National Park Service
U.S. Department of the Interior

Chaco Culture National Historical Park
New Mexico

FRONT COUNTRY TRAILS UPGRADE PROJECT
FINDING OF NO SIGNIFICANT IMPACT

BACKGROUND

In compliance with the National Environmental Policy Act, the National Park Service prepared an Environmental Assessment/Assessment of Effect to examine various alternatives and environmental impacts associated with the proposal to upgrade approximately 3.46 miles of front country trails at Chaco Culture National Historical Park. There are currently several social trails weaving through the established trail system, making it difficult for visitors to distinguish established from social trails. The network of social trails extends through closed areas, posing risks to resources and to visitor safety. The proposed trail upgrades would edge the trails with metal railings and surface them with compacted road base that will distinguish them from the social trails and providing a sustainable, all-weather surface that makes the trails more accessible to a larger percentage of visitors.

The proposed work on the front country trails is needed to address hazards to visitor safety, persistent resource damage, and unsustainable trail design. Additionally, the proposed work increases the amount of trails that are accessible to visitors with mobility impairments. In addition to the proposed work on the trails the park proposed to add shade ramadas with picnic tables to the parking area of Pueblo Bonito and Casa Rinconada. These added amenities will provide shade and a safe and sustainable location for visitors to rest and eat.

SELECTION OF THE PREFERRED ALTERNATIVE

Two alternatives were evaluated in the Environmental Assessment/Assessment of Effect including Alternative A (No Action) and Alternative B (Front Country Trail Upgrades). Alternative B is the National Park Service's Preferred Alternative because it best meets the purpose and need for the project as well as the project objectives to 1) improve visitor safety by adding all-weather surfaces that will not become slick and muddy in inclement weather, 2) Providing a clearly navigable and well-designed trail system that will improve visitor satisfaction and understanding, 3) minimize impacts to park resources, 4) implement a sustainable design for trail system and trail system maintenance that would make long-term maintenance practical and make park operations more efficient, and 5) establish handicapped accessible trails to the greatest extent possible.

Alternative B consists of upgrading approximately 3.46 miles (5.55 kilometers) and realign approximately 0.10 mile (0.16 kilometer) of trail in the CCNHP front country. The trail upgrades will be largely in the same footprint as the current trails, will be between 3-15 feet in width, and will be edged with metal railings to delineate trail parameters. The trails will be surfaced with compacted

road base (3/4" aggregate base course, a mixture of 3/4 inch and less aggregate mixed with crusher fines commonly used on roads, walkways, patios and retaining walls), which will provide a stable and compact all weather surface. Edging will be added to the surface of the trails and held in place by ¼" x 12" pegs which will be hand hammered into the trail edges. Fill soil, acquired from either a BLM quarry from which the park is under permit to use or from an in-house stock pile of excess road base/sandy soil, will be used on portions of the trails needing repair from gulling and washouts. Soils will be natural materials. Erosion control features will be installed in conjunction with the new trail surface in areas where water erosion is affecting the trail. Four to six inch PVC pipe will be utilized as culverts to divert or channel water away from trails and architecture.

ALTERNATIVES CONSIDERED

A total of four alternatives were considered for this project, including two that are analyzed in the Environmental Assessment/Assessment of Effect and two that were dismissed prior to analyzing them in the Environmental Assessment/ Assessment of Effect. The two alternatives that are analyzed in the Environmental Assessment/ Assessment of Effect include Alternative A (No Action) in which the trails would be maintained as they are and Alternative B (Front Country Trail Upgrades) which is the Preferred Alternative, as discussed in the previous section.

The two alternatives that were dismissed prior to analyzing them in the Environmental Assessment/ Assessment of Effect included Hardening the Front Country Trails in which cement, asphalt, or a chemical soil stabilizer would be used on the surfaces of the trails; and Closure of the Front Country Trails in which the front country trails would be closed to visitor use. These two alternatives were dismissed for various reasons including not meeting the Purpose and Need, lack of feasibility, greater impacts to the resources, and/or greater environmental impacts.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

Alternative B (Front Country Trail Upgrades) is the environmentally preferred alternative. The environmentally preferred alternative is determined by applying the six criteria suggested in the §101 of 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.

Alternative A, No Action, would fail to meet these six evaluation factors because it would retain facilities that do not meet accessibility or safety standards in terms of slick and muddy trails with non-accessible surfaces. It would fail to preserve historic, cultural, and natural aspects of our national heritage by facilitating the creation of social trails that trample cultural and natural resources, and it would not achieve a balance between population and resource use.

Therefore, Alternative B is the environmentally preferred alternative because it best addresses these six evaluation factors. Alternative B, Front Country Trail Upgrades, will provide a safe and serviceable trail that enhances visitor experience by providing a level, hardened all weather surface that, where appropriate, meets accessibility standards, while minimizing environmental impacts to

the greatest extent possible. The Proposed Action will preserve important historic, cultural, and natural aspects of our national heritage protected by CCNHP by establishing clear trails that will prevent visitors from traveling social trails that trample cultural and natural resources. Because the improved trails would follow sustainable design standards, they would be used by future generations for the enjoyment of Park resources; the design of the trails will permit a balance between population and resource use by allowing more visitors to use them with less detriment to the resources. Upgrading the front country trail system will address and help mitigate ongoing resource impacts.

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 moderate beneficial effects on the archeological resources at the site-specific level and minor to moderate beneficial effects on the resources at the local level. The new trail design will easily distinguish the established trail system from social trails, which will keep visitor traffic away from sensitive and fragile archeological areas. The addition of materials will not intrude into unexcavated archaeological areas. Therefore, it is anticipated that the Preferred Alternative would ultimately result in a net beneficial effect that would be direct and indirect, localized, long-term, and moderate.

The Preferred Alternative would have moderate beneficial effects on visitor experience and safety at the site-specific level and minor to moderate beneficial effects on visitor experience at the local level. The new trail design would have an average gradient of 7-9% (4 degree slope) making it easier, safer, and more enjoyable for a larger percentage of visitors to navigate. Handicapped access to the sites will increase due to the elements of universal design that will be incorporated into the trails, increasing satisfaction, enjoyment, and understanding for this segment of the visitor population. Although construction activities have the potential to impact visitor use through construction related noise, mitigation measures have been developed to ensure that there would be little or no disruption in visitor use of the area during trail construction. Additionally, while most of the trail work will be done with hand tools, some work will require the use of motorized equipment, which may cause excessive noise in the area. Use of these trail construction techniques would be planned to avoid times of high visitation such as weekends and holidays. Therefore, during construction it is anticipated that the Preferred Alternative would have direct and indirect, localized, short-term, negligible to minor adverse effects, but that this alternative would ultimately result in a net beneficial effect that would be direct and indirect, localized, long-term, and moderate.

The Preferred Alternative would have minor to moderate beneficial effects on park operations. If implemented, the trails will provide a safe and accessible all weather surfaces that would enable staff to carry out stabilization and interpretive activities even when the ground at large is wet or muddy. If implemented, this alternative would upgrade and improve trail conditions so that regular day-to-day and/or seasonal maintenance of the trails would be negligible consisting of occasional re-seating of the edging rails if or when they start to come out of the ground due to a multi-seasonal ground freeze-thaw cycles. Maintenance would shift from unplanned emergency work to planned and scheduled work activities; thereby improving park operations. Comprehensive maintenance would be required on a life cycle basis, with an estimated life cycle of 15-25 years.

This life cyclic work would be planned and scheduled and made a part of the parks regular cyclic maintenance program thereby improving park operations because staff would be able to plan and schedule any comprehensive maintenance work. Likewise, annual cyclic maintenance funds would be utilized to accomplish the cyclic maintenance, further improving park operations by freeing up base funds to be used in other areas of park operations.

Degree of effect on public health or safety

The Preferred Alternative will have an overall beneficial effect on public health and safety, particularly for the visitors using the front country trail system. The trail upgrades will minimize many of the current unsafe conditions associated with the existing trails by providing a sustainable, all-weather surface that will not become muddy or slick, and will be more accessible for a greater number of visitors.

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

With the exception of park lands, the Preferred Alternative will not impact unique characteristics of the area including prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas because these resources do not exist in the project area. The Preferred Alternative will impact some of the park's archeological resources as discussed previously and later in this document.

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

Throughout the environmental process, the proposal to upgrade the front country trails was not highly controversial, nor are the effects expected to generate future controversy.

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

The effects of upgrading the front country trails are straightforward and do not pose uncertainties. The environmental process has not identified any effects that may involve highly 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 is not expected to set a precedent for future actions with significant effects, nor does it represent a decision in principle about a future consideration.

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

Cumulative effects were analyzed in the Environmental Assessment/ Assessment of Effect, and no significant cumulative effects were identified.

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

A letter dated 7 January 2008 from the New Mexico State Historic Preservation Office confirms the determination of *no adverse effect* under Section 106 of the National Historical Preservation Act.

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

There are no threatened or endangered species in the project area.

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

The action will not violate any Federal, state or local environmental protection laws.

APPROPRIATE USE, UNACCEPTABLE IMPACTS, AND IMPAIRMENT

Sections 1.5 and 8.12 of NPS *Management Policies* underscore the fact that not all uses 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. Trails are common and important elements in most park units. Proper location and construction materials and methods would ensure that unacceptable impacts to park resources and values would not occur. The proposed trails are consistent with the park's general management plan and other related park plans. With this in mind, the NPS finds that construction and use of the front country trails are acceptable use at Chaco Culture National Historical Park.

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 analyzing impairments in the NEPA analysis for this project the NPS takes into account the fact that if an impairment were likely to occur, such impacts would be considered to be major or significant under CEQ regulations. This is because the context and intensity of the impact would be sufficient to render what would normally be a minor or moderate impact to be major or significant. Taking this into consideration, NPS guidance documents note that "Not all major or significant impacts under a NEPA analysis are impairments. However, all impairments to NPS resources and values would constitute a major or significant impact under NEPA. If an impact results in impairment, the action should be modified to lessen the impact level. If the impairment cannot be avoided by modifying the proposed action, that action cannot be selected for implementation." "Interim Technical Guidance on Assessing Impacts and Impairment to Natural Resources" National Park Service, Natural Resource Program Center, July 2003.

In addition to reviewing the definition of "significantly" under the NEPA regulations, the National Park Service has determined that implementation of the Preferred Alternative will not constitute am impairment to the resources and values at Chaco Culture National Historical Park. This conclusion is based on a thorough analysis of the environmental impacts described in the Environmental Assessment/Assessment of Effect, the public comments received, relevant scientific studies, and the professional judgment of the decision-maker, guided by NPS Management Policies (2006). Although the plan/project has some short-term negative impacts, in all cases these adverse impacts are the results of actions taken to preserve and restore park resources and values. Overall, implementation of the Preferred Alternative would benefit park resources and values, provide opportunities for their enjoyment, and would not result in their impairment.

PUBLIC INVOLVEMENT

The Environmental Assessment/Assessment of Effect was made available for public review and comment during a 30-day period ending 12 December 2007 -13 January 2008. To notify the public of this review period, a press release was mailed to stakeholders, affiliated Native American tribes, interested parties, and newspapers. Copies of the document were sent to certain agencies and interested parties; made available in local repositories; and posted on the internet. Four comments were received during this review period.

1. Acoma – Comment noted. Voice mail message received left by Ernie Vallo on Superintendent West's phone sometime between 10-31 December 2007. Voice mail message stated Acoma had no comment on the proposed actions.

2. Hopi – Comment noted and addressed.

3. Southern Ute Indian Tribe – Comment of "No Effect" noted.

4. Pueblo of Laguna – Comment of no significant impact, noted.

CONCLUSION

The Preferred Alternative does not constitute an action that normally requires preparation of an Environmental Impact Statement (EIS). The Preferred Alternative would not have a significant effect on the human environment. Negative environmental impacts that could occur would be negligible or minor in intensity, and short-term in duration. There would be 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 in 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 would not violate any federal, state, or environmental protection law.

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

Approved: _____ 4/2/08
Regional Director, Intermountain Region Date