

National Park Service

U.S. Department of the Interior

**Grand Canyon National Park
Arizona**



SOUTH ENTRANCE ROAD IMPROVEMENTS

FINDING OF NO SIGNIFICANT IMPACT

Grand Canyon National Park proposes to improve the South Entrance Road (Highway 64) between the community of Tusayan and the entrance station, located on the South Rim of Grand Canyon National Park. The purpose of these improvements is to provide an effective system that would address the crowding and safety issues that can occur during the high visitor use season, as well as to improve the experience of those entering the park through the South Entrance. Although some improvements have recently been implemented at the South Entrance to address these issues, the additional improvements are planned to further improve conditions at the entrance station. The preferred alternative includes constructing up to two additional northbound lanes, approximately 1 mile long and constructing a ½ mile long independent bypass lane. The park is working with the Arizona Department of Transportation (ADOT) to address the proposed work in the ADOT easement, south of the park boundary.

The South Rim of Grand Canyon National Park receives more than four million visitors each year, and most of these visitors arrive through the south entrance. On a busy summer day, wait times at the entrance station have exceeded 40 minutes and traffic has backed up into the community of Tusayan, south of the entrance station. This congestion has led to safety concerns for visitors entering the park, pedestrians in Tusayan when traffic backs up, and NPS employees who are walking among waiting vehicles and answering questions. Other concerns include air quality from idling vehicles, and social trails and litter from people who leave their vehicles and walk into the adjacent forests.

The proposed road improvements in the preferred alternative have been considered in the larger planning effort for the upcoming South Rim Visitor Transportation Plan Environmental Assessment (Transportation Plan) expected to be released in fall 2007. This project was separated from the larger plan to address visitor experience and safety concerns and to expedite implementation. Although this project would precede the finalization of the Transportation Plan, it would ensure compatibility with future transportation options.

Objectives of the Action

1. Improve the entrance experience by reducing long waits at the entrance station for visitors, as well as for employees, residents and commercial traffic.
2. Improve safety of visitors, employees and residents at the entrance and on the two mile approach to the entrance.
3. Ensure compatibility with other future transportation options.

4. Cooperate with gateway communities, agencies, tribes, and other stakeholders to achieve mutual transportation goals.

In July 2007 the National Park Service (NPS) prepared an *EA/AEF for the South Entrance Road Improvements*. This EA/AEF, in accordance with the National Environmental Policy Act, analyzed the impacts that will likely result from implementation of the project. The EA/AEF evaluated one alternative for addressing the purpose and need for action (Alternative B). The EA/AEF also evaluated taking no action (Alternative A, No Action) for comparison with the action alternatives. Alternative B is the preferred alternative.

PREFERRED ALTERNATIVE

The South Entrance Road, Highway 64, will be widened approximately 12 feet to accommodate a total of two northbound lanes and one southbound lane from the access road to the Tusayan Ranger Station north to a point about 400 feet south of the South Entrance Station. The road in the vicinity of the Tusayan Ranger Station can currently accommodate two northbound lanes; therefore, widening will begin just south of the park boundary. The existing and proposed lanes will be 12-foot-wide vehicle lanes with one, three-foot-wide paved shoulder on each side of the road. This alternative will increase road width 12 feet.

An independent bypass lane will also be constructed under this alternative. The bypass lane will diverge from the highway between the park boundary and the park sign and will merge back onto the highway approximately 500 feet north of the South Entrance Station. This proposed bypass lane will be a 12-foot wide vehicle lane with two, two-foot-wide paved shoulders on each side of the road. An automated gate and a kiosk may be constructed to facilitate the use of the bypass lane. An automated gate will be installed to the east of the park sign parking lot. The kiosk, if constructed, would be adjacent to the South Entrance Station. Trenching to provide electrical service to the gate will occur within the disturbed footprint of the bypass lane. The bypass lane will be available to select user groups, which may include transit vehicles, Park residents, Park and concessionaire employees and others as determined by the NPS.

An egress road from the bypass lane to the park sign parking lot will be constructed at a point immediately south of the automated gate. This road is included to allow unauthorized users to exit the bypass lane and return to the South Entrance Road south of the entrance station. This egress road will also allow vehicles to exit if the automated gate becomes inoperative for any reason.

A permanent vehicle counting station / vehicle detection system for northbound traffic will also be installed on Highway 64 within the project area, possibly in the vicinity of Long Jim canyon. The counting station will consist of an inductive loop detector in the roadway pavement connected to a roadside controller cabinet (within the State Route 64 easement) to house traffic counter electronics. This station will operate on a solar and battery power system. If the park chooses to utilize real-time data from the traffic counter, a wireless communication system will be used to transmit information from the traffic counter location to the South Entrance Station.

An additional northbound lane may be constructed at a future date if deemed necessary to address vehicle congestion, however, the park does not believe the third northbound lane will be necessary at this time based on current visitation. This third lane, if constructed, would begin just north of the access road to the Tusayan Ranger Station and feed into the bypass lane on the

east side of the highway and would increase the road width an additional 12 feet, for a total of 24 foot increase from current width.

Alternative B will result in approximately 5 acres of total ground disturbance, most of these 5 acres will be new disturbance where vegetation removal will occur; 2 acres for road widening (and an additional 1 acre if a third northbound lane is constructed), 3 acres for construction of the bypass lane.

Construction is anticipated to begin as early as March 2008. Construction activities related to the road widening will occur outside of peak visitation times whenever possible. Traffic congestion and slowing will occur during this period and the park will make efforts to minimize the impact of construction on visitors entering the park through the south entrance. Project completion is estimated for November 2008.

MITIGATION MEASURES

The mitigation measures listed below are considered part of the preferred alternative and will be followed during project implementation. These actions were developed to lessen the potential for adverse impacts from implementing the preferred alternative, and have proven to be effective in reducing environmental impacts on previous projects.

Contractor Orientation Contractors working in the park are given orientation concerning proper conduct. This orientation is provided both in writing and verbally at a preconstruction meeting. This policy will continue for this project. Orientation will include, but not be limited to:

- Wildlife should not be approached or fed.
- Collecting any park resources, including plants, animals, and historic or prehistoric materials, is prohibited.
- Contractor must have a safety policy and a vehicle fuel spill and leakage policy.
- Other environmental concerns and requirements discussed elsewhere in this EA/AEF would be addressed, including relevant mitigation measures listed below.
- Construction specifications will include details related to protective measures for cultural resources and existing vegetation along the roadside, as provided by the park resource staff and the park landscape architect.
- All permits, including ADOT encroachment permit, will be obtained prior to start of construction.
- A storm water pollution prevention plan (SWPPP) will be completed prior to start of construction.

Limitation of Area Affected The following mitigation measures will be implemented to minimize the area affected by construction activities and to minimize the potential for adverse impacts due to connected actions:

- Staging areas for a construction office (trailer), construction equipment and material storage will either be located in previously disturbed areas near the project site or in other disturbed areas that best meet project needs and minimize new ground disturbance. All staging areas will be returned to pre-construction conditions or better once construction is complete. Standards for this, and methods for determining when standards are met, will be developed in consultation with the park's Vegetation Program Manager.

- An existing, disturbed, flat area at the dry dump, between the South Entrance and Grand Canyon Village may be used for equipment and materials staging or another previously disturbed areas determined by the NPS.
- Construction zones will be fenced with construction tape, snow fencing, or similar material before construction activity. Fencing will define the construction zone and confine activity to the minimum construction area required. All protection measures will be clearly stated in construction specifications, and workers will be instructed to avoid conducting activities beyond the construction zone as defined by fencing.

Soil Erosion To minimize soil erosion, the following mitigation measures would be incorporated into the action alternatives:

- Standard erosion control measures such as silt fences, sand bags or equivalent control methods will be used to minimize any potential soil erosion.
- Trenching operations will be by rock saw, backhoe, track hoe, Pionjar, ditch digger and/or trencher, with excavated material side-cast for storage. After trenching is complete, bedding material will be placed and compacted in the trench bottom. Backfilling and compaction will begin immediately after trenching, and the trench surface will be returned to pre-construction contours. All trenching restoration operations will follow guidelines approved by park staff. Compacted soils will be scarified, and original contours reestablished.
- A Salvage and Revegetation Plan will be developed by the park's Vegetation Program Manager and the Federal Highway Administration in consultation with a landscape architect. Any revegetation efforts will use site-adapted native species and/or site-adapted native seed, and park policies regarding revegetation and site restoration will be incorporated. The plan will consider, among other things, use of native species, plant salvage potential, exotic vegetation and pedestrian barriers. Policy related to revegetation will be referenced from *NPS Management Policies* (NPS 2006; Chapter 9).

Vegetation To minimize vegetation impacts, prevent exotic vegetation introduction and minimize spread of noxious weeds, the following mitigation measures will be incorporated into the action alternatives:

- A Vegetation Program specialist will provide input on salvage potential and tree avoidance at project sites where necessary. A supervisory biologist will also spot-check work progress.
- All construction equipment that will leave the road (e.g., bulldozers and backhoes) will be pressure-washed prior to entering the park. The location selected for vehicle washing will be approved by a supervisory biologist.
- Staging area locations for construction equipment will be park-approved and the need for treatment of exotic vegetation will be considered.
- Vehicle parking will be limited to existing roads or the staging area.
- Pruning necessary for this project will adhere to the park's tree-pruning guidelines with the goal of retaining health and integrity of trees and shrubs treated. Damage to trees or roots in or adjacent to project areas during construction will be avoided as much as possible.
- Any fill, rock or additional topsoil needed will be obtained from a park-approved source. Topsoil from the project area will be retained whenever feasible.

- All areas disturbed by construction will be revegetated using site-adapted native seed and/or plants.
- All areas disturbed will be mulched with a carbon source to decrease nitrophylllic exotic annual species.
- Exotic species encroachment and distribution will be monitored for two to three years following construction completion.
- Revegetation efforts will be initiated as soon as possible following construction to minimize exotic species competition with native species.
- Maintain and enhance the protection of existing vegetation in the area, to the extent practical.
- Trees and woody vegetation will need to be removed to accommodate road widening and construction of the independent bypass lane. Where possible the resultant slash created will be removed from the project area and smaller material will be chipped. Larger material, such as usable poles, will be stockpiled in a suitable park location (such as the dry dump site or other previously disturbed location) and made available for other park uses or given away. In the future, NPS may arrange for the transfer of some of this material to the Bureau of Indian Affairs (BIA).
- A detailed Salvage and Revegetation Plan is being developed for this project to guide vegetation aspects including pre-construction, construction and post-construction actions. Actions include exotic species control and salvage of shrubs, grasses and small trees.
- Salvage of existing vegetation will require the use of hand tools and a small work crew. Crews will operate sporadically for a two to three month period in the project area, using a pick-up truck and small trailer to transport salvaged trees and shrubs to the park greenhouse or other suitable location for maintenance. The salvaged trees and shrubs will then be used near the project area for revegetation or for other park projects as feasible. After construction and full implementation of the project, watering of replanted vegetation, continued exotic species control and monitoring of revegetation efforts will continue. The work detailed in the Salvage and Revegetation Plan will occur as early as fall 2007 and will continue through approximately 2011.

Special Status Species To protect any unknown or undiscovered threatened, endangered, or special status species, the construction contract will include provisions for the discovery of such. These provisions will require cessation of construction activities until park staff evaluates the impact, and will allow contract modification for any measures determined necessary to protect the discovery. Mitigation measures for known special status species are as follows:

California Condor

- Prior to the start of a construction project, the park will contact personnel monitoring California condor locations and movement to determine condor status in or near the project.
- If a condor occurs at the construction site, construction will cease until it leaves on its own or until permitted personnel employ techniques resulting in the condor leaving.

- Construction workers and supervisors will be instructed to avoid interaction with condors and to contact the appropriate park or Peregrine Fund personnel immediately if and when condor(s) occur at a construction site.
- The construction site will be cleaned up at the end of each work day (i.e., trash disposed of, scrap materials picked up) to minimize the likelihood of condors visiting the site. Park condor staff will complete a site visit to ensure adequate clean-up measures.
- To prevent water contamination and potential condor poisoning, the park-approved vehicle fluid-leakage and spill plan will be adhered to. This plan will be reviewed by the park biologist for adequacy in addressing condors.
- If non-nesting condors occur within one mile of the project area, blasting will be postponed until condors leave or are hazed by permitted personnel.

Soundscapes To minimize construction impacts on soundscapes, the following mitigation measures will be incorporated into the action alternatives:

- As time and funding allow, information regarding project implementation and other foreseeable future projects will be shared with the public through park publications and other means (this measure is also repeated under the Visitor Experience portion of this Section).
- To reduce noise, construction equipment will not be left idling any longer than is necessary for safety and mechanical reasons.
- Construction may include the use of equipment outside of peak visitation hours.

Cultural Resources To minimize construction impacts on cultural resources, the following mitigation measures will be incorporated into the action alternatives:

- Cultural resource staff will work with contractors to protect cultural resources. Avoidance measures may include fencing or flagging.
- To ensure cultural resource protection, a cultural resource specialist will be assigned to conduct spot monitoring of the project during construction.
- If previously unknown archaeological resources are discovered during the project, a park archaeologist will be contacted immediately. All work in the immediate vicinity of the discovery will be halted until the resources could be identified and documented and an appropriate mitigation strategy developed, if necessary, in accordance with the stipulations of the 1995 Programmatic Agreement among the National Park Service, the Arizona State Historic Preservation Officer and the Advisory Council on Historic Preservation regarding the General Management Plan/Environmental Impact Statement, Grand Canyon National Park, Arizona.
- All workers will be informed of the penalties of illegally collecting artifacts or intentionally damaging any archaeological or historic property. Workers will also be informed of correct procedures if previously unknown resources are uncovered during construction activities.
- Areas selected for equipment and materials staging are expected to be in existing disturbed areas or existing paved overlooks where there is no potential for archaeological resource disturbance. If the sites selected for these activities change during later design phases for implementation of any of the alternatives, additional archaeological surveys will be conducted.

Visual Resources To minimize visual impacts, mitigation measures will include the following:

- The park landscape architect will provide input into the Salvage and Revegetation Plan for prescriptions to use for replanting of vegetation along the roadway.
- Night sky friendly lighting or reflective signs and materials will be used.

Visitor Experience The following mitigation measures will be incorporated into the action alternatives to minimize construction impacts on visitor experience:

- As time and funding allow, information regarding project implementation and other foreseeable future projects will be shared with the public through park publications (such as *The Guide*) and other appropriate means during construction periods. The purpose will be to minimize potential for negative impacts to visitor experience during project implementation and other planned projects during the same construction season.
- Construction may include the use of equipment outside of peak visitation hours.

Park Operations and Safety The following mitigation measures will be incorporated into the action alternatives to minimize construction impacts on park operations and minimize safety risks to employees and visitors:

- NPS, concessionaires and other park employees and residents will receive the public notification on project implementation and road delays or road closures, as appropriate.

Air Quality Air quality impacts of the action alternatives are expected to be temporary and localized. To minimize these impacts, the following actions will be taken:

- To reduce entrainment of fine particles from hauling material, sufficient freeboard will be maintained, and loose material loads (aggregate, soils, etc.) will be tarped.
- To reduce tailpipe emissions, construction equipment will not be left idling any longer than is necessary for safety and mechanical reasons.
- To reduce construction dust in the short term, water will be applied to problem areas. Equipment will be limited to the fenced project area to minimize soil disturbance and consequent dust generation.
- Landscaping and revegetation will control long-term soil dust production. Mulch and plants will stabilize soil and reduce wind speed/shear against the ground surface.

ALTERNATIVES CONSIDERED

The EA/AEF evaluated a No Action alternative and one action alternative for addressing the purpose and need for action. The preferred alternative was identified as Alternative B and is as described previously in this document in detail.

Alternative A – No Action Alternative: Under the No Action Alternative, South Entrance Road would not be widened and a bypass lane would not be constructed. This alternative would not meet the purpose and need for the project, but provides a basis for comparison with the action alternatives. Alternative A would maintain the existing conditions. Congestion and long wait times would continue to occur at the south entrance, creating safety hazards, visitor frustration and poor visitor experience. Vehicle and pedestrian conflicts would continue. Resource impacts

in the forms of social trailing, litter and reduced air quality would continue. This alternative was not the selected alternative for this project.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

The environmentally preferred alternative is determined by applying the criteria suggested in the National Environmental Policy Act of 1969 which guides the Council on Environmental Quality (CEQ). The CEQ provides direction that “[t]he environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in NEPA Section 101”:

1. Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
2. Assure for all generations safe, healthful, productive, and aesthetically 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.

Through the process of internal and public scoping, the environmentally preferred alternative selected is Alternative B. Alternative B best meets the purpose and need for action and best addresses overall park service objectives and evaluation factors while minimizing impacts to park resources. Alternative B will result in approximately 5 to 6 acres of new ground disturbance (the larger amount of disturbance will occur if a third northbound lane is constructed), requiring vegetation removal: 2 to 3 acres for road widening and 3 acres for bypass lane construction. Alternative A, the No Action alternative, does not propose any new construction and would have less resource impacts; however, Alternative A does not meet the purpose and need for action and does not achieve a balance as identified in criteria 5 above. Implementation of Alternative A would also allow safety risks to continue and therefore would not meet criteria 3. The preferred alternative, Alternative B, best achieves the balance between resource use and visitor experience, as specifically identified in numbers 3 and 4 above, while also minimizing new resource impacts as identified in numbers 2, 4 and 5 above.

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. As fully discussed in the EA/AEF, the preferred alternative will not measurably affect cultural landscapes and historic structures, air quality, watershed values (water and soils), visual/scenic quality, floodplains and wetlands, minority or low-income populations, prime and unique farmland, socioeconomic values, recommended wilderness or Indian trust resources.

Implementation of the preferred alternative will result in negligible impacts to archaeological resources and specifically the four known archeological sites within the project area. All sites will be avoided and mitigation measures are in place to avoid any direct impacts to these sites. However, some indirect impacts are anticipated due to proximity of the road to these sites and continued erosion.

Implementation of the preferred alternative will result in negligible impacts to ethnographic resources because although these resources have not been identified, they may be present in the project area. All affiliated American Indian tribes have been contacted and if any tribe subsequently identifies the presence of ethnographic resources within the project area, appropriate mitigation measures would be undertaken in consultation with the tribes.

Implementation of the preferred alternative will result in negligible to moderate adverse impacts to soundscape due to increased noise and activity during the construction period. The moderate adverse impacts will only occur during the construction and will be short-term. No measurable changes are anticipated over the long-term in the expected duration, level or affected area of human-caused sounds as a result of this project.

Implementation of the preferred alternative will result in minor adverse, long-term, localized impacts to vegetation due to a loss of vegetation on approximately 5 acres along the road edge and bypass lane alignment, up to approximately 2,000 to 2,500 trees of all size classes, and the potential for spread of exotic species. Additionally, the preferred alternative will also result in minor beneficial impacts due to reduced foot traffic and increased vegetation growth between the park sign parking lot and the bypass alignment.

Implementation of the preferred alternative will result in minor long-term to moderate short-term adverse, localized impacts to general wildlife due to a loss of vegetation on approximately 5 acres along the road edge and bypass lane alignment, up to approximately 2,000 to 2,500 trees of all size classes, loss of habitat for a variety of species including direct mortality to mammalian prey species and loss of multiple bird territories, decreased wildlife security and increased disturbance to adjacent habitat along the roadway. Short-term impacts during the construction period are expected due to increased noise and activity.

Implementation of the preferred alternative will result in negligible long-term to minor short-term adverse, localized impacts to special status species (California condor, Navajo Mexican vole, and northern goshawk) due to 5 acres of new ground disturbance, loss of 2,000 – 2,500 trees of all size classes, potential for disturbance to foraging habitat and prey species. Surveys for the Tusayan flameflower were completed and is not present in the project area, therefore, implementation of the preferred alternative will have no effect on this species.

Implementation of the preferred alternative will result in moderate long-term beneficial impacts to visitor experience due to decreased wait times at the South Entrance Station. Short-term moderate adverse impacts are expected during the construction period.

Implementation of the preferred alternative will result in minor to moderate beneficial impacts to park operations due to enhanced traffic flow and a decreased need for park employees to direct traffic. In addition, the bypass lane will not require staffing. Short-term moderate adverse impacts are expected and include increased noise and traffic during the construction period.

Implementation of the preferred alternative will result in moderate long-term beneficial impacts to public health and safety due to a decreased need for park employees to direct traffic and less likelihood of visitors exiting their cars while waiting in line, which will reduce the vehicle and pedestrian safety concerns. Short-term minor adverse impacts are expected during the construction period.

Degree of effect on public health or safety. Adherence to mitigation measures designed to minimize safety risks and adverse impacts to visitors during the construction period will address these limited risks to public safety. Moderate, beneficial, long-term impacts to visitors are expected due to improvements in traffic flow at the South Entrance Station. These improvements are expected to decrease the safety risks associated with vehicle and pedestrian conflicts and enhance the movement of vehicles through the entrance station.

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 measurably affect cultural landscapes and historic structures, air quality, watershed values (water and soils), visual/scenic quality, floodplains and wetlands, minority or low-income populations, prime and unique farmland, socioeconomic values, recommended wilderness or Indian trust resources. No wild and scenic rivers are designated near the project area and none will be affected by implementation of the preferred alternative. No ecologically critical areas occur within the project area and disturbance is primarily limited to that adjacent to the road corridor. Mitigation measures will be implemented that minimize the potential for adverse impacts to natural and cultural resources.

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 preparation of the EA/AEF or the public review period.

Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risks. There were no highly uncertain, unique or unknown risks identified in the EA/AEF or during the public review period.

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 neither establishes a precedent for future actions with significant effect nor represents a decision in principle about a future consideration.

Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Implementation of the preferred alternative will not result in any significant cumulative impacts.

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. Four archeological sites occur within the project area, none of which will be directly impacted by proposed actions. One of these sites has the potential to be indirectly impacted following project implementation due to proximity to

the road. However, these indirect effects are expected to be less than current condition. No historic features occur within the project area. All components of the preferred alternative take into consideration the potential for impacts to these sensitive cultural resources and project proposals were designed with protection of these resources in mind, to mitigate any adverse impacts. A combined EA/AEF was completed to ensure that NPS responsibilities under Section 106 for protecting these cultural resources were met. Mitigation measures were developed to protect all cultural resources and are referenced in the mitigation measures section of this document.

Consultation between the NPS and the State Historic Preservation Officer (SHPO) was completed with the combined EA/AEF and a letter of concurrence was received on September 6, 2007. The finding of effect for the undertaking is “no historic properties affected.” Consultation between the NPS and tribal groups occurred as part of public scoping and as part of review of the EA/AEF to guide Section 106 consultation and the cultural resource aspects of the project. One response during initial scoping was received from the Navajo Nation. No tribes provided any specific comments on the EA/AEF.

Degree to which the action may adversely affect an endangered or threatened species or its critical habitat. For purposes of Section 7 consultation under the Endangered Species Act, implementation of the preferred alternative will not affect endangered or threatened species or its critical habitat because no federally listed species occur in the project area.

The California condor was listed as an endangered species in 1967. A nonessential, experimental population of California condors has been established in Northern Arizona, and within Grand Canyon National Park the condor has the full protection of a threatened species. Implementation of the preferred alternative will have no effect on the California condor. However, there is potential for condors to be attracted to the construction noise and activity and they could be involved in unintended human-condor interactions on the ground. Mitigation measures have been developed jointly between park staff and the U.S. Fish and Wildlife Service (FWS) to minimize the potential for adverse impacts to the condor during construction. These measures are included as part of the proposed action and identified under the preferred alternative. NPS determined that the project would result in a “no effect” finding and therefore formal consultation with the FWS was not required. Park staff initiated a phone call on 22 June 2007 with FWS to discuss the project and the determination of no effect. The FWS recommended that the California condor mitigation measures be included in the project. The EA/AEF included all standard mitigation measure for California condors. A copy of the EA/AEF and a letter dated 19 July 2007 was also sent to the FWS. The park will continue consultation with the FWS on the South Rim Visitor Transportation Plan.

Whether the action threatens a violation of Federal, state or local environmental protection law. The preferred alternative violates no federal, state, or local environmental protection laws.

IMPAIRMENT OF PARK RESOURCES OR VALUES

In addition to determining the environmental consequences of the preferred and other alternatives, National Park Service policy (*Management Policies*, 2006) requires analysis of potential effects to determine whether or not actions will 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

resources and values. National Park Service managers must always seek ways to avoid, or to minimize to the greatest degree practicable, adverse impacts on park resources and values. However, the laws do give the National Park Service the management discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of the park, as long as the impact does not constitute impairment of the affected resources and values. Although Congress has given the National Park Service the management discretion to allow certain impacts within parks, that discretion is limited by the statutory requirement that the National Park Service must leave park 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 National Park Service manager, will harm the integrity of park resources or values, including the opportunities that otherwise will be present for the enjoyment of those resources or values. Impairment may result from National Park Service activities in managing the park, visitor activities, or activities undertaken by concessionaires, contractors, and others operating in the park. An impact to any park resource or value may constitute impairment. An impact will be more likely to constitute impairment to the extent that it affects a resource or value whose conservation is:

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park;
- Key to the natural or cultural integrity of the park; or
- Identified as a goal in the park's general management plan or other relevant NPS planning documents.

Because there will be no major adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation or proclamation of Grand Canyon National Park; (2) key to the natural or cultural integrity of the park; or (3) identified as a goal in the park's general management plan or other relevant National Park Service planning documents, there will be no impairment of Grand Canyon National Park's resources or values as a result of implementation of the preferred alternative.

PUBLIC INVOLVEMENT

The EA/AEF was made available for public review and comment during a 30-day period ending 20 August 2007, through a combination of direct mailing, issuance of a press release and posting on the Planning, Environment and Public Comment website (<http://parkplanning.nps.gov/grca>). All those that previously provided comments during the public scoping periods received either a printed copy or an email notification that the EA/AEF was available for public review.

One comment letter was received that supported the project but suggested that fee staff walk out to the cars in line, hand out Trip Planners and talk to visitors waiting at the gate.

Consultation between the NPS and the State Historic Preservation Officer (SHPO) was completed with the combined EA/AEF and a letter of concurrence received on September 6, 2007. The finding of effect for the undertaking is "no historic properties affected." Consultation between the NPS and tribal groups occurred as part of public scoping and as part of review of the EA/AEF to guide Section 106 consultation and the cultural resource aspects of the project. One response during initial scoping was received from the Navajo Nation. No tribes provided any specific comments on the EA/AEF.

Consultation between the NPS and the United States Fish and Wildlife Service (FWS) on this project was not required. However, the park did discuss this project and the park's decision to complete a no effect determination in a phone call with FWS on 22 June 2007. The FWS recommended that the California condor mitigation measures be included in the project. The EA/AEF included all standard mitigation measure for California condors. A copy of the EA/AEF and a letter dated 19 July 2007 was also sent to the FWS. The park will continue consultation with the FWS on the South Rim Visitor Transportation Plan.

CONCLUSION

The preferred alternative does not constitute an action that normally requires preparation of an environmental impact statement (EIS). Negative environmental impacts that could occur are negligible to moderate in effect. There are no unmitigated adverse 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, known ethnographic resources, or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, 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 the project does not constitute a major federal action significantly affecting the quality of the human environment and an EIS will not be required for this project and thus will not be prepared.

Recommended: /s/ Steve Martin 9/6/07
Steve Martin Date
Superintendent, Grand Canyon National Park

Approved: Anthony J. Schetzle 9/6/07
For Michael D. Snyder Date
Director, Intermountain Region

ERRATA SHEET
Response to Comments

South Entrance Road Improvements
Grand Canyon National Park

The NPS received one (1) response from the public to a request for comments on the EA/AEF for the South Entrance Road Improvements (July 2007) and one additional comment from the Arizona Department of Transportation (ADOT). The comment period ended 20 August 2007. An interdisciplinary team reviewed these responses to identify any substantive comments. Substantive comments were considered to be comments which:

- question, with reasonable basis, the accuracy of information in the EA.
- question, with reasonable basis, the adequacy of environmental analysis.
- present reasonable alternatives other than those presented in the EA.
- cause changes or revisions in the proposal.

Some comments were received that were considered substantive. These comments were reviewed in detail by the project interdisciplinary team. Substantive comments received are summarized below with the NPS response.

Comment: Employees could walk out to the cars in line, hand out Trip Planners and talk to people in the cars waiting in the lines.

Response: Fee collection employees currently direct traffic and provide information to visitors by standing in the roadway. This has been identified as a safety concern and therefore one of the primary objectives of the project is to eliminate the need for park staff to walk among traffic.

Comment: A Stormwater Pollution Prevention Plan needs to be included as a mitigation measure for the project (received from ADOT prior to release of the EA/AEF).

Response: A mitigation measure has been added to the EA/AEF (p. 18) to address the need for a storm water pollution prevention plan and reads as follows:

- A storm water pollution prevention plan (SWPPP) will be completed prior to start of construction.