

FINDING OF NO SIGNIFICANT IMPACT
CARLSBAD CAVERNS CAVE RESOURCE PROTECTION PLAN
CARLSBAD CAVERNS NATIONAL PARK

Carlsbad Caverns National Park proposes modification of the developed area above Carlsbad Cavern. As directed by the park's general management plan (NPS, 1996), an infiltration study was performed to determine the impacts of the developed area on Carlsbad Cavern and groundwater. This study found contamination of cave pools from parking lot runoff and leaking or overflowing sewage lines and identified potential catastrophic contamination that could be caused by vehicle accidents or fires, structural fires, or fuel leaks.

The goal of this plan is to protect the cave from existing sources of contamination, to prevent future damage to the cave and the groundwater system, and to provide a safe, quality visitor experience. To accomplish these goals, the park considered three alternatives that would 1) eliminate pollution sources above the cave (fuel storage tanks, paved areas, maintenance operations, and park residences), 2) restore natural infiltration above the cave, 3) reduce catastrophic threats (spills, vehicle accidents, fires), and 4) implement mitigation measures to protect natural resources and the public where threats remain.

**PREFERRED ACTION AND ENVIRONMENTALLY PREFERRED
ALTERNATIVE**

The preferred alternative would remove the most threatening sources of contamination from above Carlsbad Cavern. Installation of engineered devices that protect areas from accidental spills, and collect, filter, and/or redirect storm water run-off would be installed to alleviate contamination from remaining facilities. This alternative also would modify land-use policies, including pavement removal and reconfiguration of the Bat Cave Draw parking lot, relocation of some maintenance functions, and removal of the Mission 66 housing area and the tennis court. The actions in this alternative would restore natural drainage and infiltration to areas where pavement is removed. The sewer collection system would be replaced and the outfall system relocated.

This alternative would offer the best resource protection for the cost and with the fewest resource impacts and would be the environmentally preferred alternative. Contamination from parking lot runoff would be reduced by 268,200 gallons per year or 19% of the total contaminated runoff (versus 7% under Alternative A). This alternative would restore infiltration and drainage to 149,500 square feet of formerly-paved areas (versus 31,200 square feet under Alternative A). Cultural resources would be impacted under the preferred alternative, but would be mitigated through careful photo documentation and consultation with the New Mexico State Historic Preservation Office (SHPO) and park cultural resource staff.

ALTERNATIVES CONSIDERED

A No Action Alternative was considered to provide a basis for comparing the management direction and environmental consequences of the proposed action. Under this alternative, the current buildings, facilities and land-use policies would remain intact.

Alternative A would not significantly alter the development “footprint” above the cave. The actions in this alternative would primarily involve installation of engineered devices that protect areas from accidental spills, and collect, filter, and/or redirect storm water run-off. The sewer collection system would be replaced and the outfall system relocated. Although many sources of contamination would not be removed, a higher level of resource protection than presently exists would be provided, but not as much as realized under the preferred alternative.

WHY THE PREFERRED ALTERNATIVE WILL NOT HAVE A SIGNIFICANT EFFECT ON THE HUMAN ENVIRONMENT

As defined in 40 CFR §1508.27, significance is determined by examining the following criteria:

Impacts that may be both beneficial and adverse

The preferred alternative would have minor, temporary adverse effects on air quality, soils, and visitor use and experience due to construction activity. The developed area of the park contains the Caverns Historic District which contains contributing and non-contributing elements. The removal of a portion of the stone walls in Bat Cave Draw would have permanent, moderate adverse effects on one contributing element. The removal of non-historic elements out of the historic district would enhance the overall character of cultural resources. The overall affects on cultural resources would be beneficial. The preferred alternative would have permanent, beneficial impacts to cave resources, and vegetation by removing pavement and reducing contamination sources. There are no significant adverse impacts under the preferred alternative which would require analysis in an EIS.

Degree of effect on public health or safety

The preferred alternative would provide a minor reduction of some potential threats to visitor safety by reducing the potential of hazardous contaminants to enter Carlsbad Cavern. There would be no significant adverse effect on public health or safety under the preferred alternative.

Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas

As described in the Environmental Assessment (EA), under the preferred alternative, there would be beneficial impacts to Carlsbad Cavern, the primary resource of the park. There would be moderate adverse affects on the Caverns Historic District. There are no prime farmlands, wetlands, wild and scenic rivers, or ecologically critically area that would be adversely affected.

Degree to which effects on the quality of the human environment are likely to be highly controversial

The activities proposed under the preferred alternative would produce temporary noise and air quality degradation. Internal and public scoping and responses to the EA did not identify any highly controversial effects on the human environment.

Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risks

The activities proposed under the preferred alternative would produce temporary noise and air quality degradation, as is common in most construction or deconstruction projects. These effects and methods for mitigating them are well-known and do not involve highly uncertain, unique, or unknown risks.

Degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration

The preferred alternative does not establish a precedent for future actions. Removal of structures in order to protect resources has been done in many other parks. For example, Mammoth Cave National Park has recently removed two Mission 66 housing units and a sewage lagoon that contributed to degradation of Mammoth Cave. Sequoia-Kings Canyon National Park removed pavement from over the roots of several redwoods to stop damage to the trees and to restore natural infiltration of water to the roots. The preferred alternative only reflects activities that are proposed now and does not represent a decision in principle about a future consideration. Carlsbad Caverns National Park was primarily established to protect the cave resources, and the proposed removal of structures will ensure that these resources are protected without setting a future precedent that would allow other structures in the park or other parks to be removed.

Whether the action is related to other actions with individually insignificant but cumulatively significant impacts

All of the actions the park is considering for protection of the cave resources of Carlsbad Cavern are included in the EA. The cumulative impacts of this proposal combined with all other foreseeable actions were analyzed in the EA and no significant adverse cumulative impacts were identified.

Degree to which the action may adversely affect districts, sites, highways, structures, or objects listed on the National Register of Historic Places or may cause loss of destruction of significant scientific, cultural, or historic resources

The preferred alternative will affect one historic property that is eligible for the National Register of Historic Places, the Caverns Historic District. The effects to the Caverns Historic District will be both adverse and beneficial, and will result in a Section 106 determination of *no adverse effect*. Consultation with the State Historic Preservation Office (SHPO) has been conducted throughout the planning process, and will continue following this decision. Detailed construction/deconstruction designs will be supplied to the SHPO, and mitigation measures will be developed to minimize any adverse effects to the Caverns Historic District.

Degree to which the action may adversely affect an endangered or threatened species or its critical habitat

There were no rare, threatened or endangered plant or animal species identified in the project area, but some of the area is potential habitat. The project could result in possible minor adverse effects to a very limited potential habitat area, but would not be a significant adverse effect.

Whether the action threatens a violation of federal, state, or local environmental protection law

This action violates no federal, state, or local environmental protection laws.

Impairment

In addition to reviewing the list of significance criteria, the National Park Service has determined that implementation of the proposal will not constitute an impairment to Carlsbad Caverns National Park's resources and values. This conclusion is based on a thorough analysis of the environmental impacts described in the *Carlsbad Cavern Cave Resources Protection Plan/EA*, the public comments received, relevant scientific studies, and the professional judgment of the decision-maker guided by the direction in *NPS Management Policies* (December 27, 2000). Although the plan/project has some negative impacts, in all cases these impacts are the result of actions taken to preserve and restore other park resources and values. Overall, the plan results in benefits to park resources and values, opportunities for their enjoyment, and it does not result in their impairment.

PUBLIC INVOLVEMENT

The environmental assessment was made available for public review and comment during a 30-day comment period ending February 18, 2003. A total of eight comments were received, with no opposition to the proposed alternative. Two comments from cave conservation organizations suggested that the park consider the preferred alternative as a first step towards additional cave protection measures as outlined in Alternative A. There were three substantive comments, primarily identifying minor information corrections that do not affect the impact analysis or result in changes in the text of the environmental assessment, but are addressed in the errata sheets attached to this FONSI.

CONCLUSION

The preferred alternative does not constitute an action that normally requires preparation of an environmental impact statement (EIS). The preferred alternative will not have a significant effect on the human environment. Negative environmental impacts that could occur are minor or moderate in intensity. There are no significant impacts on public health, public safety, threatened or endangered species, sites or districts listed in or eligible for listing in the National Register of Historic Places, or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified. Implementation of the action will not violate any federal, state, or local environmental protection law.

Based on the foregoing, it has been determined that an EIS is not required for this project and thus will not be prepared.

Approved:

Karen Wade, Intermountain Regional Director

Date

Errata Sheet
Carlsbad Caverns Cave Resource Protection Plan
Environmental Assessment
Carlsbad Caverns National Park

Turnaround

Comment: "Ten accessible parking spots in Bat Cave Draw are not adequate for the increasing aging population parks are experiencing. Will the turnaround accommodate bus drop-offs for senior citizen tours with disabled or weakened persons unable to make the walk down and back up the hill to the Visitor Center?"

Response: The turnaround will be used to provide drop-offs for bus tours and tours with disabled visitors, and for disabled visitors in private vehicles.

Bats

Comment: "I believe that some of your bats are state or federal species of concern. Although not strictly defined T&E species, they should be mentioned when you talk about there being no rare species in the project area as some consider SCs as rare."

Response: The park considers all of the bat species in Carlsbad Cavern as being of special concern to the park whether they are listed or not. The EA describes measures to mitigate the effects of the preferred alternative on the bat populations of Carlsbad Caverns.

Cave invertebrates

Comment: "Likewise, even though the following species may be common in Carlsbad, some people would consider them rare because they appear so restricted geographically."

Response: The EA describes, in general terms, the deleterious effects of contamination on invertebrate species. Though not listed as rare, threatened, or endangered, these species are of special concern to the park. The protection of these fauna are included in the reasoning to implement the preferred alternative.

Errata

Appendix 1, page 55; the term "shuttle turn around" should be replaced with "turnaround."

The cost for sewage improvements should be changed to "\$2,507,000" to match the figure shown in Table 5, page 38.