

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

**Glen Canyon National Recreation Area  
Arizona**



## **GLEN CANYON RIM TRAIL FINDING OF NO SIGNIFICANT IMPACT**

### **Background**

The rim of Glen Canyon offers spectacular views of the Colorado River, unique geologic formations, and scenic vistas. A number of popular scenic overlooks exist along the canyon's edge, including the Horseshoe Bend Overlook and the public views afforded by the Glen Canyon Dam. In the mid-1990's, the National Park Service (NPS) evaluated the construction of a trail that would link together these scenic overlooks and create a continuous trail along the canyon's rim. In 2009, the NPS completed an Environmental Assessment (EA) to evaluate the construction of an 8.7-mile recreational trail, known as the Glen Canyon Rim Trail. The EA was completed to report on issues and concerns sought from the public on the Glen Canyon Rim Trail; to provide for public comment on alternatives and the preferred alternative for construction of the Rim Trail; and to determine the impact to area resources due to construction of a hiking and bicycling trail along the rim of Glen Canyon.

This document records 1) a Finding of No Significant Impact (FONSI) 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**

Two alternatives were evaluated in this EA: Alternative A (No Action) and Alternative B (Construct Glen Canyon Rim Trail). Alternative B is the preferred alternative because it best meets the purpose and need for the project as well as the project objectives to: (1) Prevent impairment and unacceptable impacts to natural and cultural resources; (2) Provide additional trail-based recreational opportunities for residents and visitors in the Page area; (3) Develop recreational opportunities that are aesthetically pleasing, enhance the visitor experience, and provide opportunities for healthful activities; and (4) Foster through outdoor recreation opportunities with strong interpretive/educational components a greater understanding and appreciation of the local natural environment and the stewardship mandate of the NPS.

## Mitigating Measures

The following mitigation measures have been identified to minimize the degree and/or severity of adverse effects to park resources during trail construction, and would be implemented as needed:

1. To minimize the amount of ground disturbance, staging and stockpile areas would be located in previously disturbed sites, away from visitor use areas to the extent possible. All staging and stockpile areas would be returned to pre-construction conditions following trail construction. Access to the area for construction would be provided by existing administrative roads.
2. All applicable safety standards will be followed to protect the public and employees. This will include identification and fencing of the immediate work site.
3. An Arizona Department of Environmental Quality Pollution Discharge Elimination System General Construction Permit would be obtained prior to construction. This permit requires the completion of a Stormwater Pollution Prevention Plan and erosion control.
4. To reduce noise and emissions, construction equipment would not be permitted to idle for long periods of time. Construction activities would take place during daylight hours.
5. Fugitive dust generated by construction activities would be minimized by spraying water on the construction site, if necessary.
6. Because the project area is in a location that may be visited by the California condor, the following US Fish and Wildlife Service approved conservation measures will be undertaken by all personnel working at the project site:
  - a) If a Condor is spotted directly on or over the construction site, activities will cease until the bird leaves.
  - b) Construction workers and supervisors are instructed to avoid interaction with Condors and to immediately contact the Resources Division (928- 608-6267) at the Park if a condor settles at the construction site.
  - c) The construction site will be cleaned up at the end of each day (e.g., trash removed, scrap materials picked up) to minimize the likelihood of Condors visiting the site.
  - d) All dead animals found within 500-feet of the construction zone will be immediately disposed of by placing the carcass in the nearest available dumpster. All dumpsters will be emptied on a regular basis so as not to encourage roosting by condors that may be attracted to odor coming from the dumpsters.

- e) To prevent contamination and potential poisoning of Condors, a Spill Prevention and Cleanup Plan will be developed and implemented for this project. It will include provisions for immediate clean-up of any hazardous substance, and will define how each hazardous substance will be treated in case of leakage or spill. This plan needs to consider possible leakage from all equipment, materials and vehicles being used. This plan will need to be provided at least 2 weeks prior to start of construction (including preliminary set-up activities).
- f) All construction personnel will be given a briefing concerning these conservation measures prior to start of construction activities. The briefing should include a review brochure entitled, "California Condors in Arizona".
- g) Project personnel are strictly prohibited from hazing Condors (chasing, flapping arms, throwing objects, honking horn, etc.)

## Alternatives Considered

Alternatives considered for analysis are consistent with Glen Canyon's enabling legislation as well as the existing General Management Plan and had to satisfy the purpose and need for action as defined in the EA. These considerations, as well as input from park interdisciplinary team members and members of the public, formed the basis of the two alternatives that were developed: Alternative A, the No Action Alternative, and Alternative B, the preferred alternative. Both alternatives were carried forward for further evaluation in the EA.

## Environmentally Preferred Alternative

The environmentally preferred alternative is the alternative that will promote the national environmental policy as expressed by §101 of the National Environmental Policy Act. This includes alternatives that:

1. Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
2. Assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
3. Attain the widest range of beneficial uses of the environment without degradation, risk to 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 which supports diversity, and variety of individual choice;

5. Achieve a balance between population and resource use which 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, meets the above six evaluation criteria for identifying the environmentally preferable alternative. Because the alternative would result in no construction and therefore no disturbance within the project area, the alternative would best meet the criteria to preserve the natural and cultural aspects of the area (Criteria #4). However, the alternative does not support the other criteria as well as Alternative B.

Alternative B satisfies the majority of the criteria listed in Section 101(b) of NEPA, and has been identified by the National Park Service as the environmentally preferred alternative. Alternative B would result in the construction of a recreational hiking and bicycling trail that would allow for productive use of the landscape in a safe and aesthetically pleasing manner. Construction methods and materials would be low-impact, include appropriate mitigation measures, and would be designed to protect the natural and cultural features and resources of the project area. Trail planning would incorporate management practices to protect the area from inadvertent damage due to unacceptable recreational activities and behavior, such as social trail encroachment. Trail design would also incorporate informational wayside exhibits designed to foster a stewardship ethic and a deeper appreciation for the natural environment and cultural histories. Alternative B achieves the best balance between protection of the natural and cultural environment, productive use of local resources, and the enhancement of environmental awareness and stewardship.

## 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 will have minor, adverse, site specific and long term impacts to soils and geological formations in the project area. Direct impacts include physical impacts associated with construction of the trail, including milling of sandstone surfaces and hardening of areas of loose sand. Ongoing impacts may occur as a result of public use of the trail, including impacts associated with social trails. Erosion may increase in some locations as a result of trail use and construction.

The preferred alternative will have negligible adverse impacts to vegetation. Direct impacts to vegetation will occur as the trail corridor is cleared and soils are removed or otherwise impacted by trail construction activities. Public use of the trail may result in additional, ongoing, long term impacts to vegetation due to trampling, collection, and other impacting uses. Impacts overall will be barely perceptible.

The preferred alternative will have a moderate, beneficial, and long-term impact of visitor use and experience within the project area. Construction of the trail will increase the availability of recreational opportunities in the project area. The trail is designed to incorporate modern planning techniques to reduce incidents of visitor conflict and safety risks, and to protect area resources and values while enhancing the visitor use and enjoyment of the area.

The preferred alternative will have an adverse, minor, intermittent impact to park operations. The trail will be constructed by park staff, which will require time and commitment of park personnel. Ongoing operational responsibilities will increase in the project area as the NPS undertakes visitor patrols, resource monitoring, maintenance activities, and other responsibilities requiring an NPS presence.

The preferred alternative will result in a minor, long-term, and adverse disturbance to wildlife populations in the project area. The trail would cause minor impacts to soil and vegetation resources that may serve as habitat to desert species. Other species may be temporarily displaced by the activities associated with construction of the trail. Long-term displacement may occur as a result of continued human use of the trail. The NPS does not believe that the trail will have negative impacts on any species of management concern, including the Peregrine falcon and the Chuckwalla, two species known to inhabit the project area. The Peregrine is associated with the 1,000-foot canyon cliff face and is located in inaccessible positions. The Chuckwalla is unlikely to be adversely impacted due to construction or use of the trail.

The preferred alternative will result in minor, adverse, long-term impacts to archeological resources in the project area. The trail has been inventoried. Segments of the trail found to impact archeological resources will be rerouted and visitor use redirected to other locations. Construction of the trail may expose additional subsurface resources, which will be inventoried by park staff on a case-by-case basis. Indirect impacts may occur as a result of erosion due to trail construction and human use of the area, as a result of disturbance to additional areas associated with public use of the trail, and as a result of ongoing administrative activities, such as trail repair, that may result in additional exposure of previously unexposed artifacts.

### **Degree of effect on public health or safety**

The health and safety of recreation area visitors and staff is of the utmost importance to the NPS. The NPS is always striving to upgrade resources and facilities to ensure they are as safe as possible for visitors and staff alike. The NPS currently provides for recreational visitation in specific locations along the planned Rim Trail. These include scenic overlook locations such as Horseshoe Bend and the Dam overlooks. Visitation otherwise to the area is extremely light and intermittent.

Special attention will be paid to public health and safety during trail planning, design, and construction. The trail is intended to provide for a safe and healthful visitor experience, and the trail will incorporate features, such as long sight lines, and wide passing lanes, and a developed trail surface intended to protect visitors. However, the trail is being built in a desert landscape where sun exposure is a constant risk. The NPS will provide information to trail users at trailhead kiosks regarding the risks associated with recreational activities in a desert environment.

Construction of the trail will require the use of heavy equipment and physical labor in a desert environment. Health and safety plans for employees would be developed before construction activities commence, and appropriate public notice warning of site closure would be provided.

Given the precautions taken to alert visitors of the potential health and safety risks that accompany recreational use of the Rim Trail, and given that construction employees will be operating under health and safety plans, the proposed action will result in negligible short-term adverse effects to health and safety.

**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**

The preferred alternative will not impact unique characteristics of the area such as park lands, prime farmlands, wild and scenic rivers, or ecologically critical areas because these resources do not exist in the project area. Impacts to cultural resources are described under a following criterion.

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

Throughout the environmental process, the proposal to construct the Glen Canyon Rim Trail has not been highly controversial, nor are the effects expected to generate future controversy. The majority of correspondence received was generally supportive of the project.

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

The project will not result in effects that are highly uncertain or involve unique or unknown risks. As described above, there are risks associated with public health and safety, but these risks did not rise above the threshold requiring analysis in the EA. Further, recreation trails are a common feature in many parks, including parks in the desert southwest. A strong interpretive component including signs at trailhead kiosks will provide the needed information to public users regarding the health and safety risks associated with recreational activities along the trail. As a result of these issues, there were no highly uncertain or unique or unknown risks identified.

**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, and no significant cumulative impacts 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.**

Compliance with §106 of the National Historic Preservation Act was undertaken in late 2008 and 2009. Surveys of the Rim Trail resulted in a high site density of archeological sites. Most sites consisted of lithic scatters and relatively few lithic tools. More recent historic events are also represented in the project area, including activities associated with cattle grazing and construction of the Glen Canyon Dam.

One possible ethnographic resource was identified in the project area. The NPS conducted informal consultation with affected tribes and determined that the project would have no effect on this resource.

The NPS conducted formal consultation with the Arizona State Historic Preservation Officer (SHPO) in 2009. Following consultation, and the advice of NPS planning and cultural resource experts, the Rim Trail will be rerouted where possible to avoid archeological sites. Trained cultural resource experts will also be available during trail construction to identify, inventory, and protect any additional artifacts that may be exposed during construction. The SHPO in a letter dated June 9, 2009, concurred with the NPS findings on site eligibility and concurred with the NPS finding of no adverse effect for the undertaking based on implementation of conditions and modifications to avoid and monitor for adverse effects as outlined in the EA.

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

The NPS determined that the project would not affect any threatened or listed species. No critical habitat exists in the project area, and site visits and file searches resulted in no additional information on threatened and endangered species in the project area. The NPS will implement the California condor conservation measures for the project, as the project will occur within the range of the experimental condor population.

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

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

## 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.

A recreational trail is a common and expected asset in many park units, particularly national recreation areas. Proper planning, location, layout and design, and construction materials and methods ensure that unacceptable impacts to park resources and values do not occur. The proposed recreation trail is consistent with Glen Canyon's GMP and the purposes for which the recreation area was established as a unit of the National Park System. 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, 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 NPS has determined that implementation of the preferred alternative would not constitute an impairment to the integrity of Glen Canyon's resources or values as described by NPS *Management Policies* (NPS 2006 § 1.4). This conclusion is based on the NPS's analysis of the environmental impacts of the proposed action as described in the EA, the public comments received, relevant scientific studies, and the professional judgment of the decision-maker guided by the direction in 2006 NPS *Management Policies*. The EA identified less than major adverse impacts on soils, vegetation, wildlife, and archeological resources. Although the plan/project has some adverse impacts, in all cases these impacts are the result of actions taken to preserve and restore other park resources and values. Overall, the plan results in benefits to park resources and values, opportunities for their enjoyment, and it does not result in their impairment.



## Public Involvement

Public involvement was integrated throughout this planning process. External project scoping was initiated on March 26, 2008 to identify concerns and alternatives related to the proposed Rim Trail project. The public was notified of the proposed action through a news release to local and regional media outlets. Project information was posted on the National Park Service's project planning website ([www.nps.parkplanning.gov](http://www.nps.parkplanning.gov)). On April 23, 2008, the National Park Service hosted an open house at Glen Canyon NRA headquarters to solicit comments on the proposed project. Public scoping was open for a 36-day period, ending April 30, 2008.

The environmental assessment was made available for public review and comment during a 36-day public comment period beginning June 5, 2009 and ending July 10, 2009. A press release was issued to local and regional media outlets. Copies of the EA were mailed to interested government agencies, including Native American Tribal governments and agencies with the State of Arizona. Approximately 125 postcards were mailed to private individuals and other government agencies that were identified as interested in the project.

## Substantive Comments

A total of 6 responses were received during the public comment period, and one comment was accepted outside the formal comment period. Three of the responses were general comments from the public in support of the trail and were non-substantive in nature. No response is provided for these three comments.

Four responses were received from government agencies. NPS policies for implementing NEPA require that the NPS respond to all substantive written and oral comments raised by the public or by agencies in response to a proposed federal action. Responses to the three substantive comments are provided below:

The Arizona Department of Environmental Quality Water Quality Division sent correspondence resulting in one technical correction to the document. They noted that the correct term for the required stormwater pollution permit is a "Pollution Discharge Elimination System General Construction Permit." The EA on page 22 erroneously called this permit a "Pollution Discharge Elimination System permit." The EA text has been corrected in this instance to reflect the accurate permit name.

On June 9, 2009, the Arizona State Historic Preservation Office sent correspondence concurring with the NPS finding of no adverse effect for the undertaking based on implementation of the conditions and modifications outlined in the EA to avoid and monitor for adverse effects to cultural resources in the project area. This correspondence is incorporated in this FONSI as Appendix A.

Correspondence received from the U.S. Fish and Wildlife Service (FWS), Arizona Ecological Field Services Office, contained substantive comments regarding threatened and

endangered species that may occur in the project area. The comment centered on the potential effects to three listed species in the project area: the California condor, Mexican spotted owl, and Brady pincushion cactus, and resulted in the completion of a Biological Assessment.


On August 26, 2009, following review of the biological assessment, the US FWS responded via a Memorandum offering concurrence for the Glen Canyon Rim Trail. This Memorandum is incorporated as Appendix B.

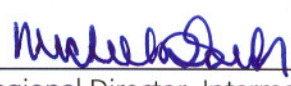
One comment was received prior to the public comment period as a result of ongoing consultation with Tribal governments. On May 18, 2009, the NPS received a letter from the Hopi Tribal Cultural Preservation Office determining that the project proposal would not further adversely affect cultural resources significant to the Hopi Tribe, and a recommendation for a finding of "no adverse effect" is appropriate for the undertaking. This correspondence is incorporated as Appendix C.

## 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 generally adverse impacts that range from localized to widespread, 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 in the National Register of Historic Places, or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified. Implementation of the action will not violate any federal, state, or local environmental protection law.

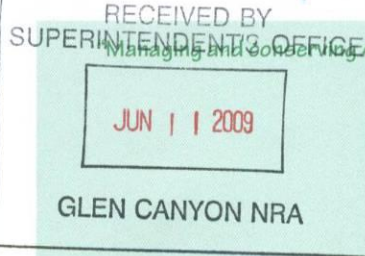
Based on the foregoing, it has been determined that an EIS is not required for this project and thus will not be prepared.

Recommended:  8/28/09  
Superintendent Date  
Glen Canyon National Recreation Area

Approved:  8/31/09  
Regional Director, Intermountain Region Date



## Appendix A



SHPO-2008-0642 (39831)  
Determinations of eligibility  
No adverse effect

June 9, 2008

Stan Austin, Superintendent  
National Park Service  
Glen Canyon National Recreation Area  
PO Box 1507  
Page, AZ 86040

Janice K. Brewer  
Governor

State Parks  
Board Members

Chair  
Reese Woodling  
Tucson

Tracey Westerhausen  
Phoenix

Larry Landry  
Phoenix

Walter D. Armer, Jr.  
Vail

Arlan Colton  
Tucson

William C. Scalzo  
Phoenix

Jamie Hogue  
Acting State Land  
Commissioner

Renée E. Bahl  
Executive Director

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800.285.3703 from  
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General Fax:  
602.542.4180

Director's Office Fax:  
602.542.4188

RE: Proposed Glen Canyon Rim Trail, Glen Canyon National Recreation Area; NPS

Dear Mr. Austin:

Thank you for consulting with our office pursuant to the National Programmatic Agreement about the above referenced proposed undertaking. I have reviewed the materials submitted and have the following comments:

1. We concur with your eligibility determinations:

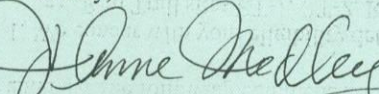
- Rim Trail sites RT-1, RT-2, RT-3, RT-4, RT-5, RT-6, RT-7, RT-8, and RT-11 are each eligible under Criterion D for inclusion in the National Register of Historic Places (NRHP).
- Rim Trail sites RT-9, RT-10, RT-12, and RT-13 are each not NRHP-eligible.
- Each isolated occurrence also is not NRHP eligible. However, isolated occurrences are not "by definition" NRHP-ineligible – occasionally, a rare or unique isolated find could be NRHP-eligible.

2. We concur with your finding of no adverse effect for the undertaking based on implementation of conditions and modifications to avoid and monitor for adverse effects as detailed in your letter.

3. Should post-construction monitoring find that historic properties have been impacted by increased visitation, the agency should consult with SHPO and Tribes regarding appropriate treatment measures.

We appreciate your continued cooperation with our office in complying with the requirements of historic preservation.

Sincerely,

  
Anne Medley  
Compliance Specialist/Archaeologist  
State Historic Preservation Office



## Appendix B



### United States Department of the Interior

U.S. Fish and Wildlife Service  
Arizona Ecological Services Field Office  
2321 West Royal Palm Road, Suite 103  
Phoenix, Arizona 85021-4951

Telephone: (602) 242-0210 Fax: (602) 242-2513



In Reply Refer to:

AESO/SE  
22410-2008-I-0535

August 26, 2009

RECEIVED BY  
SUPERINTENDENT'S OFFICE

AUG 26 2009

GLEN CANYON NRA

Memorandum

To: Superintendent, Glen Canyon National Recreation Area, Page, Arizona

From: Field Supervisor

Subject: Concurrence for Glen Canyon Rim Trail

Thank you for your correspondence of August 13, 2009. This memorandum documents our review of the proposed Glen Canyon Rim Trail in Glen Canyon National Recreation Area (GLCA) in Coconino County, Arizona, in compliance with section 7 of the Endangered Species Act of 1973 (ESA) as amended (16 U.S.C. 1531 et seq.). Your correspondence included determinations that the proposed project may affect, but is not likely to adversely affect, the California condor (*Gymnogyps californianus*) and the Mexican spotted owl (MSO) (*Strix occidentalis lucida*). We concur with your determinations and provide our rationale below.

In addition, a biological assessment of the proposed action included a determination that the proposed action will not affect Brady pincushion cactus (*Pediocactus bradyi*).

#### PROPOSED ACTION

A complete description of the proposed action was provided in an undated biological assessment and is incorporated herein by reference. The Glen Canyon Rim Trail will start at the Horseshoe Bend overlook and will parallel the rim generally 1,000-2,500 feet to the east for approximately 8.7 miles until it ends at the parking lot at the Glen Canyon Dam overlook near Highway 89. The trail will be 50 feet from the rim south of the dam tunnel entrance and security office but the canyon walls at that point are stepped down in a series of false rims towards the river rather than being sheer. The trail will reach the rim at just northeast of Horseshoe Bend and at west of the Page sewage treatment ponds. Those two locations will be designated as overlooks. The two overlooks will be 20-30 feet wide and marked with boulders to keep visitors in the overlook areas.

Construction and delineation of the trail will occur from September 2009 through February 2010. The trail will be 2-5 feet wide with a few sections up to 10 feet wide. All equipment and supplies will be staged at previously disturbed parking lots at either end of the trail. An

environmentally benign non-toxic polymer glue will be used to harden sand in some areas. A small milling machine will be used to smooth the trail surface in some areas.

Only foot traffic and mountain bikes will be authorized on the trail. Restrained and leashed pets will also be allowed. Visitors will be encouraged to stay on the trail at all times. Most trail use is anticipated to occur between May and September. Monitoring of use of the trail will be conducted. If the monitoring determines that significant off-trail activity, especially by bicycles, occurs and is causing damage, management options may be considered to prevent those activities including closure of the trail to bicycles.

Information kiosks will be at each end of the trail. California condor information and other interpretive materials will be available at those stations. Condor information will also be available at other locations including entrance fee stations, GLCA Headquarters, and the Carl Hayden Visitor Center at Glen Canyon Dam.

## CONSERVATION MEASURES

The following conservation measures for the California condor from the biological assessment of the project are part of the proposed action:

- If a condor is spotted directly on or over the construction site, activities will cease until the bird leaves.
- Construction workers and supervisors are instructed to avoid interaction with condors and to immediately contact the Glen Canyon NRA, Division of Resource Management at (928- 608-6267) if a condor settles at the construction site.
- The construction site will be cleaned up at the end of each day (e.g., trash removed, scrap materials picked up) to minimize the likelihood of condors visiting the site.
- All dead animals found within 500 feet of the construction zone will be immediately disposed of by placing the carcass in the nearest available dumpster. Dumpsters will be emptied on a regular basis so as not to encourage roosting by condors that may be attracted to odor coming from the dumpsters.
- To prevent water contamination and potential poisoning of condors, a Spill Prevention and Cleanup Plan will be developed and implemented for this project. It will include provisions for immediate clean-up of any hazardous substance, and will define how each hazardous substance will be treated in case of leakage or spill. This plan needs to consider possible leakage from all equipment, materials and vehicles being used. This plan will need to be provided at least 2 weeks prior to start of construction (including preliminary set-up activities).
- All construction personnel will be given a briefing concerning these conservation measures prior to start of construction activities. The briefing should include a review of the brochure entitled "California Condors in Arizona".

- Project personnel are strictly prohibited from hazing condors (chasing, flapping arms, throwing objects, honking horn, etc.)

#### DETERMINATION OF EFFECTS

We concur with your determinations that the proposed project may affect, but is not likely to adversely affect, the California condor and the Mexican spotted owl for the following reasons:

##### *California Condor*

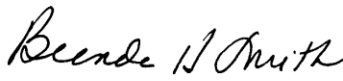

- Construction of the trail will be short-term and will involve relatively few workers.
- Potential human-condor interactions will be prevented or managed appropriately in a manner that will avoid harassment or injury to individuals. Once the trail is opened to the public, routine patrols will be conducted, and if condors occur on the trail, appropriate measures will be taken to prevent interactions between birds and visitors.
- Educational materials and brochures regarding non-interaction of visitors with condors will be available at both ends of the trail and at additional locations of contact with the public.

##### *Mexican Spotted Owl and Critical Habitat*

- Project activities will not alter the key habitat components of MSO habitat.
- Construction of the trail will be short-term, will produce relatively little noise, will approach and occur near predicted habitat along the Glen Canyon rim at only two small overlook areas, and will be conducted outside of the MSO breeding season.
- Noise generated from use of the trail will approach and occur at the rim of Glen Canyon at only two overlook points. Natural sandstone boulders at the overlook points will help prevent visitors from traveling off-trail along the rim.

Thank you for your continued coordination. No further section 7 consultation is required for this project at this time. Should project plans change, or if information on the distribution or abundance of listed species or critical habitat becomes available, these determinations may need to be reconsidered. We also encourage you to coordinate the review of this project with the Arizona Game and Fish Department.

Should you require further assistance, or if you have any questions, please contact Bill Austin at (928) 226-0614 (x102) or Brenda Smith (x101).

  
 Steven L. Spangle

## Appendix C



CHAIRMAN

VICE-CHAIRMAN

May 18, 2009

Stan Austin, Superintendent  
National Park Service, Glen Canyon National Recreation Area  
P.O. Box 1507  
Page, Arizona 86040

Dear Superintendent Austin,

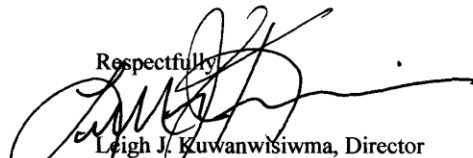
Thank you for your correspondence dated May 6, 2009, regarding an enclosed archaeological inventory and significance evaluation of the 8.5 mile proposed Glen Canyon Rim Trail. Because the Hopi Tribe claims ancestral and cultural affiliation to prehistoric cultural groups in Glen Canyon National Recreation Area, and the Hopi Cultural Preservation Office supports the identification and avoidance of prehistoric archaeological sites and Traditional Cultural Properties, we appreciate your continuing solicitation of our input and your efforts to address our concerns.

The Hopi Cultural Preservation Office considers the archaeological sites of our ancestors to be Traditional Cultural Properties. The Colorado River is a Traditional Cultural Property of the Hopi Tribe. The Glen Canyon Dam, Lake Powell, and the Glen Canyon National Recreation Area are adverse effects on the Colorado River.

We have reviewed the enclosed archaeological inventory and significance evaluation of the 8.5 mile proposed Glen Canyon Rim Trail. We understand that 13 prehistoric properties described as lithic scatters were identified, ten of which are National Register eligible. We further understand that the identified eligible sites will be avoided by project activities and subsequently monitored, and that data recovery will be implemented at the ineligible sites. Therefore, we have determined that this proposal will not further adversely affect cultural resources significant to the Hopi Tribe, and that a recommendation for a finding of "no adverse effect" is appropriate for this undertaking.

However, we look forward to additional consultations on the data recovery and monitoring plans. If you have any questions or need additional information, please contact Terry Morgart or me at the Hopi Cultural Preservation Office. Thank you again for your consideration.

Respectfully,



Leigh J. Kuwanwisiwma, Director  
Hopi Cultural Preservation Office

xc: Arizona State Historic Preservation Office