

**National Park Service
U.S. Department of the Interior**

**Chaco Culture National Historical Park
Nageezi, New Mexico**



Visitor Center Rehabilitation Project Finding of No Significant Impact

Chaco Canyon National Monument was created in 1907, became Chaco Culture National Historical Park in 1980, and was named a World Heritage Site in 1987. The park preserves and protects the extraordinary archeological resources associated with the prehistoric Chacoan culture that flourished between the 9th and 13th centuries. The park has only one visitor center which is, in many ways, the heart of the park. It houses the park headquarters functions, has a small museum, book sales area, and auditorium, and is where visitors pay their entrance and camping fees and get oriented to the park.

The National Park Service is proposing to completely rehabilitate and renovate the park's only visitor center/headquarters building. The existing visitor center was constructed in 1957 and has been remodeled or expanded several times. It is not presently adequate for the functions that it is intended to serve. The heating and cooling systems, the electrical system, and the roof need to be replaced. The electrical system was not designed to support the extensive use of computers and often fails. There are cracks in walls and floors caused by soil movement that allow unfettered access to rodents in an area where hantavirus is endemic, exposing park staff and visitors to potentially lethal health risks. As confirmed by a recent geotechnical distress investigation, structural supports need to be installed beneath the building's foundation, and site drainage improvements need to be made in order to adequately mitigate soil stability issues.

The building does not meet standards for preservation and protection of museum collections. Rather than deal with these deficiencies individually and sequentially, the park is proposing to address all the building's deficiencies at one time.

This document records 1) a Finding of No Significant Impact as required by the National Environmental Policy Act of 1969 and 2) a determination of no impairment as required by the NPS Organic Act of 1916.

PREFERRED ALTERNATIVE

The preferred alternative (selected action) will completely rehabilitate and renovate the park's only visitor center to meet professional standards and codes, including NPS standards for preservation and protection of museum collections. The existing footprint of the building would remain substantially the same, retaining the existing square footage of the building, although interior spaces would be reconfigured for efficiency and performance. The changes to the building would improve its overall functionality for visitors and staff, and all health and safety deficiencies would be corrected. All existing roof-top equipment would be removed, and replacement equipment would instead be installed on the ground next to the building. Heating and cooling systems would be more effective and energy-efficient. During the construction period, temporary buildings (trailers and/or yurts) would be installed at the edge of the visitor center parking lot to serve visitors. The work should take between 12 and 18 months. During construction, park staff would work either in the

temporary buildings, park housing temporarily converted to office space, or in existing offices in the park's maintenance complex.

MITIGATING MEASURES

The following mitigation measures were developed to minimize the degree and/or severity of adverse effects and would be implemented during construction of the action alternative, as needed:

- Construction limits would be identified and clearly marked with construction fencing, tape, flagging, snow fencing, or some similar material. The contractor would be responsible for ensuring that all work and all contract employees stay inside the construction limits. All protection measures would be clearly stated in the construction specifications, and workers would be instructed to avoid conducting activities beyond the construction limits. Temporary structures such as erosion control fencing may be placed outside the area of potential effect only after explicit approval from park management to ensure the protection of natural and cultural resources and to avoid conflicts with visitors and park operations. In addition, the National Park Service would ensure that all contractors and subcontractors are informed that damage to resources outside the scope of work is subject to prosecution, fine, restitution costs, and other penalties. The NPS project engineer would ensure that the project is confined within the parameters established in the compliance documents, and that mitigation measures are properly implemented.
- Construction vehicles and equipment, as necessary, would be confined to the designated construction area, and existing roads (for transportation purposes only). Vehicle and equipment movement over the area would be minimized to reduce soil compaction and damage to vegetation, geologic features, and other resources. Equipment staging would occur only within the visitor center's employee parking lot, or other specifically approved locations. Fueling would occur only as needed within the park, and only in areas specifically designated for that purpose. Daily maintenance of all machinery and vehicles would be conducted only in equipment staging or other approved areas. Any spill of hazardous materials, fuel, etc., would be immediately cleaned up and reported to park management. Hazardous materials clean-up kits would be available at the staging area and on any fuel and oil trucks. Equipment would be checked daily to identify and repair any leaks. Storage of hazardous construction materials would only be allowed where specifically authorized.
- All demolition debris, including visible concrete and metal pieces, would be hauled from the park to an appropriate disposal location, and not be allowed to accumulate unnecessarily. All tools, equipment, barricades, signs, surplus materials, and rubbish would be removed from the project work limits upon project completion. No materials would be moved from the park during this project, unless specifically authorized or when clearly identified as items for disposal. Any asphalt or concrete surfaces damaged due to work on the project would be repaired.
- Contractors and subcontractors would ensure that construction crews and supervisors are aware of hanta-virus exposure risks associated with rodents inhabiting the visitor center. Supervisors and crews would be provided with basic information regarding the transmission of hanta-virus to humans, associated symptoms of illness, health implications of exposure, and precautionary measures that should be taken to mitigate exposure risk. To reduce exposure risk, work crews would take appropriate steps to minimize the transport of fugitive construction dust, residues, etc., through the air, and would ensure that no person is subjected to airborne particle releases that have a high potential for containing hanta-virus. Crews would also be made aware of the possibility of discovering lead, asbestos, or other materials potentially harmful to human health, and would be instructed on how to identify and handle those materials in a manner that would not expose humans or the environment to those materials beyond

- Work crews and supervisors would be required to meet with park cultural and natural resource specialists before starting work, so that they can be directly informed about how working in a unit of the national park system differs from other construction areas, and so that all construction personnel are fully informed of their responsibilities. The special sensitivity of the park's values, pertinent laws or regulations, and appropriate housekeeping practices would be discussed, along with information about acceptable conduct within the national park setting. NPS staff would ensure that all contractors and subcontractors are informed of the penalties for illegally collecting artifacts or intentionally damaging paleontological materials, archeological sites, or historic properties. Contractors and subcontractors would also be instructed by the park's resource specialists on procedures to follow in case previously unknown paleontological or archeological resources, or human remains, are uncovered during construction. Similarly, construction personnel would be informed about special status species and what actions should be taken if a special status species is encountered.
- A National Park Service cultural resources specialist would be on site during project implementation (i.e. whenever ground disturbance takes place) to determine appropriate management actions should undocumented cultural resources be discovered. Should construction unearth previously undiscovered archeological resources, work would be stopped and the park would consult with the state historic preservation officer/tribal historic preservation officer and the Advisory Council on Historic Preservation, as necessary, according to §36 CFR 800.13, Post Review Discoveries. In the unlikely event that human remains are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act (1990) would be followed. Equipment and materials staging areas would also avoid known archeological resources.
- Although no blasting is contemplated as part of the project, concern over construction-related vibrations (from pounding, drilling, large truck movement, etc.) prompted park managers to consider the effects of those vibrations on nearby geologic formations. Prior to beginning construction, design engineers would be required to evaluate significant construction-related vibrations and any potential effects that such vibrations could have on nearby geologic features—in particular, the canyon walls that are susceptible to fracture and mass wasting, and the underlying talus slope. Design engineers would be required to submit a vibration management plan in order to minimize significant vibration-generating activities during the visitor center's construction and avoid resource damage. This plan would be subject to review and approval by the National Park Service's Geologic Resources Division. At minimum, the plan would evaluate and characterize significant expected vibration sources, establish measurable geologic resource impact thresholds, vibration monitoring techniques and protocols, and action procedures for any non-conformance with established thresholds.
- The contractor or subcontractor would be responsible for ensuring that endangered, threatened, or sensitive species are protected according to the Endangered Species Act and other applicable laws. To the extent possible, an NPS natural resources specialist would be available during project implementation. If a previously unknown or undiscovered endangered, threatened, or sensitive species is discovered in the project area, all work would cease until the park staff evaluates the project's effect on the discovery. If required, a Section 7 consultation with the U.S. Fish and Wildlife Service would be conducted, and any needed modification of the construction contract would be determined. If any wildlife species (lizards, rodents, snakes, etc.) are found, the contractor would contact a park biologist and ask for guidance or assistance in its removal. The contractor would be required to maintain strict trash control so that no wildlife is attracted to the project area. No food scraps would be discarded or fed to wildlife.

- To minimize the amount of ground disturbance, staging and stockpiling areas would be located in previously disturbed sites, away from visitor use areas to the extent possible. All staging and stockpiling areas would be returned to pre-construction conditions following construction. Existing vegetation at the site would not be disturbed to the extent possible. Because disturbed soils are susceptible to erosion until re-vegetation takes place, standard erosion control measures such as silt fences and/or sand bags would be used to minimize any potential soil erosion. Silt fencing fabric would be inspected weekly or after every major storm. Accumulated sediments would be removed when the fabric is estimated to be approximately 75 percent full. In an effort to avoid introduction of exotic plant species, no hay bales would be used. Hay often contains seed of undesirable or harmful alien plant species. Therefore, on a case-by-case basis the following materials may be used for any erosion control dams that may be necessary: rice straw, straws determined by NPS to be weed-free (e.g. Coors barley straw or Arizona winter wheat straw), cereal grain straw that has been fumigated to kill weed seed, and wood excelsior bales.
- Re-contouring and re-vegetation of disturbed areas using park-approved native seed stock (if possible, from genetic stocks originating in the park) would take place following construction. Re-vegetation efforts would strive to reconstruct the natural spacing, abundance, and diversity of native plant species. Soils used would be from within the project area, unless specifically authorized by park management. The use of conserved topsoil would help preserve micro organisms and seeds of native plants. The topsoil would be re-spread in as near as original location as possible, and supplemented with scarification, mulching, seeding, and/or planting with species native to the immediate area. This would reduce construction scars and erosion. All disturbed areas would be restored as nearly as possible to pre-construction conditions shortly after construction activities are completed. Weed control methods would be implemented to minimize the introduction of noxious weeds. The principal goal is to avoid interfering with natural processes.
- The park would take appropriate measures to ensure that the effects of construction activities are kept to a minimum and do not diminish the value of visitors' experiences while at the park. The park would communicate construction plans and activities as early as possible on its website, over the park's traveler's information system (TIS) AM radio broadcast, and through various informational materials (signs, flyers, kiosk messages, etc.) that would be made available to affected visitors. Visitors would learn about why the project is being constructed, specific design plans and features, sustainable design improvements, and updates on the progress of construction. The park would strive to keep available as many programs and other visitor services as possible at normal levels, though some may have to be altered or scaled back somewhat. All key park sites would be open to the public as usual. A temporary visitor contact station would provide the most essential visitor services and key interpretive information, as well as a first aid/comfort station. Visitors would have full access to bathrooms and potable water as usual. Temporary facilities would be climate controlled and accessible. Campgrounds would remain open, and are expected to be at full capacity throughout the construction period.
- To mitigate potential conflicts with park visitors, a number of measures would be taken. To minimize effects of construction on the natural ambient soundscape and night skies, all construction operations (including machinery use) and traffic within the park would be strictly confined to hours determined by park management to be reasonable. Activities would occur during daylight hours only, and not within the quiet hours established for the park campground. All equipment would be appropriately muffled, and shut down when not in use. Quiet construction techniques would be selected over louder processes whenever possible and reasonable. Fugitive dust generated by construction would be controlled by spraying water on the construction site, if necessary. Work crews would be required to provide their own portable restroom facilities; public restrooms would not be shared with construction crews. There may be some limited occasions when construction work may require a short and temporary road closures (e.g. for materials delivery), but the flow of vehicle traffic on the main park road would be maintained during the

- To the extent possible, the effects of construction activities on park operations would be avoided or minimized. Desirable features of the existing visitor center building and its exterior surroundings would be removed if at risk of damage, or preserved and protected in place if removal is not practical. In particular, stone exhibit walls would be protected in place if at all practicable. Remaining landscaping features would be protected and avoided, unless removal and/or replacement are part of the approved building and site design. Museum objects and records would be carefully removed from the exhibits area and relocated to a secure, climate-controlled storage area by park curatorial and cultural resources staff.
- In the 500-year flood event, flood waters in the visitor center are estimated to reach two feet in depth around the building, according to the park's General Management Plan. Because all the museum objects are in reinforced glass cases well above ground level, the park has concluded that there is some likelihood of effect but that the likelihood of damage to the museum objects is not high. In an effort to minimize hazards to human life and property, the park will prepare a flood preparedness and evacuation plan. Park staff will be familiar with the plan and be able to react quickly to flooding conditions by informing the public of appropriate actions.

ALTERNATIVES CONSIDERED

The primary alternatives considered were a no action alternative (Alternative A) and the preferred alternative, to completely renovate the visitor center (Alternative B).

ENVIRONMENTALLY PREFERRED ALTERNATIVE

The preferred alternative is also the environmentally preferred alternative. Alternative B is the environmentally preferred alternative. The environmentally preferred alternative is determined by applying the six criteria suggested in §101 the National Environmental Policy Act. According to these criteria, the environmentally preferred alternative should 1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations; 2) assure for all generations safe, healthful, productive, and esthetically and culturally pleasing surroundings; 3) attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences; 4) preserve important historic, cultural and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity and variety of individual choice; 5) achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; and 6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

Basic visitor services and administrative functions would still be provided through the construction period, but in temporary facilities away from many of the existing facility's health and safety threats; the temporary facilities would continue to offer visitors a base from which to experience the park and its resources, and would provide park staff with basic administrative space. In the long term, the visitor center would provide a healthful, safe, pleasing, energy-efficient, and productive space for park staff, volunteers, and cooperating association employees — without the existing maintenance and operational cost burdens; as a result, it would leave the park better equipped to protect, preserve, and interpret the park's resources. Current and future generations of park visitors would benefit from the safer, more accessible, and more aesthetically-pleasing

experience. This alternative meets goals 1, 4, and 5 of §101 to a greater extent than Alternative A, while also meeting goals 2, 3, and 6. Therefore, it would better promote the national environmental policy. Because it meets the purpose and need for the project, the project objectives, and is the environmentally preferred alternative, alternative B is also recommended as the National Park Service preferred alternative.

Why the Preferred Alternative will not have a Significant Effect on the Human Environment

Impacts may be both beneficial and adverse. A significant effect may exist even if the agency believes on balance that the effect will be beneficial.

The impacts to park operations and visitor experience identified in the environmental analysis are minor to moderate. The Visitor Center will be closed during the construction period – 12 to 18 months -- but the park will have an alternative visitor contact station to enable visitors to get oriented to the park and see the park film, even if the space allotted to accommodating visitors will be somewhat reduced.

The park staff will be moved from the visitor center and will have their offices in three different locations – the temporary visitor center, the maintenance/curatorial building, and in a housing unit temporarily converted to office space. There will be numerous challenges for the staff but the effects – while temporarily a challenge – will be moderate and relatively short-term.

There were no impacts to cultural or natural resources identified in the analysis.

Degree of effect on public health and safety

Generally, the renovation and rehabilitation of the visitor center will have a long-term and beneficial impact on both health and safety because the hanta-virus risk will be reduced and the electrical system will be properly sized.

Because the visitor center is in the 500-year floodplain of Gallo Wash, there will continue to be potential flood risk. It is conceivable that there could be effects to the visitor center from an extreme flood event. The park has committed to preparing a flood awareness and evacuation plan, which should improve awareness of flood issues and provide for more knowledgeable response by the park staff.

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

The renovation and rehabilitation of the park's 51 year old visitor center does not appear to be highly controversial. There were no comments on the project EA. Park stakeholders and knowledgeable visitors have indicated that they recognize the need to deal with the building's deficiencies. The park's staff is generally supportive of the project because it promises the opportunity of a better functioning and more comfortable working environment.

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

Because this project is a renovation of an existing building, there are few risks that are either unknown or uncertain. The two areas where the analysis identified potential risks – the voids caused by fine particulate erosion in the area under the building and the potential for rock falls – have been investigated to the degree

possible at this time. The park is requesting engineering evaluations on these issues from the contractor(s) during the project planning.

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 fact that the project is a building renovation and rehabilitation being undertaken by the government makes it highly unlikely that the decision establishes a precedent or represents a decision in principle about future actions.

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

No significant impacts, singly or cumulatively, were identified in the analysis.

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 or destruction of significant scientific, cultural, or historical resources.

The park is a World Heritage Site and, as a national historical park, is listed on the National Register of Historic Places. The visitor center is not a contributing element to those designations. The park recommended and the State Historic Preservation Officer concurred (in May, 2008) that the visitor center is not eligible for listing on its own. Therefore, there will be no adverse effect or loss or destruction of significant resources.

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

No threatened or endangered species, or their critical habitats, are known to exist in the project area.

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

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

APPROPRIATE USE, UNACCEPTABLE IMPACTS, AND IMPAIRMENT

Sections 1.5 and 8.12 of the NPS Management *Policies* underscore the fact that not all uses are allowable or appropriate in units of the National Park System. The proposed action was examined to determine its consistency with applicable laws, executive orders, regulations, and policies; consistency with existing plans for public use and resources management; actual and potential effects to park resources; total costs to the Park Service; and whether the public interest would be served. The visitor center is an existing building and the proposed action is intended to make it more functional, more efficient, and extend its useful life. Consequently, the Park Service finds that the preferred alternative is an appropriate use. The mitigating measures outlined above are expected to ensure that no major adverse impacts would occur so that implementation of the preferred alternative would not result in any unacceptable impacts.

The NPS has determined that implementation of the preferred alternative would not constitute an impairment of Chaco Culture National Historical Park's resources or values as described by the *Management Policies*. This conclusion is based on the NPS' analysis of the environmental impacts of the proposed action as described in the EA, relevant scientific studies, and the professional judgments of the decision-maker guided by the direction of the 2006 *Management Policies*. The EA identified less than major adverse impacts on

Archeological Resources; Museum Collections; Geologic Resources; Energy Use, Conservation Potential, and Sustainability; Health and Safety of Employees and the Visiting Public; Visitor Use and Experience; and Park Operations. A Statement of Findings on Floodplain Use was prepared because the building is in the 500-year floodplain of Gallo Wash. This conclusion is further based on the Superintendent's professional judgment, as guided and informed NPS policy and regulations. Although the proposed action has some negative impacts, in all cases these impacts are proposed to preserve and restore other park resources and values. Overall, the proposed action results in benefits to the park -- its resources and values -- opportunities for their enjoyment, and does not result in their impairment.

PUBLIC INVOLVEMENT

The environmental assessment was made available for public review and from February 20, 2009 to March 22, 2009. Review and comment were also sought from the park's affiliated tribes. There were no public comments. Three tribes responded with no comments.

CONCLUSION

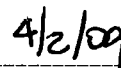
As described above, the preferred alternative does not constitute an action meeting the criteria that normally require preparation of an environmental impact statement (EIS). The preferred alternative will not have a significant effect on the human environment. Environmental impacts that could occur are limited in context and intensity, with limited adverse effects that are generally localized, short- to long-term, and negligible to moderate. There are no unmitigated adverse effects on public health, public safety, threatened or endangered species, sites or districts listed in or eligible for listing on 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: _____



Regional Director, Intermountain Region



Date