

**FINDING OF NO SIGNIFICANT IMPACT
RECONSTRUCTION OF VISITOR CENTER PARKING AREAS AND REHABILITATION
OF WALNUT CANYON ENTRANCE ROAD**

CARLSBAD CAVERNS NATIONAL PARK, EDDY COUNTY, NEW MEXICO

This finding of no significant impact (FONSI) and the environmental assessment/assessment of effect (EA/AoE) constitute the record of the environmental impact analysis and decision-making process for this development project. The National Park Service (NPS) will implement the Preferred Alternative – the reconfiguration of visitor center parking areas and the rehabilitation of the Walnut Canyon entrance road, the environmentally preferred alternative as described in the EA/AoE for Reconstruction of Visitor Center Parking Areas and Rehabilitation of the Walnut Canyon Entrance Road of the Carlsbad Caverns National Park, Eddy County, New Mexico.

PURPOSE AND NEED FOR FEDERAL ACTION

The purpose of the proposed project is to prevent the continuing contamination of portions of Carlsbad Cavern and the associated groundwater by parking lot runoff, provide improved traffic circulation patterns for visitors and staff, and rehabilitate the deteriorated pavement on the entrance road.

The parking lot reconfiguration will protect cave resources and groundwater from continued exposure to contamination from parking area runoff by reducing the paved parking surface and providing for control, collection, and some treatment of parking lot runoff. The road rehabilitation will replace the existing deteriorated pavement on the entrance road, the only access to the Park's Visitor Center from U.S. Highway 62/180. The existing pavement exhibits varying degrees of failure and requires frequent repairs. To prevent impacts to park operations and the visitor experience, the deteriorating pavement will be replaced, social pullouts will be paved or closed, and existing subgrade materials, culverts, masonry walls, and erosion control structures will be replaced or repaired as necessary.

SELECTED ALTERNATIVE

The selected alternative is the preferred alternative as described in the EA/AoE – the reconstruction of visitor center parking areas and the rehabilitation of the Walnut Canyon entrance road. The selected alternative consists of multiple specific actions that would take place over a large project area that includes all of the 7.5- mile- long Walnut Canyon Road from the park entrance to the Visitor Center parking areas. Also included in the project area are both Visitor Center parking areas and the Bat Cave Draw parking area.

Under the preferred alternative, the park entrance pullout will be improved with a new sidewalk and retaining wall, and the 7.5- mile- long entrance road will be rehabilitated with a new asphalt overlay. The typical roadway section is 24 feet wide, consisting of two 10- foot- wide driving lanes and a 2- foot- wide shoulder on either side of the roadway. Ditches and cut slopes of varying widths complete the existing road prism. New roadway signs will be installed in 62 locations to raise the safety standards of the roadway.

Eleven existing paved or gravel pullouts along Walnut Canyon Road will be repaved. An additional 13 gravel pullouts will be obliterated and revegetated. The end result will be that all pullouts and parking areas immediately associated with the roadway will be rehabilitated with new surfacing materials. The Parking lot at the Rock Shelter Exhibit would remain in its current configuration and would be resurfaced.

The NPS will resurface and reconfigure Parking Areas 1 and 2 (East and West Visitor Center parking lots) and the Bat Cave Draw parking lot; all three are within 220 yards (200 m) of the main cavern entrance. The paved area within Parking Areas 1 and 2 would be slightly reduced, and traffic flow within the lots will be reconfigured. Oil and grit separators will be installed to remove petroleum byproducts from parking lot runoff before it is released into the environment. The Bat Cave Draw parking lot will be reduced in size and reconfigured to accept handicapped parking only. The reduced parking area at Bat Cave will be farther from the Carlsbad Cavern pedestrian entrance than it is at present. The existing asphalt and all base materials will be removed from the portions of the lot that will no longer be used for visitor parking, and those areas will be scarified and seeded with native grasses and plants. New drainage structures will be placed under the reconfigured parking lot, with oil and grit separators to remove petroleum byproducts before runoff is released to the environment.

Some reconstruction of stone- masonry structures built during the early part of the twentieth century could be necessary during road and parking lot modifications. Other construction will occur as well. Some drainage features will be regraded to clear sediments that have accumulated over the years. The road cuts at the entrance to the maintenance facility, staff offices, and housing area will be scaled using mechanical excavators to remove loose materials and improve safety for pedestrians and vehicles.

For safety purposes, cliffs along the main entrance road will be minimally scaled by hand to remove and stabilize loose rock. The cliff faces with loose rock have been identified and total about 1,500 linear feet (455 m). The scaling will take place within defined areas and be carried out by a worker in a cherry picker so that most of the cliff face will not be directly impacted during rock removal.

Construction Management - Staging Area

All contractor- related staging for construction supplies and equipment will occur in previously disturbed areas negotiated and approved by the Federal Highway Administration (FHWA), the contractor, the park, and other affected parties. Large staging areas will be located outside the park. Mitigation measures identified in Table 1 will apply to all construction- related activities, regardless of location. Smaller staging areas will be within the project construction limits at the Visitor Center parking areas and along the roadway in designated turnouts. No driving or storage of equipment or supplies will be allowed outside the construction limits. Batch plants, where asphalt and concrete will be prepared for use in construction, will be located outside the Park.

All contractor- selected, noncommercial areas outside of the project limits (including, but not limited to, material sources, disposal sites, waste areas, haul roads, and staging areas) will comply with provisions of the Endangered Species Act (ESA) of 1973, the National Historic Preservation Act (NHPA) of 1966, and the Clean Water Act (CWA) of 1977. Written proof of compliance with these resource protection laws must be satisfactory to the NPS and include: (1) (a) a current U.S. Fish and Wildlife Service (USFWS) list of all threatened or endangered species of the ESA; (2) a historic resources inventory report prepared by a qualified archeologist (and

historic architect, if needed); and (3) a letter report by a specialist qualified to delineate jurisdictional waters.

General Construction Schedule and Costs

It is anticipated that the repair and rehabilitation of the park entrance road and parking lots will be accomplished in 2009. Specifics of the project schedule have not been developed, but construction is expected to take less than one year.

It is anticipated that the total cost of the repair and rehabilitation of Walnut Canyon Road will be approximately \$6.38 million in 2009 dollars.

Mitigation Measures

Mitigation measures have been incorporated into the selected alternative to avoid or reduce impacts as part of the proposed project. All mitigation measures are summarized in Table 1.

Table 1. Mitigation Measures of the Preferred Alternative

General Considerations	<p>Before construction begins, construction limits will be surveyed and staked and may be marked with construction fencing, tape, flagging, snow fencing, or some similar material, as necessary. The construction limits identify and limit the area of construction activity. The contractor is responsible for ensuring that all work and all contract employees stay inside the construction limits. All protection measures will be clearly stated in the construction specifications, and workers will be instructed to avoid conducting activities beyond the construction limits.</p> <p>All construction personnel must at all times avoid all caves and archeological sites, and similar park resources outside of the construction limits as well. Temporary structures such as erosion control fencing could be placed outside the area of potential effect (50 feet from the edge of the road on both sides) only after an NPS archeologist has surveyed the area for archeological resources.</p> <p>The FHWA's project engineer will ensure that the project remains confined within the parameters established in the compliance documents and that mitigation measures are properly implemented.</p> <p>Construction equipment staging will occur within the roadway or parking lots for active work areas or at designated turnouts. Construction-related offices or laboratories will be located outside park boundaries. Fueling and daily maintenance of all machinery and vehicles will be conducted only in equipment staging or other approved areas. Any spill of hazardous materials, fuel, etc., will be cleaned up immediately. Hazardous materials clean-up kits will be available at the staging area and on any fuel and oil trucks. Equipment will be checked daily to identify and repair any leaks.</p> <p>If the wind is blowing significant amounts of dust into the main Natural Entrance, construction will be stopped until the wind either subsides or changes direction.</p>
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	Any trenching required during the project will be covered and will have one end sloped to prevent trapping of wildlife. The contractor will inspect trenches before refilling to ensure that no wildlife will be buried. If any wildlife (lizards, rodents, snakes, etc.) or insects are found, the contractor will contact a park biologist and ask for guidance or assistance in removing the wildlife.
	The contractor will be required to maintain strict trash control, so wildlife will not be attracted to the project area. No food scraps will be discarded or fed to wildlife.
	All demolition debris, including visible concrete and metal pieces, will be immediately hauled from the park to an appropriate disposal location. All tools, equipment, barricades, signs, surplus materials, and rubbish will be removed from the project work limits upon project completion. Any asphalt surfaces or concrete surfaces damaged due to work on the project will be repaired.
	Best Management Practices (BMP's) for drainage and sediment control will be implemented to prevent or reduce nonpoint source pollution and minimize soil loss and sedimentation in drainage areas.
Special Status Species	To avoid direct impacts to migratory birds protected by the Migratory Bird Treaty Act (MBTA) of 1918, construction and clearing of any vegetation will be scheduled between September 1 and April 1 during the year of construction.
	If it is not possible to avoid vegetation removal during the breeding season, pre- construction bird surveys up to 100 feet on both sides of the construction limits will be conducted by NPS staff to assure that no breeding birds will be affected. Any positive survey results or observation of affected species will be discussed with the USFWS and the New Mexico Department of Game and Fish (NMDGF) to coordinate nesting area avoidance.
	Before ground- disturbing activities begin, construction workers will be educated about sensitive animals, such as the rock rattlesnake and the gray- banded kingsnake that may be found on the road or adjacent escarpments, so that harm to such species is avoided.
	A park biologist will be on site during any scaling activities. As a contract specification, sensitive resource areas will be identified by station marker to station marker, for avoidance or special considerations during construction. Construction workers will be made aware of any sensitive plant populations between the stations along the road corridor so that the plants will be avoided.
	Where there will be ground disturbance, the contractor will search the area for breeding mammals. If evidence of active breeding is found, the contractor will contact a park biologist and ask for guidance or assistance before continuing to work in the area.

	Contractor- selected, noncommercial areas outside of the project limits, including, but not limited to material sources, disposal sites, waste areas, haul roads, and staging areas, will not encroach upon any species protected under the ESA of 1973.
	Between March and November in the East Parking lot and Bat Cave Draw parking areas there will be no loud noises or heavy pounding from construction equipment or demolition activities.
	To avoid disturbance of bats, nighttime construction will not be permitted.
Visitor Experience	Total construction- related traffic delays will be limited to 30 minutes in each direction when there are fewer than 10 vehicles per hour. Delays will be limited to a maximum of 20 minutes in each direction when there are more than 10 vehicles per hour. Flaggers will record delay times at stopping points, and the results will be reported to the FHWA's project engineer. Immediate access will be provided to any emergency vehicles. The contractor will be required to submit a traffic management plan for review and approval by the park and the FHWA.
Visitor Experience continued ...	Flaggers, pilot cars, signing, variable message signs, and/or the newest technology, as appropriate, will be used to manage traffic.
	No holiday or weekend (Saturday and Sunday) work will be permitted without specific written authorization of the Park Superintendent.
	During times the road is open to the public, construction operations will occur on only part of the road width so that one traffic lane will be open at all times for the total length of the road, under alternative one- way traffic control.
	Limited occasions, such as replacement of deep culverts or unforeseen problems, may require temporary short term full closure of the road. Such full closures will be for the minimal time required to complete the work activity or correct the problem. No more than two sections of road will be under alternate one- way traffic control at any one time.
	A traffic management plan will be required from the contractor for review and approval by the FHWA and the Park. This plan will include: proposed areas of construction and anticipated delays; safety considerations; estimated lengths of delay; and estimated number of vehicles stopped at any one point, as applicable to the construction. The 30- minute delay in each direction will be considered maximum, and the plans will include proposals for less than 30- minute delays for the total length of the road. The plan will also include, as necessary, a limit on the number of vehicles that could be stopped at any one point to avoid backup into critical areas, such as intersections.
	The contractor will provide a weekly delay schedule with daily updates to the FHWA's project engineer for management of visitation and park operations.

	Announcement through public release to radio stations, press, publications, other public information outlets, and websites, as appropriate, will be used as needed. The contractor will also provide daily delay schedules, variable message boards coordinated with the FHWA's project engineer, and temporary construction signs inside and outside the park.
	Walnut Canyon Road (the park entrance road) will be closed to bicycle traffic during the construction period because of safety concerns.
Cultural Resources	The Bat Cave Draw parking lot retaining wall and other structures in the Caverns Historic District have been recorded in detail (NPS 1986). Mitigation of impacts to the wall will include dismantling, recovery, and reuse of the masonry elements for any new wall construction within the parking lot, in accordance with Department of the Interior Standards for Historic Properties and Cultural Landscapes, Standard 5, for rehabilitation: "distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property would be preserved." Any damage to the stone or mortar during construction will be repaired or replaced with the original stone when possible, or with similar material that matches the color and texture of the existing wall, from a source approved by the park.
	Construction workers will be educated regarding the possibility and recognition of previously unidentified archeological resources. During any portion of the project when encountering previously unrecorded and or buried cultural deposits all work at that location will immediately cease, an assessment made by a qualified cultural resource specialist, and the Chief of Resource Stewardship and Science, CAVE, the State Historic Preservation Officer, and all concerned Native American groups notified.
	In areas near known archeological sites, NPS or contract archeologists meeting the Professional Qualifications Standards of the Secretary of Interior Standards and Guidelines will monitor construction activity to avoid known archeological resources.
	Contractor- selected, noncommercial areas outside of the project limits, including, but not limited to, material sources, disposal sites, waste areas, haul roads, and staging areas will not have long term adverse impacts to the integrity of sites listed in or eligible for inclusion in the National Register of Historic Preservation (NRHP). Written proof satisfactory to the NPS and the SHPO will document, for compliance with Section 106 of the NHPA; no historic properties will be affected (1) because there are no historic resources present or (2) there is no adverse effect on historic properties that are present.
Vegetation	Adverse impacts to rare plants will be mitigated by flagging individuals or groups of specimens for avoidance during construction.
	The contractor will implement the previously approved revegetation plan to restore disturbed areas using native plants.

	Ground surface treatment will include grading to natural contours, topsoil replacement, seeding, and planting. This work will occur as soon after the completion of construction as possible.
	As part of the revegetation plan, the FHWA will pay for a contractor to monitor reclaimed areas after construction to determine if reclamation efforts have been successful or if additional remedial actions are necessary. Remedial actions could include installing erosion control structures, reseeding and/or replanting the area, and controlling non-native plant species.
Vegetation, continued . . .	In an effort to avoid introducing non- native/noxious plant species, no imported hay bales will be used during revegetation. On a case- by- case basis, the materials may be used for erosion control dams that may be necessary, as approved by the park. Examples of materials include: certified weed- free rice straw, cereal grain straw that has been fumigated to kill weed seed, and wood fiber products.

	<p>Non- native and invasive plant species will be monitored by a contractor funded by the FHWA and controlled in all affected areas, as necessary. To prevent the introduction of and minimize the spread of non- native vegetation, especially noxious weeds, the following measures will be implemented during construction:</p> <ul style="list-style-type: none"> ▪ Minimize soil disturbance. ▪ Pressure wash and/or steam clean all construction equipment before entering the park to ensure that all equipment, machinery, rocks, gravel, or other materials are clean and weed free before entering the park. ▪ Cover all haul trucks bringing fill materials from outside the park to prevent seed transport. ▪ Limit vehicle and equipment parking to within construction limits, existing roadways, and parking lots. ▪ Limit disturbance to roadsides, culvert areas, and other areas inside the designated construction limits. Limit movement of machinery and equipment to areas within the construction limits. ▪ Obtain all fill, rock, or additional topsoil from the project area, if possible. If not possible, then obtain weed- free fill, rock, or additional topsoil from sources outside the park. The weed- free condition of the material from sources outside the park will need to be approved by the park. If material from an outside source is not weed- free, then the park may either reject use of material from that source or approve use if appropriate measures are taken to treat the material. ▪ Initiate revegetation of a disturbed area as soon as possible following completion of work in the area, based on suitable weather conditions for plants to become established. ▪ Monitor disturbed areas for up to 3 years following construction, by a contract provided by the FHWA to identify growth of noxious weeds or other non- native vegetation. Treatment of non- native vegetation will be completed in accordance with NPS- 13, Integrated Pest Management Guidelines.
Soils	<p>To maximize vegetation restoration efforts after completing construction activities, the following measures will be implemented:</p> <ul style="list-style-type: none"> ▪ Salvage topsoil, as well as existing native vegetation (as feasible), from construction areas for reuse during restoration on disturbed areas. ▪ Monitor revegetation success for up to 3 years following construction, by a contractor funded by the FHWA, implementing remedial and control measures as needed.
Soils continued . . .	<p>During periods of heavy rainfall, the project engineer will issue a temporary stop work order and work will be halted. During these work stoppage periods, project personnel will continue to check the silt fences and check dams, maintain the silt fences in effective condition, and remove accumulated sediment, as necessary, to ensure that stabilization is maintained.</p>

	Erosion control and sediment control will be required consistent with BMPs for compliance with the CWA and with approval of the NPS project engineer.
	Topsoil will be windrowed on the sides of the roads and pulled back into place following construction, or will be removed from areas of construction and stored at park- approved locations for later reclamation. Erosion control will be required. The topsoil will be spread as near the original location as possible and supplemented with scarification, mulching, seeding, and/or planting with species native to the immediate area.
Air Quality	Fugitive dust will be controlled by periodic water sprinkling and other BMPs as appropriate.
	The contractor will be responsible for assuring that construction vehicle engines will not be allowed to idle when the equipment is not actively being used. Visitors stopped due to construction delays will be encouraged to turn off their engines.

ALTERNATIVES CONSIDERED

In addition to the selected alternative, the EA/AoE considered a no action alternative. Under the no action alternative, roads and parking lots would be left as they are. Visitors would continue to use informal pullouts, impacting park resources such as soils and vegetation. Under the no action alternative, the park would respond to future needs and conditions associated with the park's Visitor Center without major actions or changes in the present course.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

The "environmentally preferred" alternative is determined by applying the criteria cited in the National Environmental Policy Act of 1969 (NEPA), and applied in accord with the Council on Environmental Quality (CEQ) regulations. The CEQ provides direction that "[t]he environmentally preferred alternative is the alternative that would promote the national environmental policy as expressed in section 101 of NEPA, which considers:

1. Fulfilling the responsibilities of each generation as trustee of the environment for succeeding generations.
2. Assuring for all generations safe, healthful, productive, and esthetically and culturally pleasing surroundings.
3. Attaining the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences.
4. Preserving important historic, cultural, and natural aspects of our national heritage and maintaining, wherever possible, an environment that supports diversity and variety of individual choice.
5. Achieving a balance between population and resource use that would permit high standards of living and a wide sharing of life's amenities.

6. Enhancing the quality of renewable resources and approaching the maximum attainable recycling of depletable resources” (NEPA, section 101).

The NPS is required to identify the environmentally preferred alternative(s) for any of its proposed projects. In essence, the environmentally preferred alternative would be the one(s) that “causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources” (NPS, 2001).

The no action alternative is not the environmentally preferred alternative because it does not fulfill criteria 1 or 3, listed above, as well as the NPS preferred alternative. Specifically, the no action alternative would not meet criterion 1 (to assure that the visitor center parking areas and the Walnut Canyon entrance road are maintained over time for each succeeding generation) nor criterion 3 (to attain the widest range of beneficial uses of the environment without degradation) because the existing road and parking lot system that provides access to the park are failing due to the age of the component structures. In addition, contaminated runoff from the road and parking areas from automobile fluid leakage, including oil, gas, and antifreeze, is infiltrating the cavern system and its associated groundwater. Continuing under present policy would not address these deficiencies.

The selected alternative best fulfills most of the criteria of the environmentally preferred alternative. The reconfiguration of the visitor center parking areas and the rehabilitation of the Walnut Canyon entrance road would fulfill the Park Service’s responsibilities as a trustee of the environment (criterion 1) by protecting the caverns from impacts.

The selected alternative would assure a safe and esthetically pleasing environment for future generations (criterion 2) through context- sensitive design and measures to minimize impacts to sensitive resources.

The selected alternative attains the widest range of beneficial uses of the environment without degradation (criterion 3) by allowing the continued use of the resource while limiting destructive contamination.

The selected alternative would preserve, to the extent practicable, important historic resources (criterion 4) through the rehabilitation and repair of the road surface and the repair of stone-masonry structures along Walnut Canyon Road that were built during the early part of the twentieth century and are original to the highway design. Reconfiguration of the parking areas at the Visitor Center and at Bat Cave Draw would retain the historic stone terraces although the pavement would be removed in some areas. Spatial relationships of the built environment would be maintained.

The selected alternative achieves a balance between park resources and the populations who use the entrance road and parking areas to assure a high standard of living, and it enhances the quality of renewable resources (criteria 5 and 6). That balance is accomplished through the installation of oil and grit separators to remove petroleum byproducts from parking lot runoff before it is released to the environment and the improvement of drainage features.

In addition, the selected alternative will promote and support environmentally sound management of the park’s resources, as outlined in existing NPS resource management plans.

WHY THE SELECTED 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 and which on balance may be beneficial, but that may still have significant adverse impacts which require analysis in an Environmental Impact Statement (EIS). As described in the EA/AoE, several resource areas will experience beneficial and adverse impacts during the reconfiguration of visitor center parking areas and the rehabilitation of the Walnut Canyon entrance road; however, no significant impacts were identified that would require analysis in an Environmental Impact Statement.

The following summary reviews impact considerations. Mitigation measures described in Table 1 will be employed to minimize these impacts during and after completion of the proposed project. The EA/AoE provides for detailed consideration of the factors supporting the determination of non-significance.

The implementation of the selected alternative will result in long term, beneficial impacts on cave resources and associated groundwater from the reduction in contaminated parking lot runoff resulting from the reclamation of 1.76 acres of parking lots and social pullouts, including revegetation with native plants and the installation of oil and grit separators. The selected alternative would also have long term, beneficial impacts on visitor experience and park operations.

The implementation of the selected alternative will result in short term, negligible to minor adverse impacts to special status species, mainly state listed species and federal and state species of concern, which may occur in the project area. Over the long term, adverse impacts to special status species would be negligible.

The selected alternative would have short term, localized, minor, adverse impacts on visitor experience and park operations lasting for the duration of construction activities. Short term, negligible adverse impacts to water quality would also result from construction impacts.

For information on impacts to historic properties, see the section titled "Degree to which the action may adversely affect districts, sites, highways, structures, or objects listed on National Register of Historic Places."

Degree of effect on public health or safety: Implementation of the selected alternative will result in short term, negligible adverse impacts to health and safety during construction. To protect the public, workers, and employees from potential risks associated with construction activities, a safety plan will be developed prior to construction. Individual pullouts and sections of larger parking areas will also be closed as needed during construction/rehabilitation work to protect visitors.

For safety purposes, cliffs along the main entrance road will be minimally scaled by hand to remove and stabilize loose rock. During rehabilitation of the entrance road a single lane will be closed through the construction zones. Signage and flaggers will direct traffic through the construction zones. The entrance road will also be closed to bicycle traffic during the construction period. Implementation of the selected alternative could result in long term, beneficial impacts to health and safety after project completion by improving road and driving conditions.

Unique characteristics of the geographic areas such as proximity to historic or cultural resources, park lands, wetlands, prime farmlands, wild and scenic rivers or ecologically critical areas: No ethnographic resources, museum objects, prime or unique farmland, wetlands or floodplains, designated critical habitat, ecologically critical areas, wild and scenic rivers, and other unique natural areas, have been identified in the project area.

Because there are no impacts to wetlands or floodplains, a statement of findings for neither wetlands nor floodplains is necessary. The two previously recorded archeological sites, located near Parking Area 1 (east Visitor Center parking area) and the Bat Cave Draw parking lot, will be fenced for protection during the construction period. Therefore, no impacts to archeological resources are anticipated. For information on impacts to historic properties, see the section titled "Degree to which the action may adversely affect districts, sites, highways, structures, or objects listed on National Register of Historic Places."

Degree to which effects on the quality of the human environment are likely to be highly controversial: There were no highly controversial effects identified during either the preparation of the EA/AoE or the public review period, and the impact analysis has not been highly debated.

Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risks: No highly uncertain, unique or unknown risks were identified during either preparation of the EA/AoE or the public comment period. The available information on which to base this decision is adequate.

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 project does not establish a precedent or constrain any future considerations of use in the area.

Whether the action is related to other actions with individually insignificant but cumulatively significant impacts: The EA analysis did not identify any significant cumulative effects.

Degree to which the action may adversely affect districts, sites, highways, structures, or objects listed on National Register of Historic Places (NRHP) or may cause loss or destruction of significant scientific, cultural, or historical resources: As described in the EA/AoE, information on historic structures in the park was gathered from the existing Caverns Historic District Cultural Landscapes Inventory (NPS 2006a). The Walnut Canyon roadway includes retaining walls, low- water crossings, drop inlets, and culvert headwalls constructed of stone masonry. Sixty- three historic stone masonry features were surveyed and identified as contributing to the NRHP eligibility of the District. Under the selected alternative, there would be negligible impacts to the historic features associated with the Walnut Canyon entrance road. Plans include provisions to avoid disturbance to existing features and to match pavement elevations with existing pavement where it abuts the masonry features.

The Visitor Center and Bat Cave Draw parking areas contain historic stone walls, historic walkways and footpaths, and associated walls and abutments. NPS and SHPO consultation focused primarily on the undertaking at the parking areas where there will be an effect to constructed features within the National Register listed Carlsbad Historic District. As discussed with the SHPO, reconstruction of the Bat Cave parking lot would remove the asphalt pavement, which would be a noticeable change to the Caverns Historic District; however, important built features (stone walls and terraces) would remain intact. There would be no change in location, design, setting, workmanship, and materials and spatial relationships of the

built environment would not change. The historic character of the Caverns Historic District would not be diminished such that its eligibility for listing in the National Register would be jeopardized. Actions (removing a small section of wall and removing the asphalt) are reversible. After applying the Advisory Council on Historic Preservation's criteria of adverse effect, the NPS finds that implementation of the undertaking to reconstruct the Visitor Center Parking Areas including Bat Cave Draw would have an effect on the historic property listed on the NRHP, but that this effect would not be adverse.

By letters dated May 2 and May 15, 2008, the SHPO concurred that neither the reconstruction of the Visitor Center parking areas nor the rehabilitation of the Walnut Canyon entrance road would have an adverse effect upon the park's historic structures or cultural landscapes.

Degree to which the action may adversely affect an endangered or threatened species or its critical habitat: The USFWS replied with a species list May 3, 2006, and subsequent species list revisions in June and July, 2006. Based on the information provided in the species list, no listed or endangered species are known to occur in the proposed project area.

Whether the action threatens a violation of federal, state, or local environmental protection law: The selected alternative violates no federal, state, or local environmental protection laws. The rehabilitation will be consistent with all existing local, state, and federal regulations.

APPROPRIATE USE, UNACCEPTABLE IMPACTS, AND IMPAIRMENT

Sections 1.5 and 8.12 of NPS Management Policies underscore the fact that not all uses or activities are allowable or appropriate in units of the National Park System. The proposed use was screened to determine consistency with applicable laws, executive orders, regulations, and policies; consistency with existing plans for public use and resource management; actual and potential effects to park resources; total costs to the Park Service; and whether the public interest would be served. Allowing access to vehicular traffic and providing for parking are consistent with US and state law, NPS policy, and park general planning and resource management documents. Therefore, the Park Service finds that the preferred alternative is an appropriate use.

Because the application of mitigating measures is expected to be successful in ensuring that no major adverse impacts would occur and that satisfactory reclamation of the disturbed area is expected to be achievable, implementation of the preferred alternative would not result in any unacceptable impacts.

In addition to determining appropriate use and the environmental consequences of the alternatives, the 2006 NPS *Management Policies* and Director's Order #12 require analysis of potential effects to determine if actions would impair park resources.

The fundamental purpose of the national park system, established by the Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve park/preserve resources and values. NPS managers must always seek ways to avoid or minimize to the greatest degree practicable adverse impacts on resources and values of NPS park units. However, the laws do give NPS management discretion to allow impacts to park unit resources and values when necessary and appropriate to fulfill the purposes of a park unit, as long as the impact does not constitute impairment of the affected resources and values.

Although Congress has given NPS management discretion to allow certain impacts within park units, that discretion is limited by statutory requirements that the NPS must leave park unit resources and values unimpaired, unless a particular law directly and specifically provides

otherwise. The prohibited impairment is an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park unit resources or values, including harming opportunities that otherwise would be present for the enjoyment of those resources or values.

An impact to any park unit resource or value may constitute impairment; however, an impact would more likely constitute impairment to the extent it affects a resource or value whose conservation is one of the following:

- necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park unit;
- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park unit; or
- identified as a goal in the park unit's Master Plan or General Management Plan or other relevant NPS planning documents.

The NPS has determined that implementation of the selected alternative will not constitute an impairment to Carlsbad Caverns National Park's resources or values. This conclusion is based on a thorough analysis of the environmental impacts described in the EA/AoE, relevant scientific studies, and the professional judgment of the decision-maker guided by the direction in *NPS Management Policies* (2006).

PUBLIC INVOLVEMENT

The EA/AoE was released for public review on January 30, 2007. An electronic version was posted to the NPS PEPC site (<http://parkplanning.nps.gov>) and made available as hard copy or CD. A hard copy was sent to about 77 individuals, organizations, governments, and interest groups on the park's mailing list. A press release provided notification of the availability of the EA/AoE on January 30, 2007.

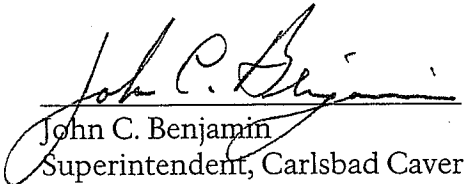
The public comment period was open until March 2, 2007. Interested parties could comment using the NPS PEPC site, by regular mail, or hand delivery. No substantive comments from the public were received. During the 30-day public comment period, NPS received letters from the Ysleta del Sur Pueblo Tribal Council and the Comanche Tribe requesting consultation if in the process of the project human remains or archeological items were discovered.

CONCLUSION

Based on the conservation planning and environmental impact analysis documented in the EA/AoE, with due consideration of the nature of the public comments and consultations with other agencies, and given the capability of the mitigation measures to avoid, reduce, or eliminate impacts, the NPS has determined that the selected action does not constitute a federal action that requires preparation of an EIS. The selected actions will not have a significant effect on the quality of the human environment or the park's cultural resources or natural resources.

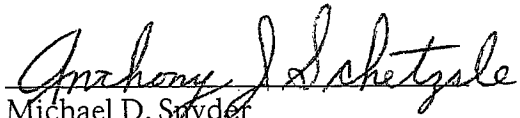
No highly uncertain or controversial impacts, unique or unknown risks or elements of precedence were identified. Implementation of the action will not violate any federal, state, or local environmental protection law. Based on the foregoing, it has been determined that an EIS will not be prepared and the selected actions may be implemented as soon as practicable.

Recommended:


John C. Benjamin
Superintendent, Carlsbad Caverns National Park

08/14/08
Date

Approved:


Michael D. Snyder
Regional Director, Intermountain Region

8-28-08
Date

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36 CFR 800.5. Assessment of Adverse Effects
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ERRATA SHEET

Environmental Assessment/Assessment of Effect

Reconstruction of Visitor Center Parking Areas and Rehabilitation of Walnut Canyon Entrance Road, Carlsbad Caverns National Park

Further engineering analysis of the project resulted in minor changes to the environmental assessment / assessment of effect. These are listed in “Changes in the Assessment Text”, below. The combination of the environmental assessment, this errata sheet, and the Finding of No Significant Impact (FONSI) forms the complete and final record on which the Finding of No Significant Impact is based.

Changes in the Assessment of Effect Text

- On page 21 1st paragraph, add text to the description of Alternative B (NPS Preferred) clarifying locations of pullouts to read: *The exact locations and number of pullouts and their prescriptions may be changed during final design. No changes will be made that change the impact analysis of the project.*
- On page 21 3rd paragraph, modify the description of Alternative B (NPS Preferred) clarifying configuration of Rock Shelter Exhibit parking area to read: *The Parking lot at the Rock Shelter Exhibit would remain in its current configuration and would be resurfaced.*
- On page 21 5th paragraph, add text to the description of Alternative B (NPS Preferred) clarifying extent of removal of a small segment of the historic stone terrace to read: *A small section (approximately 20 linear feet) of the historic rock terrace wall at Bat Cave parking lot would be removed to provide a turn- around lane. The section to be removed is a very small fraction (less than 1%) of approximately 2025 linear feet of stone walls and terraces and is also from an area at the upper end of the Bat Cave Draw parking area where the height of the rock wall is shortest.*
- On page 24 Table 2: Construction Summary, item 3. Delete this row. The second entrance to this parking area will remain as is.
- On page 30, Table 3: Mitigation Measures, under Special Status Species Table 3. Under Special Status Species change 6th item to: *Between March and November in the East Parking Lot and Bat Cave Draw parking area, there would be no loud noises or heavy pounding from construction equipment or demolition activities.*
- On page 37 Table Summary of Environmental consequences / Impact Comparison Table Historic Structures, Alternative B Preferred Alternative Resurfacing and Rehabilitation, delete second sentence.

Add: *Reconstruction of the Bat Cave Draw parking lot would have a minor adverse impact under NEPA and a no adverse effect under Section 106.*

- On page 66, Preferred Alternative Impact Analysis 2nd paragraph delete sentences 2 through 5.

Add: *Continuing consultation between the National Park Service (NPS) and New Mexico State Historic Preservation Office (SHPO) resulted in NPS adopting guidance from the New Mexico SHPO to split the project into two undertakings:*

1. *Reconstruct the Visitor Center Parking Areas*

2. Rehabilitate Walnut Canyon Entrance Road

NPS and SHPO consultation focused primarily on the undertaking at the Visitor Center Parking Areas where there would be effects to constructed features at Visitor Center Parking Areas and Bat Cave Draw within the National Register listed Carlsbad Historic District. As discussed with the New Mexico SHPO. Reconstruction of the Bat Cave parking lot would remove the asphalt pavement which would be a noticeable change to the Caverns Historic District; however, important built features (stone walls and terraces) would remain intact. There would be no change in location, design, setting, workmanship, and materials and spatial relationships of the built environment would not change. The historic character of the Caverns Historic District would not be diminished such that its eligibility for listing in the National Register would be jeopardized. Actions (removing a small section of wall and removing the asphalt) are reversible. After applying the Advisory Council on Historic Preservation's criteria of adverse effect, the NPS finds that implementation of the undertaking to reconstruct the Visitor Center Parking Areas including Bat Cave Draw would have an effect on the historic property listed on the NRHP, but that this effect would not be adverse.

There is no change to the analysis in the January 2007 Environmental Assessment regarding effect to historic properties with the implementation of the undertaking to rehabilitate Walnut Canyon Entrance Road.

- On page 66 delete last paragraph.

Replace with: Implementation of the NPS preferred alternative, Alternative B rehabilitation of the Visitor Center and Bat Cave Draw Parking lots would have a minor adverse impact to historic structures. Removing a short section (approximately 20 linear feet) of the historic rock terrace wall at Bat Cave Draw parking lot to provide a turn-around lane would remove some historic fabric, however, the section to be removed is a very small fraction, less than one percent, of the total linear length of stone wall and is also from an area at the upper end of the Bat Cave Draw parking area where the height of the rock wall is shortest. The historic alignment of stone terrace walls delineating the Visitor Center parking lots and Bat Cave Draw parking lot would remain in place and historic materials, features, construction techniques, and examples of craftsmanship would not change.

Rehabilitation of the Bat Cave parking lot would be a noticeable change to the Caverns Historic District; however, important built features (stone walls and terraces) would remain intact. The location, design, setting, workmanship, and materials and spatial relationships of the built environment would not change and implementation of Alternative B would not diminish the integrity of any of the characteristics of the historic property's that qualify it for listing in the National Register.

Section 106 Summary: After applying the Advisory Council on Historic Preservation's criteria of adverse effect, the NPS finds that the undertaking to rehabilitate the Visitor Center Parking Areas, including Bat Cave Draw, would have an effect on historic structures listed on the NRHP, but that this effect would not be adverse.

- On page 67, 1st delete paragraph.
- On page 67 delete 2nd paragraph Cumulative Effects.

Replace with: *Past and on- going actions to rehabilitate the Visitor Center have had minor adverse impacts to historic structures within the park. Although the Visitor Center has been altered, its integrity has not been diminished. The preferred alternative would have a minor adverse impact to historic structures. When combined with past, on- going, and reasonably foreseeable future actions, Alternative B would add a minor adverse increment to the overall minor adverse cumulative impacts.*

- On page 67 delete sentences 2 and 3 in the 3rd paragraph Conclusion.

Replace with: *Reconstruction of the Bat Cave Draw parking lot would have a minor adverse impact under NEPA and a no adverse effect under Section 106.*

- On page 69 Preferred Alternative Impact Analysis Cultural Landscapes, delete 2nd and 3rd paragraphs.

Replace with: *Implementation of the preferred alternative would have a minor adverse impact to cultural landscapes listed in the National Register of Historic Places. The undertaking would remove the pavement and discontinue the use of the Bat Cave Draw parking area for visitor parking which would alter the vehicular circulation patterns of the historic district. The historic alignment of stone terrace walls delineating the Bat Cave Draw parking lot would remain in place and these cultural landscape features would continue to be preserved and interpreted. Removing the asphalt from the parking lot at Bat Cave Draw is reversible.*

Because the historic alignment of stone terrace walls would remain in place, the spatial organization of the historic district, the functional and visual relationship between spaces, would be largely unaltered. Pedestrian access to walkways and the historic stairs at Bat Cave Draw parking area would remain open to visitors. In addition, the topography and vegetation of the district's landscape would be unchanged. The patterns and features of the landscape would not be altered such that the overall integrity of the landscape would not be diminished.

Rehabilitation of Walnut Canyon Road would not change how vehicles access the park. The alignment of the road would remain unchanged, parking pullouts that are a part of the original road alignment would remain, and social pullouts that have accreted over time would be obliterated resulting in a minor beneficial impact to cultural landscapes.

- On page 70 delete 1st paragraph Cumulative Effects.

Replace with: *Past, on- going, and reasonably foreseeable future actions including the rehabilitation of the Visitor Center and sewer line rehabilitation have had negligible to minor adverse cumulative impacts to cultural landscapes. The minor adverse impacts with the implementation of Alternative B, NPS preferred alternative to rehabilitate the Visitor Center parking areas including Bat Cave Draw would contribute a minor and noticeable increment to the overall minor adverse cumulative impacts.*

- On page 70 delete 2nd paragraph Conclusion.

Replace with: *Rehabilitation of the Visitor Center parking areas, including Bat Cave Draw would have a minor adverse impact on cultural landscapes. Rehabilitation of Walnut Canyon Entrance Road would have a minor beneficial impact on cultural landscapes. The minor adverse impact to cultural landscapes that would occur with the rehabilitation of the Visitor Center parking areas, including Bat Cave Draw would contribute a minor adverse increment to the overall minor adverse cumulative impacts to cultural landscapes.*

Section 106 Summary: After applying the Advisory Council on Historic Preservation's criteria of adverse effect for both the rehabilitation of the Visitor Center parking areas, including Bat Cave Draw, and the rehabilitation of Walnut Canyon Entrance Road, the NPS finds that there would be an effect on cultural landscape listed on the NRHP, but that this effect would not be adverse.