

GAO

Report to the Honorable
Alan Cranston, U.S. Senate



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

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

B-235669

June 23, 1989

The Honorable Alan Cranston
United States Senate

Dear Senator Cranston:

This report responds to your request that we review the management of wildlife in the California Desert Conservation Area. It specifically addresses your questions concerning whether wildlife interests are being appropriately considered during the planning process for the area and the impact of federal management practices on wildlife conditions.

As agreed, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from the date of this letter. At that time, we will send copies to the Secretary of the Interior and interested Members of Congress, and make copies available to others upon request.

The work was performed under the direction of James Duffus III, Director. Other major contributors are listed in appendix III.

Sincerely yours,

A handwritten signature in cursive script that reads 'J. Dexter Peach'.

J. Dexter Peach
Assistant Comptroller General

Executive Summary

Purpose

The California Desert—a fragile resource that is easily scarred and slow to heal—is within a half day’s drive of Southern California’s 15 million people. As surrounding population pressures have increased, this resource has shown that it can no longer fully accommodate the competing demands made upon it. The goal of maintaining the health of the Desert and the hundreds of wildlife species that live in it conflicts with meeting the needs of off-highway vehicle users, miners, livestock grazers, and other desert users. Choices and trade-offs must be made.

In recognition of such inherent conflicts throughout the West, Senator Alan Cranston asked GAO to determine whether federal land management agencies are appropriately considering wildlife interests in their planning and resource management activities.

Background

The California Desert Conservation Area was established by the Federal Land Policy and Management Act of 1976 to provide the framework for the immediate and future protection of public lands in the California Desert. The 25-million-acre area represents one-fourth of California’s total acreage and is located within one of the country’s fastest growing regions. As such, the area supports a wide range of urban, industrial, agricultural, recreational, and military uses, in addition to providing diverse habitat for over 635 species of vertebrate wildlife and countless other species.

To help manage the conflicts inherent in such situations, the 1976 act required the Department of the Interior’s Bureau of Land Management (BLM) to prepare an overall land use plan for the California Desert that would incorporate the act’s principles of multiple use and sustained yield and protect the Desert’s unique and irreplaceable resources. After a 4-year effort costing \$8 million, BLM completed its plan in 1980. The plan set forth numerous principles to help guide BLM managers in their day-to-day efforts to balance the various demands on the area’s resources. Concerning wildlife, the plan states that “immediate management is required to protect unique and sensitive habitats; sensitive, rare, threatened and endangered species; and representatives of more common desert habitats and ecosystems and the fish and wildlife resources they support.”

Since 1980, BLM has worked to develop specific habitat management plans and area-of-critical-environmental-concern plans required to implement the wildlife protection goals established in the overall plan.

These implementing plans identified action items and associated milestones for completing them, as well as the monitoring necessary to measure progress. They also include estimates of the staff and financial resources required to complete the action items.

This report presents the results of GAO's work on BLM's wildlife management activities in the California Desert. GAO plans to issue a second report that will broadly assess wildlife management by BLM and the Department of Agriculture's U.S. Forest Service on public lands throughout the West at a later date. Because it focuses on wildlife, this report does not address the degree to which the objectives for other uses have been achieved.

Results in Brief

While BLM considered wildlife needs during its overall land use planning process for the California Desert, the wildlife protection objectives envisioned in the overall land use plan have not been achieved. More than 8 years after the plan was issued, nearly one-half of the required wildlife management implementation plans have not been developed. In addition, BLM's progress in implementing completed plans has been limited. Nearly half of the wildlife-related actions called for in the completed plans GAO reviewed have not been started and many others have been only partially completed. Actions not completed include many that are considered critical by BLM biologists.

This limited progress in planning and implementation has been caused by two primary factors. First, because of a budget shortfall affecting all aspects of BLM's management of the area, BLM has not had sufficient funding or staff to perform all the needed wildlife-related work. Second, both in GAO's view and the views of other agencies, BLM has frequently allowed the needs of competing interests, such as recreation and commercial use, to take precedence over wildlife interests when conflicts have arisen.

The limited amount of wildlife inventory and monitoring data makes it impossible to comprehensively assess the practical effects of BLM's performance on wildlife in the area. However, data available on several species including the desert tortoise—an important indicator species for the overall health of the area's habitat—indicate that the effects are not favorable. Desert tortoise numbers have decreased dramatically in recent years, and according to tortoise experts, the species may now be sliding irreversibly toward extinction.

Principal Findings

Shortfalls in Plan Development and Implementation

BLM considered wildlife needs in its overall land use planning process and reflected concern for wildlife in establishing management objectives for the area. However, it has not effectively translated this broad expression of concern into tangible wildlife protection efforts and achievements. After 8 years, nearly half of the wildlife-related implementation plans called for in the overall plan remain to be developed. Of the 28 plans required in areas of critical environmental concern, 9 were late and 3 have still not been developed. Further, 35 of 57 required habitat management plans have not been developed.

Even when plans have been developed, they have not always been effectively implemented. Most of the action items in issued BLM wildlife plans that GAO reviewed had been implemented either partially or not at all. Of the 349 action items in these plans, work on only 33 percent of the items had been completed, work on 21 percent had been partially completed, and work on 46 percent had not started. Monitoring the wildlife impacts of BLM actions, viewed by biologists as critical to plan success, has rarely been performed.

BLM Attention to Wildlife Interests Insufficient

Funding levels called for in the overall plan to facilitate development and implementation of wildlife plans have never been achieved. Between fiscal years 1982 and 1988, wildlife funding was less than half the levels the plan stated were required. Further, BLM has also not provided sufficient staff resources. With current staffing, each BLM biologist is responsible for wildlife-related work on an average of about 1.5 million acres. Funding shortages in the wildlife area reflected an overall shortfall affecting all aspects of plan implementation. Even if more funds were made available, however, BLM has not demonstrated the willingness to take actions necessary to protect wildlife interests. For example, it has permitted motorcycle races and established off-highway vehicle "free play" areas in important desert tortoise habitat, has allowed livestock grazing that is harmful to various species, and has frequently not placed sufficient restrictions on mining operations to reduce adverse effects on wildlife.

Key Species in Serious Decline

Although a scarcity of comprehensive wildlife inventory and monitoring data makes it impossible to determine the overall impact of BLM's performance, available data demonstrate that a number of species are declining. In particular, the desert tortoise is declining rapidly. Monitoring data show that tortoise populations have decreased 50 percent or more since 1979. As a result, some biologists believe the species will become extinct in some areas of the desert. BLM has nonetheless opposed California's efforts to give the species greater protection by listing it as a threatened species under the state's endangered species program.

Recommendations

GAO believes an important step toward demonstrating heightened commitment to protecting wildlife interests would be speedy completion of the remaining wildlife plans and increased efforts aimed at implementing planned action items. Accordingly, GAO recommends that BLM take those steps necessary to complete required wildlife management plans and then to effectively implement the action items contained in them.

Agency Comments

GAO discussed the findings in this report with BLM's California Desert District management and incorporated their views where appropriate. As requested, however, GAO did not obtain official BLM comments on this report.

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Abbreviations

ACEC	Areas of Critical Environmental Concern
BLM	Bureau of Land Management
CDCA	California Desert Conservation Area
FLPMA	Federal Land Policy and Management Act of 1976
GAO	U.S. General Accounting Office
HMP	Habitat Management Plan

Introduction

The California Desert Conservation Area (CDCA), a 25-million-acre area in southeastern California, comprises about 25 percent of the total land in the state. The area is given to such wide uses as national monuments, military bases, mines, cities and towns, and farms and rangeland. About one-half of the total area is public land managed by the Bureau of Land Management (BLM), an agency of the Department of the Interior. This land is subject to significant conflicts between conserving the wildlife habitat provided by the natural environment and competing demands for economic development and recreation.

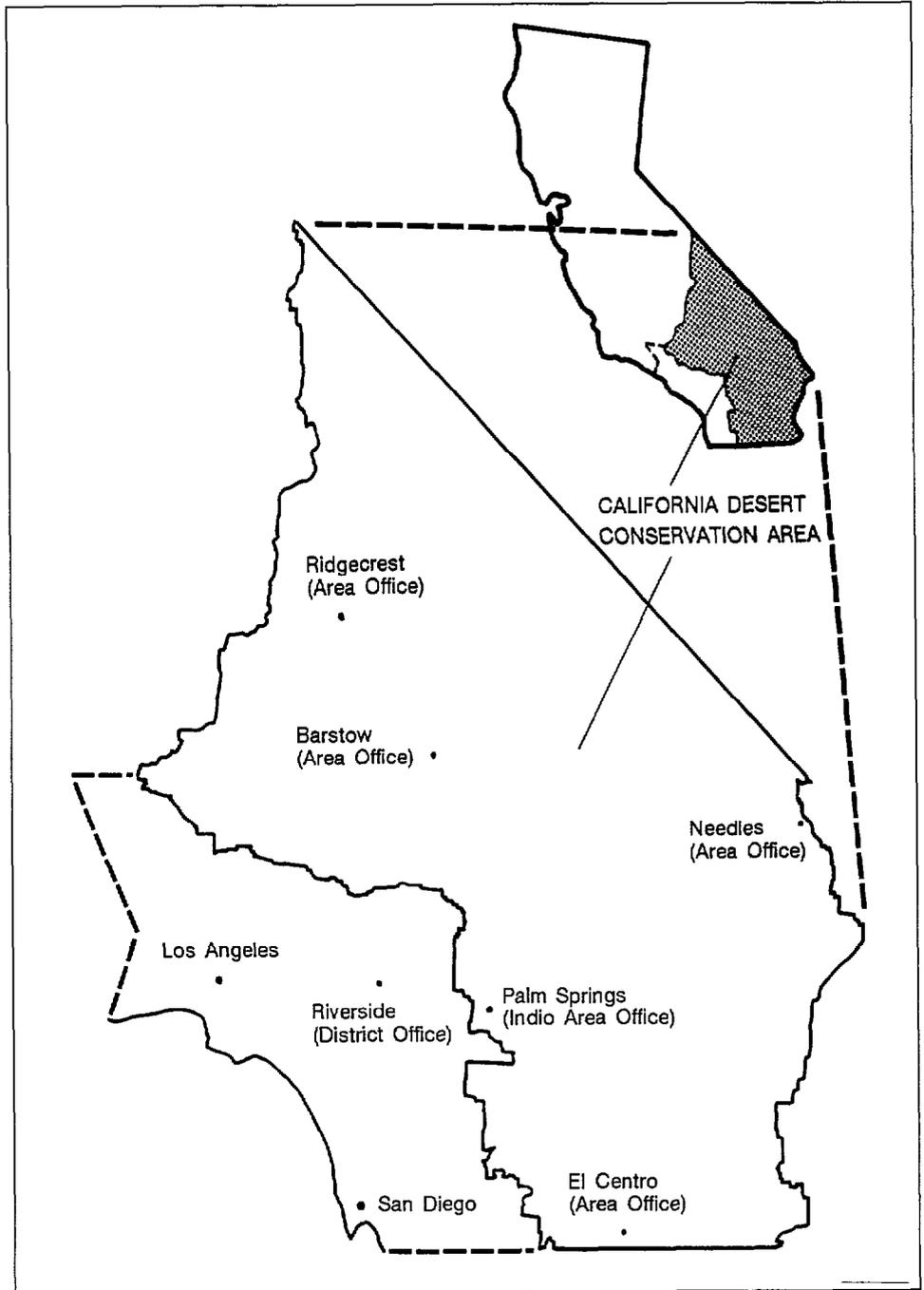
The Congress recognized these conflicts in the Federal Land Policy and Management Act of 1976 (FLPMA). The act directed BLM to prepare and implement a comprehensive, long-range land use plan for the management and protection of public lands within the CDCA.

Background

The CDCA is immediately adjacent to one of the largest and fastest growing population centers in the nation (see fig 1.1). It lies within a half-day drive of more than 15 million people. The evidence of human pressure on the CDCA can be seen in a variety of ways. It

- contains more than 100 communities, ranging from mining settlements to large resort centers like Palm Springs;
- contains seven major military bases and testing grounds, including Edwards Air Force Base, site of the space shuttle landings;
- contains mining operations for gold, silver, borates, rare earths, and other important minerals and is used extensively for grazing by cattle and sheep;
- is criss-crossed by 3,500 miles of high-capacity power transmission lines and 12,000 miles of oil and gas pipelines;
- contains more than 15,000 miles of paved and maintained roads, plus thousands more miles of roads and trails used for access or recreation by drivers of off-highway vehicles; and
- provides more than 16 million visitor-use days of recreation each year.

Figure 1.1: California Desert Conservation Area



The CDCA also supports over 635 species of vertebrate wildlife in a diversity of wildlife habitats. Wildlife includes such endangered, threatened,

or sensitive species as the Coachella Valley fringe-toed lizard, the desert tortoise, bald eagle, peregrine falcon, and desert bighorn sheep.¹ According to the 1980 CDCA Plan, “immediate management is required to protect unique and sensitive habitats; sensitive, rare, threatened and endangered species; and representatives of more common desert habitats and ecosystems and the fish and wildlife resources they support.” Appendix I contains a list of fish and wildlife species within the CDCA that have been listed by the federal government or the state of California as endangered or threatened or designated as sensitive by BLM.

BLM’s California Desert District office, located in Riverside, California, is responsible for managing the 12.1 million acres of public lands in the CDCA. The District implements this responsibility through its five CDCA Resource Area offices, located in El Centro, Barstow, Palm Springs, Needles, and Ridgecrest, California.

Congressional Direction for the CDCA

Section 601 of FLPMA, which contains the specific authorization for the CDCA, noted the pressures on the area. It said the California desert environment

- contains historical, scenic, archeological, environmental, biological, cultural, scientific, educational, recreational, and economic resources that are uniquely located adjacent to an area of large population;
- is a total ecosystem that is extremely fragile, easily scarred, and slowly healed; and
- is seriously threatened by air pollution, inadequate federal management authority, and pressures of increased use, particularly recreational use, because of the growing population of Southern California.

In recognition of these threats, FLPMA required BLM to prepare and implement a comprehensive land use plan for the California desert to take into account the principles of multiple use and sustained yield in providing for resource use and development and the maintenance of environmental quality. FLPMA defined multiple use as the management of public lands and their various resource values, such as fish and wildlife, range, recreation, and watershed, so that they are used in the combination that will best meet the present and future needs of the public. The term “sustained yield” means the achievement and maintenance in perpetuity of a

¹“Endangered” species are those determined to be currently in danger of extinction; “threatened” species are those not currently in such danger, but likely to become so within the foreseeable future; “sensitive” species are those that have not yet been listed as threatened or endangered but are undergoing a status review or have been proposed for listing.

high-level annual or regular periodic output of various renewable resources of public lands, consistent with multiple use.

BLM Development of the CDCA Comprehensive Plan

Following the enactment of FLPMA, BLM established a Desert Planning Staff, made up of BLM managers and field staff with various specialties, to begin the mandated planning effort. This effort lasted 4 years, cost \$8 million, and resulted in development of the CDCA Plan. The process used in developing the plan was lengthy and complex due to the large area covered by the plan, the large data gathering effort required, and the many resource issues and trade-offs that were considered. Throughout the process, the BLM planning staff sought public input and was advised by a 15-member CDCA Advisory Committee authorized by FLPMA and made up of members representing the various uses of the desert. The committee became the focal point for public involvement, which was sought in several different ways. For example, the CDCA Advisory Committee and BLM held a series of 15 forums inviting public participation on major issues to be covered in the plan. BLM also held a series of feedback meetings with the groups that provided information to it.

BLM issued 18,000 copies of the draft plan alternatives being considered and the draft environmental impact statement for public review. Subsequently, BLM sponsored four hearings and eight briefings with workshops and conducted a host of meetings with federal, state, and local agencies, organizations, and interest groups to discuss issues and gain input. BLM received nearly 9,000 separate inputs, totaling about 40,000 comments, which it analyzed and considered in developing the proposed plan. The proposed plan and final environmental impact statement were published on September 30, 1980, and distributed for public review. BLM then sponsored a series of 12 briefings and hearings on these documents from October 14 to October 22, 1980. The plan was revised in response to the public comments and was approved by the Secretary of the Interior on December 18, 1980.

The CDCA Plan contains elements that deal with the following types of use, many of which conflict with others to varying degrees: wildlife, cultural resources, Native American values, vegetation, wilderness, wild horses and burros, livestock grazing, recreation, motorized vehicle access, geology-energy-minerals, and energy production and utility corridors.

The CDCA Plan's wildlife element called for, among other things, developing and implementing protection and conservation plans for areas that

(1) contain rare or unique habitat, (2) are sensitive to conflicting uses, (3) are rich in wildlife abundance or diversity, or (4) are representative of good wildlife habitat. BLM addressed the needs of these areas primarily in two management planning tools provided in the CDCA Plan:

- Areas of Critical Environmental Concern (ACEC) Plans included “aggressive management actions to halt and reverse declining [wildlife population and habitat] trends and to ensure the long-term maintenance” of critical wildlife resources. The CDCA Plan listed the need for 28 wildlife-related ACECs. For example, the 1986 Clark Mountain ACEC plan was written and was to be implemented cooperatively by the California Department of Fish and Game and BLM. The plan is designed to provide special management attention to the Clark Mountain Range area, which contains outstanding natural and cultural resources. This ACEC contains one of the richest wildlife habitat areas in the CDCA, including bighorn sheep and diverse bird and reptile populations.
- Habitat Management Plans (HMPS) were prepared for the protection and enhancement of wildlife habitats or species requiring intensive, active management. The CDCA Plan identified the need for 57 HMPS. For example, the 1989 Chuckwalla Mountains Native Ungulate HMP was a cooperative plan written by the California Department of Fish and Game and BLM. The HMP defined the area’s Mountain Sheep Management Unit located in Eastern Riverside County. The plan set goals, objectives, prescriptions, and monitoring/evaluation strategies. The HMP was designed to guide the conservation and management of bighorn sheep and burro deer and their habitats on about 296,000 acres, of which BLM administers nearly 90 percent.

Both types of plans were to include a schedule of actions to achieve the wildlife protection and enhancement objectives they contain.

Objectives, Scope, and Methodology

In a letter dated October 20, 1987, Senator Alan Cranston of California asked GAO to examine the efforts of two federal agencies in protecting and enhancing wildlife on public lands. More specifically, he asked GAO to determine

- whether the congressional mandate to protect wildlife as one of the land’s multiple uses is appropriately considered in the agencies’ planning processes and
- what impact current federal policies and practices are having on the overall condition of wildlife on public lands.

As agreed with the requester, our review addressed a number of geographic locations, mostly in the western states, managed by BLM and the U.S. Department of Agriculture's Forest Service. As further agreed, we are reporting our findings on BLM's efforts in the CDCA before completing our work at other locations. This report presents the results of that review. We will report later on the results of our overall review.

To address the first question—whether the congressional mandate to protect wildlife is appropriately considered in BLM's planning process—we reviewed laws that address multiple-use mandates on the public lands. Such legislation included FLPMA, the Public Rangelands Improvement Act of 1978, the Taylor Grazing Act of 1934, and the Mining Law of 1872. More specifically, to determine the extent to which wildlife have been considered in BLM's CDCA planning, we reviewed BLM regulations, policies, and plans that directly or indirectly relate to wildlife management in the CDCA. Planning documents we reviewed in detail with emphasis on wildlife-related management activities include the

- 1980 CDCA Plan;
- 1980-84 CDCA Plan progress report;
- 1981-87 CDCA Plan Amendments; and
- other species-specific plans, such as the BLM Desert Tortoise Rangeland Plan and the California Desert Tortoise Workgroup Recommendations for Management of the Desert Tortoise.

To address the second question—what impact do current federal policies and practices have on the overall condition of CDCA wildlife—we discussed the issue, including the quality and effectiveness of HMPS, ACEC plans, and other plans, with a variety of BLM, state of California, and interest groups' representatives, including

- the BLM-California State Office Wildlife Biologist;
- the BLM California Desert District Assistant Manager for Lands and Renewable Resources and the District's Wildlife Biologist at the BLM District Office in Riverside, California;
- BLM land managers, including Wildlife Biologists, Resource Area Managers, and Range Conservationists, in the District's five resource areas (Barstow, El Centro, Indio, Needles, and Ridgecrest, California);
- California Department of Fish and Game officials; and
- officials of various interest groups including the Sierra Club, Defenders of Wildlife, Desert Tortoise Preserve Committee, Bighorn Institute, Desert Protective Council, Inc., and the California Desert Coalition (an

umbrella organization representing numerous desert user groups including off-highway vehicle recreationists, miners, and livestock grazers).

To obtain site-specific evidence on this question, we presented a listing of all wildlife-related ACEC plans and HMPs to BLM managers responsible for the California Desert District. We asked them to identify any number of completed plans that they viewed as representative of the wildlife planning and implementation process in the CDCA. On the basis of their guidance and our further work at the five resource area offices, we selected 22 ACEC plans and HMPs for detailed review. We also reviewed a number of plans dealing with BLM's management of grazing, mining, and recreation in the CDCA.

We discussed our findings with BLM's California Desert District management and have incorporated their views in this report where appropriate. As requested, however, we did not obtain official agency comments on this report.

Our review was performed between December 1988 and May 1989 in accordance with generally accepted government auditing standards.

BLM's Development and Implementation of Wildlife Plans Fall Short of Expectations

BLM's efforts to implement the wildlife-related objectives of the 1980 CDCA Plan have not met expectations. Although BLM managers gave formal consideration to wildlife factors in the CDCA planning process, BLM has not done a good job of developing and implementing the actions necessary to achieve wildlife protection and enhancement objectives. Moreover, it has not sufficiently monitored the results of its activities on wildlife so that timely corrective action could be taken. As a result, BLM can provide no assurance that its most basic wildlife mandate—protection and enhancement of wildlife species and their habitat—has been achieved. Specifically, we found that

- many wildlife enhancement and protection plans called for in the 1980 CDCA Plan were produced years late or have not been produced at all and
- work has not begun on almost half of the action items in the 22 completed plans we reviewed, and work was only partially completed on another fifth of the items.

Required Plans Not Completed

BLM considered wildlife needs in preparing the overall CDCA Plan. It obtained and weighed many wildlife-related comments in arriving at wildlife protection goals and principles set forth in the final plan. The final CDCA Plan also set forth the requirement to produce and implement a large number of specific wildlife protection implementation plans.

Our work has shown, however, that while wildlife needs were considered in the planning process, such consideration has not been translated into effective action. BLM has not produced the number of wildlife enhancement and protection plans called for in the 1980 CDCA Plan. The CDCA Plan called for completing 28 ACEC wildlife plans within 2 years (or by 1982) and for completing 55 HMPS within 7 years (or by 1987). With regard to these goals, we found the following:

- Nine of the 28 ACEC plans were not completed until between 3 and 8 years after the CDCA Plan was adopted and, as of March 1989, 3 still had not been completed.
- Thirty-three of the 55 HMPS scheduled for completion during or before 1987 had not been completed as of March 1989. The CDCA Plan also called for two additional HMPS to be completed within 7 to 10 years. As of March 1989, these plans had also not been completed.

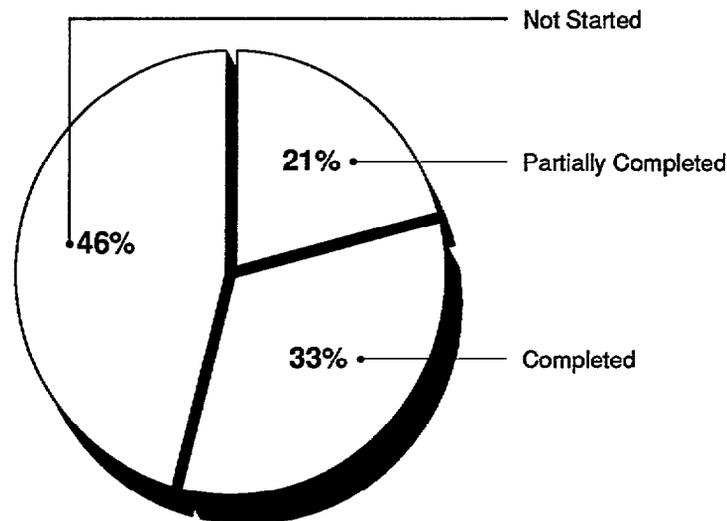
Annual amendments to the CDCA Plan after 1980 added to this backlog of uncompleted wildlife plans. These plan amendments called for preparation of an additional five ACEC plans and four HMPS. Of these additional

plans, only one ACEC plan and none of the HMPS had been completed as of March 1989.

Action Items in Completed Wildlife Plans Largely Not Implemented

Even when plans have been completed, many of the action items called for have not been implemented. We reviewed 22 wildlife-related plans that were completed between 1980 and 1989. These plans called for a total of 349 goals, objectives, and action items that were stated in varying degrees of specificity. Figure 2.1 shows the disposition of these items as determined by our discussions with biologists and land managers and our review of available documentation. As the figure shows, 115 of the items (33 percent) were completed. The remaining 67 percent were either partially completed (21 percent) or had not been started at all (46 percent). BLM staff told us that the items not completed involved many of the most critically important tasks, such as monitoring to determine whether wildlife plans have achieved their basic objectives.

Figure 2.1: Disposition of Action Items in Wildlife Plans Reviewed



A few of the wildlife plans we reviewed had been largely implemented. In these instances, BLM staff had complied with specifically stated objectives and had followed up to ensure compliance. BLM district management said that in addition to these successful implementations, important habitat had been protected through other habitat protection efforts outside the scope of ACEC plans and HMPS. For example, they stated that as a result of the CDCA burro management program, which

has removed and adopted out about 20,000 burros since the CDCA Plan was issued, some significant habitat has been protected. In addition, they stated that route designations for off-highway vehicles and the increased number of rangers patrolling the CDCA have helped direct these vehicles away from wildlife habitat areas. The staff generally cited a combination of reasons for effective implementation, including (1) lack of significant conflicts with other agency programs; (2) management support for plan objectives; (3) cooperation and coordination with other groups, such as the California Department of Fish and Game, The Nature Conservancy, and local interest groups; and (4) hard work by BLM staff at the project level.

One example of successful implementation is the Coachella Valley Preserve System Management Plan. The plan specifies how a system of three preserves totaling almost 16,000 acres will be managed to protect various rare species, including the Coachella Valley fringe-toed lizard, which has been listed as threatened by the federal government. The plan called for land acquisitions to protect habitat. Through a combination of land exchanges, purchases using the Federal Land and Water Conservation Fund, private donations, and a \$600-an-acre fee paid by local developers to mitigate development on nearby fringe-toed lizard habitat, the necessary land has been acquired. The preserve system is owned and managed jointly by BLM, The Nature Conservancy, Interior's Fish and Wildlife Service, and the California Department of Fish and Game. A full-time manager employed by The Nature Conservancy lives at the site, and a BLM ranger provides law enforcement. Long-term management of the area is to be funded from a trust fund established with the developer's mitigation fees and appropriations.

More commonly, however, we found that actions called for in wildlife-related plans had not been effectively implemented. For example:

- The Jawbone-Butterbrecht ACEC and the Sierra-Mojave-Tehachapi Ecotone HMP, completed in 1982, were established to protect and enhance wildlife in an area that supports 343 species of animals, including the Mohave ground squirrel (listed by the state of California as a threatened species), golden eagles, and three species of quail. We reviewed the 15 planned action items for wildlife in the plan and found that 3 were completed, 5 were partially completed, and 7 had not been acted on. Planned items not completed included (1) properly identifying approved routes of travel for vehicles, (2) monitoring two off-highway vehicle "free-play areas," and (3) conducting studies to evaluate the reintroduction of bighorn sheep and to determine the density of Mohave ground squirrels in

the area. BLM staff believed these tasks were important to successful wildlife management.

- The New York Mountain ACEC/Castle Peak HMP, issued in April 1986, states that the area is one of the “jewels” of the East Mojave National Scenic Area because of its diverse vegetation and wildlife habitats. Some of the plans’s basic objectives were to minimize resource damage from various uses and conserve and enhance wildlife habitat for such species as gray vireos (a bird), red-tailed hawks, and desert bighorn sheep. We reviewed the 12 planned action items aimed at wildlife protection and found that 3 were completed, 3 were partially completed, and 6 had not been acted on. Planned items not completed but considered highly significant by BLM staff included (1) developing a plan for controlling fires in the area (as a result, planned habitat improvements resulting from prescribed burns had not been made), (2) installing big-game water development projects, (3) conducting wildlife inventories, and (4) performing required monitoring.
- The Orocochia Mountains HMP, established in January 1986, addressed various wildlife factors affecting bighorn sheep and burro deer populations of the Orocochia Mountains. The plan’s objectives were to improve habitat quality and to identify, monitor, and improve the status and trends of both species. We reviewed the 14 planned action items aimed at wildlife enhancement and found that 2 were completed, 3 were partially completed, and 9 had not been acted on. Most important, the plan called for increasing the number of bighorn sheep, but because action had not been taken to improve degraded habitat, the herd populations were still at pre-plan levels.

An element commonly missing from the implementation of most of the wildlife plans we reviewed was systematic monitoring designed to tell managers how well plans are being implemented, their impact on wildlife, and whether changes should be made. Nearly all of the more than a dozen land managers we interviewed stated that monitoring is the most essential element of any wildlife plan but that such work was rarely, if ever, performed. They said monitoring is consistently assigned a low priority by BLM and is often delayed indefinitely.

One example of the effects of the lack of monitoring involves the desert tortoise population in the Chuckwalla Bench ACEC. The field biologist for this area said the tortoise population, while not monitored, had been considered to be a healthy one. Another BLM biologist characterized the desert tortoise habitat in the ACEC as “the best of the best and in an area with (relatively) little disturbance.” Monitoring of the area was delayed for a number of years. When a study was completed in 1988, it found

that the population had declined over a 6-year period by about 50 to 70 percent. According to BLM staff, some of the factors that may have contributed to the decline included disease, use of off-highway vehicles, vandalism, and an adjacent military gunnery range. The field biologist said that if monitoring had been consistently performed as intended by the ACEC plan, BLM would have had an early warning of the drop in population and probably would have been in a position to identify the causes and take corrective action. As it was, corrective action, such as increasing ranger patrols to reduce off-highway vehicle misuse and vandalism, has been delayed for so long that BLM and California Fish and Game Department biologists believe it may not be effective.

BLM's Attention to Wildlife Interests Not Sufficient to Accomplish CDCA Plan Objectives

The weaknesses in BLM's efforts to achieve the wildlife-related objectives set forth in the CDCA Plan stem from two main causes—funding shortfalls and BLM's orientation to recreational and economic interests when these interests conflict with those of wildlife or resource protection. Since the inception of the 1980 CDCA Plan, BLM's funding and staffing for the CDCA have been considerably less than the amounts projected as necessary to implement the plan. The CDCA Plan called for total expenditures of about \$130 million during fiscal years 1982 through 1988, but BLM has expended only about 40 percent of this amount. Wildlife objectives in the CDCA have also been adversely affected by land use decisions that favor such competing uses as off-highway vehicles, grazing, and mining. A scarcity of comprehensive species monitoring data makes it impossible to broadly assess the impacts of these problems on wildlife in general. However, available data suggest that a number of wildlife species are experiencing serious declines.

Funding and Staffing Not Sufficient to Meet Plan Objectives

The CDCA Plan called for substantial funding increases over pre-plan expenditures in the CDCA to implement the plan's objectives. It called for increasing funding of \$6.5 million in fiscal year 1981 to \$11.1 million in fiscal year 1982 and ultimately to an average of \$23 million a year during fiscal years 1986-90. In transmitting the plan to the Director of BLM and the Department of the Interior for approval, BLM's California State Director stated,

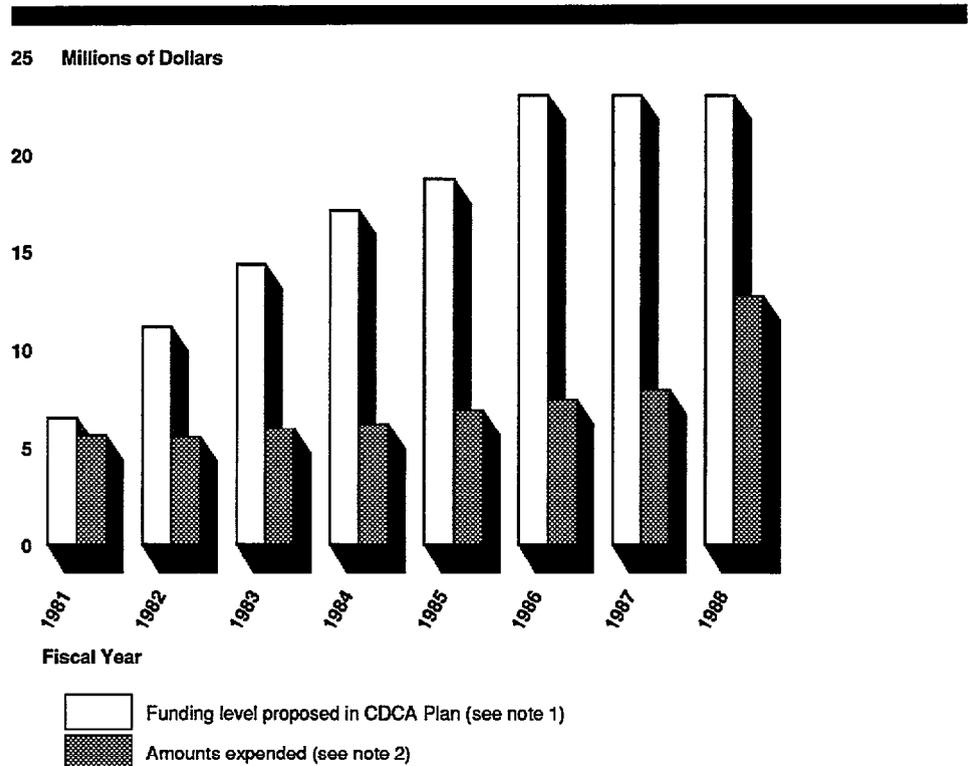
"If funding for CDCA is not given high priority commencing in fiscal year 1982, BLM will not be able to maintain credibility with the interest groups who expect both protection and management of the Desert's resources and adequate services to public land users."

According to the plan, if BLM received the level of funding described, most actions would be fully implemented by 1990.

The funding levels called for in the CDCA Plan have never been achieved. Figure 3.1 compares the funding levels proposed in the CDCA Plan with BLM's reported actual expenditures for fiscal years 1981-88. In fiscal year 1981, before the planned increase in funding was to take effect, reported expenditures totaled about \$5.6 million, or 86 percent of the planned funding level. Since fiscal year 1982, however, reported expenditures have been between 32 and 55 percent of the amount called for in the plan. In total, expenditures for fiscal years 1982-88 were about \$53 million, or 40 percent of the funding level proposed in the

CDCA Plan. Plan objectives dealing with wildlife and other interests bore a roughly proportionate share of the overall funding shortfall.

Figure 3.1: Proposed Funding Levels and Actual Expenditures for the CDCA Plan
 (Fiscal Years 1981-88)



Note 1: The plan proposed \$115 million in funding for fiscal years 1986-90. This figure reflects an assumption that the amount will be distributed equally for each of those years

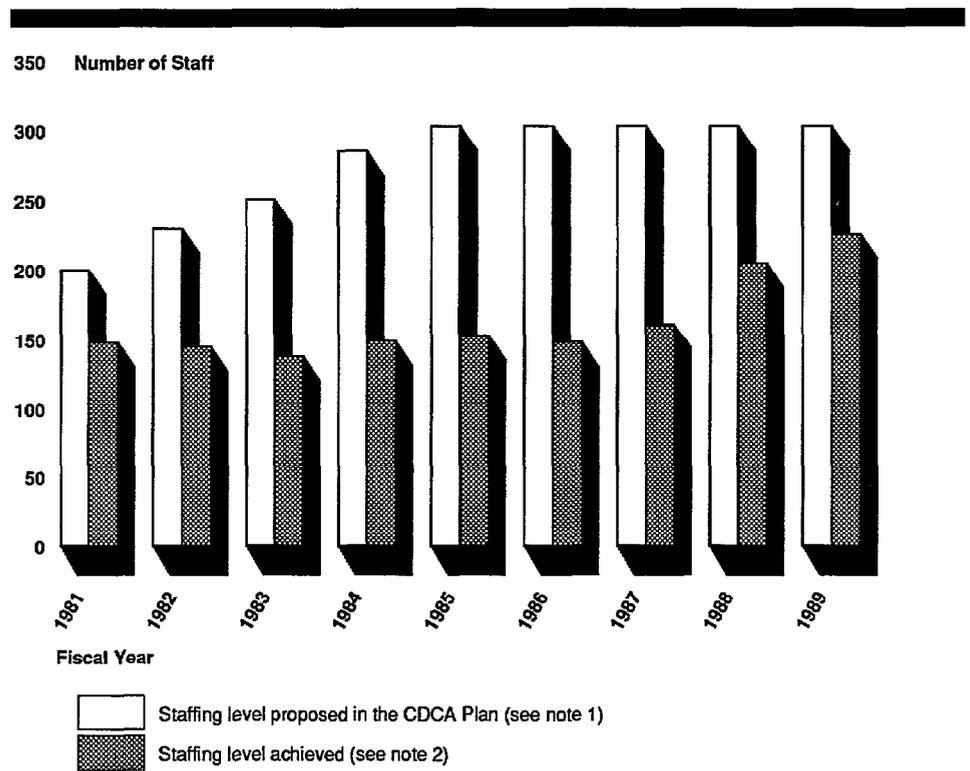
Note 2: Includes amounts listed in BLM appropriation accounts and other funds received from reimbursements, contributions, revolving funds, service charges, and trust funds.

In its 1987 report to the Congress on the CDCA, BLM acknowledged that because of tight budgetary constraints and other program needs, funding has not attained the level recommended to implement the plan. The report said that, as a result, only the highest priority programs have been implemented and that many other important projects and activities have been severely limited; thus, implementation has taken place at a slower pace than planned. We have no basis to question BLM's assertion that it is applying limited funds to its highest priority tasks. In our view, however, the application of available funds is not the key issue. What is most important is that BLM funding shortfalls are so severe that even highly significant tasks cannot be performed.

Chapter 3
BLM's Attention to Wildlife Interests Not
Sufficient to Accomplish CDCA
Plan Objectives

The shortfall in resources is also reflected in the CDCA's staffing levels. As figure 3.2 shows, overall staffing levels have fallen significantly behind the levels proposed in the plan. The plan called for increasing the staff from 200 in fiscal year 1981 to 303 by fiscal year 1985. In fiscal year 1985, however, BLM expended the equivalent of only 153 staff years, or 50 percent of what had been proposed. Since that time the staffing level rose to 226 in fiscal year 1989, or 75 percent of the number called for in the plan.

Figure 3.2: Proposed and Actual Staffing Levels in the CDCA Plan (Fiscal Years 1981-89)



Note 1: The plan shows the number of permanent and seasonal positions increasing yearly through 1985. This figure assumes the number would remain level after that as the staff switches from planning to operation and maintenance responsibilities.

Note 2: Staffing levels achieved are based on work months extended. The 1989 level is a target as of December 31, 1988.

The overall staffing shortfall is mirrored in the staffing levels for wildlife biologists primarily responsible for developing and implementing HMPs and ACEC plans. The CDCA Plan did not specify the total number of biologists that were needed. However, BLM California Desert District and

resource area managers told us that a minimum of 13 biologists were needed to handle the assigned workload: 3 in the district office, and 2 in each of 5 resource area offices. The district has never had this minimum number. It had seven wildlife biologists in 1981, and the number remained at or below this level until 1989. As of March 1989, the district had eight biologists and three additional unfilled biologist positions. Three of the eight biologists were assigned to the district office to provide expertise on the desert tortoise and overall management of the desert program; one biologist was assigned to each of the district's five resource areas. BLM district managers told us that their staff biologists' large workload has resulted in slower completion of wildlife plans than anticipated in the CDCA Plan and in reduced ability to properly implement and monitor existing plans. We calculated that with 12.1 million acres managed by BLM in the CDCA, each of the eight biologists on average is responsible for wildlife-related work on roughly 1.5 million acres.

BLM district management told us that the staff shortage is made worse because biologists are not able to concentrate their attention on proactive wildlife enhancement activities. Instead, they said biologists are frequently diverted to reactive duties associated with reviewing and commenting on the wildlife impacts of mining, grazing, recreation, and other resource plans. They also told us that more than 70 percent of biologists' time is spent on these other duties. They said biologists must frequently emphasize nonwildlife plans because many of them have shorter response deadlines than do wildlife plans.

Commodity and Recreation Interests Often Take Precedence Over Wildlife Protection

The wide range of uses of the CDCA causes conflicts between the protection of wildlife habitat provided by the natural environment and the accommodation of human demands on that same resource. One of the goals of the wildlife element of the CDCA Plan is to avoid or mitigate the effects of other uses on wildlife populations and habitats. Our review of how such conflicts are resolved showed that in a few areas of the CDCA where BLM management emphasized wildlife needs (such as the Coachella Valley Preserve), conflicts were resolved to protect wildlife interests. For many other areas of the CDCA, however, conflicts are resolved in favor of consumptive interests either without any mitigation of wildlife impacts or with mitigation measures that insufficiently protect wildlife. As we have discussed in several other reports and testimonies,¹ such an approach is not unique to the CDCA in that BLM is often

¹See the end of this report for a list of reports and testimonies.

more concerned with the immediate needs of special interest groups than with ensuring the long-term viability of the resources.

Based on some of the cases we reviewed and our discussions with BLM land managers, state Fish and Game Department officials, and conservationists, we found that the nature of some conflicts makes it extremely difficult, if not impossible, to balance competing demands. Thus, BLM must choose one use over another. For many areas of the CDCA, BLM has chosen to favor consumptive interests at the expense of wildlife interests. Three examples follow:

- BLM designated large areas in Johnson Valley and Stoddard Valley as “free-play” areas for off-highway vehicles, despite its recognition that the areas provide important habitat for the desert tortoise and other species, such as the golden eagle and the prairie falcon. The final environmental impact statement for the plan stated that motorized vehicle activity would have serious and long-lasting impacts on these species and their habitats. It said that declines in the numbers of desert tortoises could exceed 50 percent of the population per year, resulting in tortoise numbers dropping to levels below the threshold of recovery within 5 years in heavily used areas. BLM said it decided to designate the areas for motorized free-play use because they were good areas for this purpose and had been heavily used in the past.
- A resource area biologist who reviews many plans for mining operations said he believes the Mining Law of 1872 (30 U.S.C. 22 *et seq.*) is probably the single biggest obstacle to preserving wildlife habitat in the California Desert. He said that, as interpreted by BLM, the law essentially prohibits BLM from imposing practices that threaten the economic viability of proposed mining projects. Accordingly, he said that BLM rejects any recommendations he makes that require substantial changes to mining plans. For example, he said that BLM routinely rejected his suggestions to disapprove mining plans, require more effective practices to protect wildlife during mining operations, or require miners to purchase wildlife habitat to replace that being affected by mining.
- In 1982 BLM amended the CDCA Plan by reestablishing a motorcycle race from Barstow, California, to Las Vegas, Nevada. The California Department of Fish and Game protested this decision, stating that the race would cause serious damage to desert tortoise habitat and significant adverse impacts on many other species, including bighorn sheep, birds of prey, and burrowing mammals. BLM had cancelled this race in 1975 because of its adverse impacts on the desert's resources. However, BLM reversed this decision because it believed that better controls over the race would reduce the adverse effects. BLM officials also told us that the

race had been run without BLM approval from 1975 to 1982 and that they believed they could better control the environmental damage if the race was an approved event.

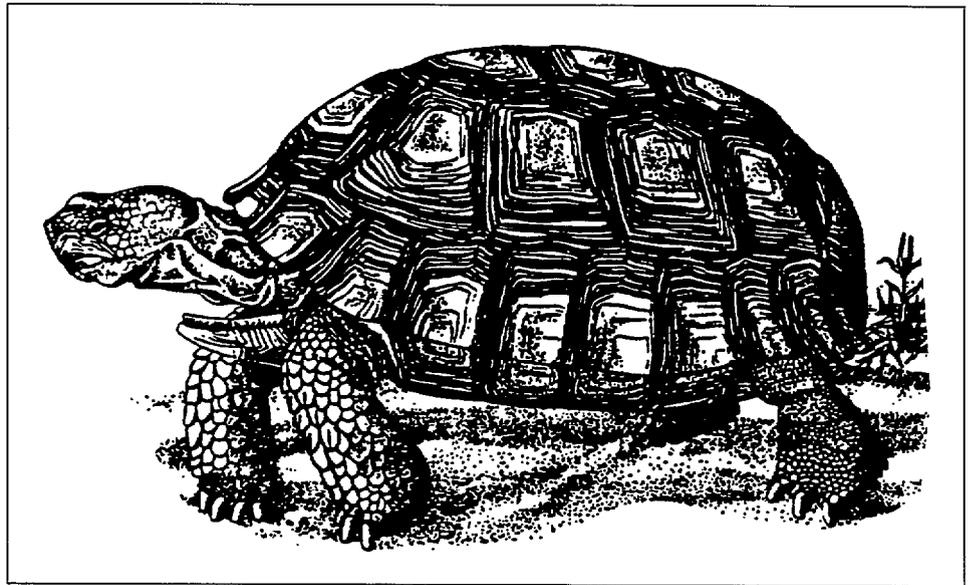
At other times, BLM attempted to accommodate consumptive interests while still protecting wildlife through various mitigation measures. The protection measures taken, however, usually provided only partial protection to wildlife interests. For example, BLM has attempted to reduce the effect of some mining operations on wildlife by requiring various mitigation measures, including confining mining access to a single road or trail; requiring that mine vehicle speeds not exceed 20 miles per hour to reduce wildlife mortality; and where tortoise or fox burrows would otherwise be destroyed, requiring their excavation by hand tools under direct supervision of a field biologist approved by BLM and their subsequent release. According to BLM and California Department of Fish and Game biologists, these actions are helpful but only partially mitigate the disturbance mining causes to wildlife and its habitat.

BLM biologists and officials of other agencies and conservation groups pointed out that protecting wildlife habitat may often be in direct conflict with other land uses. As one official of the California Department of Fish and Game told us, "There are times when the needs of wildlife have to be considered first and you can't compromise with other uses, but BLM seems unwilling to do that."

Status of Desert Tortoise and Other Species Indicates Wildlife Protection and Enhancement Not Being Achieved

Comprehensive data on current populations and population trends for the hundreds of wildlife species living in the CDCA are not available. Accordingly, it is impossible to broadly assess the practical effects of BLM's performance on wildlife protection in the CDCA. There are indications, however, that the wildlife protection envisioned in the overall CDCA Plan has not been achieved. Extensive data on one key species—the desert tortoise—and more limited data on several other species indicate that wildlife in the CDCA is not faring well.

Figure 3.3: Desert Tortoise



Desert Tortoise Populations Declining Rapidly

The desert tortoise is the California State reptile and is viewed by some biologists as an important indicator species for the overall health of the CDCA habitat. Despite its importance, however, the tortoise population in the CDCA is not being protected or enhanced but is instead declining rapidly.² BLM monitors the status of tortoise populations at 15 study sites in the CDCA. The monitoring shows that tortoise numbers have declined by about 50 percent in the Desert Tortoise Natural Area since 1979. In the western Mojave Desert, overall population totals have declined 50 to 60 percent during this period. Declines of 50 to 70 percent in tortoise numbers have been experienced in the Chuckwalla Bench ACEC between 1982 and 1988. Biologists attribute the decline to a variety of factors, including livestock grazing, off-highway vehicle use, urban and agricultural development, transportation- and energy-related corridors, disease, collection for pets, vandalism, shooting, and predation of young tortoises by ravens. Some of these factors directly injure or kill the tortoises while others adversely affect their habitat.

While many different factors have affected tortoise populations in particular locations or at particular times, tortoise experts said that one generalized problem they believe has had severe impacts on tortoise survival is grazing by cattle and domestic sheep. Sheep graze the CDCA at

²Other desert tortoise populations are located in Utah, Nevada, and Arizona, as well as Mexico.

the same time tortoises are emerging from prolonged winter inactivity, and the sheep consume and trample many of the same annual plants eaten by tortoises. This reduces the supply and types of forage available for the tortoise. One study showed that sheep took 60 percent of the biomass of annual plants growing under creosote bushes after 1 day of grazing and reduced it from 75 to 90 percent after a second grazing. Sheep also reduced the density of annual plants by 24 to 28 percent in remaining areas, probably from trampling. Similarly, in a 1987 study of the Beaver Dam Slope of Utah, the recent high death rate in tortoises was attributed primarily to a prolonged decline of nutrient availability in an area subject to both cattle and sheep grazing. Sheep also trample and overturn juvenile tortoises and crush their burrows, according to records from permanent BLM tortoise study plots in the western Mojave Desert.

Because of severe declines in desert tortoise numbers in the CDCA, the tortoise is being considered for both federal and state listing as a threatened species. The federal government determined in 1985 that the tortoise in the CDCA, Arizona, and Nevada warranted federal listing, but the action was precluded by limited funds and higher priority species. The California Fish and Game Commission is reviewing a petition submitted by the Desert Tortoise Council to place the desert tortoise on the state's list of threatened species.

In a recommendation to BLM's California State Director dated January 20, 1989, the BLM California Desert District Manager stated that he concurred with the State Director's suggestion to neither support nor object to the listing. He also commented that he found the supporting documentation for the listing to be generally sound. However, less than 2 weeks later on February 1, 1989, the BLM State Director informed the California Fish and Game Commission that he would prefer that their listing action be tabled for 2 to 4 years until new BLM initiatives to enhance desert tortoise populations and habitats can be evaluated. The State Director believed that by listing the tortoise at that time, the Commission would be disregarding significant future planning initiatives by BLM and other state and federal agencies to allow no further net loss in quantity or quality of important tortoise habitat on public lands. He also thought the listing might dampen support from many of the land users. In addition, on February 23, 1989, the BLM District Manager issued interim directives for managing tortoise habitat. The interim directives provide guidance to resource area managers until several HMPS being developed for this species become available.

On February 3, 1989, the State Fish and Game Commission decided to postpone a decision on listing the desert tortoise until its meeting on June 29-30, 1989. The co-chairman of the Desert Tortoise Council, who is also the California Department of Fish and Game expert on the species, said that a failure to obtain such state listing will severely impede, if not prevent, the recovery of the species. He said that unless it is listed in the near future, the department will be unable to implement 23 of the 47 items in "Recommendations for Management of the Desert Tortoise," a joint program of BLM and the California Department of Fish and Game, in time to allow recovery. He also said that state listing would provide legal authority and sources of funding needed for recovery programs.

Many of the state and BLM biologists and conservationists we spoke with believe that BLM's recommendation to postpone state listing of the desert tortoise appears to be little more than a tactic by BLM to appease consumptive users of the tortoise habitat whose activities could be subject to increased control if the tortoise is listed. These biologists and conservationists also believe such a delay could threaten the dwindling tortoise population in the CDCA with extinction.

BLM's failure to implement a rangewide habitat plan for the tortoise, which was listed as a BLM "sensitive" species in the 1980 CDCA Plan, 8 years after the plan's implementation, casts serious doubts that anything significant will be accomplished for the species' survival by a further 2- to 4-year delay to await BLM action.

Other Species Also Adversely Affected

While not the subject of monitoring comparable to the desert tortoise, several other species are experiencing declines that suggest BLM's wildlife management performance has been ineffective. For example, according to a 1985 BLM report, the Mohave ground squirrel's habitat was declining due to livestock grazing, off-highway vehicle use, mining, and other surface disturbing activities. No data have been collected since then to determine whether the downward trend is continuing. However, California has listed the species as threatened under its endangered species program.

In another case involving the Inyo brown towhee (a bird), BLM reported in 1985 that its habitat was in decline because of problems involving wild burros and water diversions by miners. While BLM has taken some protective action, the species is still in decline. It has been recently listed as a threatened species under the federal endangered species program.

Similarly, from the time of CDCA Plan implementation to date, a population of Peninsular bighorn sheep in the Santa Rosa Mountains has declined by about 50 percent.

Conclusions and Recommendations

Under tight fiscal constraints, one must look to the principal steward of the land to effectively balance the protection of wildlife and other competing demands inherent in the multiple use concept. Fundamental lasting improvement in BLM's wildlife protection and enhancement efforts in the California Desert probably cannot occur until BLM provides the funding and staffing called for in the CDCA Plan, and makes the institutional commitment to focus more on the long-term health of the land than on the immediate needs of special interest groups. We believe an important step toward demonstrating heightened commitment to protecting wildlife interests would be speedy completion of the remaining wildlife plans and increased efforts aimed at implementing planned action items.

Accordingly, we recommend that the Secretary of the Interior direct the Director, BLM, to take those steps necessary to complete required wildlife ACEC plans and HMPS and then implement the action items contained in them.

Threatened, Endangered, or Sensitive Fish and Wildlife Species of the CDCA

Federally Listed Species

Aleutian Canada goose
Amargosa vole¹
Bald eagle¹
Brown pelican¹
Coachella Valley fringe-toed lizard¹
Desert pupfish¹
Desert slender salamander¹
Inyo brown towhee¹
Least bell's vireo¹
Mohave chub¹
Peregrine falcon¹
Yuma clapper rail¹

State Listed Species

Black toad
California bighorn sheep
California black rail
California yellow-billed cuckoo
Elf owl
Gilded northern flicker
Magic gecko
Mohave ground squirrel
Peninsular bighorn sheep
Tehachapi slender salamander

BLM Sensitive Species

Amargosa River pupfish
Banded gila monster
Desert bighorn sheep
Desert tortoise
Flat-tailed horned lizard
Inyo Mountains salamander
Nevada speckled dace
San Sebastian leopard frog
Shoshone Cave whip-scorpion

¹Also state-listed.

Wildlife ACEC Plans, Habitat Management Plans, and Other Resource Plans Reviewed by GAO

Plan

Algodones Dunes HMP
Amargosa Canyon Natural Area ACEC Plan
Big Morongo Canyon ACEC Plan
Chuckwalla Bench ACEC Plan
Chuckwalla Mountains Native Ungulate HMP
Clark Mountain ACEC and Clark Range HMP
Coachella Valley Preserve System HMP
Corn Springs ACEC Plan
Desert Tortoise Research Natural Area ACEC Plan
East Mojave National Scenic Area Management Plan
Grimshaw Lake Natural Area ACEC Plan
Jawbone-Butterbrecht ACEC Plan and Sierra-Mojave-Tehachapi Ecotone HMP
Milpitas Wash Wildlife HMP
New York Mountain ACEC Plan and New York/Castle Peak HMP
Orocopia Mountains HMP
Piute Creek ACEC Plan
Saline Valley ACEC Plan and Saline Valley Marsh HMP
San Sebastian Marsh ACEC Plan and San Felipe Creek HMP
Santa Rosa Mountains HMP
Shoshone Cave (Whip-Scorpion) HMP
Soda Springs ACEC Plan
Yuha Desert HMP

Other Site-Specific Resource Plans Reviewed by GAO to Determine Wildlife Considerations

Colton Hills Allotment Management Plan
Darwin Allotment Management Plan
Dumont Dunes Off-Highway Vehicle Area Management Plan
Hunter Mountain Allotment Management Plan
Lacey-Cactus-McCloud Allotment Management Plan
Plan of Operation—Jack Zillman mining operation
Plan of Operation—Jerry Lint mining operation
Plan of Operation—National Resource Management Camp Rock Mine
Plan of Operation—U.S. Borax and Chemical Corporation in Gravel Hills
Plan of Operation—U.S. Borax and Chemical Corporation in Greenwater Valley area
Plan of Operation—U.S. Borax and Chemical Corporation in Kramer Hills
Plan of Operation—Weaner, Black Bull, and Black Canyon Claims in Rattlesnake Canyon
Rudnik Common Allotment Management Plan
Tunawee Common Allotment Management Plan
Walker Pass Common Allotment Management Plan

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Related GAO Products

Change in Approach Needed to Improve the Bureau of Land Management's Oversight of Public Lands (GAO/T-RCED-89-23, Apr. 11, 1989).

Importance of Financial Guarantees for Ensuring Reclamation of Federal Lands (GAO/T-RCED-89-13, Mar. 7, 1989).

Interior Issues (GAO/OCG-89-24TR, Nov. 1988).

Management of Public Rangelands by the Bureau of Land Management (GAO/T-RCED-88-58, Aug. 2, 1988).

Public Rangelands: Some Riparian Areas Restored but Widespread Improvement Will Be Slow (GAO/RCED-88-105, Jun. 30, 1988).

Rangeland Management: More Emphasis Needed on Declining and Overstocked Grazing Allotments (GAO/RCED-88-80, Jun. 10, 1988).

Restoring Degraded Riparian Areas on Western Rangelands (GAO/T-RCED-88-20, Mar. 1, 1988).

Federal Land Management: Limited Action Taken to Reclaim Hardrock Mine Sites (GAO/RCED-88-21, Oct. 21, 1987).

Public Lands: Interior Should Recover the Costs of Recording Mine Claims (GAO/RCED-86-217, Sept. 10, 1986).

Public Lands: Interior Should Ensure Against Abuses From Hardrock Mining (GAO/RCED-86-48, Mar. 27, 1986).

