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REPORT BY THE

Comptroller General

OF THE UNITED STATES

National Parks' Health And Safety Problems Given Priority; Cost Estimates And Safety Management Could Be Improved

Since GAO reported in 1980 that facilities in many national parks and forests did not meet health and safety standards, the Congress and the National Park Service have generally given priority funding to projects for correcting health and safety hazards. However, a large backlog of health and safety projects remains, the size and estimated cost of which have only been broadly defined.

Health and safety problems requiring funding are identified through various inspection programs. Park Service headquarters and the five regional offices and six park areas GAO recently visited had health and safety program deficiencies, including a lack of required inspections by safety officers. Four Service-wide inspection programs--covering buildings; water supply and sewage systems; roads, bridges, and tunnels; and dams--have not been completed. The Park Service has taken or initiated actions to improve these programs.

GAO recommends actions to improve the Park Service's health and safety backlog estimates and the Service's health and safety management, including its health and safety training program.

UNITED STATES GENERAL ACCOUNTING OFFICE

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

B-209917

The Honorable Malcolm Wallop
Chairman, Subcommittee on Public
Lands and Reserved Water
Committee on Energy and Natural
Resources
United States Senate

Dear Mr. Chairman:

As requested in your November 24, 1981, letter, this report discusses the National Park Service's backlog of construction projects to correct health and safety deficiencies in its parks and its health and safety management program.

As arranged with your office, unless you publicly announce its contents earlier, we plan no further distribution of the report until 10 days from the date of the report. At that time, we will send copies to the Director, Office of Management and Budget; the Secretary of the Interior; the Director, National Park Service; and other interested parties.

Sincerely yours,

Charles A. Bowsher
Comptroller General
of the United States

D I G E S T

In an October 1980 report GAO brought to the Congress' attention the National Park Service's (Department of the Interior) large, unfunded health and safety construction backlog--projects identified by the Service to meet existing or future needs. At that time GAO estimated that it would cost $1.6 billion to accomplish the backlog projects. The Chairman, Subcommittee on Public Lands and Reserved Water, Senate Committee on Energy and Natural Resources, asked GAO to verify the Service's current health and safety construction backlog estimates and to review the Service's health and safety management program.

HEALTH AND SAFETY PROJECTS GIVEN PRIORITY FUNDING

After GAO's October 1980 report, the Service's Director issued policy guidance directing that health and safety projects receive high priority in Service budget requests. For fiscal year 1982, $51.4 million (54 percent of all Service construction funds appropriated) was used for projects to correct major Service health and safety deficiencies. For fiscal year 1983 the Service plans to spend $61 million of its construction appropriation for health and safety projects. (See pp. 7 to 11.)

THE CONGRESS SHOULD BE GIVEN COMPLETE BACKLOG ESTIMATES

Although the Service has periodically developed health and safety backlog estimates, it has not maintained a complete estimate of its health and safety backlog.

The Service annually lists in order of priority all construction projects for the subsequent 5 years that it believes should be accomplished given adequate funding. The May 1982 list contained 241 construction projects with an estimated cost of $710 million which Service headquarters had reviewed and planned to fund

during fiscal years 1983-87. Of these, the Service had identified 140 projects with an estimated cost of $372 million as health and safety projects. In reviewing the list, GAO identified and brought to the Service's attention 32 projects, totaling $101 million, that involved health and safety but which the Service had not so labeled.

In November 1982 the Service updated its construction priority list and developed a better estimate of the health and safety projects on the list. According to the updated list, the Service planned to fund $538 million in health and safety projects for the 5-year period. These projects included the 32 projects GAO had identified.

The Service also estimated that it had an additional construction backlog of $1.7 billion for fiscal years 1988 and beyond. This backlog includes health and safety projects similar to those on the 5-year priority list but which have not received a detailed review and are of a lower priority. (See pp. 11 to 13.)

The Congress wants reliable backlog estimates. Although the Service can improve its estimates by taking such actions as periodically updating its inventory of health and safety projects, the uncertainty of project costs until final plans are developed limits the Service's ability to develop more reliable estimates. (See pp. 13 and 14.)

GAO recommends that the Secretary of the Interior (1) review, during Interior's annual review of the Service's budget, the Service's 5-year priority list of construction projects to determine if all health and safety projects are properly identified and (2) include the updated 5-year health and safety estimate in Interior's annual budget submission to the Congress. The estimate should be accompanied by an explanation of its reliability and comprehensiveness. (See p. 15.)

THE SERVICE NEEDS TO IMPROVE ITS HEALTH AND SAFETY MANAGEMENT PROGRAM

Officials and employees responsible for health and safety inspections at the six parks GAO visited (see list on p. 3) had not fully complied with Occupational Safety and Health Administration, Department of the Interior, and

Service health and safety inspection requirements. Deficiencies included the lack of required inspections, missing or inadequate inspection documentation, and inadequate follow-up procedures. In addition, park and regional office health and safety activities had not been monitored by the regional offices and Service headquarters, respectively, in accordance with Service requirements. (See pp. 18 to 25.)

Service officials generally attributed deficiencies in the Service's health and safety management program to inadequate program guidance and resources. The Chief of the Service's Safety Management Division, citing what he perceived as a lack of Service-wide commitment to health and safety activities, particularly training, said that many regional directors and park superintendents have emphasized other programs over health and safety. (See pp. 18 to 27.)

GAO recommends that the Secretary of the Interior direct the Service Director to

--develop an up-to-date, formal headquarters health and safety program and implement procedures for reviewing health and safety activities for compliance with the program at the regional office and park levels and

--identify safety training needs to meet Occupational Safety and Health Administration, Interior, and Service health and safety requirements and require that the Service provide for a safety training program to meet these needs. (See p. 28.)

THE SERVICE HAS TAKEN OR INITIATED ACTIONS TO IMPROVE ITS SERVICE-WIDE INSPECTION PROGRAMS

Service headquarters manages four Service-wide inspection programs--road, bridge, and tunnel; comprehensive building inspection; safety, maintenance, and operations of dams; and environmental health inspection. Under these programs, Service facilities are to be inventoried and inspected and their conditions reported. In contrast to the health and safety facility inspections at the parks, these comprehensive programs have a number of objectives, including health and safety, and are generally performed by specialists from outside the Service.

Progress under each of these programs varied. The comprehensive building inspection program was just starting. The Service had recognized the need and had taken action to improve two of these programs--the road, bridge, and tunnel program and the dams program--and expected to have corrected by the end of fiscal year 1983 77 percent of the water supply systems needing major improvements. Summary data on corrections to sewage systems was not scheduled to be available until summer 1983. However, corrections to deficient sewage systems were planned at the parks GAO visited. (See pp. 30 to 39.)

AGENCY COMMENTS AND GAO EVALUATION

Interior agreed with the conclusions and recommendations presented in this report. (See app. I.) As of March 1983 Interior had not decided how it would determine if the Service properly identifies all projects on the Service's 5-year priority list. However, an Interior official said that procedures would be developed and Interior would attempt to include the Service's 5-year health and safety backlog estimate in its fiscal year 1984 budget submission. (See p. 15.)

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ABBREVIATIONS

FHWA	Federal Highway Administration
GAO	General Accounting Office
OSHA	Occupational Safety and Health Administration
PRIP	Park Restoration and Improvement Program

its 10 regional offices. In addition, 31 full-time safety officers and about 240 collateral duty officers[2] were assigned to various Service locations during fiscal year 1981.

Health and safety project costs are developed by the Denver Service Center, the Service's planning, design, and construction office. The center also schedules when projects are to be accomplished and prepares project specifications.

OBJECTIVES, SCOPE, AND METHODOLOGY

In response to the chairman's request, we reviewed (1) Service estimates of its health and safety backlog, (2) Service systems for identifying, prioritizing, and funding health and safety projects, and (3) how well the systems were working at six parks. We made our review in accordance with generally accepted government auditing standards.

We made our review at Service headquarters in Washington, D.C.; its Denver Service Center, Denver, Colorado; and the following parks and their respective regional offices:

Regional office and park	Location
National Capital	Washington, D.C.
National Capital Parks-Central	Washington, D.C.
North Atlantic	Boston, Mass.
Gateway National Recreation Area	New York-New Jersey
Rocky Mountain	Denver, Colo.
Rocky Mountain National Park	Colorado
Southeast	Atlanta, Ga.
Great Smoky Mountains National Park	Tennessee-North Carolina
Western	San Francisco, Calif.
Golden Gate National Recreation Area	San Francisco, Calif.
Lake Mead National Recreation Area	Nevada-Arizona

The parks were selected by the subcommittee's office. We also did work at the Federal Highway Administration (FHWA) headquarters in Washington, D.C., and its regional offices in Arlington, Virginia, and Denver, Colorado.

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[2]Part-time safety officers who are to devote 20 percent of their time to health and safety matters.

At Service headquarters, we interviewed management, budget, and safety officials; examined pertinent legislation, documents, reports, records, budget and financial data, and correspondence; and reviewed policies and procedures to ascertain Service safety and occupational health management policies and programs and the general procedures for identifying, prioritizing, and funding health and safety projects. We also interviewed Interior's Chief, Division of Safety Management, about Interior's evaluations of the Service's safety and health activities and the Chief and Deputy Chief of the Service's Training Division about Service safety training activities. In addition, we contacted Interior's Office of the Inspector General and were told that no reviews of the Service's health and safety activities were ongoing or planned.

At the parks and regional offices we visited, our objective was to determine how well the Service's systems for identifying, prioritizing, and funding health and safety projects were working. This included determining whether park officials and employees were complying with Occupational Safety and Health Administration (OSHA), Interior, and Service frequency requirements for facility inspections and whether the inspections included major elements such as electrical system and fire safety checks. To accomplish this objective we interviewed regional and park officials and examined documents, records, and reports, including inspection reports for 1980-82, pertaining to the six parks and the five regions visited. In addition, we visited selected concessions, buildings, roads, bridges, and other park facilities to verify information obtained through interviews and document reviews. We did not review the qualifications of those personnel making the inspections in the parks nor did we review the overall quality of the inspections made.

At FHWA headquarters and its regional offices, we discussed with FHWA officials their agreements with the Service to inspect Service roads and bridges. Our objective was to obtain FHWA's views on the status of the inspection program and to discuss the Service's road and bridge problems and the actions the Service planned to take to correct them. We also reviewed FHWA road and bridge inspection reports.

We interviewed officials at the Service's Denver Service Center to ascertain the center's role in identifying, prioritizing, and resolving health and safety problems. We also reviewed the center's health and safety reports.

In chapter 2 we discuss our review of the Service's estimates of its health and safety construction backlog. Because the Service had not adequately documented its March 1982 formal estimate (its most recent estimate at that point in our review), we developed, using the Service's 5-year list of priority construction projects, our own backlog estimate. Chapter 2 discusses the steps we took to develop the estimate. However, the estimated cost of a health and safety project is not always devoted

CHAPTER 1

INTRODUCTION

In 1982 328 million visits were made to the 333 areas in the National Park System. The system, managed by the Department of the Interior's National Park Service, includes national parks, seashores, battlegrounds, monuments, and other areas of national recreation or significance.[1] The system contains many roads, bridges, water and sewage systems, food concessions, lodgings, and other facilities and services requiring periodic inspections to assure that they meet appropriate health and safety standards. In a prior report entitled "Facilities in Many National Parks and Forests Do Not Meet Health and Safety Standards" (CED-80-115, Oct. 10, 1980), we reported that the Park Service and the Department of Agriculture's Forest Service had not adequately protected the health and safety of visitors and that substandard water and sewage systems and hazardous lodges, dormitories, bridges, and tunnels needed to be repaired, upgraded, or limited in use. We estimated that to correct its identified health and safety deficiencies, the Park Service would have to spend about $1.6 billion.

The Chairman, Subcommittee on Public Lands and Reserved Water, Senate Committee on Energy and Natural Resources, asked us to verify the Park Service's current health and safety backlog estimates and to review other related matters, including the actions the Park Service took to correct the health and safety deficiencies we noted in our October 1980 report. In a meeting with the chairman's office, we agreed to make three separate reviews. These were to be of (1) the Park Service's actions to resolve the health and safety deficiencies previously reported, (2) the Service's estimate of its current health and safety backlog and its systems for identifying, setting priorities for, and funding health and safety projects, and (3) the total construction backlog for Federal recreation areas managed by the Park Service, the Forest Service, the Army Corps of Engineers, the Bureau of Reclamation, the Bureau of Land Management, and the Fish and Wildlife Service. The results of the first review were discussed in our report entitled "The National Park Service Has Improved Facilities at 12 Park Service Areas" (GAO/RCED-83-65, Dec. 17, 1982). This report presents the results of the second review. The third review is underway.

NATIONAL PARK SERVICE SAFETY AND OCCUPATIONAL HEALTH MANAGEMENT POLICY AND ITS IMPLEMENTATION

The Park Service's policy is to establish and maintain a comprehensive and effective safety and occupational health program for employees and visitors that meets the requirements of

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[1]Throughout this report we often refer to the various areas in the National Park System as parks.

section 19--Federal Agency Safety Programs and Responsibilities--of the Occupational Safety and Health Act of 1970; part 1960 of title 29 of the Code of Federal Regulations; Executive Order 12196 (Feb. 26, 1980); Department of the Interior Manual, Part 485 (Mar. 15, 1982); Park Service safety and occupational health requirements; and other appropriate national and State consensus standards. Some of these requirements are described in appendix II.

The Service's Director has designated the Associate Director, Management and Operations, as the Service's Safety and Health Official. The Associate Director is responsible for administering the Service's Safety and Occupational Health Program. The Associate Director has five divisions and an Office of Environmental Sanitation which manage most of the health and safety functions. The five divisions are:

--Safety Management, which develops, manages, and evaluates the Service's health and safety program.

--Maintenance, which manages Service-wide inspection programs, including those for roads, tunnels, bridges, dams, and buildings.

--Ranger Activities and Protection, which provides security and protection for park visitors, employees, and the property and resources of the National Park System.

--Concessions Management, which manages the Service's concessions program, including evaluating the concessioners' performance in meeting health and safety standards.

--Interpretation and Visitor Services, which provides visitor information and services, including specific safety information regarding the particular resource where visitors are located.

The Office of Environmental Sanitation conducts comprehensive surveys of water and sewage systems, solid waste handling, and food service sanitation.

The Service's health and safety program is also implemented at the regional and park levels through regional and park health and safety programs which are to be modeled after the overall Service program. Regional directors have been directed to give top management support to the Service's Safety and Occupational Health Program, and park superintendents, managers, and supervisors are responsible for operating aggressive safety and occupational health programs in areas under their jurisdiction. To provide technical support to the regions, the Service has established at least one full-time safety manager position in each of

entirely to resolving health and safety deficiencies. In many cases the cost of a project may provide more than just health and safety benefits. The criteria we used to identify health and safety projects were provided to us by the Service and appear in appendix IV. We believe that the criteria are generally adequate to identify health and safety projects. We did not evaluate the adequacy of individual project cost estimates.

Chapter 2 also discusses the Service's system for prioritizing maintenance and construction projects, including health and safety projects. Our primary objective in reviewing the prioritization process was to determine if health and safety projects were being reviewed, priorities assigned, and corrective actions programed. Because of the subjective nature of the process, we did not evaluate the priority given to specific projects. We did, however, assure through discussions with Service officials and by reviewing project documents that the Service addressed all major health and safety hazards identified.

Chapter 3 discusses the Service's health and safety program. Because the Service did not have a formal, documented health and safety program, we used criteria from various sources to evaluate the program. These sources included the Service's Fiscal Year 1981 Safety and Occupational Health Annual Report; the Service's "Safety Management, Guidelines, Requirements, and Responsibilities" booklet; the Service's Safety and Occupational Health Inspection Checklist; and Department of the Interior's Manual, Part 485, entitled "Safety and Environmental Health Management Program."

Chapter 4 provides the status of the Service-wide inspection programs. We did not review the programs in their entirety but did discuss with Service officials problems we found through reviews of status reports, onsite visits, and meetings with Service personnel. We reviewed documents substantiating the problems discussed in the chapter.

CHAPTER 2

HEALTH AND SAFETY PROJECTS RECEIVE PRIORITY FUNDING BUT BETTER BACKLOG ESTIMATES ARE NEEDED

In our October 1980 report we brought to the Congress' attention the Service's large, unfunded health and safety construction backlog. The Service's backlog consists of unfunded construction projects that have been identified by the Service to meet existing needs or that will be required in some future year. To illustrate the size of the backlog, we provided the Congress with our estimate of $1.6 billion. Since our report the Congress and the Service have generally given high funding priority to projects which correct health and safety deficiencies. For example, in fiscal years 1981 and 1982, $9.2 million and $51.4 million (21 and 54 percent, respectively, of all Service construction funds appropriated) were used to correct major health and safety deficiencies. However, a large backlog remains.

In 1981 and 1982 the Service developed health and safety backlog estimates but did not include all projects. Using the Service's May 1982 list of priority construction projects to be accomplished during fiscal years 1983-87, we identified 32 health and safety projects totaling $101 million that the Service had not labeled as health and safety in developing its estimates. In updating its priority list in November 1982, the Service developed an estimate of $538 million in health and safety projects, including the projects we had identified. The Service has an additional construction backlog of $1.7 billion for 1988 and future years which includes projects similar to those in the 1983-87 health and safety backlog but of a lower priority. The difference between these estimates and our 1980 estimate is due to changes on the project list and updated cost estimates. The Service expects that as it improves its inspection programs and completes its inspections of all facilities (see ch. 4), new health and safety projects will be identified and added to the backlog.

The Congress wants reliable backlog information to properly execute its appropriations and oversight duties. Interior needs to review the Service's 5-year list of priority construction projects during its annual review of the Service's budget to determine if all health and safety projects are properly identified and to include the Service's 5-year health and safety construction estimate in its annual budget submission to the Congress.

OUR OCTOBER 1980 ESTIMATE

In our October 1980 report we estimated that the Service would need about $1.6 billion in construction funds to

accomplish its major health and safety projects identified as of 1979 and scheduled to be accomplished through 1984 and beyond. We developed this estimate because the Service did not have its own estimate. We qualified our estimate by stating that it should not be taken as an exact figure because of (1) the variability of the project cost estimates, (2) the relatively small size of the sample used to develop our estimate, and (3) the subjectivity we used to determine which projects were health and safety related. Appendix III discusses the methodology we used to develop the estimate.

Later in this chapter, we discuss the Service's health and safety construction backlog estimates. These estimates differ from our 1980 estimate because the Service identified new projects, accomplished or reduced the scope of others, and determined that some were no longer needed. In addition, the Service updated the project cost estimates.

THE SERVICE GIVES HEALTH AND SAFETY PROJECTS HIGH FUNDING PRIORITY

After our October 1980 report, the Service's Director issued policy guidance directing that health and safety projects receive high priority in Service budget requests. For the Service's 5-year list of priority construction projects to be accomplished beginning in fiscal year 1982, the Director established the following priority sequence for accomplishing park needs:

--Correct deficient water supply and sewage systems.

--Correct hazardous conditions in structures, mechanical systems, and roads.

--Preserve and protect from further deterioration the Service's natural and cultural resources.

--Rehabilitate deteriorated visitor-used and support facilities, particularly those roads and bridges FHWA identified as needing repair.

For the following year's list, the Director stated that health and safety projects would be preceded in priority only by court-ordered projects. In addition, rehabilitation of deteriorated or substandard facilities, such as buildings or roads, was to receive higher priority than construction of new facilities.

How health and safety projects are funded and prioritized

Through fiscal year 1982, funds to correct unsafe or unhealthy conditions primarily came from two Park Service budget accounts--Construction and Operations of the National Park

System. However, beginning in fiscal year 1983, the Service's major public road and bridge projects will be funded from the Highway Trust Fund. Construction account projects, usually costing over $100,000, are major efforts involving detailed planning which are submitted to the Congress for funding. Examples of construction projects are rehabilitating water and sewage systems and constructing and stabilizing Service buildings.

Within the Operations of the National Park System account, cyclic maintenance and operational maintenance funds are used for health and safety purposes. Cyclic maintenance project funds must be obligated within the fiscal year appropriated and are generally for projects less complex and costly than construction projects. Upgrading electrical wiring systems and installing fire detection systems are examples of cyclic maintenance projects. Operational maintenance funds are those funds necessary for the parks to function on a daily basis. Park requests to increase operational maintenance funds can be for recurring costs, such as personnel and supply costs, and for nonrecurring needs, such as the need for such equipment as fire trucks. Projects to be accomplished with construction funds can be reduced in scope and accomplished with maintenance funds and projects originally destined to be funded with maintenance moneys can become a part of a construction project.

In fiscal year 1982 the Secretary of the Interior initiated the Park Restoration and Improvement Program (PRIP). PRIP is an accelerated effort to correct major deficiencies in park facilities and serious resource preservation problems. Each year certain health and safety cyclic maintenance and construction projects which satisfy PRIP's intent are to be included as part of the total program.

The Surface Transportation Assistance Act of 1982 (Public Law 97-424, enacted Jan. 6, 1983) authorizes Highway Trust Fund moneys to be used for highway activities, including the Service's major public road and bridge projects. Section 126(a) of the act requires the Secretary of Transportation to allocate the amounts authorized to be appropriated for a fiscal year. For the Service, the act authorized appropriations of $75 million for fiscal year 1983 and $100 million annually for fiscal years 1984-86. The Service has decided that only those eligible projects with a construction cost estimate exceeding $50,000 will be submitted to FHWA for approval. Other road and bridge projects will be accomplished through the Service's operations and maintenance funds.

Priority-setting procedures

Park and regional office procedures for preparing budget requests varied among the six parks and five regional offices we visited. However, their basic procedures were similar and each

gave health and safety projects funding priority. Parks annually prepare cyclic maintenance project requests, including those projects intended to be a part of PRIP, and Construction account project lists based on input received from various park divisions. These lists, along with proposed increases to park operational maintenance funds, are reviewed and approved by the park superintendent before being sent to the regional office.

Regional office personnel review the various parks' submissions to ensure that projects appear on the appropriate list but not on more than one list. A regional committee generally reviews construction project lists and supporting documents to ensure that each project represents a valid need. From the construction list of the various parks, the committee prepares a regional priority list for the regional director's review.

Regional maintenance personnel generally review the parks' priority lists of cyclic maintenance projects and, based on these lists, prepare a regional list of cyclic maintenance projects. The regional director also reviews this list, which is used to support the region's request for cyclic maintenance. Only those health and safety cyclic maintenance projects destined to be part of PRIP are sent to headquarters for approval. Regional budget officials review park requests for operational maintenance fund increases. Regionally approved increases are reflected in the lump-sum regional request to headquarters for operational maintenance funds.

The Service's Director and the regional directors meet annually to prioritize construction projects for the next 5 years. During this process, health and safety projects compete with other projects. For each project added to the 5-year priority list, the Denver Service Center determines when the project will likely be accomplished, given the project's urgency and expected Service funding and resource levels. Generally, construction projects require 2 years of planning before actual construction begins. Headquarters budget officials review the regional offices' lists of PRIP cyclic maintenance projects meeting health and safety needs and prepare a final list based on budget request ceilings.

Interior annually reviews the Service's budget request, including funds for construction projects, operational maintenance, and cyclic maintenance, and submits the Service's budget to the Congress. According to the Maintenance Division's Deputy Chief, beginning in fiscal year 1983 the Service plans to submit to FHWA for approval a list of major road and bridge projects to be funded from the Highway Trust Fund.

Health and safety project funding

The Service's use of its fiscal year 1982 appropriation and its 1983 budget request showed that a significant portion of its construction funds were devoted to correcting health and safety

deficiencies. Recent priority lists of construction and operations projects for the parks we visited and the Service's planned construction projects for all parks also show a significant portion of project funds being devoted to health and safety.

Because of its concern about health and safety problems in the parks, for fiscal year 1981 the Congress intended that $18.2 million above Interior's original budget request for the Service be used for health and safety maintenance projects. With these funds the Service accomplished 311 cyclic maintenance projects. In addition, the Service used $9.2 million, or 21 percent of the construction funds appropriated, to resolve health and safety deficiencies in fiscal year 1981. Beginning in fiscal year 1982, the Service started allocating a larger portion of its budget specifically for health and safety purposes. The table below shows the portion of costs devoted to health and safety purposes for fiscal year 1982 and in the Service's fiscal year 1983 budget request.

Service Funding for Health and Safety Projects
Fiscal Years 1982 and 1983

	Fiscal year 1982 appropriation			Fiscal year 1983 request		
Fund sources	Total funds	Health and safety	Percent	Total funds	Health and safety	Percent
	(000 omitted)			(000 omitted)		
Construction (note a)	$95,852	$51,385	54	b,c/$123,721	$64,994	53
Cyclic maintenance--PRIP	45,178	22,672	50	42,000	32,000	76

a/Includes both regular and PRIP projects.

b/Includes about $59 million for road and bridge projects which could be funded with Highway Trust Fund moneys.

c/Public Law 97-394, enacted on Dec. 30, 1982, appropriated $156 million for the Service's construction account. The Service plans to spend about $61 million for health and safety projects.

The Service's aging infrastructure indicates that a health and safety backlog is perpetual. According to Interior, many components of Service water systems, sewage systems, campgrounds, shops, and other facilities are old and worn. The Service's inventory of health and safety projects will have to be continually updated to include projects resulting from breakdowns or normal deterioration.

Park officials told us that they had been successful in accomplishing numerous health and safety projects but that a significant backlog, particularly for construction projects, remained. In five of the six parks we visited, we noted that some health and safety construction projects would not be accomplished before fiscal year 1986. For example, at Rocky Mountain National Park projects to repair bridges or stabilize substandard cabins will be needed after fiscal year 1987. According to the Service's Deputy Budget Officer, these projects were not on the 5-year priority project list because they were not to correct critical deficiencies and therefore were of a lower priority. Future inspections will likely identify additional health and safety projects. Park officials said that to limit expected deterioration and the amount of construction funds to correct major deficiencies, a stable flow of cyclic maintenance funds is essential to maintain Service facilities and structures.

CURRENT ESTIMATES OF THE SERVICE'S HEALTH AND SAFETY BACKLOG

On June 2, 1981, the Service responded to a May 21, 1981, request from the Chairman, Subcommittee on the Department of the Interior and Related Agencies, House Committee on Appropriations, to document its health and safety backlog. It provided the subcommittee a list of construction and maintenance projects for fiscal years 1983-86 with an estimated cost of $472 million. However, this list, which the Service had only 10 days to prepare, did not include all health and safety projects because, as the Service's Director told the subcommittee, not all were submitted by the regional offices within the deadline. The Director also cautioned that the construction project estimates were mostly preliminary because the Denver Service Center had not yet prepared more accurate estimates.

During the initial stages of our review, the Service developed another estimate of its health and safety backlog, anticipating a congressional request for the information. This estimate, prepared in March 1982, projected that the Service would need $398 million--$346 million in construction funds and $52 million in operating funds--for fiscal years 1983-87 to accomplish projects whose primary purpose would be to provide for the health and safety of park employees and visitors. In addition, the Service identified $901 million--$519 million in construction funds and $382 million in operating funds--that was being programed for the same 5 years and was considered indirectly related to health and safety problems. The Service identified another $1 billion to $2 billion in construction projects for 1988 and beyond, some of which related to health and safety. According to the Service's Deputy Budget Officer, these projects were not needed to respond to immediate hazards and therefore were not given a higher priority. The Service had not tried to estimate how much of the $1 billion to $2 billion was health and safety related.

We asked Service budget officials for support for these estimates. They said that exact support was unavailable but that a list of most of the projects making up the $346 million, 5-year health and safety construction backlog could be re-created.

In May 1982 the Service prepared a 5-year priority list of construction projects. We used this list to determine a current health and safety construction backlog estimate for fiscal years 1983-87. This 5-year list contained 241 projects, with an estimated cost of $710 million, of which 140 projects with a projected cost of $372 million, or 52 percent, were identified by the Service as health and safety projects. We reviewed the titles of the projects not identified as health and safety to determine if, in fact, they were. If the project titles indicated that the projects might involve health and safety, we reviewed supporting documentation prepared by the respective parks. Using the Service's definition of health and safety projects (see app. IV), we identified 32 additional health and safety construction projects with an estimated cost of $101 million. These additional projects were to correct such health and safety deficiencies as hazardous roads and inadequate sanitation facilities. A Service budget analyst agreed that the 32 projects were health and safety related although some only marginally. Using this approach, we estimated the minimum health and safety construction backlog for 1983-87 to be $473 million, or 66 percent of the 5-year backlog, at May 1982.

In November 1982 the Service updated its 5-year priority list of construction projects and developed a better health and safety construction backlog estimate. This list included 335 projects estimated to cost $1.2 billion, of which $538 million was for 177 health and safety projects. The differences in the total estimated costs between this list and the May 1982 list, including the differences for health and safety projects, were due to changes to the priority list and updated project cost estimates by the Denver Service Center. In addition, the Service included the 32 projects we had identified as health and safety related.

In addition to its 5-year construction backlog estimate, the Service, as of September 1982, had about 2,500 projects estimated at $1.7 billion which were not scheduled for construction until 1988 and future years. A part of this construction backlog included projects similar to those on the 5-year priority list but to which the Service had given a lower priority because it did not consider the deficiencies to be as critical. According to the Deputy Budget Officer, the Service had not tried to analyze these construction projects in its March 1982 health and safety estimate because (1) its priority-setting system found these projects to be less critical, (2) their scopes and estimated costs were less reliable than those of the projects on the 5-year list, and (3) they had not received detailed program and cost reviews. Because of the number of projects,

the lack of information available in the Service's budget office on these projects, and the Deputy Budget Officer's comments about the nature and estimated costs of these projects, we did not believe we could develop a meaningful health and safety construction backlog estimate for these projects in a timely manner.

Although the Service can improve its health and safety construction backlog estimates by ensuring that all health and safety projects are included and by taking such actions as periodically updating its inventory of health and safety projects, the uncertainty of project costs until final plans are developed prevents the Service from developing better estimates.

To more completely identify health and safety deficiencies in the parks, the Service has initiated several Service-wide inspection programs. The purpose of these programs is to inventory, evaluate, and report the condition of Service-owned or -maintained structures and dams owned by others that could affect the parks. However, these programs are still in progress and a large number of structures have yet to be inspected. As these structures are inspected, health and safety hazards will likely be identified and added to the backlog. (See ch. 4.)

Most Service cost estimates for construction projects are preliminary and not based on detailed planning. Until a project is placed on the Service's 5-year priority list, the only estimates are those the parks prepare. When a project is placed on the 5-year priority list, the Denver Service Center develops a professional estimate of the project's cost. But the accuracy of these estimates varies depending on when the project is to be accomplished.[1] If construction is to take place in the upcoming fiscal year, then some detailed plans, including engineering drawings, have generally been completed and cost estimates based on these plans developed. According to a Denver Service Center official, these estimates should be relatively close to construction costs. Estimates for projects that have only had some advanced planning (usually 2 years before construction) are less reliable because detailed project specifications have not been developed. Estimates for projects that have not reached the advanced planning stage are, according to a budget analyst, the least reliable because no planning has been done. The analyst said that cost estimates for projects not ready for construction can increase or decrease before construction.

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[1]Service construction projects are generally accomplished over 3 years. In the first year, advanced planning work, including general project requirements, is done. More detailed plans are prepared in the second year and construction takes place in the third year.

THE CONGRESS WANTS MORE RELIABLE INFORMATION ON THE SERVICE'S HEALTH AND SAFETY BACKLOG

During the past 2 years the Congress has indicated its interest in and commitment to resolving the Service's health and safety problems. However, it has also expressed concern about the lack of reliable information on the Service's health and safety construction backlog. The Congress wants reliable information to effectively carry out its appropriations and oversight responsibilities.

1982 appropriations hearings

During fiscal year 1982 appropriations hearings by the Subcommittee on the Department of the Interior and Related Agencies, House Committee on Appropriations, the chairman expressed his concern about the lack of Service health and safety backlog data. At that time he requested more complete information, which resulted in the June 1981 $472 million backlog estimate referred to earlier in this chapter. The Service's Director told the chairman that this was the best estimate that could be prepared within the 10-day deadline set by the chairman but that it was incomplete.

Senate oversight committee wants reliable health and safety backlog information

Our review was requested by the Chairman, Subcommittee on Public Lands and Reserved Water, Senate Committee on Energy and Natural Resources, which has oversight responsibility for the Service. The subcommittee's office said that the request was prompted by the apparent lack of reliable information on the Service's health and safety construction backlog and that the subcommittee needs reliable data to properly carry out its oversight role.

CONCLUSIONS

Since our October 1980 report, the Service has generally given, and plans to continue giving, high funding priority to projects which correct health and safety deficiencies. However, its estimates of its health and safety construction backlog have not included all health and safety projects. Although the Service can improve its health and safety backlog estimates by ensuring that all health and safety projects are included and by periodically updating its inventory of health and safety projects, the uncertainty of final project costs precludes it from developing better estimates.

The Congress has expressed its interest in and commitment to resolving the Service's health and safety problems but wants reliable information to address the problems. Interior needs to review the 5-year priority list of construction projects during its review of the Service's budget to determine if all health

and safety projects are properly identified and include the Service's 5-year health and safety estimate in its annual budget submission to the Congress. This would provide the Congress with more reliable backlog information to assist it in its oversight and appropriations responsibilities. Although the Service has a project list for years beyond the 5-year priority list, it generally considers the health and safety projects on this list to be less critical and the projected costs too difficult to estimate. In our opinion it would not be practical for the Service to try to more precisely estimate the cost of its health and safety backlog for projects not on the 5-year list.

RECOMMENDATIONS TO THE SECRETARY OF THE INTERIOR

We recommend that the Secretary of the Interior (1) review, during Interior's annual review of the Service's budget, the Service's 5-year priority list of construction projects to determine if all health and safety projects are properly identified and (2) include the updated 5-year health and safety estimate in Interior's annual budget submission to the Congress. The estimate should be accompanied by an explanation of its reliability and comprehensiveness.

AGENCY COMMENTS AND OUR EVALUATION

Interior agreed that all health and safety projects on the Service's 5-year priority list should be properly identified. However, Interior's comments (see app. I) did not indicate what steps it would take to determine the proper identification of all health and safety projects on the Service's 5-year priority list or whether it would provide the updated 5-year health and safety projects estimate in its annual budget submission.

We met with a Special Assistant to the Assistant Secretary for Fish and Wildlife and Parks, Department of the Interior, in January 1983 to clarify Interior's comments. The Special Assistant said that Interior would implement our recommendations but had not decided how it would determine the proper identification of all health and safety projects on the Service's 5-year list. He added that Interior would develop procedures to do this and would attempt to include the Service's 5-year health and safety estimate in its fiscal year 1984 budget submission. In March 1983 the Special Assistant said that the procedures had not yet been developed.

CHAPTER 3

THE SERVICE NEEDS TO IMPROVE ITS PARK FACILITY INSPECTION, MONITORING, AND SAFETY TRAINING ACTIVITIES

One way the parks can identify health and safety hazards is through adequate annual health and safety facility inspections. Officials and employees at the six parks we visited, however, had not always complied with all OSHA, Interior, and Service requirements for annual health and safety facility inspections. The deficiencies we noted included the lack of required inspections, missing or inadequate inspection documentation, and inadequate follow-up procedures. In addition, health and safety activities had not been monitored at the park, regional, and headquarters levels in accordance with Service requirements.

Service officials generally attributed these deficiencies to inadequate program guidance and resources and what they perceived as a lack of Service-wide commitment to health and safety programs and activities, particularly training. The Service's Safety Management Division needs to provide better program direction and monitoring to assure that park inspections and park, regional, and headquarters monitoring are adequate to meet OSHA, Interior, and Service standards and to provide for the health and safety of park employees and visitors. A complete and current formal Service health and safety management program as required by Interior should be a priority in providing better guidance to the parks and regions.

SERVICE HEALTH AND SAFETY MANAGEMENT PROGRAMS

The Service's health and safety activities are managed at each Service level--headquarters, regional offices, and parks. A current, formal program at each level is required to manage that level's health and safety activities. The headquarters program requirements are to be based on and be consistent with Interior's formal health and safety program and are to serve as a model for the regions, whose program requirements are to serve as models for the parks. (App. II briefly discusses Interior's program requirements.) Elements of the headquarters program which apply to regions and parks, including inspection and monitoring requirements, are to be part of the regional and park programs.

Park facility health and safety inspections

The Service, in compliance with OSHA and Interior regulations, requires annual health and safety inspections of all facilities, including concession facilities, used by park employees and visitors. According to the Deputy Chief, Safety

Management Division,[1] inspections of park-operated buildings are to be made using the Service's Safety and Occupational Health Inspection Checklist and such inspections should be documented. The checklist covers numerous health and safety areas, including occupational health and environmental controls, fire protection and hazardous materials fire protection, and electrical inspections. Safety inspections by park safety personnel of concession facilities must be documented. Follow-up inspections of deficiencies found at park and concession facilities are also required and must be documented to assure that some corrective action has been initiated.

Service requirements for monitoring inspection programs

Monitoring facility inspections is part of an overall Service system to provide guidance and to monitor, evaluate, and appraise the health and safety activities at the park and regional levels. As an important part of the monitoring effort, safety committees are required at each park to monitor park health and safety activities, including inspections done, and at each region to monitor the regional activities. The committees are to meet at least monthly and are to keep minutes of their meetings. Another important part of the monitoring process is the regional safety managers' annual health and safety management evaluations of each park. These evaluations are to include reviews of the parks' inspection and hazard abatement procedures.

At the headquarters level, the Safety Management Division is to evaluate the health and safety activities of each of the Service's 10 regional offices every 3 years. These evaluations are to include reviews of the regions' inspection and hazard abatement procedures and of the regional and park health and safety activities' evaluation procedures.

SERVICE HEALTH AND SAFETY PROGRAM IS NOT FORMAL, COMPLETE, OR CURRENT

The Service does not have a current and complete formal health and safety program as Interior requires. According to the Chief, Safety Management Division, the only document the Service has that resembles a formal program is an out-of-print booklet entitled "Safety Management, Guidelines, Requirements, and Responsibilities" (July 1973). The Chief said that the booklet is both incomplete and outdated in terms of a formal health and safety program. He also said that other health and safety program standards are contained in various other division documents, such as the Safety and Occupational Health Inspection Checklist and the Fiscal Year 1981 Safety and Occupational

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[1]The Deputy Chief served as Acting Division Chief from April to August 1982 when a new Chief was appointed.

Health Annual Report, which need to be consolidated into a single, formal program.

Because the Service's regional offices and parks are to model their formal health and safety programs after the headquarters program, the lack of a current, complete formal headquarters program hampers the development and implementation of formal health and safety programs at the other levels. We discussed the adequacy of existing park and regional office health and safety activities with several safety program officials at the six parks and five regional offices we reviewed. Many of their comments indicated a lack of adequate direction for their health and safety programs.

We discussed the lack of a current, complete formal Service health and safety program with Interior's Chief, Division of Safety Management. He confirmed that for the Service to comply with the Service's health and safety requirements, a current, complete formal Service program is needed at the headquarters level because the regional office and park programs are to be based on the headquarters program. He also said that developing such a program should be a priority for the Service's new Chief of Safety Management. The Service's new chief agreed and said that he planned to begin developing a program during fiscal year 1983. The Service expects to complete the program by September 1983.

INSPECTION AND MONITORING ACTIVITIES WERE INADEQUATE AT THE PARKS WE VISITED

From 1980 to 1982, officials and employees at the six parks we visited had generally not complied with OSHA, Interior, and Service health and safety inspection requirements. Specific noncompliance varied from park to park but included such deficiencies as facilities not receiving required inspections, lack of inspection records for those that were inspected, and lack of current formal safety management programs. In addition, the safety committees at these parks either were inactive or had not effectively monitored the parks' health and safety activities, including facility inspections. Interior had noted these and similar deficiencies in its 1976 and 1980 evaluations of the Service's health and safety activities. Following are brief summaries of our findings at each park.

Gateway National Recreation Area

Gateway had one full-time safety officer and collateral duty safety officers at each of the four units in the park. Gateway's formal safety program outlined the basic duties of both the safety officer and the collateral duty safety officers. The safety officer's duties included general safety program monitoring and evaluating safety training and inspections. Collateral duty safety officers' duties included annual park safety inspections and concession and park facility

follow-up inspections. The collateral duty safety officers had not applied building or fire codes when inspecting facilities. They said that they located conditions that "common sense" suggested might be a hazard.

The lack of an accurate buildings inventory and of inspection records prevented us from determining the park's compliance with the annual inspection requirement. However, the records that could be located showed that a December 1980 buildings inventory listed 358 structures, of which 219 were used. For 1981 the safety officer had inspection records for only 15 buildings.

Concession facilities had been inspected for safety. Gateway had 10 separate concession operations requiring yearly inspections. The full-time safety officer had inspected 10 in 1980 and 8 of the 10 in 1981. The safety officer noted that one of the two concessions that he did not inspect in 1981 was being renovated and he believed that it made no sense to inspect it. The other concession was inspected by a collateral duty safety officer. In addition, the safety officer conducted all required follow-up inspections before the concessions' 1982 opening to determine whether the previously identified problems had been corrected.

In May 1982 the park's Special Assistant to the Superintendent reviewed Gateway's safety program. The special assistant concluded, among other things, that the program was not action-oriented, failed to address important tasks and responsibilities, had not been aggressively carried out, and was not adequately supported by standard operating procedures, thus failing to meet Service criteria.

Gateway's safety committee is to consist of a representative from each major park division. According to the safety officer, a variety of topics had usually been discussed at the meetings, but the minutes were usually not recorded. Service standards state that minutes should be recorded. In addition, absenteeism and an inadequate flow of information, such as formal inspection reports, to the committee had made it difficult for the committee to meet Service guidelines on monitoring the park's safety program.

Golden Gate National Recreation Area

Golden Gate employed a full-time safety officer whose major duties included inspecting and evaluating park operations for conformance with Federal, State, and local safety and health standards and with the park's own safety program. The safety officer at the time of our review had been in the job less than a month. For the preceding 8 months, the park had an acting safety officer who conducted no formal safety inspections. The previous permanent safety officer told us that he had made only ad hoc inspections that included electrical and fire safety, noting that he lacked the time to make formal annual inspections

because Golden Gate had 379 buildings and structures, 185 of which were used by visitors and/or employees. He said, however, that he had tried to visit each structure informally at least once a year while completing 20 to 30 formal annual inspections. We reviewed files looking for safety and fire inspection reports but found only seven inspection reports for 1980-82.

Because the lack of inspection reports prevented us from determining the number of inspections made and the condition of the park's buildings, we asked park officials for the status of their electrical, fire, and structural inspections. They told us that during the last 3 years, only 5 percent of the park's buildings had electrical inspections, 30 percent had fire inspections, and 5 percent had structural inspections. The park superintendent confirmed the lack of inspections. He noted, however, that several factors may have contributed to the inspection backlog, including the press of daily operations which prevented systematic inspections, a shortage of qualified staff, and the change of safety officers. The superintendent added that he intended for the new safety officer to develop a system for ensuring completion of formal annual inspections. Because existing personnel lacked the time and capabilities to do a comprehensive inspection, the park superintendent planned to request a special team from the Denver Service Center or hire contractors to inspect all facilities, beginning in fiscal year 1983.

Documentation was lacking for annual concession inspections and for both park and concession follow-up safety inspections. A Service concessions official told us that the park safety officer had not recorded inspections of concession facilities.

Golden Gate had an undated formal safety program that provided some general guidance to the safety officer, but it lacked specifics and failed to meet all Service criteria for such programs. According to the safety officer, the park safety committee, which is led by a park police officer, had been inactive during the first half of 1982. He said that the committee met in July 1982 and established a separate safety committee in each of the 11 park districts and a parkwide committee to review district committee activities.

Great Smoky Mountains National Park

The park had a full-time safety officer whose duties and responsibilities included advising the superintendent on safety matters, providing technical advice on safety matters, and assisting in safety inspections with other park personnel. The officer was to make annual inspections of concession facilities. Other park personnel, including rangers, building foremen, and electricians, were responsible for inspecting other park facilities. Rangers were responsible for fire safety inspections with the exception of the safety officer's inspections of concession facilities.

The park's formal safety program, which was being revised at the time of our visit in April 1982, stated that an annual inspection of all facilities would be made to detect health, safety, and fire hazards. But the annual inspections and follow-up checks either had not been made or were poorly documented. The park safety officer had annually inspected concession facilities but had not recorded the status of actions to correct deficiencies. At the time of our visit, the Ranger Division was not routinely making fire safety inspections. Facility inspections by teams, including maintenance personnel and electricians, had not been done on an annual basis, and the park could provide little documentation for inspections of North District buildings. (South District officials were unavailable while we were in the park.)

According to the North District's Buildings and Utilities Foreman, only employee residences had been inspected annually. Other facilities, such as shops and comfort stations, were inspected every 3 to 5 years. Park personnel could not provide us with any facility inspection reports for 1980 for the approximately 200 buildings in the North District. For 1981 they provided only 20 reports and for 1982, only 8. The Buildings and Utilities Foreman told us that the inspections had been made but that the reports were misplaced. Subsequent to our visit, the park superintendent, in an August 1982 letter to us, said that 447 other park buildings had received fire and electrical safety inspections from April to August 1982.

The park safety committee, comprised of a representative from each park division, had met monthly. We reviewed committee files, including committee minutes, and found that the committee had reviewed deficiencies in recorded inspections and corrective actions planned or taken. Although safety committees are to appraise safety efforts under their jurisdictions, the minutes did not indicate that the committee had addressed the lack of inspections at the park.

Lake Mead National Recreation Area

Lake Mead's full-time safety officer said that his duties and responsibilities included making annual fire safety and electrical hazard inspections for both park and concession facilities. The safety officer also told us that he was not aware of the Service guidelines concerning safety inspection responsibilities. This problem was further compounded by the park's incomplete, out-of-date 1977 formal safety program which failed to state specifically who had overall responsibility for fire safety or who was to make the inspections. The safety officer said that he had assumed responsibility for fire safety upon taking the job.

Because he was not aware of the Service guidelines, including the standard inspection checklist, the safety officer had developed his own reporting form by modifying an OSHA form. He

relied on his own knowledge and experience to identify deficiencies. The safety officer told us that he needed a good set of guidelines to properly meet his health and safety responsibilities.

The safety officer's second major area of responsibility was the initial and follow-up safety inspections of concession facilities. The park had 11 concession operations which required annual safety inspections as part of their annual evaluations. We selected five concession operations to review. All had received formal inspections in fiscal year 1981 and three of the five had been formally inspected in fiscal year 1982 up to the time of our review, indicating compliance with the concession evaluation program.

The safety officer said that he tried to follow up on concession facility inspections before the annual concessioner evaluations were made. He noted that if he found a serious hazard, he asked the district ranger to act on it. Although rangers normally are not responsible for follow-up safety inspections, they will take corrective action on a major hazard requiring immediate attention.

Lake Mead had a safety committee, comprised of the safety officer and a cross section of the park's work force. According to the safety officer, committee meetings had not always been held monthly and minutes had not always been recorded. Committee records showed that the committee generally focused on resolving specific parkwide safety problems but had not monitored the safety program and had not been involved in follow-up inspections, activities the Service suggests that the safety committee perform.

National Capital Parks-Central

National Capital Parks-Central had a full-time safety officer who told us that his duties and responsibilities included making annual safety inspections of all park- and concession-operated facilities. The safety officer said that his inspections had included some electrical and fire safety considerations, such as blocked stairwells, overloaded electrical outlets, and checking fire extinguisher tags to ensure they had been inspected within the past year. He said that he always requested help on technical matters because he did not believe he was capable of making technical inspections such as for fire safety. The officer told us that a District of Columbia fire inspector had made an annual inspection of selected park buildings and over the past few years had inspected all park buildings. However, documentation was unavailable for these inspections.

The safety officer had not used the Safety Management Division's Safety and Occupational Health Checklist as a guide during his inspections. He said that he learned his duties and responsibilities through personal experiences.

Inspection records showed that the safety officer generally had met the annual inspection requirement for park facilities but documentation for inspections of concession facilities and follow-up inspections was generally unavailable. For example, National Capital Parks-Central had four concessioners, one of which operated nine snack bars. For 1980-82 the officer could provide inspection reports for only five of the snack bars for this concessioner in 1981.

Further, the safety officer had not documented corrective actions taken to resolve deficiencies he had identified. The officer told us that most deficiencies were usually minor and were corrected immediately but that he had not recorded the actions on his inspection form. The officer said that he would improve his documentation of inspections and the status of corrective actions.

The park did not have an up-to-date, formal safety program. Instead, it had used the National Capital Region's program which, according to the regional safety manager, was not current or complete and was not an adequate substitute for a specific park program.

The park safety officer told us that the park's safety committee, which met monthly, had not reviewed safety inspection reports or reviewed, monitored, or evaluated the park's safety program. The officer said that the committee discussed a variety of safety issues, including how accidents could be prevented. We could not analyze the committee's actions because minutes of committee meetings had not been prepared.

Rocky Mountain National Park

This park had both a collateral duty safety officer and an assistant collateral duty safety officer. They both said that their duties were not detailed in their position descriptions and that they basically did what the park superintendent wanted. The collateral duty safety officer said that the regional safety manager had provided guidance as well.

Both officers said that required annual safety inspections had generally not been done, that such inspections were not their responsibility, and that they were not trained to make them. In addition, they noted that neither of them had any responsibility for follow-up inspections. Concession safety inspections had been done by the regional safety officer with the assistant collateral duty safety officer accompanying him. These visits had been done informally several times a year but generally were not documented. Thus, they did not satisfy Service requirements.

Rocky Mountain Park had a formal safety program dated 1981 which placed general responsibility for identifying safety

hazards on all employees as they performed their assigned tasks. In addition, the program required designated members of the safety committee to make annual safety inspections of all park facilities. However, the program did not state who was responsible for designating members to make inspections or how inspections were to be done. The collateral duty safety officer told us that committee members had not been designated to do safety inspections and that annual inspections had not been done.

The available safety committee meeting minutes showed that the committee had not met monthly as required. The meetings that had been held were used to discuss previously identified problems and safety in general, but not to identify any new health and safety hazards.

DEPARTMENT OF THE INTERIOR EVALUATIONS HAVE ALSO FOUND PARK INSPECTIONS INADEQUATE

In 1976 and 1980 Interior's Division of Safety Management evaluated Service health and safety activities. Both evaluations included findings similar to ours on the adequacy of park inspections. For example, the 1980 evaluation report said that formal, periodic written inspection reports were not always available; many safety committees were inactive or ineffective; and the use of inspection checklists was not evident.

REGIONAL OFFICES AND HEADQUARTERS HAVE NOT DONE REQUIRED MONITORING

Although the Service's regional offices are required to evaluate each of their parks' health and safety activities annually, this requirement had not been met at the five regional offices we visited. Also, during fiscal years 1981 and 1982, the Service's Safety Management Division had evaluated only two regional offices instead of the scheduled six. According to regional office and headquarters management and safety officials, evaluation requirements had not been met because of a lack of resources, including travel funds and personnel.

Also, the Service has never established a Service safety and occupational health council to help the designated safety and health official coordinate the Service-wide safety and occupational health programs, although the Service requires such a council. According to the Chief, Safety Management Division, a turnover of key division personnel had recently prevented a council from being established. Further, the safety committees at the five regional offices were inactive or ineffectively monitoring the regions' health and safety programs. None of the six parks we visited had been evaluated in 1980 or 1981. The table on the following page shows the five regional offices' compliance with the annual evaluation requirement and the status of their safety committees.

Regional Office Evaluations of Park Safety Activities and Status of Regional Safety Committees

Region	Fiscal year 1980 Number of Parks	Fiscal year 1980 Number of Evaluations	Fiscal year 1980 Percent	Fiscal year 1981 Number of Parks	Fiscal year 1981 Number of Evaluations	Fiscal year 1981 Percent	Status of regional safety committees Active	Status of regional safety committees Inactive
National Capital	13	0	0	12	1	8		X
North Atlantic	34	10	30	34	10	30		X
Southeast	53	0	0	53	0	0		X
Rocky Mountain	42	12	29	42	24	57		X
Western	39	7	18	39	8	21	X	

SERVICE OFFICIALS BELIEVE SAFETY TRAINING CONTINUES TO BE INADEQUATE

A variety of general and specialized safety-related training courses have been held throughout the Service. However, according to the Training Division's Chief, minimum training requirements for safety personnel have never been established. Rather, the Service's "informal" training requirements are that full-time safety personnel attend an 80-hour session and collateral duty safety officers attend one 40-hour session. Safety personnel can also attend courses offered by other organizations. For example, the safety officer at Great Smoky Mountains National Park had attended several courses at the International Safety Academy in Atlanta, Georgia.

Criticism of Service safety training

During the past 6 years, we, Interior, and the former Chief of the Service's Safety Management Division have criticized the Service's safety training. Both we and Interior recommended additional training to upgrade the technical competence of Service safety personnel.

Interior's criticism of Service safety training

Interior's Division of Safety Management periodically evaluates the safety programs of each of Interior's agencies. In its last two evaluations of the Service, Interior criticized the Service's safety training. A 1976 evaluation report stated that the Service program lacked overall action to accurately identify and provide for all safety and environmental health training needs. The report recommended that emphasis be placed on upgrading the technical competence of both full-time and collateral duty safety personnel.

The report on Interior's most recent evaluation, completed in May 1980, stated that "the present level of training activities within the National Park Service does not meet the

training requirements set forth in 29 CFR 1960.20." In addition, the report stated that collateral duty safety officers, Service managers, and safety committee members lacked adequate training. The report recommended that the Service implement additional safety training on a priority basis.

Our prior report identified inadequate Service safety training

In our report entitled "Better Management of National Park Concessions Can Improve Services Provided to the Public" (CED-80-102, July 31, 1980), we said that the Service's safety program was hampered by a lack of trained personnel conducting safety inspections. This conclusion was based on our review of seven parks and discussions with top safety and management officials at five regional offices and at headquarters. We recommended that Service safety personnel receive the training necessary to identify safety deficiencies. In commenting on our report, the Service agreed with this recommendation and said that it planned to increase the amount of safety training for its personnel, concessions specialists, and personnel who have safety as a collateral duty.

Former Service safety official cited unqualified safety personnel

In a May 1980 memorandum to the Service's Associate Director for Management and Operations, the former Chief of the Service's Safety Management Division cited the inability of safety and fire protection specialists/engineers to conduct proper life safety code evaluations. Specifically, the memorandum stated that of the then nine regional safety managers and the Denver Service Center safety engineer, only four were fully qualified in the proper conduct and evaluation of life safety code requirements. The memorandum also stated that about 60 percent of the assigned safety specialists did not meet Office of Personnel Management standards for the GS-018--Safety and Occupational Health Management--series at the time and, therefore, could not adequately perform proper life safety code evaluations.

The former Chief also commented on our July 1980 report. On our conclusion that the Service's safety program was hampered by a lack of trained personnel, he said that the lack of technical expertise of park and regional safety personnel impaired the Service's ability to conduct effective safety inspections and that more trained safety personnel were needed.

Discussions with Service officials

In September 1982 we met with the Chief and Deputy Chief of the Service's Safety Management Division to discuss the tentative results of our review. We provided them with a general outline of this report, citing specific problems with the

Service's health and safety program. We also expressed our concern about some of the comments park and regional safety personnel made to us on the inadequacy of their training. For example, one collateral duty officer responsible for inspecting park buildings said that because he had not received any safety training, he used the "seat of his pants" approach in his inspections. Another said that he just used "common sense" in lieu of training.

The Chief said that the key issue concerning the safety program is the quality of people making the inspections. He said that many Service safety personnel are not sufficiently trained and thus are not generally qualified to do the job properly.

Both the Chief and Deputy Chief cited what they believed to be a lack of commitment on the part of many regional directors and park superintendents to support their regions' and parks' health and safety programs as a reason for unqualified safety personnel. The Chief and Deputy Chief said that the directors and superintendents emphasized other programs over health and safety activities. They added that the Service had also not provided adequate funding for training. The Deputy Chief said, for example, that the Safety Management Division had recommended that four safety training courses be included in the fiscal year 1983 training program. He said that the four courses were needed to meet minimum OSHA and Interior requirements. However, the Service approved only one of the four courses because of limited training funds. The Chief added that the problems that we had identified during our review cannot be resolved until the Service makes an agencywide commitment to health and safety programs, particularly training. He said that one of his first priorities will be to identify minimum safety training needs and push for a Service commitment to support a training program that meets these needs.

CONCLUSIONS

At each of its three management levels--headquarters, regional office, and parks--the Service needs an up-to-date, formal safety management program which will provide for an effective health and safety program at that level. These programs should include all elements of Service health and safety management, including inspection and inspection-monitoring requirements and safety training.

The Service does not have a current and complete formal health and safety program as Interior requires. Such a program would help provide for effective health and safety activities throughout the regions and parks. The Chief of the Service's Safety Management Division planned to begin developing the program in fiscal year 1983.

Park facility inspection programs and monitoring activities at the six parks we visited did not always meet OSHA, Interior, and Service health and safety requirements. Specific deficiencies varied from park to park but included a lack of OSHA- and Interior-required inspections; missing inspection documentation; a lack of current, formal safety management programs; and inactive or ineffective safety committees. Earlier Interior evaluations had noted similar deficiencies at the park level. Headquarters and regional offices had not made their required safety management evaluations. The regional offices also did not have effective safety committees. Although Service requirements provide for a Service safety and occupational health council, it has not been established at the headquarters level. Park, regional, and headquarters management and safety officials generally attributed these deficiencies to inadequate program guidance and resources and a lack of agencywide commitment to health and safety programs and activities.

Over the past 6 years, we, Interior, and a top Service safety official have criticized the Service's safety training program. Service safety officials believe that the safety training program continues to be inadequate and that the problems we identified during our review cannot be resolved until the Service makes an agencywide commitment to health and safety programs, particularly training.

RECOMMENDATIONS TO THE SECRETARY OF THE INTERIOR

We recommend that the Secretary of the Interior direct the Service Director to:

--Develop an up-to-date, formal headquarters health and safety program to be used as a guide for regional and park programs.

--Review regional health and safety activities and require their compliance with Service requirements.

--Develop procedures for the regional safety managers to use in reviewing the parks' health and safety activities, particularly health and safety inspections.

--Identify safety training needs to meet OSHA, Interior, and Service health and safety requirements and require that the Service provide for a safety training program to meet these needs.

AGENCY COMMENTS AND OUR EVALUATION

Interior concurred in our conclusions and recommendations. (See app. I.) On the first recommendation, Interior said that the Service's Safety Management Division had initiated steps to develop a formal, written program to provide guidelines and

requirements on a Service-wide basis. As part of a long-range program, the Service is to develop a formal health and safety program containing 17 specific elements for safety management and establish a Service safety council to interpret and develop health and safety standards, among other things. Acccording to Interior, the program is to be effective by September 1983.

Interior agreed that regional office health and safety activities should be regularly monitored and evaluated. It said that due to limited funds, the Safety Management Division is to evaluate each regional office every 3 years instead of annually as preferred. To improve effectiveness the Service is developing an evaluation program with input from various Service divisions. The Chief of the Service's Safety Management Division told us in April 1983 that the new program was scheduled to be implemented in June 1983.

On our third recommendation, Interior said that the documented health and safety program to be developed by September 1983 would provide a solid base for park evaluations. It added that the Service was developing guidelines based on an International Safety Academy system to assist in these evaluations.

On our last recommendation, Interior said that OSHA standards had not identified minimum training requirements, but that the Service had developed minimum standards for collateral duty safety officers and was working on standards for managers, supervisors, and safety committees. Interior added that the Service was working to develop training programs and aids that could be circulated widely and serve some of the training needs. According to Interior, the target date for training program development is September 1983 with continuing development in future years.

We believe that the actions the Service has initiated or plans to initiate, if properly implemented, should help provide effective health and safety programs at the Service's various management levels.

CHAPTER 4

THE SERVICE HAS TAKEN OR INITIATED ACTIONS TO IMPROVE ITS SERVICE-WIDE INSPECTION PROGRAMS

Service headquarters manages four Service-wide inspection programs--the road, bridge, and tunnel program; the comprehensive building inspection program; the safety, maintenance, and operations of dams program; and the environmental health inspection program. These programs are to inventory, inspect, and report the condition of the various park structures and systems. In contrast to the facility inspection programs in the parks as discussed in chapter 3, these comprehensive programs have a number of objectives, including health and safety, and are generally performed by specialists outside the Service. Progress on each of these programs varied; the building inspection program began only recently. The Service planned to correct by the end of fiscal year 1983 77 percent of its water systems needing major improvements. Summary data on corrections to sewage systems was not scheduled to be available until summer 1983, but the parks we visited were addressing sewage system deficiencies. The Service had initiated actions to ensure that all roads and bridges are inspected and to improve its vehicular accident reports and road-rating standards. In addition, the Service had instructed its regional offices to expedite the preparation of emergency action plans for potentially dangerous dams and complete an inventory of dams.

ROAD, BRIDGE, AND TUNNEL INSPECTION PROGRAM

From 1976 to 1980 the Department of Transportation's Federal Highway Administration made initial inspections of most Park Service roads, bridges, and tunnels. A second round of inspections was initiated in 1981. Regulations promulgated pursuant to the Federal-Aid Highway Act of 1968, as amended, require that all bridges on public roads be inspected periodically for safety.

At the six parks we visited, FHWA had not inspected all bridges and roads. Although the Service did not know how many roads and bridges were missed throughout the park system during the initial FHWA inspections, it had taken steps to ensure that current inspections include all roads and bridges. In addition, the Service had initiated actions to improve vehicular accident data and revise its road standards so that road safety could be better analyzed. Tunnels were being inspected and deficiencies addressed.

FHWA road and bridge inspections

FHWA inspects Service roads, bridges, and tunnels to inventory and document their condition. FHWA's inspection program is managed by the Service's Maintenance Division. The two agencies signed memorandums of agreement for bridge inspections in August

1975 and for road inspections in July 1976. As part of the bridge inspection program, FHWA inspects Service tunnels. FHWA began bridge and tunnel inspections in 1976 and road inspections in 1977, with the initial inspection cycle under each memorandum completed in 1980. In April 1981 FHWA issued a report summarizing the condition of the 1,166 bridges, 52 tunnels, and 7,712 miles of road inspected.

Under a third memorandum of agreement signed in December 1980, FHWA has initiated a second cycle of Service road, bridge, and tunnel inspections. Priority is being given to those most heavily traveled and most seriously deficient. FHWA is also to inspect roads and bridges not inspected during 1977-80.

Some inspections not done

At the six parks we visited, all roads and bridges had not been inspected. The Maintenance Division's Deputy Chief told us that he did not know exactly how many roads and bridges had been missed agencywide. On roads, he estimated that FHWA inspected about 85 percent of Service roads, leaving about 1,300 miles to be inspected. He said that various factors, such as inadequate information given FHWA inspection teams by employees at some parks, contributed to the lack of road inspections.

The following table shows for the six parks we visited, the number of road miles in each park, according to park personnel, and the number of road miles FHWA inspected initially.

	Road miles		
	Total	Inspected by FHWA	
Park	in park	Number	Percent
National Capital Parks-Central	28	15	54
Great Smoky	316	186	59
Gateway	36	35	97
Rocky Mountain	105	100	95
Lake Mead	349	250	72
Golden Gate	27	26	96

Park personnel at the parks we visited noted during their daily duties road deficiencies such as deteriorated road edges and poor striping. However, these employees were not trained to inspect roads to the degree FHWA inspectors are.

Because the American Association of State Highway and Transportation Officials defines a bridge as being longer than 20 feet, FHWA had not inspected bridges 20 feet or less in

length. At Great Smoky FHWA had not inspected 17 bridges less than 20 feet long. The park did not have any procedures for inspecting these 17 bridges. The Service Maintenance Division's Deputy Chief said that he did not know how many bridges under 20 feet long were missed Service-wide during FHWA's prior inspections but that arrangements had been made to have them inspected during the current inspections. FHWA officials confirmed that bridges less than 20 feet long in the National Park System would be included in their second inspection cycle.

Management attention being given to FHWA road, bridge, and tunnel reports

Park officials at the six parks were working to correct road and bridge deficiencies FHWA had identified. During its initial inspection cycle, FHWA had prepared reports for each bridge, tunnel, and road inspected. Each bridge and tunnel received an overall rating with those rated as "A" and "B" being the most critically deficient. An "A" rating meant that a bridge or tunnel was closed, in imminent danger of collapse, or of vital importance with a high traffic volume and severely inadequate structurally. Bridges with "B" ratings were less critically deficient and with frequent inspections could remain in service at reduced weight limits.

We reviewed the status of repairs made to "A" and "B" rated bridges at the six parks. Park officials in many cases either had made repairs or were programing future repairs. For example, of the 152 bridges inspected at Great Smoky Mountains National Park, 20 were assigned an "A" rating. Their status was as follows:

--Ten bridges had already been repaired.

--Four bridges were to be corrected in fiscal year 1982, four more in fiscal year 1983, and one in fiscal year 1984.

--One bridge, labeled as a low priority by park personnel, was being considered for repairs in fiscal year 1984 or 1985.

Of the six parks, only Great Smoky and Golden Gate had tunnels. None of these tunnels had been rated "A" or "B" by FHWA.

FHWA road inspection reports contained ratings for structural condition, safety aspects, and serviceability of each road section. The safety category comprised ratings for five physical characteristics, including road width, shoulder width, and alignment. Safety ratings below 65 indicated that the road did not meet Service standards and management should evaluate the road's condition to determine if action was necessary.

At each park we reviewed repairs made to roads with a safety rating below 65. When repairs had not been made and were not programed, we discussed the matter with park officials. In these cases park officials had considered the ratings but had decided that repairs were not needed. For example, 15 road sections in Great Smoky had received safety ratings below 65. Park officials told us that they planned to make repairs to only three of these sections. However, at the time of our visit the park had not requested funds for two of these projects because its general development plan had only been completed in early 1982. This was after the Service began preparing its fiscal year 1983 budget request. Repairs to the third road were to be made once an area development plan was completed. On the other 12 road sections, a park official told us that it would be cost prohibitive for the park to widen some roads found deficient by FHWA, given the park's mountainous terrain, and that the use of other road sections did not warrant corrective action. For example, some road sections which the park does not plan to correct are one-way motor nature trails and campground roads with speed limits as low as 15 or 20 miles an hour. These roads had been rated low because road or shoulder widths did not meet the standards. According to the park official, accident statistics for these roads did not indicate a safety hazard.

Vehicular accident data ineffective for safety analysis

FHWA's analysis of vehicular accident data is hindered by the Service's lack of an effective accident reporting system which generally fails to provide specific accident locations. FHWA recognized the need for improved accident data in individual road inspection reports and in its April 1981 summary report on the road and bridge inspection program. Analysis of vehicular accident data is necessary for the Service to comply with Department of Transportation highway safety standards. The Maintenance Division's Deputy Chief said that the Service will begin using an improved accident report in March 1983.

Road standards need to be reviewed

In reviewing the repair actions at the six parks, we noted discrepancies between the FHWA ratings given to particular roads and the parks' perceptions of the same roads. According to park officials, the Service standards FHWA used in inspecting park roads do not adequately reflect the roads' actual use, but rather are based on the roads' physical characteristics, such as surface and shoulder width. This accounted for situations such as that at Great Smoky where some roads that FHWA rated low for safety were not being repaired or modified by the Service because actual road use did not justify it. The current standards may also overstate the safety rating of other roads.

The Maintenance Division's Deputy Chief told us that during FHWA's initial road inspections, the Service and FHWA recognized the need to revise the inspection standards to more accurately reflect actual road use. He agreed with the park officials we

talked with that Service standards do not consider a road's purpose or how many and what type of vehicles use the road. After FHWA's initial inspections, the Service began to discuss revising its standards with FHWA. Revised standards based on road use were contained in an April 1982 FHWA memorandum to the Service. In August 1982 the Maintenance Division proposed to the Service Director that a task force be established to review road standards. In October 1982 the Deputy Chief told us that the Director had approved the task force and instructed the division to begin work. According to the Deputy Chief, revised standards will be prepared by April 1983.

COMPREHENSIVE BUILDING INSPECTION PROGRAM

In 1982 the Service contracted with the Georgia Institute of Technology to develop a computer-based system to comprehensively inspect and record the condition of Service-owned or -maintained buildings. The Service initiated this program (1) because it believed its building inspection data from the parks was either incomplete or not easily retrievable and (2) as a result of our 1980 report on the health and safety deficiencies we found at Service facilities.

Under this program, the computer produces a unique building inspection form based on each building's physical characteristics and use. Inspectors check not only for health- and safety-related code violations but also include mechanical system, electrical system, and energy conservation considerations. The computer also estimates the cost of resolving deficiencies noted during inspections. According to the Maintenance Division's Chief, the Service will analyze the deficiencies to identify those which should be studied in greater depth by experts, such as building engineers.

In August 1982 the Chief told us that the Service was working with the contractor to refine the computer program and the manner in which inspections are made. He said that this program would facilitate building inspections and reduce operating costs by producing a streamlined, walk-in/walk-out inspection format. According to the Chief, 1,000 buildings would receive comprehensive inspections by March 1983 and all 16,000 Service buildings would receive initial inspections under this program within 5 years. The Service planned to integrate this program into each park's safety inspection program.

SLOW PROGRESS IN THE SAFETY, MAINTENANCE, AND OPERATIONS OF DAMS PROGRAM

Although the dams program began in 1980, as of April 1, 1983, the Service had not completed its dams inventory, and for those dams on its inventory, the inventory report was incomplete regarding dam conditions and corrective actions taken. In addition, limited progress had been made in completing emergency action plans in case of dam failures or misoperation of dams. Service officials recognized the program's slow progress and were trying to take corrective actions.

Dam safety program

An October 4, 1979, executive memorandum asked each Federal agency having responsibilities for dams to adopt the Federal Guidelines for Dam Safety, issued June 1979. In response, the Secretary of the Interior issued Order 3048 requiring each Interior agency to comply with the executive memorandum. In July 1980 the Service initiated its safety, maintenance, and operations of dams program within the Maintenance Division to meet the Federal guidelines. The program is to inventory dams within and outside parks which could affect park operations if failure or misoperation occurred, document their condition, and develop or help non-Service dam owners to develop emergency action plans to provide safety during potential or actual danger situations.

Interior's Bureau of Reclamation inspects dams owned by the Service and other Interior agencies that are on the Service's inventory and that are categorized as high- or significant-hazard dams.[1] Responsibility for other federally owned dams rests with the agencies owning them, and responsibility for inspecting non-Federal dams rests with their owners. Service personnel have been directed to monitor the inspection status of all Federal and non-Federal dams on the inventory.

Inventory of dams not complete

The Service's September 1982 dams inventory listed 346 structures. According to the safety, maintenance, and operations of dams program officer, the inventory was not complete because not all regional offices had been able to determine whether all dams in and around park areas should be included. For example, a July 1982 memorandum asked two regional offices to evaluate 38 additional dams for possible inclusion in the inventory. These dams were identified either by individual park officials or by the program officer from maps or other documents. In addition, parks in two other regions were determining whether other dams should be included on the inventory. The program officer said that he did not know how complete the inventory was.

In August 1982 the Service's Acting Deputy Director established a November 30, 1982, deadline for completing the inventory. As of April 1, 1983, the inventory had not been updated because not all regional offices had submitted revised inventories to headquarters. The program officer told us that

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[1]Dams are categorized by the potential destruction that would result if failures or misoperations occurred. A high-hazard dam is one whose failure or misoperation could cause the loss of more than a few lives and excessive economic damage. Failure or misoperation of a significant-hazard dam would likely result in the loss of a few lives and appreciable economic damage.

some regions were still trying to determine what dams should be on the inventory.

Inventory report incomplete regarding dam conditions and corrective actions

Of the 84 high- or significant-hazard dams on the September 1982 inventory, 51 had completed inspection reports. Although the inventory is supposed to show the condition of dams inspected and corrective actions taken, this information was not included for 23 of the 51 dams. The inventory report indicated that some corrective actions had been taken on 15 of the remaining 28 dams that had been inspected.[2] The program officer said that he had not verified the corrective actions reported. Planned corrective actions are not shown on the inventory.

According to the program officer, Bureau of Reclamation inspections of Service dams were completed by February 1983, ahead of Interior's October 1983 deadline. However, as of April 1, 1983, the inventory had not been updated to show the dams' conditions and corrective actions taken.

Limited progress in completing emergency action plans

The June 1979 Federal Guidelines for Dam Safety require, in part, that emergency action plans be developed for all federally owned or regulated dams that constitute a hazard to life and property. Emergency action plans are detailed procedures to provide early warning and evacuation during a potential or actual dam misoperation or failure. Section 1.5(A) of Interior's Manual, Part 753, requires that a plan be prepared for all Interior-owned or -regulated high- and significant-hazard dams affecting the parks. Section 1.5(F)(3) requires that these plans be prepared by October 1984 for high-hazard dams and October 1986 for significant-hazard dams. The program officer was not aware of specific requirements for nonfederally owned or regulated dams with regard to emergency action plans. However, although the Service is not responsible for developing plans for these dams, the program officer has directed the parks to work with dam owners to develop such plans.

Pending preparation of final emergency action plans, the Service's Associate Director for Management and Operations instructed regional office and park personnel in April 1982 to prepare interim plans for Service-owned dams and to help develop plans with non-Service dam owners. The September 1982 inventory showed that no final or interim emergency action plans had been prepared for the 84 high- and significant-hazard dams on the

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[2]Twelve of the 26 Service-owned significant-hazard dams had completed inspection reports and some corrective actions had been made to 9 of these dams.

inventory. Of the 84 dams, 60, including 26 Service-owned dams, were federally owned and regulated and subject to the Federal dam safety guidelines. The other 24 were nonfederally owned and regulated and subject to State regulations concerning emergency action plans.

Although the Service set a deadline of November 30, 1982, for interim plans, only 33 preliminary plans were prepared as of January 1983. Two of the 33 plans were for Service-owned dams.

Responsible Service officials express concern about program's progress

Service officials have expressed concern about the progress of the safety, maintenance, and operations of dams program. In a July 30, 1982, memorandum commenting on our questions about the program, the Maintenance Division's Chief said that he was concerned about the program's progress and that his office would take a more active oversight role. On August 31, 1982, the Service's Acting Deputy Director, citing a July 15 dam disaster,[3] sent a memorandum to all regional directors requesting that they expedite their dams programs through six specific actions. These actions included

--completing the dams inventory,

--establishing a preliminary emergency action plan for high- and significant-hazard dams,

--initiating corrective actions based on Bureau of Reclamation inspection reports, and

--collecting inspection reports and emergency action plans for non-Service high- or significant-hazard dams that could affect the parks.

The Acting Deputy Director specifically emphasized the Service taking a more active role where non-Service dams could affect park property or cause loss of life. The regional offices were to report to headquarters on their actions taken by November 30, 1982.

In addition, in a September 1982 briefing statement prepared for a regional directors' meeting, the program officer said that

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[3]On July 15, 1982, two dams--one non-Service owned and the other whose ownership has not been clearly established--failed at Rocky Mountain National Park causing four deaths and an estimated $20 million in damages to non-Federal property. The non-Service dam had been categorized as a significant-hazard dam but did not have either an interim or final emergency action plan.

"* * * 15 structural failures or misoperations occurred at our parks between 1971 to the present time. This is an unfortunate indicator of the condition of dams located in park areas and of the greater emphasis needed for this program."

In January 1983 we asked the program officer about the status of the regional offices' reports required by the Acting Deputy Director's August 1982 memorandum. The program officer said that most regional offices had not provided complete reports. He told us that various factors, including higher priority work, had prevented the regional offices from responding in a timely fashion. The program officer also said that he had updated portions of the inventory, such as the preliminary emergency action plans completed, based on the partial information received.

The Maintenance Division's Chief has directed the program officer to assist the regional offices in preparing their reports. The Chief said that all regional office reports are to be completed by May 1983.

PROGRESS IN CORRECTING DEFICIENT WATER SUPPLY SYSTEMS

The Service expected to correct by the end of fiscal year 1983 212, or 77 percent, of the 274 water supply systems identified as needing major improvements. The Service had not developed data on when the remaining 62 systems would be corrected or on the status of corrections to sewage systems.

Deficiencies in water supply and sewage systems are primarily identified by Public Health Service officers and Park Service sanitarians stationed in some of the larger parks. The Park Service's Office of Environmental Sanitation consists of Public Health Service officers detailed to the Service. As of 1982, 10 officers were assigned to the Park Service, 7 of whom were assigned to regional offices. The officers are to conduct comprehensive environmental health surveys of water and sewage systems, solid waste handling, food service sanitation, and housing and general sanitation and review construction plans for new or remodeled facilities to determine compliance with applicable health criteria. Public Health Service officers have been providing assistance to the Park Service since 1921.

In 1980 234 Park Service-controlled water systems were identified as needing major improvements. Corrections were made to 144 of these systems during fiscal year 1981. Interior told us (see app. I) that in addition to the 90 systems not corrected, as of April 1982 another 40 systems were identified as requiring major improvements. Interior said that 35 of these 130 systems were to be corrected in fiscal year 1982 and another 33 in fiscal year 1983, leaving 62 systems to be corrected. The 62 projects are to be incorporated into the Park Service's planning, construction, and PRIP programs. According to Interior,

the 62 water systems represent 5 percent of the 1,300 water supply systems the Park Service controls.

The Office of Environmental Sanitation, which had prepared the water supply system statistics from inspection reports and regional office data, had not developed similar data for corrections made to sewage systems. According to the Park Service's chief environmental sanitation officer, information on sewage systems had not been prepared because the Park Service had emphasized correcting deficient water supply systems. The officer said that water supply system deficiencies generally create a more immediate health hazard than sewage system deficiencies. He added that data on corrections made to sewage systems was being computerized and summary statistics would be available in summer 1983.

Local jurisdictions are responsible for inspecting the water supply systems in three of the parks we visited--National Capital Parks-Central, Gateway National Recreation Area, and Golden Gate National Recreation Area. However, at Golden Gate, Park Service personnel also made inspections and took water samples. At all six parks, identified water supply and sewage system deficiencies had been programed for correction.

In its comments Interior said that many components of the Service-controlled water supply systems were old and would need replacement in time or repairs if damaged. Interior said that for this reason, there would always be about 40 to 60 systems needing some degree of major improvement.

CONCLUSIONS

The Service's four major Service-wide programs to inventory, inspect, and report the condition of its facilities are in various stages of completion. The Service has started the program to comprehensively inspect Service-owned or -maintained buildings, and it expects to correct 77 percent of its deficient water supply systems by the end of fiscal year 1983. Summary data on corrections to sewage systems is to be available in summer 1983. The parks we visited that had deficient sewage systems had programed corrections to them. The Service is taking actions to ensure that all roads and bridges are inspected and to improve its vehicular accident reports and road-rating standards. Additionally, the Service has directed its regional offices to expedite the preparation of emergency action plans for potentially dangerous dams and complete the inventory of dams.

United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

A7615-610

JAN 12 1983

Mr. J. Dexter Peach
Director
Resources, Community and
Economic Development Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Peach:

We have reviewed the draft audit report, "National Parks' Health and Safety Problems Given Priority but Backlog Estimates and Safety Management Could be Improved" and its findings and recommendations. Our comments on the specific recommendations are enclosed. We are pleased that the General Accounting Office (GAO) has recognized the need for an inventory and inspection program and has commended the National Park Service (NPS) for those programs and for efforts toward improving the quality of Safety and Health Programs.

Throughout the report there is a stated concern that, "health and safety construction backlogs have not included all health and safety projects." This may lead to a faulty conclusion that there is some fixed or static list of projects that, once corrected, would resolve the health and safety problems. This is not, and will never be, the case. Many components of water systems, waste treatment systems, campgrounds, shops and other facilities are old and worn. There will continue to be the need to update the health and safety list as breakdowns or failures take place and to accommodate the deterioration occurring with age. The Service is currently developing computer programs in water supply and sewage systems which will serve to identify needed improvements and related costs.

[GAO COMMENT: We have added statements on p. 10 to clarify the nature of the backlog.]

Specific GAO references and recommendations regarding programs and requirements are mixed and represent a diversity of sources and functions. As discussed in the draft report there are currently a number of programs in effect and underway that will assist the Service to identify facility problems, development and rehabilitation problems and also basic safety and health

GAO Note: Some page references have been changed to agree with the final report.

problems. It is clear that some existing policies and programs are not being implemented. The NPS is developing, and will implement in FY 1983, additional safety and health programs, including training and evaluations, to insure that adequate and acceptable programs are in effect.

Page 38 needs to be revised as indicated below to include more up-to-date data on the status of NPS water supply systems.

1. Paragraph 4 should be deleted because the basic data is paragraph 6.

2. Change 1952 to 1921, last sentence in paragraph 5.

3. Revised paragraph 6.

> In 1980, 234 Park Service - controlled water systems were identified as needing major improvements. Corrections were made to 144 of these systems during FY 1981. As of April 1982 the Service had identified another 40 systems requiring major improvements and estimated 35 would be corrected in FY 1982 leaving a balance of 95 systems. In FY 1983 it is estimated 33 systems will be corrected and the remaining 62 systems will be incorporated into NPS planning, construction and PRIP programs. Many components of the Service's 1,300 water supply systems are old and will need replacement in time or repair if damaged. It is estimated there will always be 40-60 systems needing some degree of major improvements. The Office of Environmental Sanitation prepared these statistics from inspection reports and regional office data.

[GAO COMMENT: We have included the above comments on pp. 38 and 39.]

Sincerely,

for G. Ray Arnett
Assistant Secretary for Fish
and Wildlife and Parks

Enclosure

DEPARTMENT OF THE INTERIOR RESPONSE TO GAO RECOMMENDATIONS
"NATIONAL PARKS' HEALTH AND SAFETY PROBLEMS
GIVEN PRIORITY BUT BACKLOG ESTIMATES
AND SAFETY MANAGEMENT COULD BE IMPROVED"
(RCED - 83 - 59)

RECOMMENDATION:

Give priority attention to developing an up-to-date, formal headquarters health and safety program to be used as a guide for regional and park programs;

RESPONSE:

All National Parks do have Documented Safety and Health Programs oriented to satisfy their local needs. Preliminary steps are underway to develop formal written programs at the Washington Division of Safety Management to provide guidelines and requirements on servicewide basis. Four basic program elements are being developed as part of a long range program; including: a Documented Safety and Health Program containing 17 specific elements for safety management; a National Park Service Safety Council to work on standards interpretation and development, professional standards for Safety Manager, industrial hygiene and awards; a Safety bulletin to provide incident analysis and to update requirements; and an in depth analysis program of accidents oriented toward identifying causes of losses and effect prevention. A Safety Planning Seminar is being planned for March 1983 to gain input from Regional and Park Safety Managers. The program should be distributed and in force by September 1, 1983.

[GAO COMMENT: See agency comments and our evaluation on pp. 28 and 29.]

RECOMMENDATION:

Review regional safety and health activities and insure their compliance with service requirements.

RESPONSE:

Ideally, each Regional Safety and Health Program should be regularly monitored and formally evaluated annually. Fund shortages have rendered this impractical, therefore, the National Park Service initiated a program to insure formal evaluations in each region on an every third year basis by the Division of Safety Management. The Service is working to develop a program evaluation that will be multi-divisional in make-up to improve effectiveness. Effective by March 1, 1983.

[GAO COMMENT: See agency comments and our evaluation on p. 29.]

RECOMMENDATION:

Develop procedures for Regional Safety Managers to use in reviewing the parks' health and safety activities, particularly health and safety inspections.

RESPONSE:

The standards set forth in the National Park Service Documented Safety and Health Program; described in recommendation No. 1, will provide a solid base for evaluations at the regional and park levels.

The Service is developing Profile Evaluation Guidelines for the National Park Service following a system developed by the International Safety Academy. The system is based on program requirements and places weighted values on sub-elements within each major program heading to assist the evaluator and the manager to understand areas of strength and weakness in their programs. This system will be in effect by March 1, 1983.

[GAO COMMENT: See agency comments and our evaluation on p. 29.]

RECOMMENDATION:

Identify Safety Training needs to meet Occupational Safety and Health Administration, Interior and Service requirements and ensure that the Service provides for a safety training program to meet these needs. (See p. 28)

RESPONSE:

There is no definitive identification of what constitutes minimum training needs even in OSHA Standards. The National Park Service has developed a set of minimum standards based on subject and skills requirements for Collateral Duty Safety Officers and are working on similar packages for managers, supervisors and safety committees. This will assist in clearly identifying specific requirements so that the National Park Service can plan to meet real needs.

The Service is working to develop a series of packaged training programs and aids in the form of video-tape and 35mm slides together with instructor guides. These programs can be circulated widely and serve some of our training needs.

The target date for training program development is September 1, 1983 with continuing development in future years.

[GAO COMMENT: See agency comments and our evaluation on p. 29.]

RECOMMENDATION:

"We recommend that the Secretary of the Interior (1) review, during Interior's annual review of the Service's budget, the Service's 5-year priority list of construction projects to

ensure that all health and safety projects are properly identified and (2) include the updated 5-year health and safety estimate in Interior's annual budget submission to the Congress."

RESPONSE:

As referenced within the draft report, the National Park Service has embarked on a complete facility inventory, inspection and evaluation program. Steps are being taken to insure that information from these programs is fully considered in the development of maintenance, repair, rehabilitation, reconstruction and new construction programs.

A number of programs are already completely operational and require only the final tie to the programming process. The building inspection program is in its early stages; although, it is expected to require 5 years for full development. The Service is committed to its completion and to using early results to program work related to overnight facilities. Upon completion of these processes the Service will insure the annual submissions to the Congress are based on updated surveys and estimates.

[GAO COMMENT: Interior agrees with the need to ensure that all health and safety projects are properly identified on the Service's 5-year priority list. We met with a Special Assistant to the Assistant Secretary for Fish and Wildlife and Parks, Department of the Interior, in January 1983 to clarify Interior's comments. See agency comments and our evaluation on p. 15.]

LEGISLATIVE AND REGULATORY REQUIREMENTS AFFECTING THE SERVICE'S HEALTH AND SAFETY PROGRAM

Various laws and regulations govern the Service's health and safety program. The primary ones are described below.

--The Occupational Safety and Health Act of 1970 requires that safe and healthful workplaces be provided for all employees. Section 19 of the act requires each Federal agency to establish and maintain an occupational safety and health program for its employees consistent with standards issued by the Secretary of Labor. In addition, each agency is to maintain accident and illness records and make annual reports to the Secretary of Labor on occupational accidents and injuries.

--Executive Order 12196, issued February 26, 1980, requires that the Secretary of Labor issue a set of basic program elements which the agencies would use to develop their occupational safety and health programs. The order also requires agencies to assure that periodic inspections of workplaces are performed by personnel competent to recognize hazards and respond to employee reports of imminent dangers within 24 hours.

--Title 29 of the Code of Federal Regulations, Part 1960, contains the basic program elements called for in Executive Order 12196. Requirements for inspections, occupational health and safety committees, employee training, and recordkeeping and reporting are discussed in the regulations.

--Department of the Interior Manual, Part 485, dated March 15, 1982, states that the Department will maintain a comprehensive safety and health program in accordance with the act, Executive Order 12196, and title 29 of the Code of Federal Regulations. This part requires each agency within the Department to implement a comprehensive safety and environmental health program and discusses safety standards, the frequency and conduct of safety inspections, duties of safety committees, various safety-related laws, accident investigation, recordkeeping policy, and program evaluations.

METHOD WE USED IN 1980 TO ESTIMATE THE SERVICE'S HEALTH AND SAFETY BACKLOG

In 1980 the National Park Service could not tell us the cost of all health and safety construction projects which had been proposed but not funded. The following describes how we estimated the Service figure for our October 1980 report.

The Service's computer-produced list of all proposed projects did not indicate which projects were intended to correct health and safety deficiencies. Also, some project proposals contained several components. Some components were health and safety oriented; others were not. Because the cost of each component was often not estimated separately, it was not possible to determine what portion of the project cost was related to health and safety. Finally, some project elements could have been interpreted as either health and safety related or related to some other purpose. For example, we did not consider the expansion of a parking lot as a health and safety item. However, it could be argued that additional parking reduces time taken to drive around and find a parking spot on busy days. This in turn could reduce vehicle traffic and opportunities for automobile accidents and injuries. Thus, the expansion of the parking lot could arguably be considered a health and safety project.

Despite such problems, we sampled the Service's $2.9 billion backlog of unfunded projects as of August 3, 1979, to estimate what portion of the projects were primarily to correct health and safety deficiencies. We defined these projects as those proposed to rehabilitate, replace, or upgrade water systems, sewage systems, roads, bridges, hotels, employee dormitories, or utility systems, as well as those to construct new restrooms to meet an existing need. Projects designed to preserve or restore historic structures and natural resources, construct exhibits, develop park or resource management plans, provide audiovisual entertainment, or construct new facilities were not generally considered to be health and safety projects.

We took a random sample of 123 projects with a total estimated cost of $75 million from the estimated total of 6,078 projects with estimated costs of $2.9 billion as of August 3, 1979. The table on the following page shows the number and estimated cost of proposed health and safety projects and other types of projects as a percent of the sample.

Analysis of a Sample of National Park Service Project Proposals

Type of project	Number of projects as a percent of sample	Estimated cost as a percent of sample
Health and safety	28	57
Other	72	43
Total	100	100

Using the results of the above sample, we estimated that of the total of $2.9 billion for all projects proposed by the Service, 57 percent, or $1.6 billion, was for health and safety projects. We said in our report that we realized this estimate had a broad confidence level due to (1) the small sample size, (2) the variability of the estimated costs of the project proposals in the sample, and (3) the inherent subjectivity in judging whether a project fell within our definition of a health and safety project. However, the purpose of developing an estimate of unfunded health and safety projects was not to obtain an exact figure but to show that the figure was large and that it would take the Service many years, given 1979-81 requested funding levels, to fund all health and safety projects, even if the Service's entire construction budget were devoted to these projects.

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UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WASHINGTON, D.C. 20240

February 9, 1982.
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HEALTH AND SAFETY PROJECTS

Definitions

Health and safety related project work in the National Park Service can be defined as project work intended to reduce or eliminate health or safety risks.

Health risks refer to dangers of contracting a disease or other physically debilitating conditions not related to an injury.

Health risks in park areas would include:

- Unsanitary drinking water.
- Unhygienic sewage systems, comfort stations, and any other visitor use facility determined to be unsanitary.
- Conceivably other unhygienic conditions such as air pollution, poisons, etc.

Safety risks basically refer to any danger of personal injury.

Safety risks in park areas would include any of a number of dangerous conditions involving:

- Structural Facilities Related Risks:
  Bridges and tunnels, visitor facilities, hotels, dormitories, residences, maintenance buildings, etc.
  (Fire hazards, structural related hazards, explosion, electrical hazards, etc.)
- Other Visitor Development Related Risks:
  Roads, trails, camping areas, marinas and docks, etc.
  (Danger of an automobile accident due to deteriorated roadway, shoulders, alignment, lighting, striping, guardrails, dangers of falling, becoming lost, drowning, etc.)
- Other dangerous conditions:
  (Such as falling rocks, walls, landslides, deteriorated electrical or gas systems, flashfloods, etc.)

To evaluate the seriousness of a potential health or safety hazard, there are several obvious standards for evaluation:

- Health and safety codes: Safe Drinking Water Acts, State and Federal standards, pollution control legislation, building codes, fire codes, highway codes, occupational health and safety codes.

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- Actual accident rates which verify dangerous conditions.

- Health and safety surveys and studies.

- Educated subjective evaluation that a potential danger exists (Although not necessarily supported by code citation or actual accidents)

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