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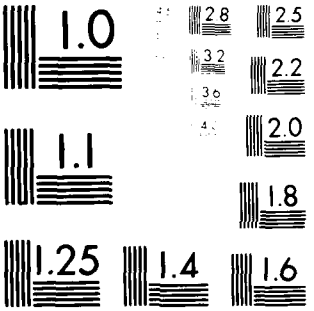

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BY THE COMPTROLLER GENERAL

Report To The Chairman, Subcommittee On Mines And Mining, House Committee On Interior And Insular Affairs Of The United States

OF THE UNITED STATES

Mining On National Park Service Lands -- What Is At Stake?

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The Department of the Interior recommended to the Congress in 1979 that mining claims on certain National Park Service lands be acquired for environmental protection. GAO found that these recommendations were based on vague and misleading environmental and cost data and, if implemented, could result in costs substantially in excess of the reported estimates.

GAO believes that the Congress should defer any action to acquire mining claims on these National Park Service lands. GAO recommends that the Department notify the Congress that it no longer supports these outstanding recommendations and submit more thorough analysis of the need and costs of acquiring these claims.

GAO also found that Interior did not fully analyze the mineral supply implications of its recommendations. Specifically, Interior failed to assess adequately the effects of acquiring the mining claims on the U.S. need for the minerals and the cost to replace them from other sources.

The National Park Service now states that current mining regulations have ensured that mining on these park lands is occurring in an environmentally acceptable manner. However, NPS had not considered less costly means of achieving the same results. This is particularly true for Death Valley National Monument, an area historically and currently important for mineral production.

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

B-202398

The Honorable James D. Santini
Chairman, Subcommittee
on Mines and Mining
Committee on Interior
and Insular Affairs
House of Representatives

Dear Mr. Chairman:

As requested in your September 16, 1980, letter, this report presents our review of the actions of the Department of the Interior in implementing the requirements of Public Law 94-429, the Mining in the Parks Act. Specifically, the report discusses the adequacy of the information the Department submitted to the Congress in 1978 and 1979 and the recommendations based on this information. The report also discusses the National Park Service's management of ongoing mining operations in the affected park areas as well as Interior's analysis of the mineral policy implications of the Act.

Though the Department of the Interior was requested to review and comment on the draft of this report, comments were not received in time to be incorporated in this report. However, the comments received do not change our conclusions or recommendations. We will respond to the Department's comments in a separate report and provide a copy to you.

As arranged with your office, unless you announce its contents earlier, we plan to distribute this report to cognizant agencies, other interested parties, and make the report available upon request 30 days from the date of the report.

Sincerely yours,

Milton J. Socolar

Acting Comptroller General
of the United States

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COMPTROLLER GENERAL'S REPORT TO THE CHAIRMAN, SUBCOMMITTEE ON MINES AND MINING, COMMITTEE ON INTERIOR AND INSULAR AFFAIRS HOUSE OF REPRESENTATIVES

MINING ON NATIONAL PARK SERVICE LANDS--WHAT IS AT STAKE?

D I G E S T

The 1976 Mining in the Parks Act (Public Law 94-429) prohibited further mineral exploration in six National Park Service (NPS) areas and placed environmental restrictions on development of existing mining claims in these areas--Death Valley, Glacier Bay and Organ Pipe Cactus National Monuments, Crater Lake and Mt. McKinley National Parks, and Coronado National Memorial. The law also required the Secretary of the Interior to submit to the Congress studies of the environmental consequences of mining in these areas accompanied by estimated acquisition costs of mining claims.

Interior submitted three reports to the Congress in 1978 and 1979 regarding Death Valley and Glacier Bay National Monuments and recommended the purchase of certain mining claims in these two areas. At the request of the Chairman of the Subcommittee on Mines and Mining, GAO reviewed the adequacy of the reports submitted. Also, at the Chairman's request, GAO looked at NPS's management of present mining operations in the park areas and the Department's analysis of the mineral policy implications of the Act.

GAO found that Interior's reports do not provide the Congress with the information needed to weigh the environmental effects of mining against the cost of acquiring claims in these NPS areas. The environmental and cost data are misleading and inaccurate because they were developed in a hypothetical and generalized manner. Further, GAO believes that the recommendations based on this data could result in court awards substantially in excess of Interior's acquisition cost estimates. (See p. 7.)

In addition, GAO found that Interior has not adequately analyzed the mineral policy implications of the Mining in the Parks Act. (See p. 33.)

INADEQUATE ANALYSIS OF DATA

There were weaknesses with the data developed by Interior. NPS believed they were caused in part by the limited time period--2 years--authorized by the Congress to prepare the necessary studies. In addition, GAO found that the lack of proper planning, review, and coordination by other Interior officials contributed to these weaknesses. NPS was delegated the responsibility of implementing the requirements of the law with little or no link with Interior's Bureau of Mines and U.S. Geological Survey, two agencies with the capability of providing advice and information on mineral related issues. (See p. 8.)

Before determining which mining claims the Federal Government should acquire, Interior should have determined which mining claims were valid. However because of problems and delays in the validity determination process, the status of almost 50 percent of the mining claims is still in doubt almost 5 years after the law was enacted. Realizing that this task would not be completed in time, NPS officials further concluded that they lacked sufficient time to conduct a claim-by-claim assessment of data relating to the environment and cost. NPS officials then proceeded with developing the required data in a hypothetical and generalized manner. (See p. 12.)

The analyses of the environmental consequences of mining in Death Valley and Glacier Bay National Monuments are so vague and generalized that they are of little use for determining the possible environmental impacts of mining in these areas. The analyses contain little or no discussions of the steps that could be taken to minimize adverse impacts and thereby lessen the need to acquire certain mining claims. (See p. 18.)

The cost estimates submitted to the Congress to purchase certain mining claims in Death Valley and Glacier Bay National Monuments were not supported by sufficient documentation and are unreliable and misleading. In addition, much disagreement exists among NPS officials, consultants hired by NPS, and consultants hired by the claim owners as to the worth of the mining claims recommended for acquisition. (See p. 22.)

Because of the hypothetical and generalized manner in which the data were developed, GAO believes that the recommendations are inadequate for determining which mining claims should be acquired.

NPS BELIEVES MINING MANAGEMENT IS SOUND

Regarding NPS's management of present mining operations in the park areas, NPS officials told GAO that their regulations prevent unnecessary surface disturbance and minimize adverse environmental effects. In fact, in Death Valley National Monument, the area with the most mining activity, very little surface disturbance has occurred since 1976, yet mineral production has increased. Underground mining rather than surface mining has predominated since 1976.

However, representatives of mining companies in Death Valley provided GAO examples in which NPS officials, when implementing the regulations, had not considered less costly means to achieve the same environmental protection results. (See p. 30.)

MINERAL POLICY IMPLICATIONS OF MINING IN THE PARKS ACT

Closure of the six NPS areas to further mineral exploration means that no additional discoveries of valuable mineral deposits will occur, and the mineral value of the affected lands will remain uncertain. Recent legislation, however, including the National Materials and Minerals Policy, Research and Development Act of 1980 and the Alaska National Interest Lands Conservation Act of 1980, shows the desire of the Congress for better information regarding mineral resources to support land use decisions.

Based on its review, GAO found that Interior has not adequately analyzed the mineral policy implications of Public Law 94-429, especially regarding Death Valley, which contains significant mineral deposits. The analyses performed left many questions unanswered, such as what would be the price of substituting these minerals once current production ends. Therefore, the potential long-term effects on mineral resources of withdrawing the six park units and acquiring valid mineral properties remain essentially

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unanswered. These are largely matters of mineral policy that should be addressed by the Congress. (See p. 33.)

MATTERS FOR CONSIDERATION BY THE CONGRESS

The Congress should consider the need for the Federal Government to acquire additional information about the significant mineral potential of Death Valley National Monument. This information could be used for any future land use decision regarding the monument. (See p. 40.)

RECOMMENDATIONS TO THE CONGRESS

The recommendations that the Secretary of the Interior submitted to the Congress in 1979 regarding the acquisition of certain mining claims in Death Valley and Glacier Bay National Monuments are based on vague and misleading information. Any action by the Congress to implement these recommendations could result in court awards or settlements which could substantially exceed the Government's acquisition cost estimates. Therefore, GAO recommends that the Congress base no decisions on the Secretary's recommendations submitted in 1979 to acquire mineral properties in Death Valley and Glacier Bay National Monuments. Before taking any action, the Congress should await new recommendations by the Secretary based on more adequate analysis. (See p. 41.)

RECOMMENDATIONS TO THE SECRETARY OF THE INTERIOR

GAO recommends that the Secretary:

--Notify the Congress that the Department no longer supports its recommendations made in 1979 to acquire certain valid unpatented and patented mining claims in Death Valley and Glacier Bay National Monuments.

--Reexamine the need to acquire any mining claims in Death Valley and Glacier Bay National Monuments based on the progress to date in regulating mining activities to prevent adverse environmental effects and submit new recommendations to the Congress.

--Insure that any future recommendations to the Congress to acquire mineral properties on NPS lands be made only after determining what is at stake for all aspects of the public interest.

Because of the problems identified in this review resulting from the lack of effective coordination among the various agencies within Interior and the lack of concern for the management of Federal mineral resources expressed by NPS officials, GAO recommends that the Secretary:

--Remove the mineral management functions, including the mineral examination function, from NPS.

--Consider the need to consolidate all of the Department's mineral management functions under a single Assistant Secretary. (See p. 42.)

AGENCY COMMENTS

Though the Department of the Interior was requested to review and comment on the draft of this report, comments were received too late to be incorporated in this report. The comments do not change GAO's conclusions or recommendations and GAO will respond to them in a separate report.

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ABBREVIATIONS

BLM	Bureau of Land Management
BOM	Bureau of Mines
FLPMA	Federal Land Policy and Management Act of 1976
GAO	United States General Accounting Office
NPS	National Park Service
USGS	United States Geological Survey

CHAPTER 1

INTRODUCTION

Most park areas managed by the National Park Service (NPS) have been withdrawn from mineral exploration and development when established. However, the enabling legislation for three areas, Crater Lake and Mt. McKinley National Parks 1/ and Coronado National Memorial, kept them open to exploration and development under the 1872 Mining Law. Additionally, in three other areas, Death Valley, Glacier Bay, 1/ and Organ Pipe Cactus National Monuments, rights to mineral exploration and development were reinstated subsequent to their designation as monuments because of their historical or potential contribution to national mineral supply.

In 1976, the Congress reexamined the desirability of continued mining in the National Park System. As a result, Public Law 94-429, popularly known as the Mining in the Parks Act, was enacted on September 28, 1976. The law repealed the mineral entry provisions for these six park system areas and placed restrictions on mineral development to avoid unnecessary damage to the environment. Additionally, it required that the Secretary of the Interior provide the Congress the information necessary to decide whether certain valid mineral properties should be acquired in these six park areas or whether the boundaries should be adjusted to exclude significant mineral deposits and decrease possible acquisition costs.

No further legislative action was to be taken regarding mineral development on these lands until the Congress had an opportunity to analyze the information it requested and all aspects of the public interest were considered.

In September 1980, the Chairman of the Subcommittee on Mines and Mining of the House Committee on Interior and Insular Affairs asked us to examine the Secretary of the Interior's actions to date on this matter, to insure that the Congress had all the information necessary for an equitable decision balancing the public interests in the mineral and nonmineral resources of the affected lands. Specifically, he asked us to review the information the Department provided the Congress, including the recommendations to acquire valid mining claims and their accompanying cost estimates; to determine how objectively the validity determinations were conducted; to examine NPS's management of present mining operations; and to assess the mineral policy implications of Public Law 94-429.

1/Mt. McKinley National Park and Glacier Bay National Monument are now called Denali National Park and Preserve and Glacier Bay National Park and Preserve, respectively. For reasons of clarity, both are referred to by their original names in this report.

HISTORICAL PERSPECTIVE AND LEGISLATIVE BACKGROUND

Mineral exploration and development have occurred in varying degrees in all six park areas. There has been little or no mining in Coronado National Memorial and Crater Lake National Park. A limited amount of production has occurred in Organ Pipe Cactus National Monument, Mt. McKinley National Park, and Glacier Bay National Monument. Glacier Bay National Monument contains a significant domestic nickel deposit. However, no production has occurred on this deposit, mainly for economic reasons.

Of the six areas, the most mineral exploration and development has occurred in Death Valley National Monument, famed for its twenty-mule teams that hauled borates before the turn of the century. A variety of minerals has been produced from the monument, but the most important ones still being produced are talc and the borate minerals colemanite and ulexite-probertite (ingredients used in the manufacture of energy conservation materials).

Because mining activity involves surface disturbance, the presence of mining in the national parks was viewed by NPS and many members of the Congress as a fundamental conflict. A review of the legislative history shows that some members of the Congress felt that to set public lands aside as a national park and then to allow mining was inconsistent. Many members were adamant about preventing mining in any of the national parks and monuments unless there was an overwhelming need. However, as will be discussed later, the enactment of P.L. 94-429 was an effort by the Congress to reach a balance and a compromise to insure the maximum public benefit in regard to these six park areas.

The Death Valley controversy--the impetus behind the Mining in the Parks Act

The problem of how to control mining in these park areas reached fever pitch in June 1975 when a borate producer located 44 claims in the Gower Gulch area of Death Valley, adjacent to Zabriskie Point, a famous scenic lookout. At that time, the monument supervisor appealed to officials within Interior to withdraw the affected lands from mineral development under the Mining Law of 1872. Interior's Associate Solicitor at that time rendered an opinion that the Secretary could not withdraw the monument lands for the purpose of scenic preservation.

It is not clear what the company planned for the claims. A company spokesman stated in a memo to a Bureau of Mines official that the company had absolutely no intention of mining the areas where the claims were located. The company saw a potential flaw in the property title of another company's claims in the area and located claims on top of them to clarify ownership. A few months after these claims had been located, the issue surfaced publicly. Despite the company's denial of any intent to mine the area, several newspapers reported that strip mining was due

to occur in the most scenic area of Death Valley. Such headlines as "Last Rites For Death Valley" and "Mines Strip Death Valley" appeared in newspapers, and the story was picked up by the national television networks.

Within 3 weeks, three bills were introduced in the Congress to curtail mining in Death Valley National Monument, and the subject was raised in at least four committee sessions in the House and the Senate, including the Senate hearings on the confirmation of the then prospective Secretary of the Interior. The original bills were limited to Death Valley National Monument but were subsequently expanded to include the five additional areas.

The Mining In The Parks Act

The debate which preceded enactment of Public Law 94-429 was heated and emotionally charged. The sides were polarized, with the proponents for mineral development pleading for access to the minerals and others viewing mineral development as a basic conflict with the national park ethic. Despite the wide differences of opinion between the two sides, however, the legislation that was enacted sought to strike a compromise, balancing the competing interests of mineral development and preservation.

The act develops a framework in sections 4 through 8 for the evaluation of the mining situation on the six NPS areas. The Congress was not prepared at the time of the enactment of the legislation to make a definitive decision on the matter because it lacked adequate and impartial information. In order to allow time to develop the facts, the act imposed a 4-year surface disturbance moratorium--temporarily restricting mining activities. It also gave the Secretary clear authority to regulate mining activities on NPS lands. In addition, the act required the Secretary to

--determine the legal status (or validity) of the mining claims within each National Park Service area;

--submit to the Congress studies of the environmental consequences of mining accompanied by estimates of the acquisition costs of the mining claims in these areas; and

--submit recommendations to the Congress as to whether any mining claims should be acquired or boundary changes made to exclude significant mineral deposits.

OBJECTIVES, SCOPE, AND METHODOLOGY

Our review objective in responding to the request of the Chairman of the Subcommittee was to examine whether Interior's reports and recommendations to the Congress in accordance with

Public Law 94-429 were developed by objective consideration of all possible alternatives, including detailed analysis of which alternatives provided the maximum public benefit. We also examined whether Interior's submissions provided the Congress with the information necessary to reach an informed decision on the need for acquiring certain mineral properties in Death Valley National Monument, California, Glacier Bay National Monument, Alaska, Organ Pipe Cactus National Monument, Arizona, Crater Lake National Park, Oregon, Mt. McKinley National Park, Alaska, and Coronado National Memorial, Arizona. In addition, we looked at NPS's management of present mining operations in the park areas and at the mineral policy implications of the act as requested by the Chairman.

Public Law 94-429 required that the Secretary within 2 years determine the validity of any unpatented mining claims within Death Valley, Glacier Bay, and Organ Pipe Cactus National Monuments and Mt. McKinley National Park. Also, within this time the Secretary was to submit to the Congress recommendations as to whether any valid or patented claims should be acquired by the Federal Government. Estimated acquisition costs of such claims and a discussion of the environmental consequences of mining were to accompany the recommendations.

The law required that similar information be developed for Crater Lake National Park and Coronado National Memorial within four years from the date of enactment.

In compliance with the Act, Interior submitted several reports to the Congress detailing the environmental and cost data. (See app. I for a list of these reports.) In 1979, Interior submitted recommendations to the Congress, based on the information presented in the reports. (See apps. II and III.) Interior recommended that certain mineral properties be acquired in two of the six NPS areas.

We reviewed the reports and recommendations Interior submitted to the Congress to determine their adequacy, accuracy, and thoroughness for decisionmaking purposes. We also reviewed all available data detailing how the reports were developed and interviewed NPS's environmental specialists and mineral appraisers responsible for developing the data. We reviewed in detail Interior's recommendations to the Congress to acquire certain mineral properties in Death Valley and Glacier Bay National Monuments. In addition, we reviewed the long-range mineral policy considerations posed by the law and some mineral policy questions needing the attention of the Congress.

Our analysis of the information developed by NPS officials was constrained because of the lack of documentation. For example, our review of how the mining claim acquisition costs were estimated was based mainly on discussions with NPS officials, including the now retired Chief of the Mining and Minerals Division, who was principally responsible for the estimates.

Other NPS officials we spoke to could not speak definitively on how the cost estimates were developed.

Based on a reading of the literature on the subject and discussions with Interior officials, mining law experts, and our consultant, we examined the process followed by Interior in determining the validity of the mining claims in the six NPS areas. NPS was almost singly responsible for implementing the requirements of Public Law 94-429. Other Interior agencies, such as the Bureau of Mines (BOM), Bureau of Land Management (BLM), and U.S. Geological Survey (USGS), had little or no input into the development of the information required by the law. Officials of BOM and BLM had expressed concern as early as 1976 about their lack of involvement in carrying out the responsibilities of Public Law 94-429. (See ch. 2.) We asked officials of these agencies to comment on the information the NPS submitted to the Congress. Two officials of BOM, a borate and a talc specialist, reviewed the reports developed by NPS concerning the importance of the borate and talc minerals being produced in Death Valley National Monument. In addition, two USGS officials with extensive work experience in Death Valley and Glacier Bay National Monuments reviewed and commented on the NPS reports for these areas. We also asked an official of BOM's Mine Engineering Division to comment on a technical mining engineering problem discussed in chapter 6.

In addition to officials of BOM, BLM, and USGS, we interviewed officials of Interior's Solicitor's Office, the Interior Board of Land Appeals, and private claim holders within Death Valley and Glacier Bay National Monuments. We also interviewed representatives of each of the five major producing companies in Death Valley National Monument and members of several national environmental organizations.

We visited the areas currently being mined in Death Valley National Monument and areas where mining once occurred in Glacier Bay and Organ Pipe Cactus National Monuments, Coronado National Memorial, and Mt. McKinley National Park. We did not visit Crater Lake National Park because of the lack of mining claims located there.

CHAPTER 2

WEAKNESSES IN DATA

LED TO POOR RECOMMENDATIONS

Interior submitted three reports to the Congress in 1978 and early 1979 to comply with section 6 of Public Law 94-429. These reports contained data which is vague and misleading. As a result, Interior's recommendations that were based on this data should not be used by the Congress for making a decision on purchasing mining claims in these parks.

The weaknesses in the data and recommendations resulted primarily from the lack of adequate time to plan and perform the analyses and the lack of effective coordination and oversight within Interior.

REQUIREMENTS OF SECTION 6 OF PUBLIC LAW 94-429

Section 6 of Public Law 94-429 required that the Secretary of the Interior, within 2 years:

--Determine which mining claims were valid 1/ within Glacier Bay, Death Valley, and Organ Pipe Cactus National Monuments, and Mt. McKinley National Park.

--Submit to the Congress recommendations as to whether any of these mining claims should be acquired by the Government.

--Develop analyses of the environmental consequences of mining these claims.

--Develop estimated acquisition costs for these claims.

Section 7 of the Act required the same data, within 4 years, for Crater Lake National Park and Coronado National Memorial. However, no analyses were performed or reports submitted because of the lack of mining claims located in these park areas.

The information provided by the Department of the Interior was to be used by the Congress to decide whether or not mining in these six NPS areas was in the best public interest. The

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1/For the purposes of this report we refer to any mining claim that has met the requirements set forth by the U.S. General Mining Laws and the Department of the Interior as a valid mining claim.

recommendations developed by the Secretary were expected to assist the Congress in making these determinations. If properly developed, the information could have been used by the Congress to make an informed decision, balancing the potential environmental impacts of mining these properties against the estimated cost of acquiring the mineral rights.

INTERIOR'S RECOMMENDATIONS TO THE CONGRESS

In 1979 Interior submitted recommendations to the Congress which were based on vague and misleading environmental analyses and cost data. Any congressional action to implement them could result in protracted litigation and final acquisition costs that are a great deal larger than currently estimated. Further, the recommendations do not contribute to a balanced decision weighing the environmental need for acquiring certain mineral properties against the cost of acquisition. Interior officials believe that the data they developed and the resulting recommendations were the best that could be arrived at in the time allowed. However, the reports did not contain an explanation of the limitations of the usefulness of the data presented.

In letters transmitting its reports, Interior recommended that the Congress acquire certain mining claims in Death Valley and Glacier Bay National Monuments and allow mining to continue under existing regulations on those claims not acquired. (See apps. I, II, and III.) In addition, Interior recommended that the surface disturbance moratorium continue indefinitely in Death Valley National Monument. Since no valid mining claims were located in Organ Pipe Cactus National Monument, and Interior has not yet determined if any valid mining claims are located in Mt. McKinley National Park, no reports or recommendations relating to these two areas were submitted.

The recommendations for Death Valley and Glacier Bay were chosen from several alternatives developed by NPS officials. The alternatives were presented in two of the reports to the Congress and stated options ranging from buying out all mineral properties in the two national monuments to taking no action at all. According to an Interior official, the decision as to which alternative to recommend was made by officials in the office of the Secretary.

The recommendations were transmitted to the Congress in 1979 but have never been implemented. However, Interior drafted legislation in July 1980 to authorize implementation. This legislative proposal never reached the Congress, but the recommendations have never been rescinded. Therefore, they still represent the Department's official position.

Recommendations linked to costs, not environmental need

The recommended acquisitions were supposed to be based mainly on the analyses of the environmental consequences of mining in the

two NPS areas. However, our discussions with Interior officials and analysis of the available data, showed that the consideration of environmental need was secondary to the overriding criterion of potential cost. An Interior official explained that only those claims Interior believed to be of lowest cost were recommended for purchase because purchase of the potentially more costly mining claims would not be politically feasible. For example, Interior officials recommended that the Congress acquire some mining claims even though they believed the claims would never be mined for economic reasons. Obviously, such claims posed no environmental threat, but other claims subject to intensive exploration or to actual mining represented clear environmental impacts.

The selection for acquisition was unrelated to true environmental need for another reason: the environmental analyses regarding Death Valley and Glacier Bay contained major flaws as discussed in chapter 4.

We believe that by basing the recommendations to acquire mining claims on cost, Interior has failed to provide the Congress information necessary to make a balanced decision between environmental and economic concerns.

Interior officials stated in their recommendations that the cost of acquiring the selected mining claims in Death Valley National Monument would be a minimum of $650,000, and a minimum of $100,000 for Glacier Bay National Monument. However, our review found insufficient documentation or analysis to justify the estimates. Further, there is a great deal of disagreement among Interior officials, consultants hired by Interior, and the claim holders and their consultants as to the reliability of the estimates. Chapter 5 discusses the weaknesses in the cost estimates.

POOR OVERSIGHT AND COORDINATION IN IMPLEMENTING THE REQUIREMENTS OF SECTION 6 OF PUBLIC LAW 94-429

From the onset, Interior officials encountered problems with the development of the information required in section 6. NPS was delegated the major responsibilities for implementing the requirements of the act with little coordination or advisory review by other Interior agencies. Further, according to NPS officials the time allowed to implement the requirements of section 6 was unrealistic.

Senate hearings on the proposed legislation indicate that the Congress did not view this matter as one to be analyzed solely by NPS and intended all the Department's resources to be employed in carrying out the responsibilities of the act. Ultimately, the Secretary delegated implementation of the act wholly to NPS, despite the Acting Director of BOM's concern that the expertise of his agency would not be used in the development of the required data.

In a memorandum dated November 23, 1976, the Acting Director informed the Assistant Secretary for Energy and Minerals that the Department's expertise for carrying out the mineral responsibilities of Public Law 94-429 rested in agencies other than NPS. The Acting Director suggested that a division of labor be established among all the concerned agencies to insure that the Secretary carried out all of his responsibilities. The responsibilities arose under the mining and leasing laws, the Mining and Minerals Policy Act of 1970, the Defense Production Act of 1950, and the Strategic and Critical Materials Stockpiling Act of 1939. Requirements of all of these laws would have to be considered to assure that mineral potential was adequately assessed in Departmental actions affecting individual public land use decisions.

We could not determine if the issues raised by the Acting Director of BOM were ever addressed by the former Secretary. One NPS official told us the major responsibilities were delegated to NPS because it seemed to make sense. He stated that the specific responsibilities for developing the environmental analyses and acquisition cost estimates were further delegated to NPS officials located outside the headquarters office, and, as a result, there was little oversight or review of the analyses or the final reports by high-level headquarters NPS officials. Further, because the major responsibilities for implementing the requirements of the law were delegated entirely to NPS, the environmental analyses and cost estimates were developed in a vacuum without effective coordination with USGS and BOM.

The Secretary also delegated the responsibility of a key function--the mineral examinations of the mining claims--to NPS. These examinations are crucial to determining which mining claims are valid. Historically, the mineral examination function has been performed by BLM, the agency with the authority and the responsibility for administering the mining law and its regulations. This function was transferred to NPS in 1971 for NPS lands because BLM did not have enough mineral examiners to meet NPS's needs in the time required.

By 1976, however, BLM had increased its staff over the 1971 level, and the Director requested that the mineral examination function be returned. However, the Secretary of the Interior left the function in NPS.

The Assistant Secretary for Energy and Minerals and the Director of BOM questioned whether the delegation of this function made good management sense. Both felt that the administration of the mining law should remain in a single agency and not be eroded in a piecemeal delegation to other agencies. They contended that the dismembering of BLM's responsibility for the 1872 Mining Law would complicate the Department's consistency, objectivity, and efficiency. They further believed that the transfer of functions was inefficient and that to set up a temporary function in NPS, duplicating an already staffed and operating organization in BLM, would increase administrative costs.

NPS officials believed that it was necessary to have the mineral examination function in NPS to meet the time limits of section 6. They explained that most of the mineral examinations were completed before October 1978, and doubted whether BLM could have accomplished it any quicker. Further, they contended that it was a logical management approach for the Secretary to delegate this responsibility to NPS since the mining claims were located on NPS lands.

Additional problems resulting from this transfer of functions are discussed in chapter 3.

Time allowed to comply with requirements of section 6 was considered unrealistic

NPS officials stated that the 2 years allowed by section 6 to determine which mining claims were valid and to develop the environmental analyses and cost estimates were totally unrealistic and resulted in the poor quality of the data developed. NPS officials explained that before any environmental or cost analysis could be performed the number of valid mining claims had to be determined. They explained that because this is a complex and lengthy process, many determinations are still not completed. In fact, as of December 1977, only a few validity determinations had been completed.

An NPS official became concerned about his ability to meet the requirements of section 6 on time. In a memo dated December 20, 1977, to the superintendent of Death Valley National Monument, this official wrote:

> "The report that Congress requires in Section 6, cannot be produced in the 9 months that remain of the alloted 24 months. For the most part, the entire task remains to be done and there is simply not time to accomplish it. A report can be produced but it will not meet the requirements--such a report could abort what the law is attempting to accomplish and prove an embarrassment to the National Park Service and to the Department."

Recognizing these pitfalls, NPS officials performed the environmental and cost analyses before they knew

- --the number of valid mining claims in the six park areas,
- --which claims would potentially be mined, and
- --the type of mining method likely to be employed in each case.

The specific problems with the incomplete validity determinations, the NPS environmental analyses, and the NPS cost estimates are discussed respectively in chapters 3, 4, and 5.

CHAPTER 3

DETERMINING THE VALIDITY OF THE MINING CLAIMS--A NECESSARY BUT UNFINISHED FIRST STEP

This chapter discusses the problems we identified with the procedures used by Interior to determine the validity of the mining claims and why these determinations have still not been completed, nearly 5 years after enactment of the law.

In hearings prior to the passage of Public Law 94-429, Interior officials testified that there were thousands of mining claims scattered throughout four of the six park areas. In fact, Interior officials estimated that as many as 50,000 mining claims and mill sites were located in Death Valley National Monument and approximately 3,000 in Organ Pipe Cactus National Monument. The Congress required that each claim holder record his mining claim with the Department of the Interior within 1 year of the date of enactment of the law. Once the claims were recorded, the Secretary was to determine which of the claims were valid.

Any unpatented mining claim or mill site location that was not recorded within the year or was found to be void or invalid through the validity determination process reverted back to Federal ownership.

NUMBER OF MINING CLAIMS DETERMINED AS VALID TO DATE AND REASONS FOR DELAY

Although Interior officials originally believed more than 50,000 mining claims were located in the six park areas, only 1,310 claims were actually recorded with the Department. Almost 5 years have passed since the enactment of Public Law 94-429, and Interior officials have still not determined the status of almost 50 percent of the 1,310 recorded claims.

The chart on the next page shows how many unpatented mining claims were thought to exist at the time of the enactment of Public Law 94-429, the status of the recorded claims as of September 1978, and their status at present.

NUMBER AND STATUS OF THE UNPATENTED MINING CLAIMS IN THE SIX PARK AREAS

Number of Mining Claims Estimated Prior to Enactment of Public Law 94-429

	Valid Unpatented	Invalid	Undetermined	Recorded
Death Valley			50,000	
Glacier Bay			270	
Crater Lake				
Mt. McKinley			300	
Organ Pipe			3,000	
Coronado				
Total			53,570	

Number and Status of Mining Claims as of September 1978

	Valid Unpatented	Invalid	Undetermined	Recorded
Death Valley	19	23	821	863
Glacier Bay	1		211	212
Crater Lake				
Mt. McKinley			74	74
Organ Pipe		59	102	161
Coronado				
Total	20	82	1,208	1,310

Number and Status of Mining Claims as of May 1981

	Valid Unpatented	Invalid	Undetermined	Recorded
Death Valley	44	486	333	863
Glacier Bay	1	13	198	212
Crater Lake				
Mt. McKinley		4	70	74
Organ Pipe		161		161
Coronado				
Total	45	664	601	1,310

In addition to the valid unpatented claims, Death Valley and Glacier Bay National Monuments contained a total of 138 patented mining claims. A patented mining claim refers to Federal land for which the Government has given legal title to an individual or individuals. Since the legal status of these claims is known, no validity determinations were required.

Interior officials told us the mining claim validity determinations are often complex and lengthy procedures. These determinations involved both an administrative and legal review. Briefly, if the Government's mineral examiner determines that a claim holder has failed to meet the requirements of the 1872 mining law, its regulations and the case law that has interpreted them, the mineral examiner issues a report which contests the validity of the mining claim.

Among the requirements the claim holder must meet is the discovery of a valuable mineral deposit. In the context of a validity determination, a valuable mineral discovery is defined as a mineral deposit of such quantity and quality that a person of ordinary prudence would be justified in the further expenditure of time and money and have a reasonable prospect of making a profit from the mining operation. The burden of proving a discovery rests entirely with the claim holder.

If the claim is contested for lack of a mineral discovery, the claimholder can ask for a hearing. An Interior administrative law judge presides at the hearing and issues a decision on the facts presented, and this decision may be appealed to a higher level of administrative review--the Department of the Interior's Board of Land Appeals. Finally, the claim holder has legal recourse to the Federal courts. If the claim holder defends his rights successfully, he may continue to work his mining claim as long as he continues to meet the requirements of the Mining Law of 1872 and its regulations. If unsuccessful, the Government's title to the mining claim is cleared.

One Interior solicitor told us that depending on its complexity, a single contest could take at least 2 years to complete. Another solicitor stated that it would have required a crash effort by the Department and a large amount of staff and financial resources to comply with the law's 2-year deadline.

However, other Interior officials told us that little progress was made during the first year after enactment of Public Law 94-429 simply because the claim holders were given a full year to record their claims. Most of the validity determinations could not begin until recording of the claims was completed. Some additional delay was caused because of the former Secretary's indecision as to which agency would perform the mineral examination of the mining claims.

Additional delays are also being experienced because of the lack of administrative law judges assigned to hear the cases concerning Death Valley and Glacier Bay National Monuments and Mt. McKinley National Park. Although Interior originally had eight administrative law judges to hear these cases in 1976, that number dropped to five at one point because of staffing changes. Further, because of budget restrictions during 1980, the travel of the administrative law judges was cut back significantly.

Because the judges were unable to travel to the hearings site, some of the hearings were postponed until travel funds were available.

Problems with Interior's validity determinations

There was concern among some Members of Congress and some Interior officials as to the wisdom of allowing NPS to perform the mineral examination function. These individuals feared that the findings of NPS mineral examiners would not appear objective because of NPS's single-use mandate--park preservation.

There was much disagreement among Interior officials regarding the appropriateness of delegating the mineral examination function to NPS. For example, in 1976 the Assistant Secretary for Energy and Minerals and the Director of BOM objected to this transfer of functions because they believed the validity determinations had to be free of even the appearance of unintended bias. They argued that since a mining claim validity determination is a property right determination, the Government's actions must be free of bias.

Our discussion with officials of the Interior Solicitor's office, BLM, and NPS, and with our consultant and some of the attorneys representing the claim holders indicated that NPS officials acted within established procedures in conducting the mineral examinations and their subsequent participation in administrative hearings. However, all of the claim holders we spoke with including the representatives of each of the major companies in Death Valley National Monument, told us that they believe they were treated unfairly even to the point of believing the system was deliberately biased against them.

Most of the bitterness expressed by the private claim holders arose because they did not know how to properly argue their case before Interior officials. They also said that they resented that Interior officials were not concerned with knowing what minerals were located in these lands, but only interested in eliminating as many mining claims as possible. As mentioned on page 8, the nature of the validity determination process places the burden of proof on the claim holder that a valuable mineral deposit has been discovered.

An Interior solicitor brought some problems to our attention which may have contributed to the feelings of these claimholders that the system was prejudicial and further delayed the completion of the validity determinations. According to the solicitor, one NPS official conducting the mineral examinations for 181 of the mining claims in Death Valley National Monument:

--Recommended that all 50 mining claims located by one company be declared invalid. To date, 16 of these claims have been found valid, and it was

discovered during the administrative hearing that 9 of these claims had been contested before NPS's mineral examiner completed analysis of the available information regarding the claims. Further, NPS's mineral examiner conceded during cross examination in the hearings that one of the other claims he had contested was, in fact, valid.

--Recommended that 51 mining claims of another company be declared invalid. Because of the problems stated above, NPS hired a second mineral examiner to review the mineral examination reports for these mining claims. This subsequent review has thus far resulted in a recommendation that the Government withdraw contests for at least 6 of these claims, and continue reviewing the reports for many of the other 45 claims.

--Recommended that 80 mining claims belonging to a third company be declared invalid. Because of the above-stated problems, the Government has asked for an indefinite postponement of the hearings until the mineral examination reports can be re-evaluated.

Another NPS mineral examiner explained to us that he believed an NPS employee is also an advocate of the agency's preservation policies and, therefore, might not be objective when participating in decisions which could require the multiple use of NPS lands. Further, he stated his professional opinion that the mineral examination function should probably be a separate function not related to any land management agency to completely avoid any appearance of bias. This opinion is supported by the fact that other NPS officials made clear to us that their ultimate objective is to eliminate mining from the National Park System. They stated that mining is totally incompatible with the NPS mandate and therefore cannot be viewed objectively.

Another problem affecting validity determinations for 30 mining claims arose because of uncertainity about the proper interpretation of section 314 of the Federal Land Policy and Management Act of 1976 (FLPMA), providing for recordation of mining claims which was enacted one month after Public Law 94-429. Several claim holders, who recorded their claims under the requirements of Public Law 94-429, failed to comply with similar requirements of section 314 of FLPMA. The Department's position has been that this failure constituted an abandonment of the mining claim as stated in FLPMA. However, some Interior officials believe that claim holders who failed to file in accordance with FLPMA did so, in part, because of erroneous advice given by NPS

officials and the vagueness in the regulations implementing Public Law 94-429. Therefore, Interior is currently reexamining its position regarding these claims. This uncertainty has further delayed the completion of the validity determinations.

Because the administrative hearings contesting the validity of the affected 30 mining claims are still continuing and Interior is presently considering what its final position will be regarding this problem, we did not pursue this matter further at this time.

CHAPTER 4

WEAKNESSES IN

NPS'S ENVIRONMENTAL ANALYSES

Analyses of the environmental consequences of mining in Death Valley and Glacier Bay National Monuments were submitted to the Congress. These analyses are so vague and nonspecific that they are of little use for decisionmaking. Further, the analyses contain no discussion of possible mitigating measures which would decrease the environmental impacts of mining in the monument and lessen the need to acquire certain mining claims. The environmental data discussed in the reports are hypothetical, speculative, and generalized, with few supporting facts. Most impacts are addressed in conditional terms such as "may," "could," "might," and "likely." No facts are presented to support the extent of the impact or to separate least, most, and intervening ranges of environmental impacts.

Further, we could not determine on what basis the conclusions made in the report were quantified and substantiated. Almost every conclusion is based on an "either/or" scenario with little or no explanation of the possibility for mitigating adverse effects at an intermediate level. This appears contradictory to the stated assumption that was made in developing the reports that mining activities would be subject to NPS regulations. As is discussed in chapter 6, the regulations are designed to preserve the surface resource values of the monument and, therefore, prevent the occurrence of most of the adverse effects of mining described.

DEATH VALLEY NATIONAL MONUMENT

NPS officials determined the effects of mining on the scenic quality of the monument by using a computer model which delineated the terrain visible from a single point and from multiple observation points for the entire monument. Various viewpoints in the monument were programmed along with the location of mining claims. Also, adjustments were made to compensate for the high and low elevations of the topography of the land. The information generated was supposed to show the number of mining claims that would be in a direct line of sight from selected areas of the monument. The data obtained from the computer model was then plotted on monument-wide base maps, highlighting the areas within the monument from which one or more of a particular set of claim groups was visible. These maps were then included in the final report as a series of illustrations indicating the degree of visual impact likely to occur on monument lands if mining were to occur on any of the studied claims. The limitations of this analysis were noted in the methodology section of the report but were described as minor problems.

The USGS official with extensive work experience in the Monument who reviewed the NPS report at our request stated that based on his detailed knowledge of the terrain and a careful inspection of the visibility maps, the area of visibility of the claim groups is exaggerated from sixty percent to as high as ninety percent on the maps. Such exaggeration, he concluded, introduces the possibility of misinterpretation of the potential impacts of mining on scenic quality.

Our review supports the USGS official's conclusion in that the NPS methodology is at best vague and results in unsupportable conclusions. Therefore, we believe that the visibility analyses present such a distorted evaluation of the visibility of the mining claims that no fair judgment can be made of the impacts of mining on the scenic quality of the monument.

We further concluded that the environmental analysis report was

--based on little factual data,

--not objective, and

--written in words that may convey to a reader unfamiliar to the area a strongly negative view of mining.

Although we reviewed the entire environmental analysis report, a page-by-page description of its weaknesses would be too lengthy for the purposes of this report. However, an example from the report followed by our analysis is presented below to illustrate the weaknesses with the data and why the information is vague and misleading.

The following situation is discussed on page 53 of the NPS report on the environmental consequences of mining in Death Valley National Monument as a potential impact of mining on a cultural resource in the monument:

> "Chloride Cliff Area: The Big Bell claim was first located in June 1904. In 1940 the mine was still active, with a 20 ton daily capacity mill in place and operating. When the mine was abandoned in 1942, all the equipment and structures were abandoned. The mine, mill machinery, and structures are still intact, and comprise the single best combination of mining remains in the monument. While these remains are relatively modern, their excellent condition renders them significant. To allow mining in this area would destroy one of Death Valley's most significant historic resources. Access to Chloride Cliff would be through either the Keane Wonder Mine or

Chloride City, which are among the most significant of Death Valley's cultural resources."

The report explains that the mining claims in this area were located for metals which have been mined in the past and if mining should resume it would probably be underground mining. However, no explanation is given as to how underground mining would destroy this resource. Further, there is no discussion of how such destruction might be prevented or mitigated if mining did occur. In fact, the entire explanation of potential mining activity is phrased in the negative.

We believe, based on observations during our review, that is is unlikely that any of the companies now operating in Death Valley would destroy such a resource. Furthermore, each mining plan of operation, required by the regulations, must identify and provide protection for any site determined to have historic or archeologic significance. Additionally, the plans must provide for protection of any culturally significant resource uncovered during operations. NPS officials have told us that all the companies now operating within the monument have done so in a highly responsible manner.

GLACIER BAY NATIONAL MONUMENT

The analysis of the environmental consequences of mining in Glacier Bay National Monument contains many of the same weaknesses shown in the Death Valley analysis. Although the discussion of Glacier Bay is limited to a specific group of mining claims, the effects of mining are again described in highly negative terms with little or no discussion of possible mitigating measures to lessen adverse environmental effects.

As with the report on Death Valley, we reviewed the entire environmental analyses for Glacier Bay National Monument. Again, a page-by-page description of its weaknesses would be too lengthy for purposes of this report. However, cited below is an example from the report followed by the comment of a second USGS official who is familiar with the monument's terrain and reviewed the report upon our request.

The following situation is described on page 99 of the NPS report on the environmental consquences of mining in Glacier Bay National Monument as a potential effect of mining in the monument on environment health:

> "Inorganic nickel and nickel compounds are known to cause a number of adverse health effects. The most serious of these is the increased incidence of lung and nasal cancers* * *Mining and milling operators may be required to take special precautions so as to avoid exceeding exposure standards. Metals mining may expose the environment to

> a number of toxic materials; many of these are in the heavy metals spectrum* * *Care must be taken to avoid introducing excessive amounts of toxics into the terrestrial and freshwater biological systems, into the marine systems, and into human water supply."

The USGS official who reviewed the report for us found this section on environmental health rather elementary in view of its potential significance and the vast literature available on the effects of metal contamination from mining. The report contained no documentation or evidence that the problem discussed could occur in the mining and milling process of the subject area. Further, the report is not specific as to what toxic inorganic nickel and nickel compounds the authors are discussing.

NPS OFFICIALS RECOGNIZE WEAKNESSES IN ENVIRONMENTAL ANALYSES

One NPS official responsible for conducting the environmental assessments told us that everyone concerned with the analysis knows it could have been better. However, he stated, it was the best information that could be produced under the time allowed and, in the case of Death Valley, without knowing which mining claims would be found valid. He stated that a more useful environmental analysis would have been produced if done on a site-specific basis. He explained that at a minimum an environmental analysis of mining should

--define the type of mining operations for each claim; and

--include a description of the past, present, and future mining operations which have occurred or could occur on the claim.

In summary, we believe the environmental analyses are too vague and incomplete to be useful for decisionmaking. The analyses do not accurately describe the potential effects of mining specific claims. Further, there is little or no discussion of mitigating measures which could be taken to prevent or minimize these effects. While it is obvious that such mining techniques as open pit or strip mining can significantly and irreversibly alter the surface lands, underground mines may cause much less surface disturbance. Further, an explanation of feasible reclamation techniques would have added balance to the discussion. Because of their lack of specificity, the reports are of little use beyond making broad generalities on potential environmental effects of mining. Therefore, we believe that these analyses should not be used to evaluate the environmental effects of mining within Death Valley and Glacier Bay National Monuments.

CHAPTER 5

WEAKNESSES IN NPS'S COST ESTIMATES

The acquisition cost estimates developed by NPS officials are not supported by sufficient documentation to justify the amount and reliability of the estimates. Thus, because of their limitations, the cost estimates are of little use for decision-making. Further, much disagreement exists among NPS officials, consultants hired by NPS, and the claim holders as to the worth of the mineral properties recommended for acquisition by Interior.

Although we understand that the acquisition estimates were by necessity professional opinions based on the experience, knowledge, and training of the NPS appraisers making the estimates our review of the methodology used to assist in the development of the estimates identified significant problems. Action by the Congress to implement Interior's recommendations based on these estimates could result in court awards or settlements exceeding the Government appraisals.

DEATH VALLEY NATIONAL MONUMENT

To develop the cost estimates, NPS officials categorized the mining claims in Death Valley National Monument by resource area as follows.

--The mineral properties containing borate deposits were designated as "borate resource areas A, B, C, and D."

--The mineral properties containing talc deposits were designated as "talc resource areas A, B, C, and D."

--The remaining mineral properties were designated as "other patented claims."

NPS developed the cost estimates by assessing the worth of each resource area in total rather than by assessing the worth of each specific claim within the resource area. According to the NPS appraiser, it was necessary to develop the estimates this way because the validity determinations had not been completed. As a result, the estimates developed cannot be used for claim-by-claim acquisitions as suggested by the recommendations made to the Congress.

NPS derived the cost estimate for each resource area by appraising the mineral deposits within that area. However, in

many cases these deposits were not geologically defined well enough by test drilling to adequately know the mineral deposit's potential quantity and quality. In these cases NPS did not attempt even to infer what the extent or quantity of the deposit was because it did not want to overestimate the acquisition costs and thereby possibly overcompensate the claim holders. Instead NPS based its appraisals only on the information that was then available. As a result, NPS may have understated the quantity and commercial potential of ore in these deposits and thereby underappraised their worth. For example, one of the borate deposits in Death Valley National Monument lies within a 160-acre claim. At the time of the appraisals only nine test holes had been drilled to delineate the deposit. According to some NPS and industry officials, these nine holes are inadequate to delineate this deposit. In fact, the company which is mining these claims is currently submitting a plan of operation to further drill this deposit. Once the drilling is completed, NPS's appraisal may require major revisions.

NPS officials told us that they applied accepted appraisal methods to the resource areas to determine their acquisition cost estimates. However, our review of the estimates indicates a lack of documentation describing the process and assumptions actually applied by NPS in developing the estimates. We question their methodology and therefore their results. Briefly stated, three methods used in appraising properties for this purpose are:

--The comparable sales approach, which attempts to compare the lands to be appraised with recent sales of comparable lands. This is not a generally accepted mineral appraisal method because of potential inaccuracies resulting from trying to make needed adjustments for such factors as deposit size, quality, mining costs, transportation differences, and a multitude of variables which differ from one mineral deposit to another.

--The income approach, which computes the present value of future incomes produced from the property. (This is the method generally used in appraising mineral deposits.)

--The cost approach, which evaluates the land and any improvements to the land separately. (Again, this method is not generally used in appraising mineral deposits.)

NPS officials used either the comparable sales approach or the income approach to appraise the deposits within the resource areas.

ANALYSIS OF ESTIMATES OF CLAIMS INTERIOR RECOMMENDED FOR ACQUISITION

We reviewed the cost estimates developed by NPS and submitted in their recommendation to the Congress. An analysis of findings is presented below by resource area.

Borate resource area C

This resource area consists of seven borate claims divided into three claim groups totaling 1,450 acres within the monument. NPS officials estimate the total value of this resource area at $500,000. We could not determine what procedures were used to develop this estimate. Different NPS officials gave different explanations on how this estimate was derived.

One official estimated the total value of this resource area by using the comparative sales approach with data from the earlier sale of a similar property. When we questioned him on the specifics of the sale, he stated that he did not know what the actual selling price of the mine was because it was confidential information, and he also did not know the size and quality of the ore body in borate area C. Another NPS official told us that all of the estimates in the borate resource areas were developed by using the income approach.

Regardless of the method used, NPS in its report to the Congress estimated the total value of this area at $500,000. The consultant hired by NPS estimated the worth of the area at about $4 million, eight times the amount reported to the Congress.

Borate resource area D

This mining area consists of over 1,600 acres of patented mining claims, of which 398 acres of surface rights have been reacquired by the Government. The remaining land, approximately 1,200 acres, is held with both surface and subsurface ownership retained by one company. NPS estimated that there would be no cost to the Federal Government in acquiring this land, though the owner told us that under no circumstances would he give this land away free of charge. A consultant hired by the owner placed a value of $859,000 on this land, but this estimate was rejected by the company as being too low. An NPS mining engineer told us he guessed the land was worth about $200 an acre, totaling about $240,000.

Other patented claims

This area consists of 11 claim groups containing 42 patented claims and 2 mill sites, totaling about 640 acres within the monument. NPS's official estimate of the total cost for these lands was $10,000. However, there is significant disagreement among

NPS officials we talked with regarding the value of these lands. For example, recently one of the landowners submitted a plan of operation for just one of the properties--a gold mine. One NPS offical estimated the worth of just the dumpsite at this mine to be about $525,000, while a second NPS official estimated its worth at around $136,544. Either figure greatly exceeds the NPS's official estimate to the Congress of the worth for all the claims in this group.

In addition to the claims listed in Interior's recommendation as "those claims to be acquired," it is implied in the narrative of the recommendation that, if any valid claims are found in talc resources A and D, these claims would also be acquired. In these resource areas we determined:

Talc resource area A

At the time of our review, the validity of the mining claims in this resource area had not yet been determined.

Talc resource area D

All the claims in this area were contested by NPS because it was assumed that none of them were valid. Therefore, the area was never appraised. Recently, however, Government contests of validity have been dropped on 11 claims in the area which would require appraisals if it were necessary to acquire the properties. This could significantly increase the estimated acquisition costs.

We identified other inconsistencies in the cost estimate data for Death Valley National Monument:

--For example, one of the alternatives proposed but not recommended by Interior was to acquire all valid claims within the monument except for those in talc resource areas B and C. In the text of the report, the estimated cost of implementing this alternative was reported to be $53.2 million. However, in the summary of the alternatives, included as an appendix to the report, the estimated cost of this alternative was reported to be $36.3 million. Further, the individual dollar estimates for each resource area to be acquired in this alternative, when added, totaled $42.5 million. The report gives no explanation for the descrepancies among these three different cost estimates for the same properties.

--An NPS official told us that in appraising the resource areas the NPS mineral appraisers were instructed to assess the value of only the mineral deposits beneath the surface. They placed no dollar value on the surface.

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In addition to the claims listed in Interior's recommendation as "those claims to be acquired," it is implied in the narrative of the recommendation that, if any valid claims are found in talc resources A and D, these claims would also be acquired. In these resource areas we determined:

Talc resource area A

At the time of our review, the validity of the mining claims in this resource area had not yet been determined.

Talc resource area D

All the claims in this area were contested by NPS because it was assumed that none of them were valid. Therefore, the area was never appraised. Recently, however, Government contests of validity have been dropped on 11 claims in the area which would require appraisals if it were necessary to acquire the properties. This could significantly increase the estimated acquisition costs.

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--An NPS official told us that in appraising the resource areas the NPS mineral appraisers were instructed to assess the value of only the mineral deposits beneath the surface. They placed no dollar value on the surface.

--Not all of the patented claims within each resource area were appraised because an NPS official believed these claims to be worthless.

Extreme variations in acquisition cost estimates

There are wide-ranging disagreements among NPS officials, NPS consultants, consultants hired by the claim holders, and the claim holders themselves as to the value of the mineral properties in Death Valley. The lack of documentation makes it difficult to analyze the estimates in depth, or to determine the source of disagreements and potential solutions.

NPS hired two consultants to appraise the mineral properties in Death Valley National Monument, but NPS officials also performed their own appraisals of the same properties. There were differences between the dollar estimates developed by NPS and its consultants. There were also disagreements between NPS and its consultants, in some cases, as to which appraisal method was most appropriate to use. The NPS official responsible for developing the cost estimate data disapproved the work performed by one consultant. In addition, the same official approved information that the other consultant developed which, in most cases, also varied from estimates developed and used by NPS officials. The total cost to the Government for these consultant services was $40,580.

In addition, the claim holders in the monument hired a private consulting firm to appraise the mineral properties. The dollar value of the estimates developed by this contractor varied greatly from the estimates developed by both the NPS officials and the consultants hired by the NPS. Further, some of the claim holders rejected the estimates developed by the private consultant as too low. The chart on the next page shows the variation among the cost estimates developed by each group.

Variances in Estimated Acquisition Costs of Mineral Properties in Death Valley National Monument

Resource area	NPS appraisal	Consultants hired by NPS	Consultants hired by claim owners
Borate A	$ 40,000,000	$ 65,000,000 a/	$300,755,000 c/
Borate B	2,000,000	1,500,000 a/	11,640,000 c/
Borate C	500,000	4,000,000 a/	17,015,000 c/
Borate D	-0-	-0- a/	859,000 c/
Talc A	-0-	60,000 a/	127,000
Talc B	2,000,000	7,950,000 b/	23,781,000
Talc C	1,600,000	54,270,600 b/	21,069,000 d/
Talc D	-0-	6,097,830 b/	21,989,000
Other patented claims	10,000	--- e/	--- e/
Totals	$ 46,110,000	$138,878,430	$397,235,000

a/Appraisals by consultant approved by NPS

b/Appraisals by consultant all disapproved by NPS

c/Appraisals disclaimed by borate claim holder as being too low

d/Appraisals disclaimed by talc claim holder as being too low

e/No appraisals made.

GLACIER BAY NATIONAL MONUMENT

Estimation of the acquisition costs for the 20 patented nickel claims located in Glacier Bay National Monument is complicated by a legal problem. It is unclear whether the 1936 act which allowed mineral entry in Glacier Bay National Monument included authorization for mill site locations as in the 1872 Mining Law. Without such authorization, the value of the claims would be adversely affected because milling of the ore near the ore deposit is an integral part of the mining process.

Interior's Solicitor's office has issued two separate opinions in May 1974 and September 1975 which supported an NPS position concluding that the 1936 act did not authorize the use of the surface of the claims for processing operations and was not intended to make the general mining laws, particularly the mill site provisions, applicable to the monument. Th- Solicitor ruled that the Congress authorized mineral activities such as mineral exploration but not developmental activities such as processing the ore. However, documents used in the patenting process of the claims clearly show that milling of the ore near the ore deposit was considered to be an integral and necessary part of the mining process. The company owning the claims, obviously, contends that location of the mill site is authorized by the law under which the claims were patented.

This legal question hinges on interpretation of the underlined wording in the law, as follows:

> "Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that in the area within the Glacier Bay National Monument in Alaska, or as it may hereafter be extended, all mineral deposits of the classes and kinds now subject to location, entry, and patent under the mining laws shall be, exclusive of the land containing them, subject to disposal under such laws, <u>with right of occupation and use of so much of the surface of the land as may be required for all purposes reasonably incident to the mining or removal of the minerals</u> and under such general regulations as may be prescribed by the Secretary of the Interior." (underlining added)

It is possible that any action by the Federal Government to acquire the mineral rights on these claims would result in litigation to settle the issue.

Based on the Solicitor's opinion, NPS officials have determined that the 20 patented nickel claims have only a nominal value. NPS officials translated this nominal value judgment into an acquisition estimate of $100,000. However, they could provide no support for that estimate or explain the analysis upon which it was based.

A great deal of disagreement exists within the Department about the worth of these mineral properties. For example, in a June 27, 1979, memorandum the Director of BOM wrote to the Deputy Special Assistant, Energy and Minerals:

> "The National Park Service "minimal valuation" appears to be based solely on the conclusion

> stated in the memorandum from the Assistant Solicitor dated May 16, 1974, and an assumption that no other or more reasonable interpretation is possible. We believe this interpretation is unsound and is likely to be challenged in the courts* * *we believe that the "minimal valuation" concept of the National Park Service is not supported by available data and that its assumptions of unminability are predicated on an untested legal opinion* * *We believe that any action to acquire the Claim Group may involve the Department in protracted litigation that is not likely to be settled for as little as $100,000."

The Director of BOM estimated that the 20 patented claims could be worth as much as $300 million and valued the ore contents around $3.5 billion at 1979 market prices. Further, the Director estimated that, if a court compensated the owners of the claims for the costs incurred in discovering, exploring, and perfecting the claims, the award could total anywhere from $10 million to $30 million.

We believe that no one can be sure what the dollar value is of the 20 patented claims until the legal issue is settled. It appears that the claims have some potential mineral value attached to them--the land is being leased from the claim holders for $50,000 per year for 99 years by a major mining company.

CHAPTER 6

CURRENT STATUS AND OUTLOOK

FOR MINERAL MANAGEMENT IN THE PARKS

The legislative history of Public Law 94-429 reveals that the Congress recognized the long-term mineral values of the affected park lands. Though the law provided for continued mining to meet valid existing rights, under regulations for surface protection, the congressional intent for long-term management of the mineral resources not subject to these rights is unclear. Interior provided some economic analysis of minerals to the Congress, but it is of questionable value and limited use. Therefore, a number of questions concerning the future of mineral resources not accessible to private exploration remain unanswered.

According to NPS officials, the regulation of mining to ensure environmental protection in Death Valley National Monument has been successful so far--mining has occurred with acceptable surface disturbance and limited environmental damage.

ENVIRONMENTAL EFFECTS OF MINING HAVE BEEN REDUCED

Death Valley National Monument, the national monument with the most mineral activity, comprises 2,067,832 acres, of which 2,048,736 are federally owned. At present, the monument contains only 162 patented or valid mining claims, occupying less than one-half of one percent of the total monument acreage. Further, mining activity is being conducted on relatively few of these 162 mining claims.

According to NPS officials, the objectives of the surface disturbance moratorium and surface protection regulations are being achieved, especially in Death Valley National Monument. NPS officials say that no new surface disturbance from mining has occurred within the monument since implementation of the regulations, with the exception of 17 acres affected by reclamation at one mine and less than one acre disturbed to maintain production levels at another. At the same time, the number of active mines has actually increased from 8 in 1976 to 11 as of March 1981. As of the time of our review, borate minerals were being produced from three open pit and two underground mines. Talc minerals were being produced from three open pit and three underground mines.

In fact, the production of talc and borate minerals from the monument is increasing. NPS officials estimate that approximately 130,000 tons of these minerals will be produced in 1981, about 30 percent above the 75 production level. Recently, some gold production has begun as well.

Underground rather than surface mining has predominated since 1976. According to NPS officials, the shift to underground mining has significantly lessened new surface effects of mining in the monument and substantially decreased the visible mining operations. Also, reclamation has further contributed to reduced environmental impacts.

Representatives of the producing companies within Death Valley National Monument and of national environmental organizations we spoke with acknowledge that the surface disturbance moratorium and regulations have substantially reduced the environmental impacts of mining. Nevertheless, a representative of a national environmental organization believed that any type of mining within the National Park System philosophically violates the national park concept.

NPS REGULATIONS INSURE LEVELS OF ENVIRONMENTAL PROTECTION

Through its regulatory authority, NPS controls all mining operations within the National Park System. In fact, both surface and underground mining are subject to regulatory control.

Under sections 9.9 and 9.10 of the regulations, each mining operator must develop a plan of operation in cooperation with NPS. The regulations stipulate under what constraints the miners must operate and they must design their mining plan accordingly. NPS officials review the plan to insure the mine will not cause avoidable damage. Factors considered include the potential effects of mining on air and water quality, on any endangered or threatened plant or animal species, and on natural and historic landmarks.

The plans are first reviewed by the superintendent of each park or monument and then sent to the respective NPS Regional Directors for further review and modification. Agreement to NPS-directed modifications in planned operations is a prerequisite to mining. The plan must include a reclamation plan, designed in cooperation with the NPS officials, to assure that the mine site is left free of debris and the land is returned as nearly as possible to original contours when the mine is closed.

The major review function for the mining operations in Death Valley National Monument, for example, apparently rests with one NPS mining engineer. We were told that modifications are made to the plans for activities in the monument after negotiation with representatives of the mining companies. There is little or no consultation with BOM, USGS, or BLM officials, though officials of the Department of Labor's Mine Safety and Health Administration are involved occasionally if miner health and safety questions arise.

Economy of mining operations may not be considered

The stated goal of NPS in administering its regulatory authority is to strike a balance between the rights of the producers and necessary protection of the environment. However, representatives of the producing companies in Death Valley National Monument contend that although conditions are improving, in the past some decisions by NPS officials in implementing the regulations were based solely on environmental considerations without regard for economic considerations. These representatives expressed a fear that such actions could recur because there is no independent review or arbitration within Interior to settle disputes between the companies and NPS officials. We noted that the NPS regulations do not require an economic evaluation of changes required for mining plan approval. In comparison, surface protection regulations for National Forest Service lands require an economic evaluation during the mining plan approval process.

Representatives of the producing companies provided us with examples of NPS actions they felt illustrated this problem. In one case a company submitted a plan of operation for an underground mine. An NPS mining engineer modified the plan, requiring that the pillars supporting the mine roof be enlarged to insure against sinking of the surface above the mine. The company then hired a consultant to review the new pillar size required by NPS, and he concluded that pillars of the required size were unnecessarily wasteful. When NPS would not approve the plan unless the company accepted its pillar size requirement, the company protested but modified the plan.

At our request, an official of BOM's mine engineering division reviewed this problem and concluded that additional testing was necessary, in any case, before the best pillar size could be properly determined. Recently NPS officials told us that they now have authorized the company to conduct additional tests to determine the best pillar size.

In another case a company had to modify a mining plan to relocate a waste dump. NPS officials chose an alternate site for the dump because the original site was believed to contain an endangered plant species. The company resubmitted its mining plan after making the necessary modifications, but NPS officials disapproved the revised plan, requiring that the waste dump site be returned to the original location. Additional study had revealed that the suspected endangered species was only a threatened species and that there were more of the plants in the second area than in the first. Because of this and other problems, this plan took over a year for approval.

The regulations provide that, once a mining plan is submitted, NPS officials must take one of the following steps within 60 days:

--Notify the operator of any required modifications to the plan necessary for approval.

--Notify the operator that more time, not to exceed 30 days, is required to study the plan.

--Notify the operator that the plan cannot be considered for approval until 45 days after a final environmental impact statement, if required, has been prepared and filed with the Council on Environmental Quality.

Failure of NPS officials to take one of these steps results in automatic approval of the mining plan. However, once NPS takes one of these steps, the time limit begins anew; there is no total limit to the number of times each step can be required. Nor is there an absolute limit to the time allowed for a final decision. This has allowed NPS officials to take much more than the 60 to 90 days implied in the regulations.

We reviewed the time it actually took for approval of the 11 original mining plans and the 9 revisions and supplements to the plans submitted thus far and found that

--the 11 original mining plans took an average of almost 8 months for approval, with the longest approval time taking 16 months and the shortest taking 2 months; and

--the 9 revisions and supplements took an average of almost 3 months for approval, with the longest approval time taking 6 months and the shortest taking 1 month.

The NPS mining engineer in Death Valley told us that the approval time varies depending on the complexity of the mining plan and the environmental factors to be considered. The delays experienced with the early mining plans were a result of inadequacies in the plans and the need to revise them to meet regulatory requirements. The NPS official explained that some delays were experienced because the company officials were unfamiliar with how to satisfy the NPS regulations and NPS was short of mining engineers to review the plans.

WHO'S MINDING THE MINERALS STORE?

The closure of the six NPS areas to further mineral exploration means that mining will eventually end when the resources of the valid unpatented and patented claims are exhausted. The

longest estimated life span of any of the 11 operating mines in Death Valley is 35 years. Prohibition of exploration also means no additional discoveries of valuable mineral deposits will occur, and the mineral value of the affected lands will remain uncertain.

The Chairman of the Subcommittee asked us to determine whether Interior adequately reviewed the mineral supply and economic ramifications of withdrawing the six park areas from mineral exploration and development. Based on our review, we determined that Interior has not adequately addressed these matters.

Public Law 94-429 did not specifically require that Interior perform analyses of the potential effects of withdrawing the lands in the six areas from mineral exploration and development. Some analyses were performed regarding the talc and borate mineral deposits in Death Valley; however, these reports were submitted as appendices to the earlier Death Valley reports and contained weaknesses. No analyses were submitted to the Congress regarding the other commodities known to exist in other areas--particularly the Glacier Bay nickel deposit.

NPS included two supply and marketing studies, one on borates and one on talc, as appendices to the August 1978 report to the Congress. It was explained in the preface of the reports that these studies were conducted to determine the relative economic dependence of the United States on the borate and talc mineral deposits within Death Valley National Monument and their significance in the broader world picture. It was also explained that the legislative decisions required by Public Law 94-429 would be based on these and other findings.

In other words, if the Congress determined that the public interest would best be served by the production of these minerals, then development would be allowed on these lands and no mineral properties would be acquired. Although it was not the purpose of this report to review the importance and uses of the minerals produced in any of the six areas, we believe it is important to mention the following facts which appeared in NPS's analyses concerning the minerals produced in Death Valley.

Borate minerals are used in the manufacture of many industrial and household products such as boric acid, borax, glass, ceramic glazes, and enamels. The borate minerals colemanite and ulexite-probertite are produced in Death Valley. Ulexite-probertite, a sodium-calcium borate mineral, is used in the production of insulation fiber glass and other products such as ceramics. Colemanite, a calcium borate mineral, is used mainly for textile-grade glass fibers used in reinforced plastics, fabrics, electrical insulation, and glass-belted tires. It is also used in the manufacture of heat-resistent glasses.

The Free World's supplies of boron minerals, including calcium borates, sodium-calcium borates, and sodium borates, in the foreseeable future will be derived essentially from deposits

in California and western Turkey. Currently, the only U.S. production of colemanite and ulexite-probertite for industrial purposes is from deposits located in Death Valley National Monument which is estimated to contain about 31 million tons of borate reserves.

A representative of one of the major companies using the borate minerals produced in Death Valley told us that his company would be totally dependent on foreign sources for certain borate minerals if the mines in Death Valley ceased production.

Talc minerals are used in the manufacture of ceramics, paints, roofing materials, insecticides and paper products. The principal consumer of talc in the United States is the ceramic industry, followed by the paint industry. The talc ores from Death Valley National Monument are considered exceptional in quality from the standpoint of those available in the United States.

Representatives of two of the companies using Death Valley talc, a paint and a ceramic supply company, told us that the effects of the cessation of talc production from Death Valley would be devastating for the ceramic industry of southern California and drive their companies out of business. They explained that the other major sources of talc produced in the United States are located on the East Coast and the cost of shipping the ore from these areas is now prohibitive.

As with the other reports and analyses prepared by NPS, there was little effective coordination with other Interior agencies in the preparation of these market studies. In fact, one BOM official stated that his work was cited extensively throughout the study, but he was not asked by NPS to assist in the development of the report. Another BOM official stated that she was not asked to provide input into the analyses until they had already been published.

We asked BOM's borate and talc commodity specialists to review and comment on the reports. These officials believed that in general the studies were well done but could have been better if

--a discussion was included of recent Government policies and trends affecting the consumption of these minerals,

--the studies incorporated analyses of prices as a key influence in borate and talc markets, and

--the studies accurately evaluated the U.S. balance of payments situation and the security of foreign sources.

We reviewed these studies and found that they provide a good deal of information describing the uses and importance of borate and talc minerals and where most major deposits are located worldwide. A weakness with the analyses is that they do not answer the question, "If mining of the borates and talc deposits in these areas is ended, will it cost more for substitutes?" In other words, these studies do not include analysis of the opportunity cost of foregoing this mineral production. Such analyses would have provided information on the quantity and price of substitutes for the minerals in question. The reports also failed to examine the potential effects on consuming industries. Such weaknesses limit their usefulness in judging the consequences of alternative decisions.

NPS officials not concerned with management of mineral resources

Based on our discussions with NPS officials, including the former and present Director, it appears that there is little or no high-level concern for management of the mineral resources of Death Valley National Monument and the other five NPS areas affected by Public Law 94-429.

The former Director of NPS explained that the management of mineral resources is not a part of NPS's mandate and that he would like to acquire all the valid mineral properties in the National Park System, reclaim the land, and preclude any further mineral entry. The present Director told us that mineral development should occur on NPS lands only in times when the national security is threatened and such activity is deemed essential by the Congress.

As explained, current mining operations in Death Valley National Monument appear to be operating under regulatory constraints which achieve both mineral production and surface protection. However, it is clear from our discussions with NPS officials in Death Valley that they believe mining is innately incompatible with the concept of the National Park System. The superintendent, in May 1980, requested a solicitor's opinion of whether the mining regulations could be implemented in such a restrictive manner as to have the same restrictive effects as the surface disturbance moratorium. The superintendent explained that he considered any mining operation to be incompatible with the purposes for which the monument was created and therefore in conflict with the Mining in the Parks Act and regulations. On September 3, 1980, an Interior solicitor replied that the proposed interpretation was too restrictive and Public Law 94-429 did not contemplate a total ban on mining operations within the park areas.

NEED EXISTS FOR ADDITIONAL INFORMATION REGARDING MINERAL RESOURCES

Representatives of the mining companies and Interior officials agree that Death Valley and Glacier Bay National Monuments and Mt. McKinley National Park could contain significant mineral deposits which will remain undiscovered because mineral exploration is precluded. These three areas appear to have greater potential for significant mineral discoveries than Crater Lake National Park, Coronado National Memorial, and Organ Pipe Cactus National Monument. These latter three parks were open to exploration and development for 35 years. According to NPS officials, no valid mining claims have ever been located in Crater Lake National Park and Coronado National Memorial, and claims located in Organ Pipe Cactus National Monument were later found invalid.

The Congress has recently expressed its desire for better information regarding mineral resources to support land-use decisions. In 1976, the Congress passed the Federal Land Policy and Management Act which required mineral assessments of all lands to be included in the Wilderness Preservation system. More recently, the National Materials and Minerals Policy, Research and Development Act of 1980 required the Secretary to improve the availability and analysis of mineral data in Federal lands decisionmaking.

The Alaska National Interest Lands Conservation Act of 1980 required the Secretary to assess the mineral potential of all public lands in Alaska in order to expand the knowledge of land-use decisions with respect to the mineral potential of such lands. Further, mineral assessments are to be conducted on the NPS lands in Alaska, including Glacier Bay National Monument and Mt. McKinley National Park. It should be noted that the Congress specified in the law that no core or test drilling for geological information be performed on NPS lands.

Environmental and cost analyses again required--will past mistakes be repeated?

In addition to the mineral assessments, section 202(3)(b) of the Alaska National Interest Lands Conservation Act requires the Secretary to develop environmental analyses and acquisition cost estimates for the mining claims located in two sections of the Denali National Park and Preserve. According to an NPS official this information, once developed, will assist the Congress in deciding which of the mining claims in this area should be acquired because of the potential environmental threat from mining. If this information is to be used by the Congress for this purpose, we think Interior should pay particular consideration to the problems discussed in this report regarding the poor quality of the resulting data and the lack of effective coordination to insure the development of adequate information.

CHAPTER 7

CONCLUSIONS AND RECOMMENDATIONS

In October 1976, the Congress recognized, in passing the Mining in the Parks Act, Public Law 94-429, that it did not have the information necessary to strike a balance between the competing policies of environmental protection and resource use. Specifically, it lacked the information necessary to determine if any mineral properties should be acquired in the six National Park areas after a consideration of the environmental consequences of mining and the potential cost of acquisition. The decision to be made was particularly difficult because the six areas affected, while recognized for their vast scenic beauty, were also recognized for their mineral supply potential. In particular, Death Valley National Monument is historically important as a source of nonfuel mineral supply, and Glacier Bay National Monument contains a significant resource of a strategic mineral.

The Congress required the Secretary of the Interior to obtain the needed information while restricting mineral activity. Further, it strengthened the Secretary's authority to regulate mining activities on all NPS lands.

CONCLUSIONS

Our evaluation of the information provided to the Congress shows it to be misleading, unreliably gathered and analyzed, and not useful for further land-use decisions.

A determination of which mining claims are valid is obviously the first step in determining the potential extent of environmental consequences of mining and the potential acquisition costs of specific mineral properties. NPS, concluding that this task could not be finished in the time allowed, proceeded with developing the environmental and cost data in a hypothetical and generalized fashion. Though the legislatively imposed time requirements may have been considered unrealistic, other problems caused by lack of proper planning and oversight within Interior contributed to the weaknesses in the data developed and the resulting recommendations.

The environmental analyses were so hypothetical and generalized that they could not be used to establish which mining claims would need to be acquired to prevent adverse environmental effects. Therefore, the list of mining claims selected for purchase was not determined solely on the basis of environmental need. The overriding consideration was the potential cost of purchase. As a result, Interior recommended the purchase of some mineral properties even though they believed these properties would never be mined and therefore never pose environmental threats.

NPS officials admit that the cost estimates are misleading and lack adequate support. In addition, the disagreement among Interior officials and their consultants and the claim holders and their consultants indicates a wide range of potential costs. It seems unlikely that NPS's cost estimates would hold up under vigorous courtroom cross-examination. Therefore, no one can be sure what the potential cost of acquiring these mineral properties would be.

As a result, the Congress does not have any better information today that it did almost 5 years ago when it required that such information be developed. Further, we believe that the Secretary of the Interior erred in even submitting the reports and recommendations to the Congress. At a minimum, we believe that an explanation of the weaknesses of the data and the limitations of its use should have accompanied the reports and resulting recommendations.

We believe that some of the problems identified with the validity determinations and the data developed could have been eliminated if the Secretary had encouraged the coordination and review of other agencies within Interior. At a mininum, the information submitted to the Congress should have represented a consensus of the various views and opinions of the National Park Service, Bureau of Mines and the U.S. Geological Survey. The problems we identified during this review illustrate the mineral management problems discussed in our earlier report, "Mineral Management at the Department of the Interior Needs Organization and Coordination" (EMD-81-53, June 5, 1981). In that report we found that Interior lacks a coherent minerals policymaking process, which can result in an unbalanced consideration of mineral resource management.

NPS officials believe they have been successful to date in regulating the mining activities occurring in Death Valley National Monument to achieve environmental protection while allowing mineral production. The surface management regulations for the affected areas have, to the apparent agreement of both NPS and industry officials, achieved prevention of additional surface disturbance. The primary problem persisting in implementation of these regulations appears to be the degree of discretion allowed NPS in requiring changes of mining plans. Consideration of less costly means to achieve the same protection results is not now required.

Finally, because NPS is not responsible for the management of Federal mineral resources, the potential long-term effects on mineral resources of withdrawing the lands and acquiring valid mineral properties remain essentially unevaluated. These effects are largely matters of mineral policy.

Though Public Law 94-429 did not explicitly require it, the Secretary recognized that the question of determining the public interest in disposing of the mineral resources in these Federal

lands required assessments of the potential consequences of removing them from private industry access. The legislative history of the act indicates that the need for such information was also recognized by the Congress. The Secretary provided some information in this regard but, as explained, it contained weaknesses.

Public Law 94-429 does not allow for the development of additional mineral deposits once the valid mining claims are exhausted. This restriction is especially significant for Death Valley National Monument because of its potential for further mineral discoveries. As explained, NPS officials estimate the longest life span of one of the operating mines in the monument to be 35 years.

The problems which remain unsolved and which the Congress and the Secretary of the Interior may eventually have to address are:

--When currently operating mine reserves are exhausted in Death Valley National Monument, will the mines simply be closed and the land reclaimed? Should development continue into contiguous reserves with limited surface disruption? If not, under what conditions could these minerals ever be mined?

--In the absence of any private exploration role in Death Valley National Monument, should the Federal Government assume responsibility for periodically assessing the lands' mineral resources, as will be done in the National Wilderness Preservation System?

MATTERS FOR CONSIDERATION BY THE CONGRESS

Death Valley National Monument contains significant mineral deposits and a proven potential for additional mineral discoveries but is no longer opened to further mineral exploration. Because of this, the Congress should consider the need for the Federal Government to acquire additional information regarding the mineral potential of this area. This information could be used for any future land use decision regarding the monument.

In addition, in order to better understand the economic consequences of limiting mineral production in Death Valley National Monument, the Congress should consider returning the supply and marketing studies concerning borate and talc minerals developed by Interior for revision and updating.

RECOMMENDATIONS TO THE CONGRESS

The recommendations that the Secretary of the Interior submitted to the Congress in 1979 regarding the acquisition of certain mining claims in Death Valley and Glacier Bay National Monuments are based on vague and misleading information. Any action by the Congress to implement these recommendations could result in court awards or settlements which could substantially exceed the Government's acquisition cost estimates. Therefore, we recommend that the Congress base no decision on the Secretary's recommendations submitted in 1979 to acquire mineral properties in Death Valley and Glacier Bay National Monuments. Before taking any action the Congress should await new recommendations by the Secretary based on more adequate analysis.

RECOMMENDATIONS TO THE SECRETARY OF THE INTERIOR

We recommend that the Secretary:

--Notify the Congress that the Department no longer supports the recommendations made in 1979 to the Congress to acquire certain valid unpatented and patented mining claims in Death Valley and Glacier Bay National Monuments.

--Reexamine the need to acquire any mining claims in Death Valley and Glacier Bay National Monuments based on the progress to date in regulating mining activities to prevent adverse environmental effects and submit new recommendations to the Congress.

--Insure that any future recommendations to the Congress to acquire mineral properties on NPS lands be made only after determining what is at stake for all aspects of the public interest. Any recommendations should be based on site-specific analysis; acquisition cost estimates based on the best information available; and mineral supply and marketing analyses. This information should be developed in coordination with other pertinent Interior agencies such as BLM, BOM, and USGS to insure a consistent Department policy position. In addition, a description of the methodologies and supporting data used to develop the information and any limitations on the use of that information should accompany the recommendations.

To insure that any changes required in mining plans of operation take into consideration the economics of the operation while achieving environmental protection, we recommend that the Secretary amend sections 9.9 and 9.10 of the regulations for

mining on NPS lands, to include an economic evaluation of the changes required for mining plan approval.

Because of the problems identified in this review resulting from the lack of effective coordination among the various agencies within Interior and the lack of concern for the management of Federal mineral resources expressed by NPS officials, we recommend that the Secretary:

--Remove the mineral management functions, including the mineral examination function from NPS.

--Consider the need to consolidate all of the Department's mineral management functions under a single Assistant Secretary.

AGENCY COMMENTS AND OUR EVALUATION

Though the Department of the Interior was requested to review and comment on the draft of this report, comments were received too late to be incorporated in this report. The comments do not change our conclusions or recommendations and we will respond to them in a separate report.

REPORTS ISSUED AS REQUIRED BY PUBLIC LAW 94-429

The following table shows when each of the required reports was submitted to Congress. It should be noted that some of the reports were submitted after the due dates.

	Report title	Date submitted	Date required
1.	Special Report on Borate Resources (note a)	4/78	Not required by legislation
2.	Special Report on Talc Resources (note a)	8/78	Not required by legislation
3.	Environmental Consequences of Mineral Extraction: Death Valley and Organ Pipe Cactus National Monuments	8/78	9/78
4.	Discussion of Alternatives for Acquisition of Mining Claims and/or Boundary Modifications to Reduce Possible Acquisition Costs: Death Valley National Monument	12/78	9/78
5.	Environmental Consequences of Mineral Extraction: Glacier Bay National Monument and Mount McKinley National Park. Discussion of the Alternatives for Acquisition of Mining Claims and/or Boundary Modifications to Reduce Possible Acquisition Costs: Glacier Bay National Monument	1/79	9/78

a/included as appendices to Death Valley report

APPENDIX II

Interior's Alternative E for Death Valley National Monument

Claims in BORATE RESOURCE AREAS A and B and TALC RESOURCE AREAS B and C would be allowed to mine with the stipulation that additional surface disturbance not be allowed, except where the Secretary finds that enlargement of the existing excavation of an individual mining operation is necessary in order to make feasible continued production therefrom at an annual rate not to exceed the average annual production level of said operation for the three previous calendar years. Any claim in these resource areas which has not been significantly disturbed for purposes of mineral extraction prior to September 28, 1980, or which cannot be mined from an existing operation which has significantly disturbed the surface for purposes of mineral extraction, would be acquired under this alternative. All other patented and valid unpatented claims in the monument would also be acquired, as follows:

ACQUIRE

Borate Resource Area C:

Harry
Lowland
South Meridian

Borate Resource Area D:

East Coleman
Mammoth Queen
Meridian
White Elephant

Other Patented Claims:

Big Gypsum
Panamint Treasure
Pink Elephant
Gold King
Saddle Rock
Monopoly
Bullfrog
Goldbar
Big Bell
Inyo-Gold Dollar
Rob Roy Millsite
Boron
Taylor Millsite

TOTAL ACREAGE IN THE MONUMENT 3,973

ALLOW TO MINE

NOTE: Certain claimants may not be able to mine under the above stipulations and may either wish to sell their properties or claim partial compensation

Borate Resource Area A:

*Billie
*Boraxo
Hard Scramble
Hope Fag-End
Inyo
Pearl
Plain View
*Sigma
**Sigma No. 22
White Monster

Borate Resource Area B:

Louise
Rusty
Widow-Pauline

Talc Resource Area B:

*Bonny
*Mammoth
*Mongolian
Panamint
*Panamint Mine (Cyprus)
White Chief
White Eagle

Talc Resource Area C:

*Big Talc
Warm Springs #3
*Warm Springs

TOTAL ACREAGE IN THE MONUMENT 1,436

* Currently operating under an approved plan of operations (as of 11/1/78)

** Plan of operations currently being prepared (as of 11/1/78)

Of those claim groups which would be allowed to mine, nine are currently operating under approved plans of operations and one has a plan of operation in preparation (as of 11/1/78).

Mining will be allowed on 382 acres of talc claims and 1,081 acres of borate claims, providing they can do so under the above stipulations. It should be noted that the cost of this alternative will be increased substantially due to the fact that some deposits are located close to the surface and cannot be mined by underground techniques. Certain claimants, who are unable or unwilling to operate under these conditions may either wish to sell their properties or to claim partial compensation. For example, BORATE RESOURCE AREA A, valued at $42 million (Appendix D), contains 6.8 million short tons of boria in demonstrated resources.* Thirty-five percent (2.4 million short tons) is present in the "Sigma 22-White Monster" borate deposit.* This deposit is located in close proximity to the surface and would not be fully recoverable under the stipulations of this alternative.

The 3,973 acres proposed for acquision under this alternative contain no proven significant mineral deposits. Many of these areas have been previously mined and contain an unknown number of derelict minesites which may constitute safety hazards.

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*"Special Report on Borate Resources" (April 1978), Table 3, p. 25.

Note: This alternative appeared in the National Park Service's December, 1978 Report to the Congress

Interior's Alternative B for Glacier Bay National Monument

The National Park Service would take steps to acquire the patented NUNATAK LODE claims and the valid unpatented LEROY NO. I AMENDED claim. No further mining operations would be permitted within the monument boundaries. No boundary modification would be undertaken under this alternative. The estimated cost of acquiring all valid and patented claims would be $100,000 (see Appendix F).

1. Natural Resource Impacts

NUNATAK LODE claim group

No further mining activities would be allowed under this alternative and no additional impacts on monument natural resources would occur.

LEROY NO. I AMENDED claim

No further mining activities would be allowed, so no additional impacts on monument natural resources would occur. However, adverse impacts due to the existing inactive mine would continue to occur. The open adits would continue to collect and discharge water. The open adits present the possibility of eventual collapse, with subsequent rock-slide and subsidence. Any reclamation undertaken onsite would be the responsibility of the National Park Service.

2. Cultural Resource Impacts

NUNATAK LODE claim group and LEROY NO. 1 AMENDED claim

As no further mining would be allowed, no impacts on cultural resources would occur under this alternative.

3. Socioeconomic Impacts

NUNATAK LODE claim group

Acquisition of this claim group would have the potential for economic impacts on the region and state and nearby communities. The region and nearby communities would lose the benefit of employment opportunities offered in construction and mining, and related expenditures for construction materials, mining equipment, domestic goods and supplies, recreation, tourism, etc.

This alternative would protect nearby predominantly native villages from impacts caused by intrusion of many non-native mine employees. The severity of this type of impact on the local

community and village infrastructures has been noted on the Alaska Pipeline project (Underwood and Brown, 1978). Alaska's native population has become very skeptical about development by non-native entities.

It is not possible to quantify the impacts of acquisition on the claim holders. Claim holders would be compensated by the federal government for "fair market value" of the claim. The true market value of the NUNATAK LODE claim group is difficult to determine inasmuch as the exact size of the mineral deposit is yet unknown and as market conditions continually fluctuate.

LEROY NO. I AMENDED claim

The economic impacts of acquisition of this claim would be minimal due to the small estimated size of the ore body, and would be borne by U.S. taxpayers.

Since this claim would most likely be mined on a partnership basis with the miners receiving a percentage of the ore sales rather than salary (Jones, 1978), acquisition of the claim would not have an impact on employment opportunities available to nearby community residents. Social impacts on nearby communities and the region would be minimal.

Note: This alternative appeared in the National Park Service's January, 1979 Report to the Congress

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MELVIN H. EVANS, V.I.

COMMITTEE ON INTERIOR AND INSULAR AFFAIRS
U.S. HOUSE OF REPRESENTATIVES
WASHINGTON, D.C. 20515

APPENDIX IV

CHARLES CONKLIN
STAFF DIRECTOR

STANLEY SCOVILLE
ASSOCIATE STAFF DIRECTOR
AND COUNSEL

LEE MC ELVAIN
GENERAL COUNSEL

GARY G. ELLSWORTH
MINORITY COUNSEL

September 16, 1980

Mr. Elmer B. Staats
Comptroller General of the United States
General Accounting Office
441 G Street, N.W.
Washington, D.C. 20548

Dear Mr. Staats:

I have been informed that the Materials Group of GAO's Energy and Minerals Division is currently evaluating the Interior Department's mineral management program as part of a major examination of national mineral policy. I believe such a review is essential and share your concern over the issue of future availability of minerals and industrial raw materials to the United States in the 1980's and beyond. The Subcommittee on Mines and Mining will release its report next week on the Nonfuel Minerals Policy which goes into detail on mineral problems.

In this regard, I would like to bring a related matter to your attention. In 1976, the Congress passed Public Law 94-429, the Mining in the Parks Act, which repealed mineral development provisions for six units of the National Park System as well as imposed a surface disturbance moritorium on further mining. Two of these units withdrawn from mineral entry, Death Valley and Glacier Bay National Monuments, contain substantial mineral deposits which could be vital to this Nation's present and future mineral supply. The Congress passed this legislation out of concern of possible environmental damage resulting from mining in these park system units.

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Although I support measures to protect our Nation's lands from unnecessary damage, I am concerned that in our desire to protect the environment, we have ignored the vital mineral supply and economic issues at stake. Also, I am not satisfied that the Department of the Interior, as manager of this Nation's mineral resources, has adequately analyzed the issues involved and provided the Congress with all the information necessary to reach an equitable decision on withdrawing the lands in question from mineral entry.

This letter is to request that the GAO analyze the issues pertinent to the decision being made regarding mineral in these park units. Some questions I would like answered are:

--Has the Department of the Interior adequately determined the mineral supply and economic ramifications of withdrawing these lands from mineral development? Has the Department of Interior made an estimate of gross acquisition costs and what are they?

--Does Public Law 94-429 allow for consideration of the minerals implications it poses, i.e., affects on mineral supply and the local and national economy?

--Has the Department provided the Congress with complete and adequate information with which to base a sound decision regarding this matter? How adequate are the reports provided the Congress by the National Park Service?

--What is the current situation in these Park Service units regarding mineral production? How objectively has the Department conducted its validity determinations and claim valuations?

--Is mining in these National Park Service units an either/or proposition? Under what conditions could mineral development occur in an environmentally sound manner?

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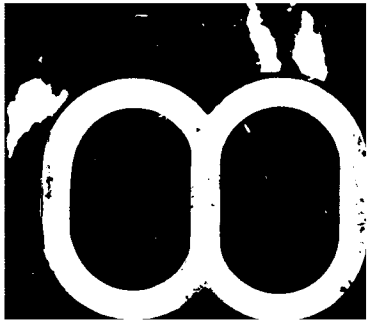
I believe that an objective study by the GAO would provide the Congress with a sound basis for final resolution of this matter.

Sincerely,

JAMES D. SANTINI, Chairman
Subcommittee on Mines and Mining

JDS:scg

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