



**TRAIN OPERATIONS  
FINDING OF NO SIGNIFICANT IMPACT**

Passenger rail service from Williams, Arizona to Grand Canyon's South Rim began in 1901 when a spur line was completed from the main rail line at Williams, Arizona to South Rim. Santa Fe Railway constructed the rail line, Depot and other supporting structures including hotels, restaurants, gift shops and housing between 1895 and 1905. The structures inside Grand Canyon National Park (GRCA) are now designated part of the Grand Canyon Village National Historic Landmark District.

Rail line popularity continued for decades, although by 1927 automobile-borne visitors outnumbered train passengers. Train travel remained lucrative for the Santa Fe Railroad until the 1960s when it declined precipitously; passenger trains ceased in 1967.

Passenger rail service was reinstated in 1989 under a concession permit issued under the authority of Public Law (P.L.) 89-249, the Concessions Policy Act of 1965. The current train operator serves more than 200,000 passengers per year. Train passengers embark from Williams, Arizona on daily trips using historic rail cars pulled by historic diesel or steam engines. On some occasions, the train operator provides a Sunset Limited trip that arrives at the park later in the day, and returns to Williams after sunset. In addition, other rail entities working with the train operator occasionally use the rails for park entry. The park reviews and approves such use on an individual basis.

GRCA assessed the appropriate use of continuing a commercially operated train to allow park visitors opportunity to experience South Rim using the historic rail access route, passenger train travel and the historic train itself. The overall goal is to protect natural and cultural resources while providing a quality visitor experience.

**Objectives of the Action**

- Provide opportunity park visitor entry from Williams, Arizona without a private vehicle
- Provide visitors opportunity to experience South Rim arrival via historic means
- Support the South Rim Transportation Plan
- Continue use of park historic resources, including the rail line and Depot
- Protect park natural and cultural resources
- Enhance visitor experience through interpretive and educational opportunities
- Assess train operations (specifically fuel alternatives), congestion near railroad infrastructure, safety and other issues

The EA evaluated a No Action Alternative and one Action Alternative.

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

### **PREFERRED ALTERNATIVE**

Approximately 6% of South Rim visitors, or 200,000 visitors, per year currently arrive via passenger train. If one assumes approximately three train passengers represent one private vehicle, and that passengers arriving via train do not enter the park later by personal vehicle, this represents elimination of approximately 67,000 vehicles per year, about 180 vehicles per day, with attendant air pollution, noise and contribution to crowding and congestion.

This alternative caps daily trains at three. Work trains and special use trains would continue in addition to daily trains. Special use trains and events would be capped at 30 annually. However, additional special use trains could be considered pending assessment of impacts to residents, visitors and wildlife.

The bulleted list below represents a summary of the preferred alternative.

- **Cap of Three Daily Trains from Williams** Up to three trains would arrive at Grand Canyon Depot each day. The train operator would notify the park when a third train becomes feasible, and the park would review and approve resultant schedule changes.
- **Installation of Ground Power** The concessioner operating the train would install ground power to run power cars while trains park at the Depot. This would involve some trenching and utility installation. Once installed, power cars would no longer idle at the Depot. Power cars are located behind the engine and supply power to passenger cars to maintain climate control while parked.
- **Opening Tracks 5 and 6** Current track configuration can accommodate three trains at once. However, opening tracks 5 and 6 would be considered to enhance safety and aid train operations in the Grand Canyon Depot area. GRCA would work with the train concessioner to approve opening of these tracks. Currently tracks 5 and 6 are partially covered with gravel and used for parking private vehicles in Lot D. Opening these tracks for use would include gravel removal and repair and replacement of ties and rails.
- **Special Use Trains and Events** In addition to daily trains described above, special use trains would be capped at 30 per year. The concessioner could allow up to 30 special use trains and events per year, including those operated by the concessioner and other entities. If the train concessioner would like to request more than 30 trains per year, the following actions may be considered
  - Informal visitor surveys to determine additional train impact on visitor experience
  - Wildlife Biologist riding trains to observe wildlife/train interactions
  - Informal resident survey to determine additional train impacts on resident experience
- **Work Trains** Work trains run approximately two times per week to maintain rails and crossings in and outside the park. Work trains would continue under this alternative
- **Historic Steam Engine Display** An historic steam engine could be displayed on track 1 at the Grand Canyon Depot. Track 1 is not typically used by trains and would allow enough

room to display the engine without blocking views of the Grand Canyon Depot. The steam engine would be kept operational and returned to Williams for servicing as needed.

- **Other Interpretive Opportunities** The train concessioner would work with the park's Interpretation staff to identify other opportunities for visitors to experience the train. This may include tours of the train or Depot, improved interpretive programs on the train and interpretive displays in and around the Depot.

## **MITIGATING MEASURES**

Under the preferred alternative, the permit will be conditioned by requiring the following

**Contractor Orientation** Contractors working in the park will be provided instructions regarding proper conduct. These instructions will be provided both in writing and verbally at a pre-construction meeting coordinated by the Project Manager. Orientation and instructions 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 safety, vehicle fuel-spill and leakage policies
- 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 construction equipment and material storage will be located either in previously disturbed areas near project sites or 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 and methods for determining when standards are met will be developed in consultation with the park 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** Even though soil erosion was dismissed from impact topics, park standard operating practices are applied to all projects. To minimize soil erosion, the following mitigation measures will be incorporated into the Action Alternative

- Standard erosion control measures such as silt fences, sand bags or equivalent control methods will be used to minimize 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 park-approved guidelines. Compacted soils will be scarified, and original contours reestablished.

**Vegetation** Project Manager will work with concessioner, contractor and park staff to minimize vegetation impacts, prevent exotic vegetation introduction and minimize noxious weed spread; the following mitigation measures will be incorporated into the Action Alternative

- All construction equipment that will leave the road (e.g. bulldozers and backhoes) will be pressure-washed prior to entering the park. The selected vehicle-washing location will be park-approved
- Construction equipment staging area locations 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
- 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
- Exotic species encroachment and distribution will be monitored 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 area vegetation will be maintained and enhanced to the extent practical
- The concessioner will follow the park Exotic Plant Management Plan when treating vegetation on and near rail lines
- Integrated Pest Management Treatment of non-native vegetation on tracks will be conducted according to NPS Management Policies and the park Exotic Plant Management Plan

**Special Status Species** The park employs standard procedures for any park activity. To protect any unknown or undiscovered threatened, endangered or special status species, the construction contract will include provisions for discovery of such. Provisions require cessation of construction activities until park staff evaluate impact, and will allow contract modification for any measures determined necessary to protect the discovery. Mitigation measures for known special status species are

*California Condor*

- The train operator will notify park staff of any condors landing or frequenting areas along tracks or near the Depot. The train operator will instruct passengers and staff to avoid interaction with condors. The train operator will maintain its assigned area in a clean condition to avoid creating condor attractions
- Prior to construction start, the park will contact personnel monitoring California condor locations and movements to determine condor locations and status in or near the project area
- If a condor lands at the construction site, construction will cease until it leaves on its own or permitted personnel employ techniques resulting in the individual condor leaving the area
- Construction workers and supervisors will be instructed to avoid interaction with condors, and to contact park dispatch immediately if a condor lands at a construction site
- The construction site will be cleaned 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 ensure adequate clean-up measures are taken
- To prevent water contamination and potential condor 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 Wildlife Biologist to ensure project-adequate condor protection

- If condor nesting activity is known within 0.5 miles of the project area, light and heavy construction in the project area may be restricted during active nesting season, if viable nests persist. 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 Wildlife Biologist and U.S. Fish and Wildlife Service (USFWS)

**Soundscapes** To minimize construction impacts on soundscapes, the following mitigation measures will be incorporated into the Action Alternative

- 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 repeated in 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
- Regular train operations will be restricted to daylight hours to maintain maximum quiet during evening hours
- The train operator will be required through its permit to embrace quiet technologies as they become feasible, given its use of historic engines and cars

**Cultural Resources** The park employs standard procedures for all park activities not unique to construction projects. To minimize construction impacts on cultural resources, the following mitigation measures will be incorporated into the Action Alternative

- The Railway Depot and its environs are part of the Grand Canyon Village National Historic Landmark District. The train operator will be required by the NPS, through its permit, to follow appropriate maintenance and housekeeping procedures to care for this important historic and cultural property
- If previously unknown archeological resources are discovered during the project, a park archeologist will be contacted immediately. All work in the discovery's immediate vicinity will be halted until resources can be identified, documented, and an appropriate mitigation strategy developed, if necessary, in accordance with stipulations of the 1995 Programmatic Agreement among the NPS, Arizona State Historic Preservation Officer, and the Advisory Council on Historic Preservation regarding the GRCA General Management Plan/Environmental Impact Statement
- Any excavation needed for project implementation (e.g. burying utilities) may require an archaeological monitor
- All workers will be informed of penalties for 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 should be in existing disturbed areas or existing paved overlooks where no potential for archeological resource disturbance exists. If sites selected for these activities change during later design phases for alternative implementation, additional archeological surveys will be conducted
- Disturbance to cultural resources and features associated with the cultural landscape in the project area will be minimized
- 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

**Visitor Experience** The following mitigation measures will be incorporated into the Action Alternative to minimize impacts on visitor experience

- The park will work with the train operator to minimize any issues of crowding or congestion during train boarding and de-boarding. Such mitigation may consist of the train operator providing crossing guards and traffic control at the Depot
- 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 appropriate means during construction periods. This may be an informational brochure or flyer distributed at the gate and sent to those with reservations at park facilities, postings on the park website, press releases, and/or other methods. 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

**Park Operations and Safety** The following mitigation measures will be incorporated into the Action Alternative to minimize impacts on park operations and minimize safety risks to employees and visitors

- The NPS will notify its employees, concessioners, visitors and residents of project implementation, road delays and/or road closures, as appropriate
- The NPS will provide guidance to the train operator through its authorization to promote safe operations and ensure smooth park operations

**Air Quality** Air quality impacts of the Action Alternative are expected to be temporary and localized. To minimize these impacts, the following actions will be taken

- Through its authorization, the train operator will be required to use best technologies as they become available to minimize impacts to air quality from train operations, recognizing that historic engines and train cars are an important part of this activity
- 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 necessary for safety and mechanical reasons
- To reduce short-term construction dust, water will be applied to problem areas. Equipment will be limited to the fenced project area to minimize soil disturbance and consequent dust generation

## **ALTERNATIVES CONSIDERED**

The Environmental Assessment (EA) evaluated a No Action Alternative and one Action Alternative (Preferred Alternative) for addressing the purpose and need for action. The Preferred Alternative was identified as Alternative B, the Action Alternative, and is as described previously in this document.

**Alternative A, No Action** Under the No Action Alternative, the train concessioner would continue current operations which typically consist of one to two trains from Williams per day, special use trains and events, and work trains. There are no limits on daily trains or special use trains and events under the current authorization.

- **Daily Trains** Currently, the park does not limit the number of trains arriving at the Depot
- **Special Use Trains and Events** The train concessioner requests approximately 30 special trains and events annually in addition to daily trains. Special use trains are passenger trains

that run outside the daily train schedule and are run by either the train concessioner or another entity as permitted through the concessioner. Special events would include other activities on the railroad tracks such as hand cars. Under this alternative, special use trains and events would continue without a cap on number allowed each year

- **Work Trains** Work trains run as needed to maintain rails and crossings. Currently work trains use tracks inside the park approximately two times per week. Work trains use would continue under this alternative

Alternative A describes the existing condition; it does not meet the purpose and need for action. This alternative was not the selected alternative for this project.

## **ENVIRONMENTALLY PREFERRED ALTERNATIVE**

The Environmentally Preferred Alternative is determined by applying 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 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 resources. While Alternative A would meet the intent of many project objectives, it does nothing to improve park conditions. Alternative B satisfies the objectives and provides additional opportunities for visitors to experience the train by displaying a historic steam engine at the Depot. It also improves air quality through ground power installation and improves public health and safety by allowing restoration of tracks 5 and 6.

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 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***

Preferred Alternative impacts, commercial train operations at Grand Canyon National park, will have minor to moderate beneficial effects due to the train whistle, gates, flashing lights, crossing guards, restoration of tracks 5 and 6 for safety, decreased private vehicle traffic, ground power installation, increased interpretive opportunities including display of historic steam engine and increased opportunities to ride the train for visitor experience, reduction of Depot train idling, potential to further decrease passenger car number entering the park, and historic train Depot maintenance.

Preferred Alternative minor impacts include pedestrian congestion and crossing in the Depot area and concerns at park railroad crossings. Visitors will be impacted short term due to ground power installation construction. Mitigating measures proposed will increase the safety margin and reduce potential of visitor impacts during construction periods.

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

Use of a commercially operated train through Grand Canyon National Park has some inherent element of concern for public health and safety. The EA identified implementing the Preferred Alternative would result in minor short-term adverse impacts during construction, and long-term minor impacts from continued safety concerns at railroad crossings and with pedestrian traffic. Beneficial impacts from the train whistle, gates, flashing lights and crossing guards, and potential restoration of tracks 5 and 6 would be minor long term. Cumulative impacts would be beneficial minor long term. Adherence to mitigation measures designed to minimize safety risks and adverse impacts to visitors during train operations will address these limited risks to public safety.

***Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers or ecologically critical areas***

The Preferred Alternative will not have measurable adverse affects on soundscapes, historic resources, environmental justice, prime and unique farmland, socioeconomic environment, wetlands or Indian trust resources. No wild and scenic rivers are designated in the park and none will be affected by Preferred Alternative implementation. No ecologically critical areas are known to occur in priority project areas. Mitigation measures will be implemented that minimize 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 EA preparation or public review period.

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

As previously described, Preferred Alternative risks relate to public safety. Arrival of three trains per day would add to Depot congestion throughout the day. However, the schedule would be assessed to ensure the safest arrival and departure for all three trains. This assessment would also be completed for special use trains and special events to eliminate safety concerns with pedestrian traffic or railroad crossings. Therefore there were no highly uncertain, unique or unknown risks identified.



***Degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration***

The Preferred Alternative 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***

Preferred Alternative implementation will not result in any major (significant) cumulative effects.

***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.***

The Preferred Alternative project area contains the Grand Canyon Depot, a National Historic Landmark. The project area also contains historic rail lines. The rail lines and Depot are part of the Grand Canyon Village National Historic Landmark District.

The preferred alternative would have a moderate beneficial long-term impact on historic resources from continued care and maintenance of the historic train Depot, rail lines and crossings; historic steam engine display and interpretation; and restoration of tracks 5 and 6. Cumulative impacts would be adverse moderate long term.

The EA was sent to the affiliated American Indian tribes and the State Historic Preservation Officer (SHPO) on July 1, 2009.

Compliance with §106 of the National Historic Preservation Act was completed with a concurrence with the NPS determination of no adverse effect to historic properties by the Arizona State Historic Preservation Officer on August 24, 2009. No responses were received from any of the affiliated tribes.

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

GRCA's Section 7 Coordinator determined this project would have no effect on special status species. Scoping letters were sent to USFWS and Arizona Game and Fish Department (AGFD) in September 2008. Neither agency responded with concerns regarding train operations or proposed Depot construction. An Environmental Assessment was sent to USFWS and AGFD on June 27, 2009. Neither agency responded with concerns regarding train operations or proposed Depot area changes.

***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 underscore not all uses are allowable or appropriate in national park system units. 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 public interest would be served.

A commercially operated train as a whole is not inconsistent with any laws, executive orders, regulations, policies or laws. In fact the park's 1995 GMP states the park should

- encourage alternatives to private automobile travel to Grand Canyon
- be a model of excellence in planning and management. Alternative means of transportation—walking, biking or using convenient public transit—should be encouraged. To minimize new disturbance, necessary services and facilities should be provided in existing disturbed areas wherever possible, or outside the park
- provide a diverse range of quality visitor experiences, as appropriate, based on GRCA's resources and values, compatible with protection of those resources and values
- provide access appropriate and consistent with the character and nature of each landscape unit and desired visitor experience

Through this planning effort this activity is also found to be a necessary commercial service under P.L. 105-391 because it meets park planning objectives of providing a "step back in time" to a historic transportation method early visitors used to visit Grand Canyon, thereby providing today's visitors an opportunity to engage with the area's cultural history. Additionally, train travel has potential to reduce automobile crowding and congestion in the Historic Village Area because it provides alternative transportation to this heavily visited location.

By meeting these two important management objectives, without conflicting with any existing laws, executive orders, regulations and policies, this activity is found to be necessary and appropriate for visitor use and enjoyment.

Therefore, the park service finds the Preferred Alternative an appropriate use. Because the analysis determined no major adverse impacts would occur and application of mitigating measures would further lessen impacts, Preferred Alternative implementation would not result in unacceptable impacts. The EA includes criteria used to evaluate unacceptable impacts and a subsequent discussion specific to this project (p. 27).

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

In addition to reviewing the definition of "significantly" under the NEPA regulations, the NPS has determined Preferred Alternative implementation would not constitute impairment to the integrity of Grand Canyon National Park's resources or values as described by NPS Management Policies. This conclusion is based on the NPS analysis of the proposed action's environmental impacts as described in the EA, public comments received, relevant scientific studies and professional judgment of the decision-maker guided by NPS Management Policies. The EA identified less than major adverse impacts on soundscapes, visitor experience, public health and safety, park operations and air quality. This conclusion is further based on the Superintendent's professional judgment, as guided and informed by the park's General Management Plan and South Rim Transportation Plan. Although the

plan/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 plan results in benefits to park resources and values, opportunities for their enjoyment and does not result in their impairment.

#### **PUBLIC INVOLVEMENT**

The EA was made available for public review and comment during a 30-day period ending July 29, 2009 through a combination of direct mailing, press release issuance and posting on the Planning, Environment and Public Comment (PEPC) website (<http://parkplanning.nps.gov/grca>). All those that provided comments during the public scoping periods received either a printed copy or a letter notifying them the EA was available for public review.

Twenty-nine comments were received during public EA review. Overall, these comments support train operations defined in the Preferred Alternative.

This total includes eight letters from organizations (one from a tour group, one from a conservation organization and one from a park concessioner): twenty-six individual letters. Most respondents were in agreement with Preferred Alternative selection, Alternative B. There were concerns raised on establishing a cap for train park access.

Substantive EA comments centered on seven topics: parking, historic resources, visitor experience, public health and safety, alternative clarifications, mitigations and funding. These concerns resulted in no EA text changes but are addressed in errata sheets attached to this FONSI. The FONSI and errata sheets will be announced by press release and posted on PEPC.

#### **CONCLUSION**

As described above, the Preferred Alternative does not constitute an action meeting criteria normally requiring environmental impact statement (EIS) preparation. The Preferred Alternative will not have a significant effect on the human environment. Environmental impacts that could occur are limited in context and intensity, with generally adverse impacts ranging from localized to widespread short to long term negligible to moderate. There are no unmitigated adverse effects on public health, public safety, threatened or endangered species, sites or districts listed in or eligible for listing in the National Register of Historic Places or other unique regional characteristics. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects or elements of precedence were identified. Action implementation will not violate any Federal, state or local environmental protection law.

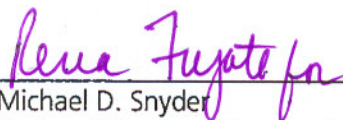
Based on the foregoing, it is determined an EIS is not required for this project and thus will not be prepared.

Recommended:

  
\_\_\_\_\_  
Steve Martin  
Superintendent, Grand Canyon National Park

8/26/09  
\_\_\_\_\_  
Date

Approved:

  
\_\_\_\_\_  
Michael D. Snyder  
Regional Director, Intermountain Region

8-27-09  
\_\_\_\_\_  
Date

**ERRATA SHEET**  
**TRAIN OPERATIONS ENVIRONMENTAL ASSESSMENT**  
**Grand Canyon National Park**

**TEXT CHANGES**

Page 1, Background: Second paragraph, second sentence change 1967 to June 30, 1968 (Sources: *The Story of the Grand Canyon Railway* by Al Richmond, Sixth Edition, © 2005, and *The Railway at Grand Canyon: A History of the Grand Canyon Depot and Yard Structures (Draft)*, 1984, by Gordon Chappell, San Francisco, CA, National Park Service)

Page 2, Purpose and Need: First bullet change Arizon to Arizona

Page 2, Relationship to Other Plans: First sentence change Grand Canyon National Park South Rim Visitor Transportation Plan (SRVTP) 2007 to Grand Canyon National Park South Rim Visitor Transportation Plan (SRVTP) 2008

Page 2, Relationship to Other Plans: Second sentence change A Finding of No Significant Impact (FONSI) for the SRVTP was signed in May 2007 to A Finding of No Significant Impact (FONSI) for the SRVTP was signed in May 2008

Page 3, First paragraph, last sentence change The SRVTP determined that track 7 is not needed and will be removed to construct a bus loading area to During the design phase to construct a bus loading area for the SRVTP, the NPS in consultation with the SHPO, would determine the outcome of track 7 and resulting impacts to cultural resources

Page 3, Grand Canyon Line (EA 1984; FONSI 1985): First sentence change 1967 to 1968

Page 12, Cultural Landscapes: Second paragraph, second sentence change patters to patterns

Page 17, California Condor: Third bullet, third sentence change will maintained to will maintain

## SUBSTANTIVE COMMENTS

Comment	Response
<b>Parking</b>	
<p>Uncovering tracks in Lot D and constructing a bus transfer station will eliminate parking. A decrease in vehicle parking spaces will increase traffic congestion and confusion in the village area. Is the NPS going to add any additional parking to make up for the loss of Parking Lot D? Please reconsider this course of action because it is very difficult to find parking at the park.</p>	<p>The South Rim Visitor Transportation Plan EA and subsequent FONSI (2008) (SRVTP) defined the proposal for removal of Track 7 and construction of a bus transfer station. Parking construction at the Visitor Center at Canyon View Information Plaza (CVIP) will accommodate the Depot parking loss. The improved shuttle system from CVIP to the village area will also help reduce village area congestion. SRVTP calls for improvements to passenger loading and unloading operations for the concessioner operating the train. Heavy congestion near Grand Canyon Depot when passengers disembark from the train causes safety risks and disrupts traffic flow. The plan calls for reduction of overall vehicle traffic through Grand Canyon Village in 2020 by 15 to 25% during peak periods.</p>
<p>If you could do some motorcycle pads that would be great.</p>	<p>At this time there are no designated motorcycle pads in the South Rim Village area or at the Canyon View Information Plaza. Motorcycles can use any legal parking space available at Grand Canyon National Park. However, management will be notified of your request for motorcycle pads.</p>
<b>Historic Resources</b>	
<p>Why would you even think about converting to electric power? It would destroy any and all historic use of the line.</p>	<p>The NPS will not be converting trains to electric power. The EA states on page 15 that ground power would be installed to run power cars while trains are parked at the Depot. This would involve some trenching and utility installation. Once installed, previously used power cars would no longer idle at the Depot. Power cars are located behind the engine and supply power to passenger cars to maintain climate control while parked.</p>
<p>Proposed in the late 1970s or 1980s to fill in over some of the yard tracks to create a temporary public parking area for motor vehicles, the NPS negotiated with the Arizona State Historic Preservation Officer under Section 106 of the National Historic Preservation Act and it was agreed that this would be a temporary parking area on top of tracks that were left in place, except for the switch stands, which were removed, and should have been stored by the NPS.</p>	<p>The South Rim Visitor Transportation Plan EA and subsequent FONSI (2008) defined the proposal to construct a bus loading area south of Track 6 at the Depot. Section 106 consultation was initiated and a Memorandum of Agreement (MOA) was submitted to the SHPO and signed on May 5, 2008. The NPS and SHPO will continue to coordinate according to the agreements set forth in the MOA. Restoration of Tracks 5 and 6 was submitted to the SHPO for a "no adverse effect" determination on July 1, 2009. The SHPO concurred with that determination August 24, 2009.</p>

<p>The strip south of and parallel to Track 7 should be considered an important historical archeological site contributing to the NHL, and the area should not be used by buses or any other vehicles.</p>	<p>The South Rim Visitor Transportation Plan EA and subsequent FONSI (2008) defined the proposal to construct a bus loading area south of Track 6 at the Depot. National Historic Preservation Act/Section 106 was initiated and a Memorandum of Agreement (MOA) was submitted to the SHPO and signed on May 5, 2008. The NPS and SHPO will continue to coordinate according to the agreements set forth in the MOA.</p>
<p>On page 11 is a discussion of archeology, but it does not address historical archeology, which is present in the depot yard in the form of buried but contributing structures. The steam system is historic and should be considered a part of the historic structure of the railroad yard. Buses should load and unload where they did historically - on the north side of the railroad yard west of the depot.</p>	<p>The South Rim Visitor Transportation Plan EA and subsequent FONSI (2008) defined the proposal to construct a bus loading area south of Track 6 at the Depot. National Historic Preservation Act/Section 106 was initiated and a Memorandum of Agreement (MOA) was submitted to the SHPO and signed May 5, 2008. The NPS and SHPO will continue to coordinate according to agreements set forth in the MOA. The NPS will ensure all resources are considered in the area of potential effect during construction design phases. Restoration of Tracks 5 and 6 was submitted to the SHPO for a "no adverse effect" determination July 1, 2009. The SHPO concurred with that determination August 24, 2009.</p> <p>The NPS cannot rely solely on the historical bus drop off west of the depot as many more buses are in use today due to higher visitation numbers. Also, buses today are much larger than buses the historic bus drop off was designed for and causes depot traffic jams as they pull in and out blocking the single traffic lane past the depot.</p> <p>The water delivery system referenced was only in use from 1911 to 1925 when a more sanitary and sealed system was installed in another location. The wood water flume ran under the tracks and gravity fed into a concrete tank, which appears today at ground level, conflicting with the assertion that it was a below-grade system that still may have buried components. There are no signs of the flume or the associated tracks onsite, only part of the concrete tank remains. This 1911 water flume component of the rail yard has little integrity and is not listed as a contributing feature to the NHL District. Historic American Building Survey (HABS) documentation entitled Grand Canyon Village Engineering Study 1890s - 1954 provides excellent documentation of the development and current condition of railroad resources.</p>

<p>On page 12, the third paragraph notes that the depot itself is a National Historic Landmark. Actually, that status extends to the yard tracks which served the depot; the depot could not have performed its historic function without the tracks, therefore the tracks are a part of the NHL. They can be considered either a single structure in the form of a system of tracks and switches, or as individual structures as numbered by the Santa Fe.</p>	<p>The large South Rim Village NHL District includes most of the extant railroad resources including depot, tracks, platforms, culverts, wall, etc. The NPS in consultation with the SHPO is considering all the contributing elements in the Grand Canyon Village NHL and Depot NHL determinations.</p>
<p><b>Public Health and Safety</b></p>	
<p>Page 34 includes a discussion of Railroad Crossings: This discussion does not mention that the railroad crossing of the Old Village Bypass Road west of the Power House does not have flashing signals or gates to warn and stop traffic. Under current operations, the train operator stations a flagger at this location to stop traffic. The South Rim Visitor Transportation Plan (page 51) speaks of possibly closing this roadway to all but administrative use but notes that such closing could occur only if the closure did not result in traffic congestion near Maswik Lodge. The SRVTP also indicates this area will be used for a pedestrian and bike facility area. There could be safety concerns.</p>	<p>Public Health and Safety is a priority at Grand Canyon National Park. The undertaking described in the Train Operations EA will initiate any and all processes and procedures to ensure public health and safety is guaranteed. During South Rim Visitor Transportation Plan implementation, specified mitigation measures described in the 2008 FONSI will be adhered to, and the park will ensure public health and safety is a priority.</p>
<p><b>Alternative Clarification</b></p>	
<p>Encourage the National Park Service to consider not placing a cap of 30 specialty trains per year. We believe that it is advantageous to the park to get as many people into the park as possible without cars, and if these specialty trains were capped at no more than 30 for after hour use, but any specialty trains beyond 30 limited by the time of day they are allowed to arrive and leave, but not limited in the number of trains per year, it would maximize the potential number of people that can get into the park without a car while avoiding the concerns of train use in the evenings.</p>	<p>The NPS believes the limitation of up to three trains per day and cap of 30 specialty trains per year are appropriate after assessing impacts of train operations on natural and cultural resources as well as visitor experience and visitor crowding. Day and after-hour use are equally important in terms of resource protection. Preferred Alternative train operation limitations best meet purpose and need objectives as stated on the EA's page 2.</p>
<p>To correctly assess visitor experience and visitor crowding, the Environmental Assessment should describe Alternative B not in terms of a limited number of trains per day (three), but should describe the alternative in terms of a maximum number of passengers to arrive at the Canyon in a given time period, such as one hour.</p>	<p>The NPS believes the limitation of up to three trains per day and cap of 30 specialty trains per year have assessed visitor experience and visitor crowding impacts. The train operator would notify the park when a third train becomes feasible, and the park would review and approve resultant schedule changes. Operational efficiencies such as time between train arrivals and departures will be assessed and modified based on visitor experience</p>



	<p>impact and visitor crowding issues. Mitigation measures listed on page 19 will also be applied during the course of the plan.</p>
<p>A different way of addressing crowding would be to modify Alternative B so that the number of passengers arriving on each train is limited and so that there is a minimum interval between train arrivals. These limits would create conditions such that the adverse effect of Alternative B would not be greater than Alternative A.</p>	<p>The NPS believes the limitation of up to three trains per day and cap of 30 specialty trains per year have assessed visitor experience and visitor crowding impacts. The time schedule provided in the Environmental Assessment, page 15, was a preliminary example based on three trains per day. As described in the Preferred Alternative, the train operator would notify the park when a third train becomes feasible, and the park would review and approve resultant schedule changes. Since crowding can be an issue during arrival of trains at the Depot, the park would evaluate a 60-minute minimum interval between train arrivals. This interval would also be assessed and changed based on number of passengers and/or number cars in a single event.</p>
<p><b>Visitor Experience</b></p>	
<p>I see no need to cap train operations. The more passengers that can be transported by rail the better, and better for the environment as well. You should leave the option for Canyon-based excursion trains open. A visitor who is spending several days at the park might enjoy an activity that doesn't involve physical exertion typical of many park activities. In fact, I'm sure it would especially appeal to those with disabilities.</p>	<p>The NPS agrees, the more passengers transported by means other than private vehicles the better for the environment. However, train operation limitations are necessary since the NPS is mandated to protect cultural and natural resources as well as provide for visitor experience. Due to Depot area and historic district congestion it is necessary to apply some limit on train operations. The park consistently reviews all operations that apply to the American Disability Act.</p>
<p>Clearly, the potential for crowding and the magnitude of the crowding problem would be greater under Alternative B. Yet, both alternatives are characterized in the same way, as "minor". The Environmental Assessment should distinguish between the levels of adverse impact for Alternatives A and B.</p>	<p>Thresholds defined on EA page 31 convey determination of intensity level based on analysis of impact. The NPS expects Alternative B to create slightly more crowding when compared to Alternative A, however, these impacts would be minor adverse and short term.</p>
<p>While it is true that each episode of crowding will be of short duration (an hour or less), episodes of crowding would repeat day after day after day, representing a chronic condition. Not to acknowledge this repetitive condition is an oversight of the Environmental Assessment.</p>	<p>EA pages 32 and 33 explain the cumulative effects of visitor experience combined with other past, present and reasonably future project are beneficial due to ground power installation, increased interpretive opportunities including historic steam engine display and increased opportunities to ride the train. Cumulative impacts would be beneficial moderate long term. Alternative B would have a minor contribution to this overall beneficial impact on visitor experience. During the course of this plan if any impacts exceed intensity thresholds, park management will review those impacts and modify</p>



	as appropriate.
<b>Mitigation</b>	
Encourage the Park to pursue mitigation relative to the Visitor Experience and to minimize issues of crowding or congestion during train boarding and de-boarding, as discussed in the Environmental Assessment, page 19.	GRCA will adhere to the mitigation stated on page 19 of the EA. The park will coordinate with the train operator to ensure issues of crowding and congestion are minimized. These issues will be evaluated by the park, and modifications of general train operations may occur if found necessary.
The Environmental Assessment should include mitigation measures to reduce visitor crowding beyond the Depot.	As describe in response to a comment in Alternative Clarification, the interval between train arrivals will be evaluated based on number of trains per day, passengers and number of cars. This evaluation also considers reduction of crowding beyond the depot and demand on visitor uses such as restaurants, gift shops, shuttles and viewing areas.
<b>Purpose and Need</b>	
What are "the purpose and need and objectives of the project" - where are they posted?	Purpose and need and objectives are on page 2 of the Environmental Assessment.
<b>Funding</b>	
Where is the funding coming from? How much of it will be paid by NPS? Is any of it being funded by Xanterra, considering they are the train operator for the majority of the trains?	The Concessioner will be authorized through a concessions contract or other authorization to conduct train operations within Grand Canyon National Park at its own expense. Changes to the train yard, including rehabilitation of additional tracks, will be funded through a variety of appropriate NPS funding sources including concessions franchise fees.