

**National Park Service**

**U.S. Department of the Interior**

**Grand Canyon National Park  
Arizona**



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**GREENWAY V TRAIL – PIPE CREEK VISTA TO SOUTH KAIBAB TRAILHEAD**

**FINDING OF NO SIGNIFICANT IMPACT**

Grand Canyon National Park proposes to construct phase V of the Grand Canyon Greenway (Greenway V) between Pipe Creek Vista and the South Kaibab Trailhead on the South Rim of Grand Canyon National Park. Proposed actions include the construction of a one-mile long accessible trail between Pipe Creek Vista and the South Kaibab Trailhead, redesign of Pipe Creek Vista parking areas to provide for pedestrian and vehicular safety, improvements to the South Kaibab Trailhead area, and designation of a one-mile long connector trail for multi-modal access to Grand Canyon Village, Canyon View Information Plaza, and the greenway III trail coming into the park from Tusayan.

The EA evaluates a No Action Alternative and two action alternatives. The goals of the project are to provide a safe, accessible hiking trail connection from Mather Point and Grand Canyon Village to the South Kaibab Trailhead; establish one easily-recognizable trail in the area between Pipe Creek Vista and the South Kaibab Trailhead; address vehicular and pedestrian safety concerns in the Pipe Creek Vista area; improve the South Kaibab Trailhead area to provide an enhanced visitor experience including the construction of a universally accessible path to the trailhead and improved visitor facilities; and provide a multi-modal trail connection to Grand Canyon Village and the greenway III trail coming in to the park from Tusayan, and designate this as the Arizona Trail to the South Kaibab Trailhead.

**Objectives of the Action**

1. Improve visitor experience between Pipe Creek Vista and the South Kaibab Trailhead.
  - a) Provide safe and universally accessible access between these two locations.
  - b) Improve safety and ease of movement for pedestrians and vehicles in Pipe Creek Vista parking areas and overlooks, as well as vehicles traveling on the adjacent Desert View Drive, while maintaining, as much as feasible, existing parking capacity.
  - c) Provide one primary access route to the trailhead from the vista.
  - d) Provide a continuous primary trail corridor from Grand Canyon Village developed areas to South Kaibab Trailhead.
2. Improve the South Kaibab Trailhead area to enhance visitor experience by providing equal opportunities for all visitors to experience the activity at the trailhead and enjoy canyon views; creating a welcoming experience for visitors arriving at the parking area; improving visitor facilities and wayfinding; separating visitor areas from administrative areas; and maintaining the trailhead's rustic character.
3. Improve access to the South Kaibab Trailhead from the greenway III trail (between Tusayan and the Canyon View Information Plaza) including hikers, bicyclists, and equestrians that use this as the Arizona Trail.

4. Minimize disturbance to the natural and cultural environment and restore areas damaged by social trailing and other impacts, to the extent practical, using native species.

In January 2008 the National Park Service (NPS) prepared an *Environmental Assessment (EA)* for the *Greenway V Trail Project*. This EA, in accordance with the National Environmental Policy Act (NEPA), analyzed the impacts that will likely result from implementation of the project. The EA evaluated two alternatives for addressing the purpose and need for action (Alternatives B and C). The EA also evaluated taking no action (Alternative A, No Action) for comparison with the action alternatives. Alternative B is the preferred alternative.

## **PREFERRED ALTERNATIVE**

An approximately one-mile long trail will be constructed between Pipe Creek Vista and South Kaibab Trailhead. The trail will be approximately ten-feet wide, of which approximately eight feet will be paved and two feet will be unpaved for equestrian use. The trail will follow an existing utility corridor and foot path away from the rim edge to reduce the level of new ground disturbance necessary for construction. The trail will accommodate pedestrians, equestrians, and bicyclists for most of its length and will be universally accessible.

The trail along Pipe Creek Vista will be approximately five feet wide when adjacent to existing parking areas to minimize loss of available parking space, and will be fully accessible. Some minor modifications to the existing shuttle bus stop will be made to allow the proposed greenway trail to depart from the shuttle stop on the west end of Pipe Creek Vista and continue east. To enhance opportunities for visitors to view the canyon from Pipe Creek Vista, vegetation clearing may be conducted in some areas where trees and shrubs have grown since the original construction of facilities in this location and that now impede the view. Vegetation removal will primarily include pruning of tree limbs and shrubs. This strategic vista clearing will be carefully evaluated by park resource specialists (including vegetation staff, cultural resources staff, and a landscape architect at minimum) to select the most appropriate areas to enhance the view while also minimizing impacts to park resources.

A hardened or paved parking area will be created to accommodate 25 to 35 pull-in parking spaces in the existing dirt area between the two overlooks at Pipe Creek Vista to more safely accommodate vehicles and allow them to maneuver off Desert View Drive. Up to 20 parallel parking spaces, approximately ten at each overlook, will be designated in the existing paved parking areas where spaces are currently unmarked. Some vegetation removal will be necessary to provide safe sight distances for vehicles pulling out of Pipe Creek Vista parking areas. A fog line will be painted along the north side of the road to separate parking areas from the traffic lane. A total of approximately 45-55 parking spaces will be provided.

Park staff will monitor the parallel parking at Pipe Creek Vista after implementation. If after monitoring and thorough review, the parallel parking is determined to cause unacceptable safety concerns, the Superintendent would consider the removal of the parallel parking.

In the general area between Pipe Creek Vista and South Kaibab Trailhead, the trail will follow an existing foot path and utility corridor and will be multi-modal. Special designation by the Superintendent may be necessary to allow bicycles on the trail. Spur trails to the rim may be incorporated to provide canyon views. Minimal vegetation will be disturbed as much of the proposed alignment is already impacted. This alternative will result in approximately three to five

acres of total ground disturbance; however, only one to two acres will be new disturbance where vegetation will be removed.

In the South Kaibab Trailhead area, an accessible trail connection from the parking area to the trailhead itself will be constructed and will replace the existing dirt road access. A gathering area with a hardened surface will be created adjacent to the parking area and near the shuttle bus stop. The existing water fountain, signage, and telephone will be relocated to this location, and a short spur trail to a planned two-stall vault toilet (installation expected in 2008 and covered under a previous environmental assessment) will be created. The addition of picnic tables, relocation of dumpsters and recycle bins, and some additional seating will also be considered. The accessible trail from the gathering area to the trailhead will be approximately five-foot wide, paved and lined with rocks, taking advantage of existing grades and open areas to minimize need for tree removal and excessive switchbacks. The existing trailhead exhibit shelter will be relocated to a more suitable location either a short distance away from the trailhead to better accommodate hikers using the new accessible route, or to the gathering area.

As a component of this project, NPS also intends to construct an approximately one-mile trail segment between South Entrance Road and the section described above, from Pipe Creek Vista to the South Kaibab Trailhead. The trail will connect the greenway trail system coming into the park from Tusayan to the South Kaibab Trailhead. This section will also provide a connection from CVIP to the South Kaibab Trailhead. Pedestrians, equestrians, and bicyclists will be accommodated by this trail section. This trail will be approximately ten-foot wide, of which approximately eight feet will be paved and two feet will be unpaved for equestrian use. The trail will follow the utility corridor for most of its length and will deviate from the utility corridor on its east end to follow an existing dirt road to Desert View Drive just east of Pipe Creek Vista. The trail will cross Desert View Drive and follow an existing path to merge with the greenway V trail to South Kaibab Trailhead. This connector trail, merged with the greenway V trail, to the South Kaibab Trailhead will be designated as part of the Arizona Trail and will connect the Arizona Trail on Forest Service land near Tusayan to the South Kaibab Trail—its continuation across Grand Canyon.

Construction is anticipated to begin in spring 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 will 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 will be addressed, including relevant mitigation measures listed below.

**Limitation of Area Affected** The following mitigation measures will be implemented to minimize area affected by construction activities and 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 project sites (such as at existing overlook parking areas) 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.
- Construction zones will be fenced with construction tape, snow fencing, or similar material wherever appropriate. 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 will be incorporated into 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.
- Grading and trenching operations will be by backhoe, track hoe, Pionjar, ditch digger and/or trencher, with excavated material side-cast for storage. Any 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 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 2006a; 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 action alternatives:

- The park's Vegetation Program Manager will provide input on salvage potential and tree avoidance at project sites where necessary and 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 the park.
- Staging area locations for construction equipment will be park-approved. If determined by Vegetation Program Manager to be necessary, exotic vegetation will be treated prior to beginning of construction.
- Vehicle parking will be limited to existing roads or the staging area.
- Pruning necessary for this project and for any future periodic maintenance adjacent to overlooks and trails 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 nitrophillic 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 competition between native and exotic species.
- Existing vegetation in the area will be maintained and enhanced, to the extent practical.

**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 evaluated 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 construction, the park will contact personnel monitoring California condor locations and movement within the park to determine the locations and status of condors in or near the project area.
- If a condor occurs at the construction site, construction will cease until it leaves on its own or until permitted personnel employ techniques that result in the individual condor leaving the area.
- 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 day work is conducted (i.e., trash disposed of, scrap materials picked up) to minimize likelihood of condors visiting the site. Park condor staff will complete a site visit to the area to ensure adequate clean-up measures are taken.
- To prevent water contamination and potential condors poisoning, the park-approved vehicle fluid-leakage and spill plan will be adhered to for this project. This plan will be reviewed by the park's Wildlife Biologist to ensure adequacy in condor protection for this project.
- If non-nesting condors occur within one mile of the project area, and blasting is necessary for this project, blasting would be postponed until condors leave or are hazed by permitted personnel.
- If condor nesting activity is known within one mile of the project area, and blasting is necessary for this project, blasting would be restricted during the active nesting season, if viable nests persist. The active nesting season is February 1 to October 15, or until young are fully fledged. These dates may be modified based on the most current information, in consultation with the park's Wildlife Biologist and the USFWS.
- If condor nesting activity is known within 0.5 miles of the project area, then light and heavy construction in the project area will be restricted during the active nesting season, if viable nests persist. The active nesting season is February 1 to October 15, or until young are fully fledged. These dates may be modified based on the most

current information, in consultation with the park's Wildlife Biologist and the USFWS.

#### **Mexican Spotted Owl (MSO)**

- Any heavy construction required for this project, as defined in the Batch Consultation (NPS 2002a) will be restricted to the non-breeding season (September 1 through February 28). This includes rock excavation including trenching, when these activities require use of hoe-rams, rock saws, hammer hoes, rippers on bulldozers, or track hoes with hydraulic hammers. The use of heavy equipment is not anticipated for this project.
- Light construction activity (as defined in the Batch Consultation and including essentially all other types of typical construction actions) can proceed with no breeding-season restrictions because the project area is greater than 0.5 miles from the nearest known MSO roost.
- If blasting is necessary for this project, it will be restricted to the non-breeding season (September 1 through February 28).
- Prior to the project's start, the park's Wildlife Biologist will be contacted for any new information related to MSO or their status near the project area.
- Since the project is expected to be phased in over time as funding becomes available, the project manager will contact the Wildlife Biologist prior to any initiation of another phase to ensure the most current information regarding MSO is considered.

#### **Deer Goldenbush (*Ericameria arizonica*)**

- The known population will be marked by the park's vegetation staff and temporarily fenced with construction fencing during any construction activity to protect it from disturbance.

#### **Zone-tailed Hawk**

- Any aspect of construction that will occur within 0.25 miles of the known nest site at Pipe Creek, then use of heavy machinery including hoe-rams, rock saws, hammer hoes, rippers on bulldozers, or track hoes with hydraulic hammers will be restricted to the non-breeding season (April 1-August 15). However, the use of heavy machinery is not anticipated for this project.

**Soundscapes and Wilderness** To minimize construction impacts on soundscapes and wilderness, 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 topic in this section*).
- To reduce noise, construction equipment will not be left idling any longer than is necessary for safety and mechanical reasons, and no construction will occur at night.

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

- If previously unknown archeological resources are discovered during the project, a park archeologist will be contacted immediately. All work in the immediate vicinity of the discovery will be halted until the resources could be identified, documented, and an appropriate mitigation strategy developed, if necessary, in accordance with 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.

- Any excavation needed for project implementation (e.g. burying utilities) may require an archaeological monitor.
- All workers will be informed of the penalties of illegally collecting artifacts or intentionally damaging any archeological or historic property. Workers will also be informed of correct procedures if previously unknown resources were 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 archeological resource disturbance. If sites selected for these activities change during later design phases for implementation of any alternative, additional archeological surveys will be conducted.
- Disturbance to cultural resources and features associated with the cultural landscape in the project area will be minimized, paying particular attention to the historic wall at Pipe Creek Vista.
- The Park will follow the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*, and Director's Order #28.

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

- Natural, muted colors that replicate existing location hues will be used to blend any built materials into the landscape. Materials and their colors (for example, concrete braking pads and pedestrian surfaces at overlooks) will be carefully evaluated to ensure they are appropriate.
- Minimize use of rock trail lining during construction and consider its use only when necessary to provide structural side walls to support the trail where the terrain requires it and for safety reasons.

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

- Unless otherwise approved by the park, operation of heavy construction equipment will be restricted to dawn to dusk, year-round.
- 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. This may take the form of an informational brochure or flyer distributed at the gate and sent to those with reservations at park facilities, postings on the park's website, press releases, and/or other methods. The purpose will be to minimize potential for negative impacts to visitor experience during implementation of this project and other planned projects during the same construction season.

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

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

- NPS will work with Arizona Public Service on utility line access needs, including trail surface.

**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 evaluated a No Action alternative and two action alternatives 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, the Greenway V trail would not be constructed, improvement to Pipe Creek Vista and the South Kaibab Trailhead would not occur, and a connector trail for multi-modal use from Greenway III, CVIP and Grand Canyon Village would not be designated. This alternative does 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. There would not be a universally accessible and easily recognizable trail between Pipe Creek Vista and the South Kaibab Trailhead. Vehicle and pedestrian conflicts at Pipe Creek Vista would continue. Social trailing and resultant resource impacts between Pipe Creek Vista and the South Kaibab Trailhead would continue. This alternative was not the selected alternative for this project.

**Alternative C – Reconfigured Parking at Pipe Creek:** Under Alternative C, the project would be implemented as described in the preferred alternative (Alternative B) except that the parking at Pipe Creek Vista would be reconfigured. A parking area in the existing dirt area between overlooks at Pipe Creek Vista would be constructed as described in the preferred alternative. However, the proposed parallel parking would be removed at each overlook to provide increased safety for both pedestrians and vehicles. This alternative would result in a reduced number of parking spaces at Pipe Creek Vista when compared to the preferred alternative (Alternative B). 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 the preferred alternative (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 and C would result in approximately one to two acres of new ground disturbance requiring vegetation removal. While Alternative C would meet the intent of many project objectives, Alternative B satisfies the objectives and provides more parking and access for visitors. The preferred alternative 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, the preferred alternative will not measurably affect archaeological resources, ethnographic resources, soundscape, air quality, watershed values (water and soils), 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 minor impacts to historic structures and cultural landscapes. Non-contributing features will be added to the historic and cultural landscape. Design of these elements will follow the *Secretary of the Interior's Standards for Treatment of Historic Properties*.

Implementation of the preferred alternative will result in minor adverse, long-term, impacts to vegetation due to a loss of vegetation on approximately 1-2 acres, along the trail alignment and to provide for parking at Pipe Creek Vista, and the potential for spread of exotic species. Additionally, the preferred alternative will also result in minor beneficial impacts due to reduced social trailing between Pipe Creek Vista and the South Kaibab Trailhead.

Implementation of the preferred alternative will result in minor to moderate long-term and moderate short-term adverse, localized impacts to general wildlife due to a loss of vegetation on approximately 1-2 acres along the trail alignment and at Pipe Creek Vista, 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 trail and 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, Mexican spotted owl, peregrine falcon, zoned-tail hawk, deer goldenbush) due to 1-2 acres of new ground disturbance and potential for disturbance to foraging habitat and prey species. Surveys for Tusayan flameflower and sentry milk-vetch were completed and neither species was present in the project area, therefore, implementation of the preferred alternative will have no effect on these species.

Implementation of the preferred alternative will result in moderate long-term adverse impacts to visual and scenic quality due to the construction of parking at Pipe Creek Vista and the change of this area from its rural character. Long-term minor beneficial impacts will result from the improvements to the South Kaibab Trailhead. Short-term moderate adverse impacts to visual resources and scenic quality are expected during the construction period.

Implementation of the preferred alternative will result in moderate long-term beneficial impacts to visitor experience due to the trail construction and associated recreational opportunities, improvements to parking at Pipe Creek Vista, and improvements to the South Kaibab Trailhead. Short-term minor adverse impacts are expected during the construction period.

Implementation of the preferred alternative will result in minor beneficial impacts to park operations due to safe and efficient bus and mule operations, and reduced pedestrian and vehicle (including shuttle buses, trucks pulling trailers, and all other vehicles) conflicts on Yaki Road, at the South Kaibab Trailhead, and near Pipe Creek Vista.

Implementation of the preferred alternative will result in moderate long-term beneficial impacts to public health and safety due to improved parking at Pipe Creek Vista and designation of a pedestrian path at this location. 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 improved parking at Pipe Creek Vista and a designated pedestrian path through the area. These improvements are expected to decrease the safety risks associated with vehicle and pedestrian conflicts as well as conflicts between vehicles pulling in and out of Pipe Creek Vista and those traveling on Desert View Drive.

***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 archaeological resources, ethnographic resources, soundscape, air quality, watershed values (water and soils), 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 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 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.*** No archeological sites occur within the project area. Historic features at Pipe Creek Vista including the dry-laid parapet walls have the potential to be affected by proposed actions. All components of the preferred alternative take into consideration the potential for impacts to these sensitive cultural resources and project proposals have been designed with protection of these resources in mind. An Assessment of Effect (AEF) was sent to the State Historic Preservation Officer (SHPO) on 19 December 2007 to fulfill the NPS responsibilities under Section 106 of the National Historic Preservation Act. The SHPO responded on 23 January 2007 with a letter of request for more detailed information to accurately assess the potential effects to cultural resources. The NPS responded with a letter and additional photos and drawings to demonstrate the project components and the NPS finding of effect.

Consultation between the NPS and the SHPO was completed with the submission of more detailed information as additional attachments to the AEF. A letter of concurrence was received on 15 April 2008. The finding of effect for the undertaking is “no adverse effect.” Consultation between the NPS and tribal groups occurred as part of public scoping and as part of review of the EA to guide Section 106 consultation and the cultural resource aspects of the project. One response during initial scoping was received from the Kaibab Paiute with no objections to the project. The project was discussed at several tribal meetings and comments were received by the Hopi Tribe and Moapa Band of Paiute Indians regarding paving the trail. No tribes provided any specific comments on the EA.

***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 may affect, but is not likely to adversely affect, the Mexican spotted owl and California condor. Concurrence on these determinations was received from the U.S. Fish and Wildlife Service on 30 January 2008.

***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.

## **APPROPRIATE USE, UNACCEPTABLE IMPACTS, AND IMPAIRMENT**

Sections 1.5 and 8.12 of NPS *Management Policies* emphasize 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; and whether the public interest would be served. Construction of the Greenway V trail and the project as a whole is not inconsistent with any laws, executive order, regulations, policies, or plans, in fact the park's 1995 General Management Plan specifically envisioned the greenway trail system to promote and encourage non-motorized travel in the park. This project will have some impact to park resources; these actual and potential impacts are described in the EA. Finally, the trail is being constructed to provide for enhanced visitor experience and additional recreational opportunities. Therefore, the Park Service finds that the preferred alternative is an appropriate use. Because the analysis determined that no major adverse impacts would occur and that mitigation measures would further lessen the impacts, implementation of the preferred alternative would not result in any unacceptable impacts. The EA includes the criteria used to evaluate unacceptable impacts and a subsequent discussion specific to this project (p. 34).

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 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 less 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 Grand Canyon National Park'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 EA identified less than major adverse impacts on historic structures and cultural landscapes, vegetation, general wildlife, special status species, visual and scenic quality, visitor experience, park operations, and public health and safety. This conclusion is further based on the Superintendent's professional judgment, as guided and informed by the park's General Management Plan. Although the project has some negative impacts, in all cases these adverse impacts are the result of actions taken to preserve and restore other park resources and values. Overall, the project results in benefits to park resources and values, opportunities for their enjoyment, and it does not result in their impairment.

## **PUBLIC INVOLVEMENT**

The EA was made available for public review and comment during a 30-day period ending February 9, 2008 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 was available for public review.

Five comments were received during public review of the EA. Overall support for the construction of the greenway trail was expressed in these comments. Concerns about the parking at Pipe Creek Vista were also expressed and are addressed in the errata sheet of this document.

Consultation between the NPS and the SHPO was completed with an AEF and a letter of concurrence received on 15 April 2008. The finding of effect for the undertaking is "no adverse effect." Consultation between the NPS and tribal groups occurred as part of public scoping and as part of review of the EA to guide Section 106 consultation and the cultural resource aspects of the project. One response during initial scoping was received from the Kaibab Paiute with no objections to the project. The project was discussed at several tribal meetings and comments were received from the Hopi Tribe and Moapa Band of Paiute Indians regarding paving the trail. The EA includes a summary of comments received during public scoping (p. 68-69). No tribes provided any specific comments on the EA.

Consultation between the NPS and the United States Fish and Wildlife Service (FWS) was completed with a project specific Biological Assessment (BA) and a letter of concurrence received on 30 January 2008. The EA includes mitigation measures for California condors and Mexican spotted owls to minimize the potential for adverse effects to these species.

## 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  
Steve Martin  
Superintendent, Grand Canyon National Park

4/16/08  
Date

Approved: Michael D. Snyder  
Michael D. Snyder  
Director, Intermountain Region

4/17/08  
Date

## ERRATA SHEET Response to Comments

### Greenway V Grand Canyon National Park

The NPS received five (5) responses from the public to a request for comments on the EA for the Greenway V Project (January 2008). The comment period ended 9 February 2008. 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:** Consider widening the Desert View Drive roadbed to provide a safe pedestrian/motorist area.

**Response:** The widening of Desert View Drive at Pipe Creek Vista was considered in the preparation of the EA and was dismissed from further consideration due to the high cost. One of the primary project objectives is to provide for safe movement of vehicles and pedestrians at Pipe Creek Vista. The design of the parking area between overlooks would focus on safety for both vehicles and pedestrians. NPS believes that this re-design would accomplish project objectives and is financially feasible.

**Comment:** Alternative C is a safer and cheaper way to solve the problem at Pipe Creek Vista. It is the most desirable because it conforms more closely to the overall park transportation plan.

**Response:** One of the project objectives is to maintain, as much as feasible, existing parking capacity at Pipe Creek Vista. Implementation of Alternative C would result in a decrease in the current parking capacity and therefore would not fully meet the project objectives. However, another objective of the project is to provide safety and ease of movement for pedestrians and vehicles at Pipe Creek Vista. NPS recognizes that this is a difficult area and agrees that visitor safety in this area is paramount. If the implementation of parallel parking at the overlooks under the preferred alternative (Alternative B) is found to be unsafe based on careful evaluation, NPS would discontinue its use and allow for parking only in the area between overlooks.

**Comment:** Alternative C is preferable because it eliminates two of the parking areas at Pipe Creek Vista.

**Response:** As stated in the previous response, one of the project objectives is to retain existing parking at Pipe Creek Vista, as much as possible. Therefore implementation of Alternative C does not fully meet all project objectives. However, as discussed above, NPS would carefully monitor the use of the parallel parking after implementation. If deemed necessary, NPS would discontinue the use of parallel parking if it was found to be unsafe.

**Comment:** It should be unnecessary to create more parking lots, just feet from the rim of the canyon and from a current shuttle bus stop. Closing the area to personal vehicular traffic entirely would solve the problem and would provide additional encouragement for use of park buses. We encourage you to re-evaluate this and to instead consider a preferred alternative that does not entail building more parking on the rim of this spectacular natural wonder.

**Response:** One of the project objectives is to improve safety and ease of movement for pedestrians and vehicles in Pipe Creek Vista parking areas and overlooks, while maintaining, as much as feasible, existing parking capacity. The option to eliminate parking at Pipe Creek Vista was not evaluated in the EA because it would not meet the NPS objectives for this project. Maintaining parking in this location, as well as providing shuttle bus access, is consistent with direction in the 1995 General management Plan (GMP, page 27) and with the in progress South Rim Visitor Transportation Plan (available for public comment through March 19, 2008). The creation of new parking within the area between the two overlooks is a way to continue to provide limited vehicle access to the overlook in a safe manner while also improving the experience and access through this area for rim trail hikers and shuttle bus users.

**Comment:** The design for the new parking area at Pipe Creek Vista, identified in the EA, provides a potential for accidents between vehicles that are backing out of parking spaces or otherwise attempting to re-enter Desert View Drive. Consider design of a parking area that considers the safety of both the vehicles parking at Pipe Creek Vista and those traveling on Desert View Drive. Change the wording in the objectives to address the safety of vehicles traveling on Desert View Drive.

**Response:** Improved safety is one of the primary objectives of the project; therefore NPS agrees that the design of safe parking at Pipe Creek Vista is very important. During the design phase, all possible parking designs and the resultant safety of pedestrians and vehicles, both parking at Pipe Creek Vista and traveling on Desert View Drive, will be carefully considered.

The project objectives were modified to reflect the concern for vehicle safety on Desert View Drive. The text in the EA on pages 2, 25, and 27 was modified as follows:

*1.b) Improve safety and ease of movement for pedestrians and vehicles in Pipe Creek Vista Parking areas and overlooks, as well as vehicles traveling on the adjacent Desert View Drive, while maintaining, as much as feasible, existing parking capacity.*

**Comment:** Pedestrians walking to the South Kaibab Trailhead from Desert View Drive are in danger. Consider constructing a trail parallel to the entry road (Yaki Road).

**Response:** The NPS feels that the Greenway V alignment would provide pedestrians with an alternative to the Yaki Road. At the corner of Desert View Drive and Yaki Road an old road alignment exists and could provide a connection directly with the Greenway V leading to the South Kaibab Trail area. This small improvement would not create additional environmental impacts and will be considered during project implementation.

**Comment:** The portable restrooms at South Kaibab Trailhead need to be replaced.

**Response:** Although the replacement of restrooms at the South Kaibab Trailhead is outside the scope of this project, a separate project to install vault toilets at the trailhead is anticipated to be completed in the summer of 2008.