



United States
General Accounting Office
Washington, D.C. 20548

**Resources, Community, and
Economic Development Division**

B-262197

August 28, 1995

The Honorable Don Young
Chairman, Committee on Resources
House of Representatives

The Honorable Ken Calvert
Chairman, Subcommittee on Energy and
Mineral Resources
Committee on Resources
House of Representatives

Several bills, including H.R. 873, have been introduced in the 104th Congress to terminate the Department of the Interior's Bureau of Mines' (Bureau) responsibility for the production and sale of refined helium.¹ These bills would continue the Bureau's responsibility for the storage and sale of crude helium for a period of years. In February 1995, you asked us to provide you with information on what might happen if H.R. 873 were passed. Subsequently, we agreed with your staff to gather descriptive information on the following questions.

1. What plan does the Bureau have to implement such legislation?
2. What plan does the Bureau have to address environmental requirements?
3. How does the Bureau plan to dispose of property associated with helium refining?
4. What might happen to the Bureau's helium program employees?

¹Helium is an element that occurs naturally in gaseous form and is commercially recovered from certain natural gas fields. Helium is separated from natural gas and stored in a concentrated form known as crude helium until it goes through the final refining process.

15509N

5. How might federal agencies that purchase major quantities of refined helium from the Bureau be affected?

6. How does legislation proposed by the administration (S. 898) differ from H.R. 873?

We provided your staff with copies of our products on the Bureau's helium program and on prior proposals for meeting federal needs for helium.² From March through June 1995, we met with your staff on several occasions to discuss the information that we had gathered. This report summarizes the information provided at those meetings. As agreed, we did not reach any conclusions or recommendations related to, nor did we verify the accuracy of, the information provided by the Bureau and other federal agencies.

In summary:

- The Bureau prepared a closure plan for terminating its helium refining responsibility that segments the tasks to be completed. The plan estimates that, barring certain contingencies, the production and sale of refined helium can cease within 6 months after legislation is passed and other actions related to the closure can be completed within 2 years.
- The Bureau outlined the steps that it expects will be needed to meet environmental requirements, including the cleanup of asbestos, storage tanks, and landfills. The closure plan estimates that, depending on the steps to be taken, all environmental requirements can be met within 2 years after legislation is passed.

²Mineral Resources: Federal Helium Purity Should Be Maintained (GAO/RCED-92-44, Nov. 8, 1991), Mineral Resources: Meeting Federal Needs for Helium (GAO/RCED-93-1, Oct. 30, 1992), Mineral Resources: Meeting Federal Needs for Helium (GAO/T-RCED-93-44, May 20, 1993), Mineral Resources: H.R. 3967 - A Bill to Change How Federal Needs for Refined Helium Are Met (GAO/T-RCED-94-183, Apr. 19, 1994), S. 45 and S. 738 Helium Fund Audits (GAO/AIMD-95-149R, June 15, 1995), and H.R. 846 and H.R. 873 Helium Fund Audits (GAO/AIMD-95-150R, June 15, 1995).

- The Bureau plans to dispose of all real property³ associated with helium refining under standard federal property disposal procedures. However, officials of the private helium refining industry have indicated that they have no interest in purchasing these assets.
- Only about 30 to 40 of the helium program's approximately 180 employees would be needed to fulfill the Bureau's continuing responsibility for the storage and sale of crude helium. As of October 1, 1995, about 6 of the 180 employees would be eligible for regular federal retirement, and about 11 more would be eligible for early retirement if it is authorized, leaving the majority subject to a reduction-in-force.
- Of the three principal federal users of helium, the National Aeronautics and Space Administration (NASA) is concerned about the termination of the Bureau's helium refining responsibility because of uncertainty about the availability and cost of high-pressure gaseous refined helium. NASA uses this helium to meet its unique, sporadic need to, among other things, purge the fuel tanks and lines of space shuttles. The other two principal federal users of helium--the Departments of Energy and Defense--are generally not concerned because their needs for helium can be met by private industry.
- Among other things, S. 898 would provide more time than H.R. 873 to terminate the Bureau's responsibility for refining helium, in recognition of NASA's concern.

BACKGROUND

The Helium Act of 1960 authorizes the Department of the Interior to conserve, buy, store, produce, and sell helium to meet federal and other needs. In the 1960s and 1970s, the Bureau purchased a large amount of crude helium and stored it in Cliffside, a natural gas field connected by a pipeline to the Bureau's refining plant located near Amarillo, Texas. In addition, the 1960 act requires that

³Federal property is either real or personal. Real property consists of things that cannot readily be moved, including land, structures, and equipment that cannot readily be removed from structures. Personal property consists of anything that can be readily moved, such as vehicles and office equipment.

federal agencies purchase their major requirements for helium from the Bureau. The storage and sale of crude helium and the production and sale of refined helium constitute the primary functions of the Bureau's helium program.

The 1960 act requires that the program's net capital and retained earnings plus subsequent borrowing from the U.S. Treasury for purchases of crude helium be established as a debt in a revolving fund known as the helium production fund (Helium Fund). Because capital and inventory costs were previously recorded in the federal budget as outlays, they are not included in the program's current operating costs.

Operating costs for the Bureau's helium program, such as wages and utilities, are funded from receipts in the Helium Fund rather than through the annual federal budget and appropriation process. The program recovers its operating costs primarily through sales of refined helium to federal agencies. Any revenues from such sales that exceed the program's operating costs are returned through the Helium Fund to the U.S. Treasury.

SPECIFIC INFORMATION ON THE SIX QUESTIONS

- 1. What plan does the Bureau of Mines have to implement legislation that would require the termination of its responsibility for the production and sale of refined helium?**

To respond to your request, we asked the Bureau to prepare a closure plan describing what might be done if its responsibility for the production and sale of refined helium were terminated. The Bureau prepared such a plan, and it is segmented into specific tasks to be completed. Estimates of the time and staffing required to complete each task are included.

The plan indicates that the production and sale of refined helium could cease 6 months after the passage of legislation terminating the Bureau's responsibility. However, that estimate does not consider how long it might take for federal agencies that purchase refined helium from the Bureau to make the transition to purchasing refined helium from private industry. The plan further estimates that other actions related to the closure, culminating in the disposal of helium refining

assets, can be completed within 2 years. The plan cites some contingencies that could create delays. For example, Bureau-owned helium containers, which would be disposed of, would need to be returned by customers, but the Bureau cannot control when customers return them.

The Bureau's estimated fiscal year 1996 budget for the helium program is \$24.1 million, of which \$21.8 million is for helium refining. The plan estimates that if the Bureau's helium refining responsibility is terminated, the program's expenditures for this responsibility will decrease to \$20.6 million in the first year after legislation is passed. These expenditures include the costs of continuing to produce and sell refined helium during the first 6 months of that year. The plan further estimates that these expenditures will decrease to \$3.5 million in the second year.

Tasks related to environmental requirements, property disposal, and personnel are discussed in response to questions 2, 3, and 4, respectively.

2. What plan does the Bureau have to address the environmental requirements associated with the disposal of the helium program's real property?

Under standard federal property disposal procedures, real property must be environmentally clean before disposal. Federal agencies disposing of property are responsible for cleaning the property and retain perpetual responsibility in case problems attributable to the agencies are discovered after the property's disposal.

In December 1994, the Bureau prepared a preliminary outline of the steps expected for environmental cleanup. These steps address, for example, cleaning up asbestos, storage tanks, and landfills.

The Bureau's subsequent closure plan estimates that the environmental cleanup could be completed and all real property associated with the production and sale of refined helium could be readied for disposal within 2 years after the passage of legislation terminating the Bureau's responsibility. The plan estimates that activities associated with the environmental cleanup would require about 6.5 staff initially and about 4 staff by the end of the second year. These time and

staffing estimates could change, however, once the Bureau finally determines what cleanup steps are to be taken.

3. How does the Bureau plan to dispose of property associated with the production and sale of refined helium, and what other legislative requirements could affect property disposal?

As the owner of the property associated with the production and sale of refined helium, the Bureau can normally retain any of it for use in other programs. However, H.R. 873 would require the disposal of all property associated with helium refining.

The Bureau is not certain at this time what personal property of a general nature, such as office equipment and furniture, it will retain. However, the Bureau does plan to dispose of all personal property that can be used only for the production and sale of refined helium, such as special helium railcars. The Bureau also plans to dispose of the helium program's real property associated with helium refining, which is located in the vicinity of Amarillo, Texas. The Bureau will retain the real property required to meet its continuing responsibility for the storage and sale of crude helium, including the helium pipeline and the Cliffside field.

Unless legislation specifies otherwise, the helium program's property would be disposed of under standard federal property disposal procedures. Under these procedures, property that is not to be retained would be made available to the General Services Administration (GSA) for disposal. GSA officials told us that they could dispose of the helium program's real property within 1 year after it is made available by the Bureau. However, certain legislative requirements discussed below could delay GSA's disposal.

Disposal of real property

Officials of the private helium industry have indicated that they have no interest in purchasing the Bureau's real property for continued use in the industry. In addition, the helium pipeline, which would be retained to meet the Bureau's continuing responsibility for the storage and sale of crude helium, traverses the property slated for disposal. Therefore, any new owner would

need to provide a right-of-way and access to the pipeline. The industry's lack of interest in purchasing the Bureau's real property and the need to provide a right-of-way and access to the pipeline could limit the future use of, and therefore the revenues from, the sale of the property.

Under standard federal property disposal procedures, the net receipts from the sale of the property would go directly to the U.S. Treasury. Under H.R. 873, the net receipts would be deposited in the Helium Fund before they would flow to the Treasury. Depositing the receipts in the fund before they flow to the Treasury would have no effect on the overall federal budget.

Other legislative requirements that could affect property disposal

In addition to meeting standard procedures, federal property disposal must comply with the requirements of two laws relating to the disposal of real property--the Stewart B. McKinney Homeless Assistance Act (42 U.S.C. 11411), which provides for using federal real property to assist homeless people, and the National Historic Preservation Act (16 U.S.C. 470f), which provides for considering the historic status of a property that is to be disposed of.

The McKinney Act and its implementing regulations require that all excess or surplus federal real property that is suitable must be made available for sheltering homeless people. As the federal government's agency for disposing of federal property under standard procedures, GSA must go through the steps required by the act. If a property is claimed by any organization with responsibility for sheltering the homeless and the claim is approved, the property cannot be sold by GSA. However, if legislation terminating the Bureau's responsibility for the production and sale of refined helium specifies that the real property must be sold, this requirement would take precedence over the requirements of the McKinney Act.

Under the National Historic Preservation Act, federal agencies must consider the effects of their actions on real property that has been or is eligible to be listed in the National Register of Historic Places. The Bureau's closure plan notes that the helium program's

real property that would be disposed of has been designated historic by the Texas Historical Commission. While the act does not prevent the disposal of the Bureau's property, certain steps must be followed to ensure that the effects of disposal are considered.

Disposal of special helium railcars

The Bureau owns several special railcars to transport high-pressure gaseous refined helium to NASA at the Kennedy Space Center in Florida. When at Kennedy, the helium is held in the railcars until it is used; thus, the railcars also provide short-term storage.

When the Bureau ceases the production and sale of refined helium, the railcars would be disposed of as personal property. However, the private helium industry, which would become the supplier for NASA, does not currently transport high-pressure gaseous refined helium, and industry officials have indicated that they would not use the railcars to do so as NASA's supplier.

Thus, the only remaining potential helium-related use for the railcars would be for short-term storage at Kennedy. While NASA officials do not believe that the continued use of the railcars for short-term storage at Kennedy is the best long-term option (see the response to question 5), they would be willing to accept ownership of the railcars for use in the interim. Under standard federal property disposal procedures, the receiving federal agency must pay the disposing federal agency for the property. This requirement has no net effect on the overall federal budget. However, a NASA official told us that NASA would prefer not to have to request an appropriation to purchase the railcars. Legislation terminating the Bureau's responsibility for the production and sale of refined helium could provide for directly transferring the railcars from the Bureau to NASA.

Need for new facilities

When the Bureau disposes of the helium program's real property, two new facilities will likely need to be constructed: an administrative building at the Cliffside storage location and a new facility to maintain the quantity of helium in the pipeline. Currently, the program's administrative offices are

located in Amarillo, some distance from Cliffside, in leased space near some of the facilities that are designated for disposal. The quantity of helium in the pipeline is currently maintained by one of the primary facilities designated for disposal. Most of this facility is devoted to other functions. According to the Bureau, constructing new facilities would be more efficient and cost-effective than retaining the current facilities. However, the Bureau has not estimated the cost of constructing and operating the new facilities.

4. What might happen to the Bureau's helium program employees?

As of April 1995, the Bureau employed about 180 people in its helium program. The Bureau's helium refining closure plan, which assumes that the Bureau will continue to produce and sell refined helium during the first 6 months after the passage of legislation, estimates that 152 staff will be needed during these first 6 months both to continue to perform and to terminate the Bureau's helium refining responsibility. The plan estimates that the number of staff needed for this responsibility will drop to about 30 by the end of the first year and to about 10 by the end of the second year. The program's Chief, Section of Natural Gas Engineering, told us that another 30 to 40 staff would be needed to fulfill the helium program's continuing responsibility for the storage and sale of crude helium.

There are several ways that the number of helium program employees could be reduced. The Bureau could transfer employees to its other programs. A Bureau personnel staffing specialist told us that it is unknown at this time how many employees, if any, would be transferred, but because of staffing limitations and employee qualifications, the number of transfers would likely be small. Of course, employees could voluntarily leave the Bureau's employment, but few are expected to do so because few would be eligible for retirement, and the remaining employees, by departing voluntarily, would forgo the severance benefits related to a layoff (reduction-in-force).

Helium program employees eligible for retirement

April 1995 personnel data indicate that, as of October 1, 1995, only about 6 of the approximately 180 helium

program employees would be eligible for regular federal retirement. Only about 11 additional employees would be eligible for early retirement if it is authorized. However, none of these employees would be required to retire, and they might not choose to do so.

Reduction-in-force

The remaining helium program employees would be subject to a reduction-in-force under standard federal personnel procedures. Those procedures combine educational and experience qualifications, length of federal service, pay level, performance ratings, military veteran status, and other data to determine which employees would be retained by the program and which ones would be terminated. Terminated employees would be entitled to standard severance benefits. In addition, the Bureau would provide assistance in locating new employment for the terminated employees.

5. How might federal agencies that purchase major quantities of refined helium from the Bureau be affected?

According to the Bureau's data, NASA and the Departments of Energy and Defense are the principal federal users of helium. Energy and Defense are generally not concerned about the termination of the Bureau's responsibility for refined helium because their needs for helium can be met by private industry. However, one Energy official told us that he is concerned about what private helium prices would be, and another told us that he believes that the Bureau's crude helium inventory should be retained to ensure meeting future needs. NASA, on the other hand, is concerned about the impact that the termination would have on its unique, sporadic need for large volumes of high-pressure gaseous refined helium used to, among other things, purge the fuel tanks and lines of space shuttles.

Private industry primarily transports refined helium as a liquid because liquid helium is cheaper to transport than gaseous helium. Facilities can be built to receive liquid helium and convert it to gaseous form. However, according to NASA, the private helium industry currently does not have the conversion facilities and equipment to meet NASA's need. Therefore, if private industry is to meet NASA's need, capital investment in conversion

facilities and equipment would be required. NASA is concerned that this additional cost would result in higher helium prices.

As an alternative to relying on private industry to increase its conversion facilities and equipment, the Congress could authorize NASA to build a conversion facility at the Kennedy Space Center. NASA estimates that the construction of such a facility would cost between \$6 million and \$18 million.

To respond to your request, we asked a NASA official to prepare a comparison of alternatives for meeting NASA's need for large volumes of high-pressure gaseous refined helium. Alternatives included, among others, private industry's supplying NASA by way of pipeline, truck, or rail. According to that analysis, authorizing NASA to build a conversion facility at the Kennedy Space Center would be the most reliable and the least expensive alternative after the initial capital cost to construct the facility.

6. How does S. 898 differ from H.R. 873?

S. 898, proposed by the administration, differs from H.R. 873 in several ways. For example, S. 898 calls for the Bureau to terminate helium refining within 3 years of the passage of legislation, compared with 1 year under H.R. 873. The primary reason for this difference is that the administration's proposal accommodates NASA's concern that more time may be required to implement an alternative for meeting its need for large volumes of high-pressure gaseous refined helium. If S. 898 were to pass, about 13 additional helium program employees would be eligible for regular or early federal retirement during the 2 additional years allowed to terminate the Bureau's responsibility for refining helium.

Second, S. 898 calls for abolishing the Helium Fund after the Bureau's responsibility for refining helium is terminated and depositing the net receipts from the sale of crude helium directly in the U.S. Treasury, compared with depositing the net receipts in the Helium Fund, as proposed under H.R. 873. As noted above, depositing the receipts in the fund before they flow to the Treasury would have no effect on the overall federal budget.

Third, S. 898 calls for a cap on program spending of \$5 million annually for the Bureau's continuing responsibility for the storage and sale of crude helium, compared with no cap under H.R. 873. The Office of Management and Budget would prefer a cap on annual program spending because the Bureau's helium program would continue to be funded from a revolving fund and would not be subject to the annual federal budget and appropriation process.

SCOPE AND METHODOLOGY

To respond to your questions, we interviewed officials from the Bureau of Mines, NASA, the Departments of Energy and Defense, the Office of Management and Budget, GSA, and the Environmental Protection Agency, and we reviewed relevant documents, which included documents that were prepared specifically for us, such as the Bureau's helium refining closure plan and a NASA comparison of alternatives for meeting its need for high-pressure gaseous refined helium. To determine the eligibility of helium program employees for retirement, we obtained and analyzed personnel data from Interior. We also reviewed appropriate laws and regulations. In addition, we drew upon our prior products on the Bureau's helium program and on prior proposals for meeting federal needs for helium. As agreed with your staff, we did not contact private industry officials, and we did not verify the accuracy of the data provided to us.

AGENCY COMMENTS

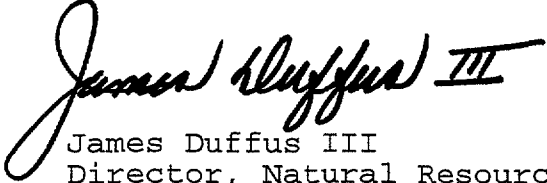
We requested comments on a draft of this report from the Secretary of the Interior or his designee. On August 10, 1995, we met with the Secretary's designee from the Office of the Assistant Secretary, Water and Science; the Bureau of Mines' Associate Director, Finance and Management; and other Bureau officials to obtain their comments on a draft of this report. Generally, these officials agreed with the information presented in the report but offered updated information and editorial comments to improve its clarity. We incorporated the information and made the editorial changes to the report where appropriate.

- - - - -

We conducted our work between March and August 1995 in accordance with generally accepted government auditing standards.

B-262197

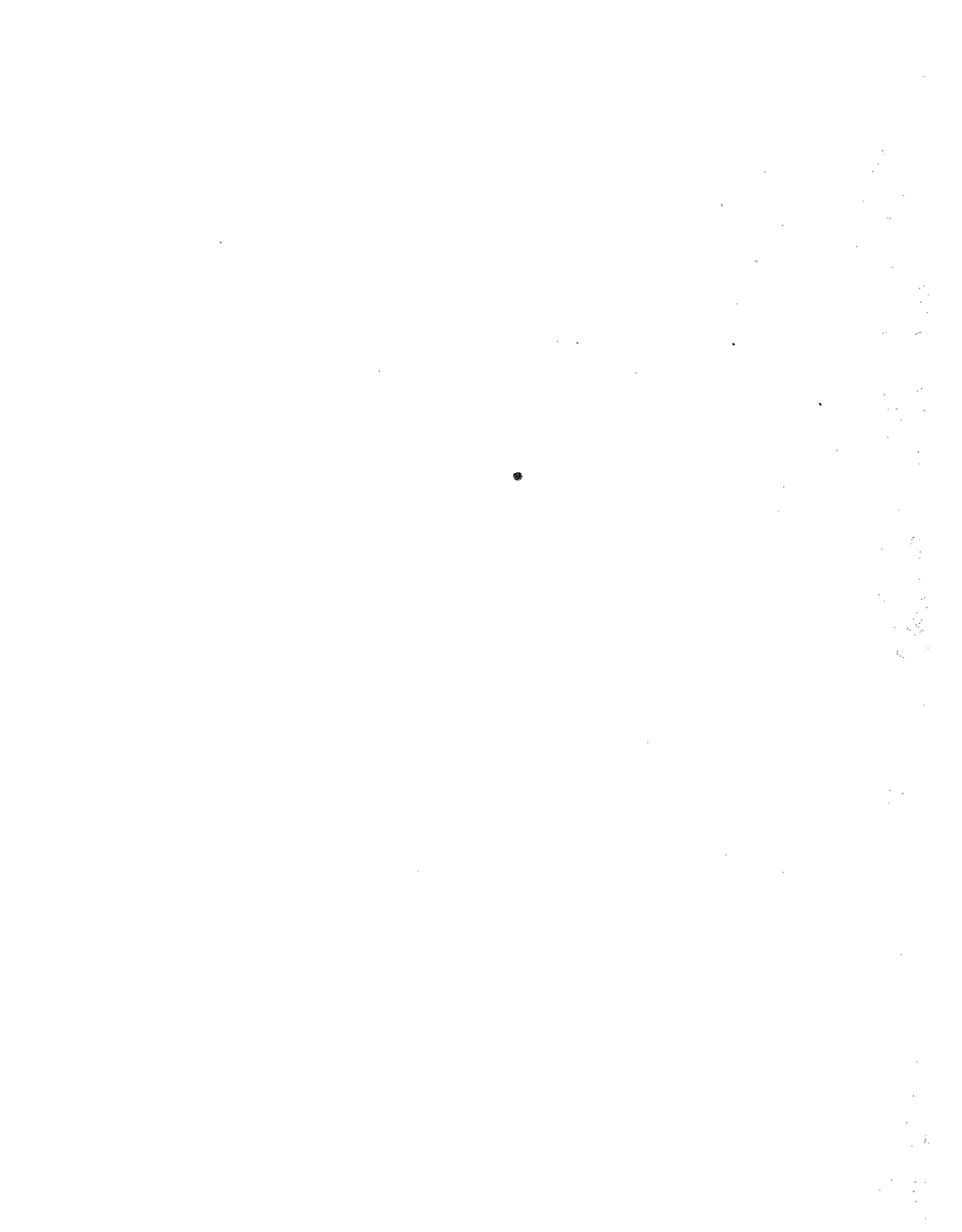
If you or your staff have any questions, please call me at (202) 512-7756. Major contributors to this report were Leonard Ellis, Stanley Feinstein, Annette Wright, and Charles Cotton.

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

James Duffus III
Director, Natural Resources
Management Issues

*

(140294)



Ordering Information

The first copy of each GAO report and testimony is free. Additional copies are \$2 each. Orders should be sent to the following address, accompanied by a check or money order made out to the Superintendent of Documents, when necessary. Orders for 100 or more copies to be mailed to a single address are discounted 25 percent.

Orders by mail:

**U.S. General Accounting Office
P.O. Box 6015
Gaithersburg, MD 20884-6015**

or visit:

**Room 1100
700 4th St. NW (corner of 4th and G Sts. NW)
U.S. General Accounting Office
Washington, DC**

Orders may also be placed by calling (202) 512-6000 or by using fax number (301) 258-4066, or TDD (301) 413-0006.

Each day, GAO issues a list of newly available reports and testimony. To receive facsimile copies of the daily list or any list from the past 30 days, please call (301) 258-4097 using a touchtone phone. A recorded menu will provide information on how to obtain these lists.

For information on how to access GAO reports on the INTERNET, send an e-mail message with "info" in the body to:

info@www.gao.gov

**United States
General Accounting Office
Washington, D.C. 20548-0001**

**Bulk Mail
Postage & Fees Paid
GAO
Permit No. G100**

**Official Business
Penalty for Private Use \$300**

Address Correction Requested
