined as the amount of forage needed to support a 1,000-pound cow, a horse, or five sheep for 1 month.
of range improvement funds available within each office, certain projects are undertaken during the year. For a variety of reasons, including changing priorities and staff availability, projects planned at the beginning of the year may or may not be accomplished, and new projects may be added to the list.

**BLM Tracks Range Improvements in Two Systems**

BLM uses two systems to track range improvements—FFS and RIPS. FFS tracks the amount of range improvement funds obligated for the projects each year by broad accounting classifications but does not provide project-specific information. RIPS, on the other hand, contains project-specific information, including costs and primary benefits.

**Federal Financial System**

FFS is a financial accounting system used by a number of federal agencies, including BLM, to record financial transactions. For fiscal years 1987 through 1991, financial reports showed that BLM obligated over $46.5 million in range improvement funds. During the period covered by our review, fiscal years 1990 and 1991, reports showed that BLM obligated about $8.1 million and $9.9 million, respectively, in range improvement funds. Obligations reflect transactions, such as the amounts of orders placed and contracts awarded during a given period, that will require payments during the same or a future period.

FFS accounts for obligations by both program element and object class, but not by project. The largest program element category for fiscal years 1990 and 1991 was structural projects, accounting for about 72 percent of all obligations. The largest object class category was salaries and benefits, totaling about 33 percent of all obligations for the 2-year period.

Between 1968 and 1975, BLM's financial accounting system provided information on a project-specific basis. However, this practice was dropped in 1975 because, according to BLM officials, the amount of data involved in tracking individual project costs and the time needed to enter the data into the system were too cumbersome, causing unacceptable delays in reporting. Ten years later, however, a BLM internal review identified the need for a system to maintain an automated record of improvement projects and costs and, in 1986, an Office of Inspector

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Program elements are broad types of work, including survey and design, structural projects, land and vegetation treatments, and weed control treatments. Object classes identify obligations by the type of good or service purchased: salaries and benefits; rent, utilities, and communication; contract services; travel and transportation; supplies and materials; land and structures; equipment; and printing and reproduction.
General (OIG) report concluded that BLM did not have a complete inventory of its investment in range improvements or an accounting of range improvement costs by project. In response to these reports, BLM, in 1987, tested the collection and reporting of project-specific cost data in its financial accounting system. Subsequently, BLM decided not to collect these data in the financial accounting system bureauwide but to use a new system, RIPS, to track the information.

**Range Improvement Project System**

RIPS was developed between 1986 and 1988 in response to the 1985 BLM internal review and the 1986 OIG report. The data base contains information on existing range improvement projects, including project type; location; cost (BLM labor, materials, contract, and equipment); the rangeland resource primarily benefiting from the project; and types of funds used to finance the project.

The RIPS data base at the national level is a compilation of data developed at BLM resource area offices. When a range improvement project is approved, a project file is initiated at the resource area office and a hard copy of a RIPS form is placed in the file. The form contains blocks for such information as the type, location, management objective or project benefit, and estimated cost of the project. During project construction, actual project costs are to be recorded on this form and related documentation is to be placed in the file. Documentation includes such items as contracts, vouchers for materials purchased, and supply requisitions. When the project is completed, information from the form is entered into the RIPS data base at the resource area office. Twice a year, in October and February, each resource area office is then to transfer the information in its RIPS data base to the Denver Service Center (DSC), Interior's centralized financial management office, where it is consolidated into the national RIPS data base. (See app. II.)

**BLM's Project Inventory Is Incomplete**

One purpose of RIPS is to maintain a record of range improvements. Reports from the RIPS data base showed that in fiscal years 1990 and 1991, BLM completed 1,353 projects. These projects consisted of 787 water developments and modifications, 325 fences and fence modifications, 108 management facilities (such as cattle guards), 73 vegetation manipulations (such as chaining and seeding), 40 weed control treatments, 18 land

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3Range improvement projects can be financed through several means, including grazing fees, congressionally appropriated monies, and/or livestock operators' contributions. Because we were asked to review only those funds received from grazing fees, we limited our work to projects that had been financed, at least in part, with these funds.
treatments, 1 lake and wetland improvement, and 1 perch/nesting structure. However, our review of files for projects completed in fiscal years 1990 and 1991 at 10 BLM resource area offices disclosed that the inventory in RIPS is incomplete.

Of the 158 files we reviewed, 22—or 14 percent—involving projects that were not included in the resource areas' RIPS data bases. The following are examples of omissions we found:

- At the Billings Resource Area Office in Montana, omitted projects included two wells and a spring. The staff told us that the two wells were drilled unsuccessfully and therefore were not included in the data base. Other unsuccessful projects, however, were included in the data base. The staff did not know why the spring was not included.
- At the Central Oregon Resource Area Office, omitted projects included a cattle guard installation, a riparian project, and two stream improvements. Field staff acknowledged that no one had maintained the files or entered data into RIPS for about a year after the retirement of the person responsible for them.
- At the Caballo Resource Area in New Mexico, omitted projects included a pipeline and two fence projects. The BLM official in charge of range improvement projects at this office was not sure why these projects were omitted.

These projects were omitted from the local RIPS data bases and consequently omitted from the national RIPS data base.

In addition, of the 329 projects listed in the data bases at 10 resource area offices as completed in 1990 and 1991, 83—or 25 percent—were not included in the national RIPS data base. This occurred even though the national data base had been updated twice between the completion of the last project at the end of fiscal year 1991 and our review in the summer of 1992.
BLM'S Project-Specific Cost Data Base Is Incomplete and Inaccurate

A second purpose of RIPS is to allow the easy tracking of project costs. However, for fiscal years 1990 and 1991, while FFS showed that BLM had obligated over $18 million in range improvement funds for projects, RIPS cost data showed that only about $6 million in range improvement funds had been spent on the projects.\(^4\) According to our review of 158 project files and discussions with staff at 10 resource area offices, RIPS does not provide a complete and accurate record of project costs because (1) some projects were not entered into the RIPS data base, as discussed above; (2) inconsistencies existed among BLM field offices about which types of costs were included in RIPS; and (3) the project costs included in RIPS were inaccurate in numerous instances.

Field offices we visited differed in the types of costs that they included in RIPS. For example, at the Powder River and Billings Resource Area Offices in Montana, no BLM labor costs were assigned to specific projects, and, therefore, no BLM labor costs were entered into RIPS. Similarly, staff in the resource area offices in the Las Cruces District in New Mexico did not assign vehicle costs to individual projects. In contrast, staff in the resource area offices in the Burley District Office in Idaho assigned all BLM labor costs to specific projects on their time cards and assigned vehicle costs to individual projects. These data were then entered into RIPS.

In addition, not all project costs included in RIPS were accurate. Our review of the files for 136 projects listed in RIPS at 10 BLM resource area offices as completed in fiscal years 1990 and 1991 disclosed that 64, or 47 percent, did not have accurate cost data reflected in the RIPS data base. Some project cost estimates, rather than actual costs, had been entered into RIPS. A variety of other errors also occurred. Examples of the inaccuracies we identified included the following:

- The RIPS data base showed a cost of $11,500 for construction of a water pit in the Central Oregon Resource Area. However, according to our review of the project file and discussions with BLM field staff, the pit actually cost $8,900, while the figure in RIPS was the estimated cost of the project. Consequently, RIPS overstated the funds spent for this range improvement project by $2,600.
- In the RIPS data base, $940 is shown as the BLM labor cost for a pipeline project in the Powder River Resource Area. The project file, however,

\(^4\)A small portion of the difference between FFS and RIPS can be attributed to FFS' reporting of obligations incurred and RIPS' reporting of actual expenditures. According to BLM Budget Office staff, the difference between obligations and expenditures is called unliquidated obligations. BLM reported unliquidated obligations of $738,800 for fiscal years 1990 and 1991—a figure that clearly does not explain the approximately $12 million difference between FFS and RIPS reports.
showed that the $940 was the labor cost contributed by the livestock operator, not the cost paid for with BLM's range improvement funds. The actual BLM labor cost was only $100. Consequently, RIPS overstated the range improvement funds spent for this pipeline by $840.

- The RIPS data base shows that a well was built in the Caballo Resource Area at no cost to BLM. The project file did not contain any cost information. However, the BLM official in charge of range improvement projects for this office reviewed his files and told us that BLM actually spent $7,500 on the well. Therefore, RIPS understated the funds spent for this project by $7,500.

Data Base Does Not Fully Describe All Resources Benefiting From Range Improvements

The RIPS data base was also designed to provide information on the primary management objective of, or the benefit provided by, range improvement projects. According to RIPS, livestock grazing management was the primary objective of 71 percent of the range improvement projects BLM completed in fiscal years 1990 and 1991. However, this figure does not fully describe the rangeland resources benefiting from range improvement projects for two reasons. First, the inventory of projects contained in RIPS was incomplete, and, therefore, the resources benefiting from projects not in the system were not identified. Second, the RIPS data base allows for the inclusion of only one management objective for each project even though our discussions with BLM staff and our review of project files indicated that projects often had multiple benefits. For example, the RIPS data base showed only livestock benefits for the following multibenefit projects:

- At the Snake River Resource Area in Idaho, one project consisted of making improvements to a spring so that more water was collected and available for livestock and wildlife. According to the environmental assessment included in the project file, the improvement would also make water available to wildlife when livestock were removed from the allotment.
- At the Billings Resource Area, a well was drilled to provide water and allow more livestock grazing on an allotment. According to project file documents, this project will also benefit antelope, mule deer, and some game birds.
- At the Socorro Resource Area in New Mexico, a brush control project was designed to rid the range of low-quality forage, such as creosote, and to

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9These management objectives are watershed management water yield, watershed management and improvement, livestock grazing management, wildlife habitat management, forestry management and improvement, wild horse and burro habitat management, recreation management, cultural resource management, noxious weed and pest control, emergency fire rehabilitation, wilderness management, riparian area management, and other.
allow more nutritious grasses to grow. According to the staff in charge of range improvement funds at this office, the higher-quality forage benefits both livestock and wildlife.

**RIPS Problems Can Be Traced to a Lack of Management Support for the System**

Despite BLM's apparent intent to implement RIPS to track range improvement projects, their costs, and their benefits, BLM has never fully committed the support necessary to ensure that the system is complete and accurate. RIPS is the only bureauwide source of data on individual range improvement projects, including their costs and benefits, and the need for such a system is supported by both the 1985 BLM review and the 1986 Interior OIG report. However, BLM officials do not agree on the usefulness of RIPS' project-specific cost data, and BLM has issued little guidance about collecting and entering such data into the system. Furthermore, accountability for RIPS has not been established within the Bureau.

BLM officials generally agree that an accurate project inventory and a complete description of project benefits are useful management tools. Specifically, RIPS inventory data are currently used to develop project statistics for BLM's annual Public Land Statistics, a publication widely distributed to BLM offices, congressional committees, environmental groups, and universities. BLM officials told us that accurate inventory data would also assist them in ranking range improvement projects for funding and in scheduling maintenance work on completed projects. Additionally, according to BLM officials, complete data on the rangeland resources benefiting from projects would be helpful in responding to inquiries about project objectives, particularly from those groups that believe that range improvement projects are implemented for the sole benefit of livestock grazing.

There is less consensus, however, among BLM officials about the usefulness of RIPS project-specific cost data. Some officials in BLM headquarters' Rangeland Resources Division believe that such data are needed to respond to the Congress and others. BLM field officials confirmed that they had received requests for cost data from conservation groups and lending institutions. These field staff also stated that project-specific cost data could be used to better estimate the costs of future projects. On the other hand, an official in BLM's Budget Division and a number of BLM field staff told us that they do not use RIPS project-specific cost data and that such data are not worth the effort needed to collect them.
No guidance has been issued regarding the costs that are to be included in RIPS—a condition that compounds the uncertainty about the usefulness of RIPS cost data. The RIPS User Guide, the data base's technical manual, provides information on how to enter data into the system but does not offer guidance on what data to include. As a result, each field office independently determines the precision with which it will track project costs. This leads to inconsistencies in the data entered into RIPS and an overall inaccurate picture of BLM's project costs.

Furthermore, few Bureau staff, if any, are held accountable for ensuring that the data entered into RIPS are complete and accurate. For example, in one field office, the person responsible for entering data into RIPS was on extended leave when the data were due to be transferred from the resource area to the DSC in February 1992. No one else was assigned this responsibility, and the transfer never took place, leaving the national data base incomplete. BLM's Chief, Range Management Branch, confirmed that although some field offices may hold staff accountable for ensuring that RIPS is up-to-date and accurate, there is no bureauwide requirement to do so. At the DSC, the coordinator of the national RIPS data base has no way to check the accuracy of the data sent to him. This official told us that his function is to train field office staff on how to use RIPS and to answer technical questions when they arise. At the headquarters level, BLM officials told us that no one checks the RIPS data.

BLM officials told us that they were aware that RIPS was incomplete and inaccurate and acknowledged that the data base was not developed with a clear vision of its goals. They noted that BLM is in the midst of implementing a plan to modernize all the Bureau's data bases, including RIPS, and to integrate them under a new system. According to the officials, this process will take years to complete. They were unsure when RIPS would be integrated into the new system because of uncertainties about future funding levels and about how the need to modernize and integrate RIPS would be ranked against the need to modernize and integrate other BLM data bases.

Conclusions

The automated system BLM developed between 1986 and 1988 to provide inventory, cost, and benefit information about range improvement projects—RIPS—is inaccurate and incomplete. RIPS does not contain (1) a comprehensive project inventory, (2) a complete and accurate accounting of project costs, or (3) a full description of project benefits.
RIPS is deficient because BLM management has not provided the support or priority necessary to ensure that the system's objectives are accomplished. BLM designed the RIPS data base to track and report a variety of information, including project-specific costs, but some BLM officials do not agree about the need for such data. Furthermore, BLM did not develop guidance to ensure that all of the RIPS data were consistently collected, and few in BLM, if any, are accountable for the data in the system. Because the completeness and accuracy of the RIPS data base depends on consistent data entry from staff at 142 resource area offices, guidance and accountability are essential. Although BLM is involved in an effort to modernize its data bases, including RIPS, this effort will take years to accomplish.

Recommendations

We recommend that the Secretary of the Interior instruct the Director of BLM to assess the need for the information that the RIPS data base is designed to provide. For information that BLM deems useful, we recommend that the Director (1) issue bureauwide guidance to ensure that the data are consistently collected and entered and (2) assign accountability for the accuracy and completeness of the data. Conversely, for information deemed not useful, we recommend that the Director ensure that these data are not entered into RIPS. In this way, BLM can avoid the inaccurate reporting that currently exists when staff at numerous locations enter data without guidance or accountability.

Agency Comments

As requested, we did not obtain written agency comments on a draft of this report. However, we discussed the results of our work with (1) BLM officials from the Rangeland Resources Division, including the Chief of the Range Management Branch and the field-based leader for the range improvement program; (2) the BLM Chief, Engineering Division; and (3) an official from BLM's Budget Division; and we incorporated their comments where appropriate. These officials generally agreed with the facts, conclusions, and recommendations presented in the report.

Scope and Methodology

We interviewed officials at BLM's headquarters in Washington, D.C.; Interior's Service Center in Denver, Colorado; and 4 BLM district offices and 10 BLM resource area offices in Idaho, Montana, New Mexico, and
Oregon. These offices were chosen because they were geographically dispersed and represented a variety of sizes in range improvement programs in terms of funds expended.

We obtained FFS reports from BLM's Budget Division and discussed FFS with officials in BLM's headquarters and the DSC. We did not audit FFS because it did not contain the project-specific data we needed to complete our review.

We obtained national RIPS reports from the DSC and local RIPS reports from the 10 resource area offices we visited. At the resource area offices, we reviewed a judgmental sample of 158 files for range improvement projects that had been completed in fiscal years 1990 and 1991. To determine the completeness of the RIPS inventory and the accuracy of RIPS cost data, we compared information in these files with data in national and local RIPS reports. We also compared the 329 projects identified in the resource area offices' RIPS data bases with the projects listed in the national RIPS data base. To determine the completeness of the RIPS information regarding the resources benefiting from range improvement projects, we compared information included in the files (such as environmental assessments) with the RIPS reports. We also discussed the benefits of range improvement projects with BLM field staff, including range conservationists and biologists.

To gain an understanding of the grazing advisory boards' role in the range improvement program, we reviewed the minutes of 1990 and 1991 grazing advisory board meetings at the four BLM district offices we visited. We also discussed this issue with BLM field staff.

We conducted our review between April 1992 and January 1993 in accordance with generally accepted government auditing standards.

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

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We visited the Burley, Idaho; Miles City, Montana; Las Cruces, New Mexico; and Prineville, Oregon, district offices and the Snake River and Deep Creek, Idaho; Powder River, Big Dry, and Billings, Montana; Mimbres, Caballo, and Socorro, New Mexico; and Central Oregon and Deschutes, Oregon, resource area offices.
This work was conducted under the direction of James Duffus III, Director, Natural Resources Management Issues, who may be reached at (202) 512-7756 if you or your staff have any questions. Other major contributors to this report are listed in appendix III.

Sincerely yours,

J. Dexter Peach
Assistant Comptroller General
Appendix I

The Role of Grazing Advisory Boards

Bureau of Land Management (BLM) officials decide which range improvement projects should be funded each year. As part of this decision process, BLM district managers obtain the advice of district grazing advisory boards. These boards, established under the authority of the Taylor Grazing Act of 1934 (43 U.S.C. 315 et seq.), consist of 5 to 12 livestock operators who, by election of other operators in the district, have been recommended to, and then appointed by, the Secretary of the Interior. BLM develops a list of range improvement projects to be funded and presents this list to the district grazing advisory board for its views.

At the four district offices we visited, we reviewed the minutes of the 1990 and 1991 grazing advisory boards' meetings and discussed the boards' role with BLM range staff. The grazing advisory boards in the four districts had varying degrees of influence on decisions about which projects were ultimately funded in 1990 and 1991. Their advice ranged from recommending that riparian restoration projects be undertaken to objecting to any funds being specifically set aside for riparian or wildlife projects. For example:

- A BLM district manager in Idaho proposed to the grazing advisory board in his district that BLM and the board adopt a policy of using 20 percent of the range improvement funds for riparian and wildlife projects. The chairman of the board objected to the policy, saying that he did not want to dedicate a specific amount of funding for those uses. Rather, he wanted all of the funds to be used for projects that would primarily benefit livestock, and he wanted to modify projects whenever possible to also benefit wildlife. Although the grazing advisory board opposed the policy, we noted that the district spent range improvement funds on projects specifically designed to improve wildlife habitat and riparian areas.

- A district official in the Las Cruces District in New Mexico told us that the grazing advisory board has some influence in setting priorities for proposed grazing projects; however, it does not have the final word. In the past, the grazing advisory board in this district would protest projects specifically undertaken for wildlife. However, board members have not protested as much since the BLM State Director mandated about 3 years ago that 25 percent of all range improvement funds be used for wildlife purposes.

- Officials in the Prineville District in Oregon told us that the grazing advisory board in their district has been very supportive of projects that do not directly benefit cattle. In some cases, the board recommended some riparian and wildlife-related projects be funded and contributed funds to help complete them.
Appendix II

The RIPS Process

Action on rangeland improvement project

- Project approved

Development of local RIPS data base

- Paper copy of RIPS form with project data placed in file
- Documentation of project costs added to file
- Actual costs entered on RIPS form

Development of national RIPS data base

- Project data and costs entered into local RIPS data base
- Twice yearly, data sent to the Denver Service Center
- Local data bases consolidated into the national RIPS data base
## Major Contributors to This Report

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