National Park Service
U.S. Department of the Interior

Bryce Canyon National Park
Utah

Paria View Rehabilitation Project Environmental Assessment

May 2007

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Environmental Assessment

Paria View Rehabilitation Project

Bryce Canyon

National Park • Utah

Summary

Bryce Canyon National Park proposes to rehabilitate Paria View in order to return the viewpoint to good condition, provide safe access from the parking area to the furthest (southwest) viewpoint, and protect area resources. Paria View is centrally located in the park, south of the Bryce Point spur road in Garfield County, Utah. The walkways at the viewpoint are heavily used by the public and social trails have caused significant resource damage to surrounding vegetation. In addition, many areas of the walkway have experienced potholes, undulations, and other disrepair from decades of use and the erosion of retaining walls. Pedestrian safety railings are antiquated, showing their age and are insufficient in length to protect visitors. The project would remove all existing deteriorated asphalt walks and place 350 feet of accessible, colored concrete walkways near the parking area in the northeast section of the viewpoint and at the furthest overlook in the southwest section of the viewpoint. Park standard stone/log pedestrian safety railing would be constructed along the rim at the furthest overlook and accessible walkway. Lastly, the walkway between the accessible walkway and the furthest viewpoint would be regraded, provided with positive drainage, surfaced with colored concrete, and bordered with 320 feet of secondary log barrier to prevent social trailing in natural areas.

This environmental assessment (EA) evaluates three alternatives. The No-Action Alternative (Alternative A) would leave the viewpoint in its current location with only minor patch and seal repair to walkways and the retaining walls. The Minimal Improvement Alternative (Alternative B) would maintain current asphalt walkways and barriers through the resurfacing of sections of walkway and repair of railings, but close portions of the viewpoint where the greatest erosion and resource damage is occurring. The Rehabilitation of Paria View Alternative (Alternative C) would move the walkway alignment away from the rim, enclose primary viewpoints with new barriers, and regrade and resurface walkways.

This EA has been prepared in compliance with the National Environmental Policy Act (NEPA) to provide the decision-making framework that 1) analyzes a reasonable range of alternatives to meet project objectives, 2) evaluates potential issues and impacts to Bryce Canyon National Park's resources and values, and 3) identifies mitigation measures to lessen the degree or extent of these impacts. Resource topics that have been addressed in this document because the resultant impacts may be greater-than-minor include soils, vegetation, visitor use and experience, soundscapes, wilderness, and special status species. All other resource topics have been dismissed because the project would result in negligible or minor effects to those resources. No major effects are anticipated as a result of this project. Public scoping was conducted to assist with the development of this document.

Public Comment

If you wish to comment on the EA, you may mail comments to the name and address below or post comments online at http://parkplanning.nps.gov/BRCA. This EA will be on public review for 30 days**.** Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from

public review, we cannot guarantee that we will be able to do so.

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PURPOSE AND NEED

INTRODUCTION

The area known as Bryce Canyon National Park was set aside as a national monument in 1923. Interest in the area continued to grow after the declaration of the new national monument. In 1924, Bryce Canyon National Monument was declared Utah National Park. An Act of Congress in 1928 increased the amount of protected land to double what was already protected by the national park (now 35,835 acres). This addition of land was accompanied by another name change as Bryce Canyon National Park was officially designated on February 25, 1928. The national monument, and later park, was established to protect the fascinating geologic structures known as hoodoos and other natural and cultural resources.

Bryce Canyon National Park is located on the western edge of the Colorado Plateau (Figure 1). The park lies in portions of two counties in Utah: Garfield and Kane Counties. The entrance of the park is approximately 210 miles southeast of Salt Lake City, Utah.

The park is located on the southeast escarpment of the Paunsaugunt Plateau where the plateau breaks abruptly to the east and south in a series of steep walls and slopes. The park is composed of numerous natural amphitheaters cut into the Pink Cliffs formation on this eastern side of the plateau. There is great contrast between the colorful lowlands along the eastern flank of the park and timbered hillsides and tablelands to the west. Elevations range from 6,580 feet to 9,115 feet above sea level.

Most of the land surrounding Bryce Canyon National Park is federally owned and managed by the U.S. Forest Service (USFS) as part of the Powell Ranger District of Dixie National Forest. The Bureau of Land Management (BLM) manages land along the northern and northeastern park boundaries. Remaining land in the area is owned by the State of Utah and private landowners.

Park yearly visitation is about 1.5 million people, with most of this number focused on the central (or Main Amphitheater) section of the park.

Paria View overlooks the Paria Wash and is accessed via the 0.4-mile, Paria View Road, which heads south from the Bryce Point Road approximately 1.5 miles east of its junction with the main park road at mile 2.8 (Figure 2). Keeping with the more intimate feeling of the viewpoint, the Paria View Road is not accessible to large recreational vehicles, but a small parking area exists for standard sized vehicles.

This EA has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, regulations of the Council on Environmental Quality (CEQ) (40 CFR 1508.9), and the National Park Service Director’s Order (DO)-12 (*Conservation Planning, Environmental Impact Analysis, and Decision-making*).

FIGURE 1: UTAH AREA MAP

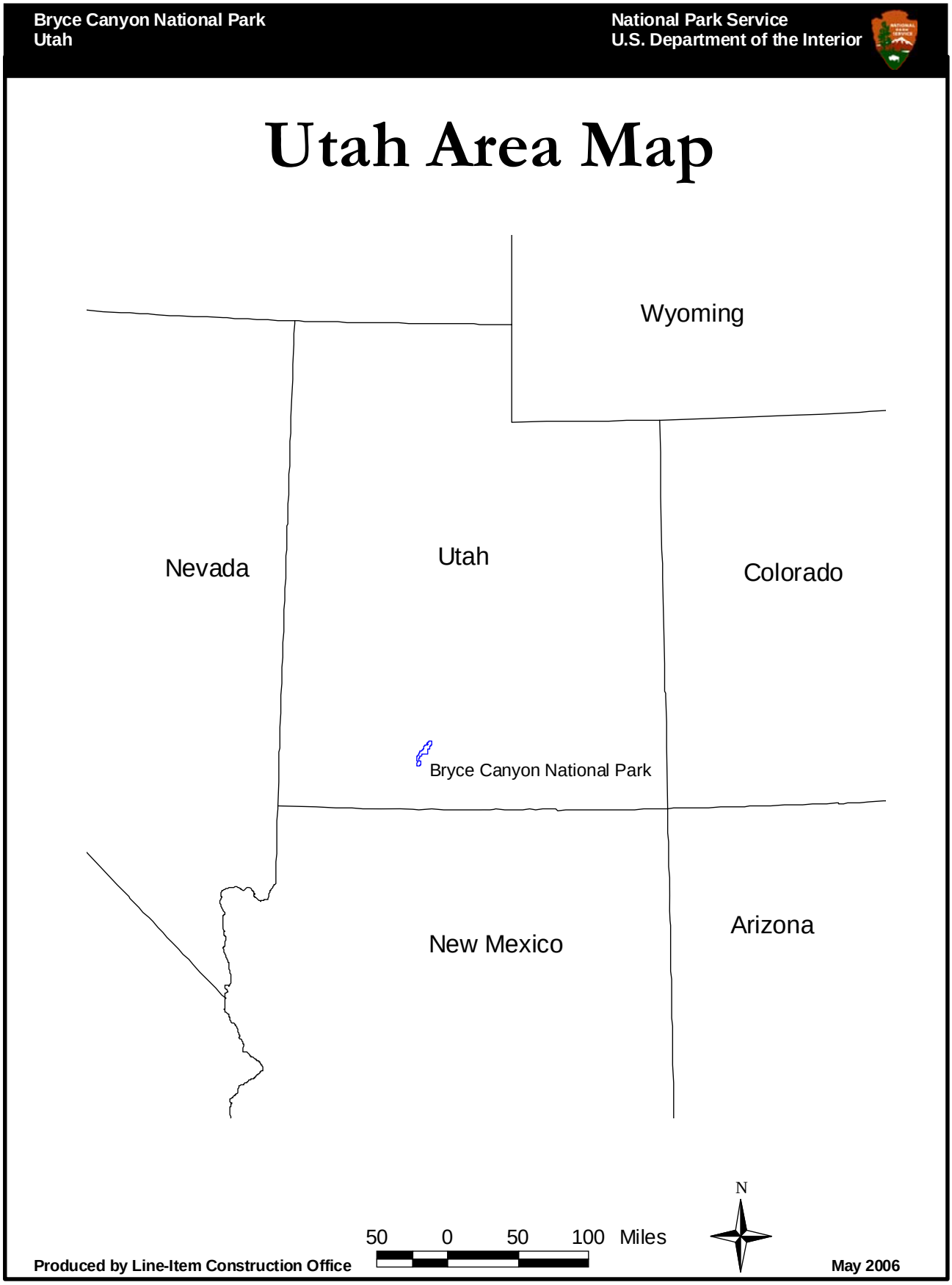
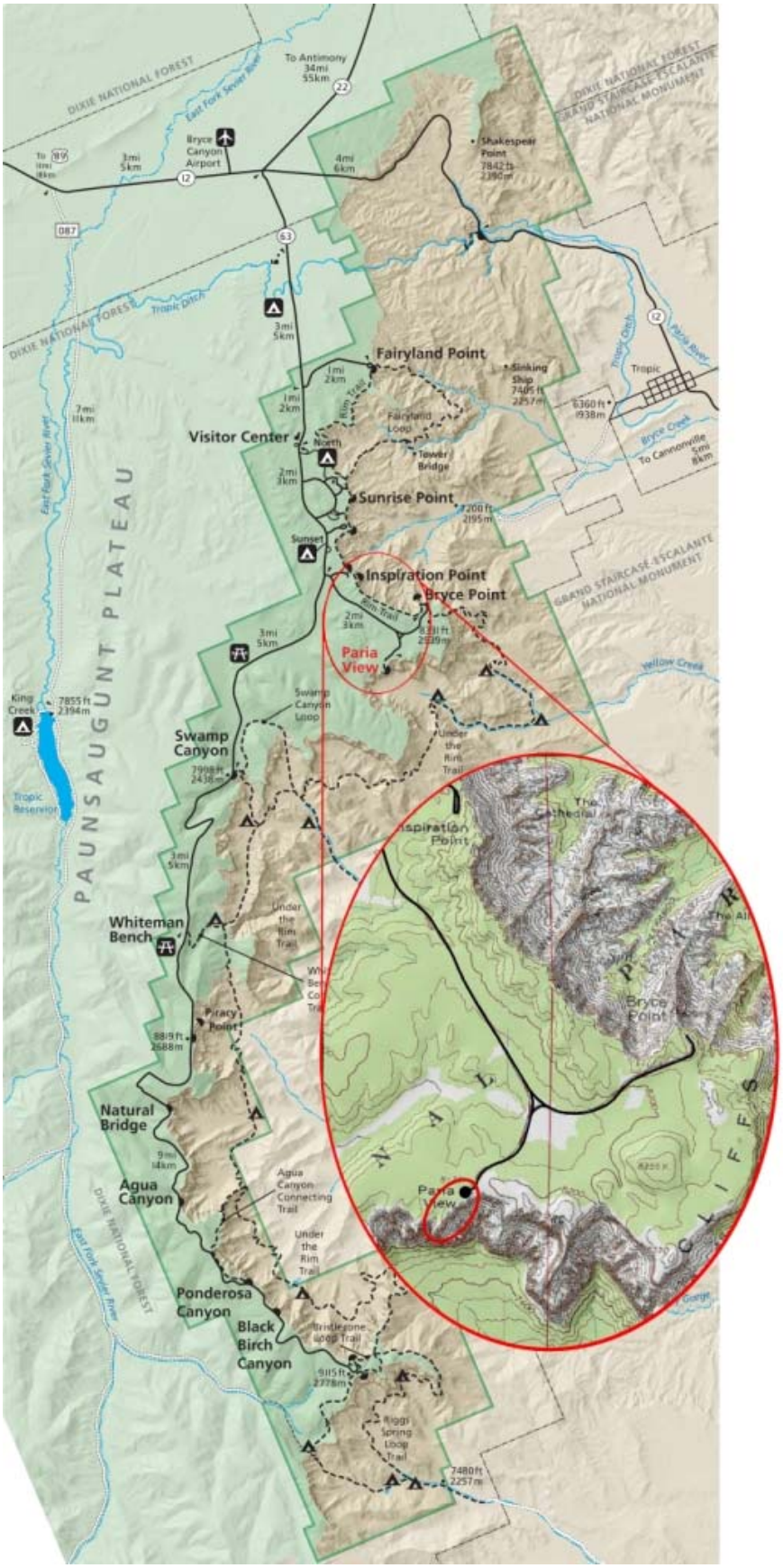


FIGURE 2: BRYCE CANYON NATIONAL PARK AND PARIA VIEW MAP



PURPOSE

The purpose of this project is to provide visitors with the opportunity to have a safe and rewarding experience during their visit to Bryce Canyon National Park, while protecting the qualities and values of the park's natural and cultural resources. The project proposes to repair damage to the Paria Viewpoint's pedestrian facilities, returning the walkways to good condition, replacing guardrails, and preventing future damage to natural resources from the erosion of manmade material into the Paria drainage. The project also proposes to prevent further damage to vegetation surrounding the pedestrian facilities, while ensuring an adequate level of visitor access to viewpoints.

NEED

The Paria Viewpoint and walks were last rehabilitated in the late 1950s and early 1960s, and have received minimal maintenance activities since the last rehabilitation effort. The existing asphalt walkways are unsafe and riddled with potholes and undulations, due to multiple layers of asphalt applications. The stone retaining wall requires drainage improvements, backfill, pointing and stone replacement. The present pedestrian safety railings are antiquated and are insufficient in length to protect visitors and surrounding resources. Replacement of deteriorated asphalt walks, resurfacing aggregate walks and placement of primary and secondary pedestrian railings would eliminate safety hazards, social trailing, and impacts to the surrounding natural environment. The existing walk does not comply with the American with Disabilities Act (ADA).

The existing pedestrian safety railing does not provide adequate protection to visitors in areas of 900' vertical cliffs. Annual park safety inspections consistently identify safety violations and hazards with these present walks and railings. Poor surface conditions of walkways and inadequate safety railings present viewpoint safety hazards.

Severe walkway and natural resource damage has already occurred and more damage is imminent. The project would provide long term protection (15-20 years) and establish a cyclic maintenance schedule. Because replaced walks would be bordered by a secondary log barrier system, social trailing and impacts to the surrounding natural environment would be mitigated. Park resource managers have identified loss of vegetation in natural areas due to social trailing adjacent to park overlooks. The Paria Viewpoint and walks are critical for providing safe interpretive services and scenic experiences to visitors. Without this project these basic services will be lost.

The proposed project is needed to accomplish the following objectives: 1. Make the walkway safe and enjoyable (rehabilitate walkway and provide safe and effective pedestrian railings); 2. Prevent further resource damage caused by social trailing and the loss of manmade material into the Paria drainage; and 3. Provide ADA-compliant accessibility at Paria View.

SCOPING

Scoping is an early and open process to determine the breadth of environmental issues and alternatives to be addressed in an EA. Bryce Canyon National Park conducted both internal scoping with appropriate National Park Service staff and external scoping with the public and interested and affected groups and agencies.

Internal scoping was conducted by the staff of Bryce Canyon National Park. This interdisciplinary process defined the purpose and need, identified potential actions to address the need, determined what the likely issues and impact topics would be, and identified the relationship, if any, of the proposed action to other planning efforts at the park.

A scoping letter describing the proposed action was prepared and mailed to the public, federal and state agencies, and interested groups on March 27, 2007 (see appendix A). American Indian tribes traditionally associated with the lands of Bryce Canyon National Park were also

apprised of the proposed action on March 27, 2007. Scoping information was also posted on the National Park Service Planning, Environment, and Public Comment website (http://parkplanning.nps.gov/BRCA).

Comments were solicited during external scoping until April 27, 2007. One comment was received from the public. This comment letter raised concerns about the effects of the rehabilitation project on peregrine falcon nests. These concerns were addressed in the mitigation measures included in this EA.

Relationship Of The Proposed Action To Previous Planning Efforts

This project has been developed in a manner consistent with NPS legal mandates and management policies. The Bryce Canyon National Park General Management Plan (NPS 1981) provides broad direction for management of the park and identifies actions to improve the quality of visitor experience, as well as improve management and protection of resources. The proposed project analyzed in this document was reviewed for conformance with the General Management Plan.

IMPACT TOPICS

Issues and concerns affecting this project were identified by NPS specialists, as well as from the input of other federal, state, and local agencies. After public scoping, issues and concerns were distilled into distinct impact topics to facilitate the analysis of environmental consequences, which allows for a standardized comparison between alternatives based on the most relevant information. Impact topics are the resources of concern that could be affected by the range of alternatives. Specific impact topics were developed to ensure that alternatives were compared on the basis of the most relevant topics. The following impact topics were identified on the basis of federal laws, regulations, orders, National Park Service 2006 Management Policies, and both internal and external (public) scoping (NPS 2006). A brief rationale for the selection of each impact topic is given below, as well as the rationale for dismissing specific topics from further consideration. Table 1 lists all of the impact topics considered, followed by the rationale for dismissing specific topics from further consideration.

Soils

According to the National Park Service's 2006 Management Policies, the National Park Service strives to understand and preserve the soil resources of parks and to prevent the unnatural erosion, physical removal, and contamination of – and contamination by – soil resources (NPS 2006).

In general, the top of the Paunsaugunt Plateau is covered with gravely loam-type soils. These shallow, well-drained soils are derived predominately from limestone. Soils in the immediate vicinity of the viewpoint are sparsely protected by vegetation and compacted from visitor use. There are several areas of erosion and social trailing. Since soils would be affected by the alternatives, soils will be discussed further in this document.

Vegetation

According to the National Park Service's 2006 Management Policies, the National Park Service strives to maintain all components and processes of naturally evolving park unit ecosystems, including the natural abundance, diversity, and ecological integrity of plants (NPS 2006).

The project area is covered by vegetation consistent with the "breaks" area along the rim of the Paunsaugunt Plateau. This includes trees such as juniper and pinyon, as well as shrubs such as manzanita. Areas of erosion and social trailing have caused a loss in vegetation. Actions associated with the alternatives would remove, disturb or compact vegetation in the areas of construction, particularly in the area of the proposed walkway reroute. Because of the possible effects of the three alternatives, this impact topic will be carried forward throughout this EA.

VISITOR USE AND EXPERIENCE

According to the National Park Service's 2006 Management Policies, the enjoyment of park resources and values by people is part of the fundamental purpose of all park units (NPS 2006). The National Park Service is committed to providing appropriate, high quality opportunities for visitors to enjoy the parks, and will maintain within the parks an atmosphere that is open, inviting, and accessible to every segment of society. This extends specifically to persons with disabilities, for whom all reasonable efforts will be taken to make NPS facilities, programs, and services accessible and usable. Further, the National Park Service will provide opportunities for forms of enjoyment that are uniquely suited and appropriate to the superlative natural and cultural resources found in the parks. The National Park Service 2006 Management Policies also state that scenic views and visual resources are considered highly valued associated characteristics that the National Park Service should strive to protect (NPS 2006).

Paria View is regularly used by the public due to its proximity to other popular amphitheater area viewpoints and short walking distance to the viewpoints. This viewpoint also provides a uniquely serene visitor experience in the northern section of the park due to its smaller size and limited access to smaller vehicles. At this time, the viewpoint walkways and barriers are in poor condition, not ADA accessible and at risk of being lost altogether. Many social trails have veered off of established walkways. Because of the possible impacts to visitor access to the areas surrounding the established viewpoint, visitor use and experience will be further analyzed in this EA.

SOUNDSCAPES

According to the National Park Service's 2006 Management Policies, soundscapes, which refers to the ambient or natural background sound of a given area, are to be preserved by the NPS to the greatest extent possible and restored to natural condition where degraded (NPS 2006).

Paria View provides a unique soundscape within the park because of its lack of noise from large vehicles and distance from larger visitor groups found in the main amphitheater. This resource would be affected by any actions associated with the alternatives considered. Therefore, the topic of soundscapes will be further discussed in this document.

WILDERNESS

Bryce Canyon National Park contains 20,810 acres of recommended wilderness, which the National Park Service manages, by policy, as designated wilderness (NPS 2006). The National Park Service manages wilderness areas for the protection of physical wilderness resources and wilderness character (NPS 2006).

The Paria View project area is adjacent to park wilderness, sitting above and overlooking the wilderness area to the east. Activities associated with the alternatives would undoubtedly provide some impact to wilderness qualities, either in the short- or long-term. Because of the effects to recommended wilderness areas mentioned above, this issue will be further analyzed in this EA.

SPECIAL STATUS SPECIES

The Endangered Species Act of 1973 requires examination of impacts on all federally-listed threatened, endangered, and candidate species. Section 7 of the Endangered Species Act requires all federal agencies to consult with the U.S. Fish and Wildlife Service (or designated representative) to ensure that any action authorized, funded, or carried out by the agency does not jeopardize the continued existence of listed species or critical habitats. In addition, the 2006 Management Policies and Director's Order 77 Natural Resources Management Guidelines require the National Park Service to examine the impacts on federal candidate species, as well

as state-listed threatened, endangered, candidate, rare, declining, and sensitive species (NPS 2006).

For the purposes of this analysis, the U.S. Fish and Wildlife Service and the Utah Division of Wildlife were contacted with regards to federally- and state-listed species to determine those species that could potentially occur on or near the project area. A letter from the U.S. Fish and Wildlife Service dated January 22, 2004 (see Appendix B) indicated that there are no records of threatened or endangered species in the project area (USFWS, January 22, 2004).

None of the alternatives is likely to have impacts to threatened or endangered species as a result of rehabilitation activities during the proposed period, and no documented threatened or endangered species have been observed in this area (see Appendix C). The park does consider peregrine falcons a species of special concern and considers impacts to these species in projects. The park monitors peregrine falcons at Paria View in coordination with the State of Utah's monitoring program. Rare or sensitive plant species have not been identified in the project area during recent visits by park resource management staff. For review of potential impacts to peregrine falcons, this topic will be further discussed in the document below.

IMPACT TOPICS DISMISSED FROM FURTHER CONSIDERATION

The following resources would not be affected by either of the alternatives, or do not exist in the area and so will not be discussed further:

WATER RESOURCES

The Clean Water Act and the NPS 2006 Management Policies require the Service to refrain from polluting and to perpetuate surface waters and groundwaters as components of the park ecosystem (NPS 2006).

Paria View sits atop a seasonal drainage in the park. Although activities in the Preferred Alternative may adjust drainage patterns at the viewpoint, any changes would provide few differences to the current pattern. Because the impacts of all three alternatives are determined to be negligible to minor, this topic has been removed from consideration in this document.

CULTURAL RESOURCES

The 1966 National Historic Preservation Act as amended (NHPA, 16 USC 470 et seq.), the 1916 NPS Organic Act, and NPS planning and cultural resource guidelines call for the consideration and protection of historic properties (the term "historic properties" refers to all cultural resources, including archeological resources, cultural landscapes, ethnographic resources, and historic resources eligible for or listed on the National Register of Historic Places). The evaluation of potential impacts of proposed actions on historic properties is required by National Environmental Policy Act (NEPA) and NHPA, and must follow the provisions of the Native American Graves Protection and Repatriation Act (NAGPRA) for sites where human remains or burials may be present.

Archeological surveys, meeting the Secretary of the Interior's Standards for the Treatment of Archeological Properties, were conducted in the area of potential effect (Wenker, 2004), and resulted in a negative finding. If previously unknown archeological resources are discovered during project activities, work would be stopped in the area of the discovery, and the park would consult with the Utah State Historic Preservation Officer (SHPO) and, as appropriate, the Advisory Council on Historic Preservation. If appropriate, provisions of the NAGPRA Act of 1990 would be implemented.

No ethnographic research has been conducted to determine ethnographic resources; however, culturally affiliated groups received scoping letters and notification of the EA. The park did not

receive any information from tribes indicating that there are any ethnographic resources in the project area.

There are no historic structures or cultural landscapes within the project area. After applying the Advisory Council on Historic Preservation's criteria of adverse effects (36 CFR Part 800.5, Assessment of Adverse Effects), the National Park Service concludes that implementation of any alternative described in this document would result in a "no historic properties affected" determination. This is due to the fact that no archeological resources, historic resources, ethnographic resources or cultural landscapes are known to exist in the project area. Therefore, this topic will be dismissed from further consideration in this EA.

AIR QUALITY

The 1963 Clean Air Act (CAA), as amended (42 U.S.C. 7401 et seq.), requires federal land managers to protect park air quality, while the 2006 NPS Management Policies addresses the need to analyze air quality during park planning (NPS 2006).

Bryce Canyon National Park is designated a Class 1 area under the Clean Air Act. The park's air quality is among the best in the nation with occasional periods of regional haze, forest fire smoke, or widely dispersed industrial pollution. Overall, any of the alternatives could result in a negligible degradation of local air quality at Paria View, but such effects would be temporary, lasting only as long as project work on that given day. The Class 1 air quality designation for Bryce Canyon National Park would not be affected by the proposal. Therefore, air quality has been dismissed as an impact topic.

NIGHT SKY OR LIGHTSCAPES

The NPS recognizes that a clear view of the night sky is an important value to park visitors. The NPS 2006 Management Policies direct the Service to preserve to the greatest extent possible the natural lightscapes of park as natural resources, void of human-caused light (NPS 2006). Artificial light pollution can affect opportunities for night sky viewing and enjoyment.

Currently, Paria View does not provide any artificial light sources to the area lightscape. None of the alternatives would introduce any artificial light sources to Paria View at night. Therefore, there are not expected to be any impacts to lightscapes and the topic will be dismissed.

PRIME AND UNIQUE FARMLANDS

In August 1980, the Council on Environmental Quality (CEQ) directed that federal agencies must assess the effects of their actions on farmland soils classified by the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) as prime or unique. Prime or unique farmland is defined as soil that particularly produces general crops such as common foods, forage, fiber, and oil seed; unique farmland produces specialty crops such as fruits, vegetables, and nuts.

According to NRCS, none of the soils in the project area are classified as prime and unique farmlands. Therefore, the topic of prime and unique farmlands was dismissed as an impact topic in this document.

WETLANDS

For regulatory purposes under the Clean Water Act, the term wetlands means "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas." Executive Order 11990 Protection of Wetlands requires federal agencies to avoid, where possible, adversely impacting wetlands. Further, Section 404 of the Clean Water Act authorizes the U.S. Army Corps of Engineers to prohibit or regulate, through a permitting

process, discharge or dredged or fill material or excavation within waters of the United States. National Park Service policies for wetlands as stated in 2006 Management Policies and Director's Order 77-1 Wetlands Protection, strive to prevent the loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands (NPS 2006). In accordance with DO 77-1 Wetlands Protection, proposed actions that have the potential to adversely impact wetlands must be addressed in a Statement of Findings for wetlands.

No wetlands are located in the project area; therefore, a Statement of Findings for wetlands will not be prepared, and the impact topic of wetlands has been dismissed.

FLOODPLAINS

Executive Order 11988 Floodplain Management requires all federal agencies to avoid construction within the 100-year floodplain unless no other practicable alternative exists. The National Park Service under 2006 Management Policies and Director's Order 77-2 Floodplain Management will strive to preserve floodplain values and minimize hazardous floodplain conditions (NPS 2006). According to Director's Order 77-2 Floodplain Management, certain construction within a 100-year floodplain requires preparation of a Statement of Findings for floodplains.

The project area is not in a 100-year floodplain, nor does any alternative provide an impact on floodplain values or increase hazardous floodplain condition. Therefore, this impact topic will not be discussed in this document.

WILD AND SCENIC RIVERS

The 2006 Management Policies state that no management actions may be taken that could adversely affect qualifying values of a river for designation (NPS 2006).

No rivers with qualifying values exist in the park. Therefore, this topic will not be retained for consideration in this EA.

WILDLIFE

According to the National Park Service's 2006 Management Policies, parks must maintain as parts of natural ecosystems all animals by minimizing human impacts on them and the processes that sustain them (NPS 2006).

A number of species of native wildlife are known to frequent to the area around Paria View, although none are known to occupy the area for long periods of time. Because all of the alternatives would have little impact on wildlife, this topic is dismissed and will not be further discussed.

ENVIRONMENTAL JUSTICE

Executive Order 12898, "General Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing disproportionately high and adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities.

None of the alternatives would have disproportionate health or environmental effects on minorities or low-income populations or communities as defined in the Environmental Protection Agency's Environmental Justice Guidance (1998). Therefore, environmental justice was dismissed as an impact topic in this document.

INDIAN TRUST LANDS

No lands comprising Bryce Canyon National Park are held in trust by the Secretary of the Interior solely for the benefit of American Indians due to their status as American Indians; therefore this was dismissed from further consideration for this project.

SOCIOECONOMIC ENVIRONMENT

The proposed action would neither change local and regional land use nor impact local businesses or other agencies. Therefore, socioeconomic environment will not be addressed as an impact topic in this document.

URBAN QUALITY AND DESIGN OF THE BUILT ENVIRONMENT

Consideration of this topic is required by 40 CFR 1502.16. Under all alternatives, urban area quality is not an issue and will therefore be dismissed from consideration in this document.

ENERGY REQUIREMENTS AND CONSERVATION POTENTIAL

None of the alternatives would result in an increase in inherent energy needs. Project activities would occur during daylight hours. None of the alternatives would have a significant effect on energy availability or costs. Under any of the alternatives, no additional would be required and would therefore not affect energy availability or costs. Therefore this topic was dismissed from further consideration for this project.

PARK OPERATIONS

Park operations were dismissed for further review since implementation of any of the alternatives requires the same level of assistance from park staff as well as from other federal and state agencies. There would be no additional workload requirements for park employees beyond short-term contracting requirements associated with implementation of any of the alternatives.

TABLE 1: IMPACT TOPICS RETAINED OR DISMISSED FROM FURTHER STUDY

Impact Topic	Retain or Dismiss	Relevant Regulations or Policies
Cultural Resources		
Archaeological Resources	Dismiss	*National Park Service Organic Act; National Historic Preservation Act of 1966, as amended; Executive Order 11593:Protection and Enhancement of the Cultural Environment (1971), Archeological and Historic Preservation Act of 1974, as amended; Archeological Resources Protection Act of 1979, as amended; the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation; Programmatic Memorandum of Agreement (MOA) Among the NPS, Advisory Council on Historic Preservation, and the National Council of State Historic Preservation Officers (1995); Protection of Archeological Resources, 43 CFR 7; Protection of Historic Properties, 36 CFR 800; NPS Management Policies (2006); Cultural Resources Management Guidelines, DO-28 (1998)*

Impact Topic	Retain or Dismiss	Relevant Regulations or Policies
Historic Structures and Cultural Landscapes	Dismiss	*National Park Service Organic Act; National Historic Preservation Act of 1966, as amended; Executive Order 11593: Protection and Enhancement of the Cultural Environment (1971); Archeological and Historic Preservation Act of 1974, as amended; the Secretary of the Interior's Standards for the Treatment of Historic Properties; Programmatic MOA among the NPS, Advisory Council on Historic Preservation, and the National Council of State Historic Preservation Officers (1995); NPS Management Policies (2006); Protection of Historic Properties, 36 CFR 800; the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes (1996); Cultural Resources Management Guidelines, DO-28 (1998)*
Ethnographic Resources	Dismiss	*The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation; NPS Management Policies (2006); Protection of Historic Properties, 36 CFR 800; Cultural Resources Management Guidelines, DO-28 (1998)*
Museum Collections	Dismiss	*National Historic Preservation Act of 1966, as amended; National Environmental Policy Act of 1969, as amended; Museum Properties Management Act of 1955; NPS Management Policies (2006); Protection of Historic Properties, 36 CFR 800; Cultural Resources Management Guidelines, DO-28 (1998)*
Natural Resources		
Air quality	Dismiss	*NPS Organic Act; Federal Clean Air Act (CAA); CAA Amendments of 1990 (CAAA); NPS Management Policies (2006)*
Natural Lightscapes	Dismiss	*NPS Management Policies (2006)*
Natural Soundscapes/Noise	**Retain**	*NPS Organic Act; NPS Management Policies (2006), Section 4.9 Soundscape Management*
Prime and unique agricultural lands	Dismiss	*Council on Environmental Quality 1980 memorandum on prime and unique farmlands*
Soils	**Retain**	*NPS Management Policies (2006); NPS Natural Resource Management Guidelines for Soil Resources Management*
Vegetation	**Retain**	*NPS Organic Act; NPS Management Policies (2006); DO-77, Natural Resource Protection; Executive Order 13112, Invasive Species*
Water quality and hydrology	Dismiss	*Clean Water Act; Executive Order 12088; NPS Management Policies (2006)*
Wetlands	Dismiss	*Executive Order 11988; Clean Water Act; NPS Management Policies (2006)*
Floodplains	Dismiss	*Executive Order 11990; Clean Water Act; NPS Management Policies (2006)*
Wild & Scenic Rivers	Dismiss	*Wild and Scenic Rivers Act*
Wilderness	**Retain**	*Director's Order 41; NPS Management Policies (2006); Wilderness Act*
Wildlife	**Dismiss**	*NPS Management Policies (2006); Executive Order 13112, Invasive Species*
Threatened, Endangered and Special Status Species	**Retain**	*Endangered Species Act; NPS Management Policies (2006); National Environmental Policy Act; Executive Order 13112, Invasive Species*
Social Resources		
Environmental justice	Dismiss	*Executive Order 12898*
Indian trust resources	Dismiss	*Department of the Interior Secretarial Order No. 3206, Interior Departmental Manual Part 512, Chapter 2*
Park operations	Dismiss	*NPS Management Policies (2006)*
Urban Quality and Design of the Built Environment	Dismiss	*40 CFR 1502.16*
Socioeconomic environment	Dismiss	*40 CFR 1500 Regulations for Implementing NEPA*
Visitor use and experience (including public health and safety)	**Retain**	*NPS Organic Act; NPS Management Policies (2006)*
Energy Requirements and Conservation Potential	Dismiss	*40 CFR 1502.16*

ALTERNATIVES CONSIDERED

ALTERNATIVE A – NO-ACTION ALTERNATIVE

The No-Action Alternative (Alternative A) describes the action of continuing the present management operation and condition; it does not imply or direct discontinuing the present action or removing existing uses, developments, or facilities. Alternative A provides a basis for comparing the management direction and environmental consequences of the proposed action and must always be considered in every EA. Should Alternative A be selected, NPS would respond to future needs and conditions associated with the Paria View without major actions or changes in course.

Under Alternative A, maintenance activities that currently occur on the walkway would continue as necessary. Areas beyond the current asphalt walkway would not be physically blocked from visitor traffic. Retaining walls would continue to deteriorate and crumble into the drainage. The walkways would be patched and sealed, but would continue to erode into the drainage as the retaining wall deteriorates. The undercut railings would not be replaced, although another solution to safety concerns would have to be sought. Sections of the walkway may have to be closed as a result of deteriorating conditions which lead to unsafe conditions for park visitors. The viewpoint would remain non-ADA accessible. Overall, the viewpoint would remain in poor condition, with minor repairs and rehabilitation occurring as necessary before the inevitable complete failure of pedestrian facilities.

ALTERNATIVE B - MINIMAL IMPROVEMENTS

The Minimal Improvements Alternative (Alternative B) evaluates minimal improvements to the viewpoint in order to address safety concerns and protect park resources. The walkway would remain non-ADA accessible. Large sections of walkway surface would be repaired with in kind surface material (asphalt) in areas of greatest deterioration. This may require use of smaller mechanized equipment for pulverization of existing asphalt and resurfacing. The current walkway alignments from the parking areas and to the furthest viewpoint would remain in the same location. As appropriate, social trails would be revegetated and blocked. Where the walkway is eroding away into the canyon, the fence would be moved back but no stabilization of the walkway would occur other then trying to prevent further loss of non-native material into the canyon. There would be no changes to the railing style, materials, or location. It would only be moved where the walkway fell into the canyon. The fence would not be enclosed at the end of the viewpoint, allowing continued visitor access to the unstable rim edge. Closure of certain sections of the viewpoint may occur with restoration of these areas to as close to their original natural state as possible. Should Alternative B be selected, certain project goals would be addressed, although not to the degree of the Alternative C.

Though leaving out larger improvements from the project, Alternative B would address critical areas of concern such as eroding walkways and barriers and resource damage to surrounding vegetation. The viewpoint would remain safe, though smaller in accessible area.

ALTERNATIVE C – REHABILITATION OF PARIA VIEW PREFERRED ALTERNATIVE

The Rehabilitation of Paria View Alternative (Alternative C) is the agency (NPS) preferred alternative and defines the rationale for the action in terms of resource protection and management, visitor and operational use, costs, and other applicable factors. All actions described in the preferred alternative are consistent with the approved (1981) general management plan and related park documents.

The Preferred Alternative (Alternative C) would move the walkway alignment away from the rim, enclose the northeast and southwest viewpoints with new barriers, regrade and resurface walkways, and surface some social walkways while removing other existing walkways.

Alternative C consists of realigning the walkways away from the rim (distances vary from a few feet to no more then 20 feet, averaging about 7 feet) but following the same orientation as the existing walkway. Such construction would require tools ranging from handiwork to heavy equipment, including a small grader and track excavator (approximate footprint 11-feet wide by 15-feet long). The realignment would reduce loss of walkway debris into the canyon and vegetation loss from social trailing. A social trail near the parking area would be made into a permanent walkway and an existing access walkway would be removed and revegetated. These changes reflect actual patterns of visitor traffic between the parking area and the viewpoints. The existing asphalt pavement would be pulverized and recycled for other projects in the park. New aggregate base would be used. The new walkway surface would be a concrete surface. Aggregate base course would be used as a surface in sections of the walk until a concrete surface is put in place. The new alignment would be graded to meet ADA specifications and provide positive drainage.

In areas where the walkway is realigned due to undercutting from erosion, retaining walls would be constructed using natural stone similar to that used on other retaining walls throughout the park. This work may require use rock crushing equipment or blasting activities to create stable footings. Approximately 40 cubic yards of native material would be removed during retaining wall placement. This material would be used to grade the realigned walkway which would reduce the need to bring in fill material from outside of the park. Existing pedestrian barriers would be replaced between the cliff rim and walkway, effectively enclosing the southwest and northeast viewpoints to reduce human access to the unstable rim edge. These new barriers would match the stone pillar and log railing style installed at many of the other park viewpoints. There would be a secondary barrier placed along the access walkways that connect the parking area to the viewpoint to reduce social trailing.

Disturbed areas would be rehabilitated and revegetated with native species. Social trails not converted to permanent walkways would be revegetated and blocked.

The complete rehabilitation of Paria View would restore the viewpoint to good condition and ensure longevity of the viewpoint, reduce resource damage, and meet ADA standards.

ALTERNATIVES CONSIDERED BUT DISMISSED

Another alternative considered was to permanently close the viewpoint and remove all manmade features, due to safety concerns. This alternative was dismissed as this is a unique viewpoint within the park, both in location and setting. Despite Paria View's proximity to the viewpoints in the main Bryce Amphitheater area, Paria View actually looks to a different physical environment – down 900-foot cliffs into a canyon wash below. Paria View is also the only viewpoint in the park which does not accommodate larger vehicles, providing a quieter, more serene setting for visitors in search of more solitude in the northern portion of the park. It is also closed in the winter to vehicles and open to cross country skiing and snowshoeing. This viewpoint was considered too unique and valuable of a visitor experience to close.

The park also considered redesigning and reconfiguring the whole viewpoint to include a loop walkway. This alternative would have extended the walkway to the furthest viewpoint, returning through a drainage to the parking area. In order to extend the walkway, the budget would have to be increased to pay for further removal of vegetation, grading, and paving. Vegetation removal in this alternative was determined to be too extensive in the area around Paria View. Furthermore, the park recognized such a development would make an overall change in the contemplative experience offered at the viewpoint. This alternative was dismissed as it was determined to have too many impacts on vegetation and visitor experience.

MITIGATION MEASURES

Every effort would be made to keep the walkway open to the public during construction, though complete closure may be necessary during construction activities for the safety of park visitors. Other viewpoints would still be accessible to visitors during this time period, thereby reducing the impacts to visitor use and experience.

Park personnel would use native species from genetic stocks originating in the park during revegetation. Revegetation efforts would be to reconstruct the natural spacing, abundance, and diversity of native plant species. All unpaved disturbed areas would be restored as nearly as possible to pre-construction conditions shortly after construction activities are completed. The principal goal would be to avoid interfering with natural processes.

In many areas soils and vegetation are already impacted to a degree by various human and natural activities. Construction would take advantage of these previously disturbed areas wherever possible. Soils within the project construction limits would be compacted and trampled by the presence of construction equipment and workers. Heavy machinery used would be generally be a small grader and track excavator (approximate footprint 11-feet wide by 15-feet long). Soils would be susceptible to erosion until revegetation takes place. Vegetation impacts and potential compaction and erosion of bare soils would be minimized by conserving topsoil in windrows. The use of conserved topsoil would help preserve micro-organisms and seeds of native plants. The topsoil would be respread in as near as original location as possible, and supplemented with scarification, mulching, seeding, and/or planting with species native to the immediate area. This would reduce construction scars and erosion.

Should construction unearth previously undiscovered archeological resources, work would be stopped in the area of any discovery and the park would consult with the state historic preservation officer/tribal historic preservation officer and the Advisory Council on Historic Preservation, as necessary, according to §36 CFR 800.13, Post Review Discoveries. In the unlikely event that human remains are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act (1990) would be followed.

Construction zones would be identified, which would confine activity to the minimum area required for construction.

Timing to use blasting activities or hydraulic rock hammers, if necessary, would be coordinated to avoid peregrine nesting periods (i.e., not occur at the same time), from March 1st to July 1st, in order to minimize disturbance to the nesting birds. Regular monitoring by park resource management staff would occur in order to document any effects to nesting peregrine falcons.

Construction debris would be contained above the rim and removed from the site in order to avoid impacts to natural resources below the rim associated with the introduction of unnatural material.

Best construction practices would be observed during rehabilitation activities. This would include the containment of fugitive dust through watering the project area, the prevention of soil erosion, and the control of the spread of noxious weeds through power-washing of equipment before transportation to the project site.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

The Council on Environmental Quality defines the environmentally preferred alternative as "…the alternative that will promote the national environmental policy as expressed in the National Environmental Policy Act's §101." Section 101 of the National Environmental Policy Act states that "… it is the continuing responsibility of the Federal Government to …

(1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;

(2) assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings;

(3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;

(4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice;

(5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and

(6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources."

Alternative A would provide for continued visitor use and resource management of the walkway to accommodate viewing the Paria Wash. Under this alternative, park resources would receive the same protection currently offered, consisting of signs and current barriers. Visitor safety would remain at the same deficiency and accessibility would remain the same. Therefore, the alternative would not fully meet any of the policies pertaining to the protection of the natural resources, safety of visitors, or highest standards of living for a wide audience.

Alternative B would allow continued use of the viewpoint, although in a smaller area. Alternative B would better meet environmental protection and safety policies, but meet visitor access needs to a lesser degree than Alternative C. Most of all, Alternative B would provide a safer viewpoint than Alternative A. Otherwise, Alternative B only marginally meets the above-stated policies.

Alternative C, the NPS Preferred Alternative, best meets the policies listed above. This alternative improves the safety, accessibility and resources of the area. In achieving these goals, this alternative also best meets the policies listed above. Policies two, three and five are best met through better safety and accessibility with these alternatives improvements to pedestrian facilities. Alternative C also meets policies one, four, and six through improved erosion control and replacement of contaminant materials with inert materials. Mitigation measures also reduce impacts to natural resources with the realignment of viewpoint walkways. For these reasons, Alternative C is the NPS Environmentally Preferred Alternative.

SUMMARIES

TABLE 2: METHODS EACH ALTERNATIVE USES TO ENSURE EACH OBJECTIVE IS MET

Objective	Alternative A: No-Action	Alternative B: Minimal Improvement	Alternative C: Rehabilitation of Paria View
1. Make walkway safe and enjoyable (rehabilitate walkway)	Simple patch and seal repairs with asphalt extend life of viewpoint in the short term.	Patch and seal repairs with asphalt. Move failing sections of walkway/barrier away from rim. Close and restore sections of viewpoint.	Repair retaining walls along overlook. Replace existing asphalt pavement with inert concrete pavement. Realign and regrade walkways away from the rim with positive drainage. Remove and replace existing barriers with park-standard stone and log barriers.
2. Prevent further resource damage	Existing signs are in place to discourage social trailing in some spots. Continue use of asphalt.	Closure of sections of the viewpoint would further discourage social trailing. Restore sections of the viewpoint. Continue use of asphalt.	Enclose viewpoint with more substantial stone/log barriers. Revegetate area with native plants and use barrier fence to prevent social trails. Prevent loss of man-made materials into the Paria drainage. Use inert concrete to eliminate asphalt leaching and other contamination.
3. Provide better accessibility	Viewpoint would remain non-ADA compliant. Most visitors could access viewpoint until safety failures.	Reapplication of asphalt in area provides easier accessibility. Viewpoint would remain non-ADA compliant. Area of closure not accessible.	New concrete walkways with realignment and regrading provide better pathway to viewpoints. Provides ADA-compliant viewpoint.
Alternatives Meet Objectives?	Alternative meets objectives in varying degrees. The alternative provides a safe and enjoyable walkway only in the short-term. Resource damage is prevented only as a continuation of the present signage, which does not effectively discourage social trailing. Non-ADA compliant.	Alternative better achieves some objectives than Alternative A, but not as effectively as Alternative C. Safety and enjoyment are achieved through resurfacing walkways with asphalt, although closures for safety would reduce access. Further resource damage would be prevented through repair to existing barriers and the closure of sections of the viewpoint. Viewpoint would remain non-ADA compliant and continue loss of manmade material into the Paria drainage.	Alternative best meets all three objectives. The walkway would be made safe and enjoyable regrading and resurfacing with concrete and building effective pedestrian barriers. The barriers would also better enclose visitors away from areas of heavy social trailing. Accessibility would be increased with the addition of an ADA-compliant section of the viewpoint.

TABLE 3: SUMMARY COMPARISON OF IMPACTS

Impact Topic	Alternative A: No-Action	Alternative B: Minimal Improvement	Alternative C: Rehabilitation of Paria View
Soils	There would be no change to existing conditions. Existing site-specific minor, long-term adverse impacts to soils would continue, due to erosion and undercutting of the pedestrian facilities.	There would be very little change to existing conditions. Minor, long-term adverse impacts related to the erosion of pedestrian facilities would continue, though closed areas would be restored to a natural breaks environment.	This alternative would disturb and compact soil during construction, resulting in site-specific adverse, negligible to minor, short-term impacts. This alternative would also have minor beneficial and long-term impacts locally to soils by reducing erosion of pedestrian facilities into the natural environment. Overall, Alternative C would have negligible to minor long-term beneficial impacts to soils.
Vegetation	Minor, adverse, long-term impacts to vegetation would continue in Alternative A. Vegetation near and along the walkway has been impacted. These impacts are minor and adverse, and would continue under this alternative. Overall, regional impacts to vegetation due to the Alternative A are minor, adverse, and long-term.	Alternative B would further prevent the minor, adverse, and long-term impacts to vegetation in areas closed off to pedestrian traffic. These areas would therefore receive minor, beneficial, long-term impacts to vegetation. Other open areas off of walkways would still receive minor, adverse, and long-term impacts to vegetation	Alternative C would have negligible and adverse impacts to vegetation during project completion as some trampling and removal of individual plants would occur as part of the walkway reroute, regrading walkway repaving, and barrier construction. Disturbed areas, including the area where the removed trail existed, would be revegetated and rehabilitated following construction; therefore, removal and/or disturbance of vegetation in the project area is expected to result in no or negligible adverse impacts to vegetation. In the long-term, the project would have negligible to minor benefits to the area's vegetation as erosion and undercutting would be greatly reduced through improved walkway condition and protection of vegetated areas. Overall, Alternative C would have long-term negligible to minor benefits to vegetation.

Impact Topic	Alternative A: No-Action	Alternative B: Minimal Improvement	Alternative C: Rehabilitation of Paria View
Visitor Use and Experience	In this alternative, visitors using the walkway would continue to be exposed to possible safety hazards due to eroding segments of pavement and barriers near the cliff rim. The walkway would continue to deteriorate, resulting in minor to moderate adverse impacts on visitor use and experience. In the event that the pedestrian facilities were lost due to severe undercutting or deemed unsafe for use, the viewpoint may have to be closed. As this is a unique viewpoint within the park aesthetically, there would be adverse moderate impacts in the long-term. The viewpoint would remain non-ADA compliant, restricting or affecting access to a portion of the visiting public.	Alternative B would alleviate major safety hazards through rehabilitation or closure of eroding segments of walkway and barriers near the cliff rim. This fix would extend the life of the viewpoint, but may still result in the need to close the viewpoint at some time in the future. The viewpoint would still remain non-ADA compliant. Access to areas of the viewpoint would be closed off, providing minor impacts to use and experience for the visiting public. Overall, this alternative would provide minor to moderate adverse impacts in the long-term through the immediate closure of sections of the viewpoint and potential for complete closure of Paria View.	Under Alternative C, rehabilitation work would be completed and the walkway would return to good condition allowing visitors to continue accessing all developed portions of the viewpoint; therefore there would be long-term, beneficial moderate impacts to visitor use and experience. Visitor safety would be enhanced by eliminating and replacing eroding pedestrian facilities. Alternative C also involves extending new barriers around the northeast and southwest sides of the viewpoint walkways, which would prevent visitors from using existing and creating new social trails. Ensuring that the vegetation around the viewpoint is protected for future generations to enjoy would result in long-term, minor to moderate beneficial impact. During the rehabilitation work, visitors would be subject to noise and minor inconveniences. These impacts would be adverse, but short-term and minor in intensity. Viewpoint closures during construction would provide a short-term, minimal to moderate adverse impact. Overall, Alternative C would result in beneficial, minor to moderate and long-term impacts to visitor use and experience.
Soundscapes	Alternative A would have long-term negligible to minor adverse impacts on soundscapes due to limited maintenance activities associated with patching and sealing pedestrian facilities.	Alternative B would have long-term negligible to minor adverse impacts on soundscapes with only minor patching and sealing with asphalt pavement and repair of impacted barriers and retaining wall. Closure of sections would involve short-term, minor adverse impact to	Alternative C would have minor to moderate adverse impacts on area soundscapes in the short-term during construction. Removal of asphalt pavement would require mechanized pulverizing and removal equipment. Grading would likewise require mechanized

Impact Topic	Alternative A: No-Action	Alternative B: Minimal Improvement	Alternative C: Rehabilitation of Paria View
		soundscape with the removal of facilities.	equipment with moderate adverse effects to soundscapes, as efforts would be made to minimize the use of mechanical equipment or concentrate its use to shorter periods of time.
Wilderness	Alternative A would have long-term minor adverse effects to recommended wilderness through the continued erosion of unnatural pedestrian facilities into the wash below Paria View. Other wilderness qualities would receive only negligible to minor adverse impacts in the short term during routine maintenance.	Alternative B, as with Alternative A, would have long-term minor adverse effects to recommended wilderness through the erosion of pedestrian facilities. Further, Alternative B would cause the same negligible to minor adverse effects to other wilderness qualities in the short-term construction period to minimally maintain the trail.	Alternative C would provide minor adverse effects to wilderness qualities in the short-term construction period, but provide minor beneficial impacts in the long-term. Short-term adverse impacts come from mechanized construction activities directly above recommended wilderness. Long-term beneficial impacts would be realized with greatly reduced erosion of pedestrian facilities and use of inert substances in the construction of such services.
Special Status Species	Alternative A would have long-term minor adverse effects to special status species through the continued erosion of unnatural pedestrian facilities below the rim where peregrine falcons nest.	Alternative B would likewise have long-term minor adverse effects to special status species through the continued erosion of unnatural pedestrian facilities below the rim where peregrine falcons nest.	Alternative C would provide short-term, moderate adverse effects to special status species during construction activities. These impacts would relate to the construction noises on the rim, including the operation of heavy equipment, pulverization equipment, and the potential for blasting activities. Mitigation measures would minimize impacts to special status species through the avoidance of noisy activities during critical peregrine falcon nesting times.

ENVIRONMENTAL CONSEQUENCES

METHODOLOGY

Potential impacts are described in terms of type (are the effects beneficial or adverse?), context (are the effects site-specific, local, or even regional?), duration (are the effects short-term, lasting less than three years, or long-term, lasting more than three years?), timing (is the project seasonally timed to avoid adverse effects), and intensity (are the effects negligible, minor, moderate, or major). Because definitions of intensity (negligible, minor, moderate, or major) vary by impact topic, intensity definitions are provided separately for each impact topic analyzed in this environmental assessment/assessment of effect.

In addition, National Park Service's Management Policies 2006, require analysis of potential effects to determine whether or not actions would impair park resources (NPS 2006). The fundamental purpose of the national park system, established by the Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve park resources and values. National Park Service managers must always seek ways to avoid, or to minimize to the greatest degree practicable, adversely impacting park resources and values. However, the laws do give the National Park Service the management discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, as long as the impact does not constitute impairment of the affected resources and values. Although Congress has given the National Park Service the management discretion to allow certain impacts within park, that discretion is limited by the statutory requirement that the National Park Service must leave park resources and values unimpaired, unless a particular law directly and specifically provides otherwise. The prohibited impairment is an impact that, in the professional judgment of the responsible National Park Service manager, would harm the integrity of park resources or values. An impact to any park resource or value may constitute an impairment, but an impact would be more likely to constitute an impairment to the extent that it has a major or severe adverse effect upon a resource or value whose conservation is:

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

Impairment may result from National Park Service activities in managing the park, visitor activities, or activities undertaken by concessionaires, contractors, and others operating in the park. A determination on impairment is made in the *Environmental Consequences* section for natural and cultural resource topics.

CUMULATIVE IMPACT SCENARIO

The Council on Environmental Quality (CEQ) regulations, which implement the National Environmental Policy Act of 1969 (42 USC 4321 *et seq*.), require assessment of cumulative impacts in the decision-making process for federal projects. Cumulative impacts are defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions" (40 CFR 1508.7). Cumulative impacts are considered for the No-Action, Minimal Improvement and Rehabilitation of Paria View alternatives.

Cumulative impacts were determined by combining the impacts of the alternatives with other past, present, and reasonably foreseeable future actions (within approximately five years).

Therefore, it was necessary to identify other ongoing or reasonably foreseeable future projects at Bryce Canyon National Park.

No reasonably foreseeable future development by the NPS is anticipated for the Paria Viewpoint or areas nearby; however, the park did approve a Fire Management Plan (FMP) in 2005. This plan allows for a range of fire management options within the park. In the Paria View area, the plan allows for wildland fire use fires (allow natural fires to burn within defined prescriptions), prescribed fires, wildland fire suppression, and mechanical treatment of fuels as appropriate.

Two other projects may contribute cumulative impacts with this project. The first, “Replace and Expand Sunset Point Restroom and Renovate Picnic Facility” was completed at Sunset Point and had similar impacts to the areas around that viewpoint. A second project that is planned, “Rehabilitate the Rim Trail between Sunset and Sunrise Points, Providing ADA Compliant Trail Segment,” likewise includes the rehabilitation of pedestrian facilities and incorporation of ADA-compliant accessibility along the breaks section of the Paunsaugunt Plateau.

Other trail work elsewhere in the park may contribute cumulative impacts with this project. Paria View also receives regular air traffic in the immediate area. No other projects in the Paria View area were identified.

SOILS

AFFECTED ENVIRONMENT

The soils along the viewpoint walkways are well drained and formed in alluvium derived dominantly from limestone. The soils in the Panguitch Area, Utah, parts of Garfield, Iron, Kane, and Piute Counties are identified as Pahreah-Sheege complex, 1-20% slopes. The soils included are along mesas and ridges west of Paria View on the Paunsaugunt Plateau. Slopes are medium in length. The unit is 50% Pahreah very gravelly loam, 35% Sheege very gravelly sandy loam, 1-20% slopes, and 15% other soils. Pahreah soil is moderately deep and somewhat excessively drained. Sheege soil is shallow and well drained. Both formed in colluvium and residuum derived dominantly from limestone (USDA 1990).

METHODOLOGY

Analyses of the potential intensity of impacts to soils were derived from the available information regarding natural systems and soils of Bryce Canyon National Park and the park staff’s past observations of the effects of both visitor use and construction upon soils. The thresholds of change for the intensity of impacts to soils are defined as follows:

Negligible: the impact is at the lowest levels of detection - barely measurable with no perceptible effects.

Minor: the impact is slight but detectable, with few perceptible effects, and localized in area.

Moderate: the impact is readily apparent and measurable and regional in area.

Major: the impact is severely adverse or exceptionally beneficial and regional in area.

Duration: Short-term - Recovers in less than 3 years.

Long-term - Takes more than 3 years to recover.

REGULATIONS AND POLICIES

Current laws and policies require that the following conditions be achieved in the park:

Desired Condition	Source
The NPS is directed by the Organic Act to conserve the scenery and the natural objects unimpaired for future generations. The NPS Management Policies 2006 define the general principles for managing biological resources as maintaining all the components and processes of naturally evolving park ecosystems, including the natural abundance, diversity and ecological integrity of plant communities.	NPS Organic Act NPS Management Policies 2006

Impacts of Alternative A: No-Action

Impact Analysis

There would be little project-related ground disturbance with the potential to impact these resources. There would be no change to existing conditions, with regular maintenance activities and social trailing the only impacts to soils. Existing minor to moderate, long-term adverse impacts to soils would continue, due to site-specific erosion, of the walkways and barriers, as well as compaction due to social trailing around existing walkways at the viewpoint.

Cumulative Impacts

Other trail and maintenance work throughout the park, including the “Replace and Expand Sunset Point Restroom and Renovate Picnic Facility” and “Rehabilitate the Rim Trail between Sunset and Sunrise Points” projects, would contribute minor to moderate, long-term adverse impacts to soils. Likewise, Alternative A would contribute minor to moderate, long-term adverse impacts due to continued erosion. Overall cumulative impacts would be minor to moderate, long-term and adverse.

Conclusion

As a result of Alternative A, direct impacts to soils would continue to be minor to moderate and adverse in the long-term through the erosion of soil and impaction from social trailing. Cumulative and indirect impacts would be minor to moderate, long term and adverse in conjunction with other trail work elsewhere in the park. Overall, there would be no impairment of the park’s soil resources as a result of Alternative A.

Impacts of Alternative B: Minimal Improvement

Impact Analysis

Under Alternative B, there would be little project-related ground disturbance with the potential to impact soil resources. For most areas of the viewpoint, there would be no change to existing conditions, with regular maintenance activities and social trailing the only impacts to soils. Some areas would see minor beneficial, long-term impacts related to the closure of sections of the viewpoint and further discouragement of social trailing. Existing minor to moderate, long-term adverse impacts to soils would continue, due to site-specific erosion of the walkways and barriers, as well as compaction due to social trailing around existing walkways at the viewpoint.

Cumulative Impacts

Other trail and maintenance work throughout the park, including the “Replace and Expand Sunset Point Restroom and Renovate Picnic Facility” and “Rehabilitate the Rim Trail between Sunset and Sunrise Points” projects, would contribute minor to moderate, long-term adverse impacts to soils. Alternative B would contribute minor to moderate long-term beneficial impacts to soils. Overall cumulative impacts would be long-term, beneficial and of minor to moderate intensity.

Conclusion

As a result of Alternative B, direct impacts to soils would be minor to moderate and beneficial in the long-term with minor repairs and closures. Cumulative and indirect impacts would also be minor to moderate and beneficial in the long-term in conjunction with other trail work elsewhere in the park. Overall, there would be no impairment of the park's soil resources as a result of the Alternative B.

IMPACTS OF ALTERNATIVE C: REHABILITATION OF PARIA VIEW

Impact Analysis

Under Alternative C, impacts to area soils would occur as a result of the construction activities and enclosing of the walkways at the viewpoint. With the realignment of the walkways away from the rim, some undisturbed soils would be compacted. No more than 40 cubic yards of soil would be excavated and used in the wall construction and regrading of the walkway, as well. These activities would cause a minor to moderate, long-term adverse impact to the area soils.

Alternative C would also provide minor to moderate, long-term beneficial impacts related to erosion control and discouragement of social trailing. Erosion control devices would prevent further erosion of soils into the wash below as a result of pedestrian facilities. Differences in drainage patterns from the grading could also affect area soils by reducing erosion through improved drainage. The compaction of soils in areas around established walkways where social trails exist would also be greatly reduced with the construction of new barriers in this alternative.

Cumulative Impacts

Other trail and maintenance work throughout the park, including the "Replace and Expand Sunset Point Restroom and Renovate Picnic Facility" and "Rehabilitate the Rim Trail between Sunset and Sunrise Points" projects, would contribute minor to moderate, long-term adverse impacts to soils. Alternative C would contribute minor long-term beneficial impacts to soils. Overall cumulative impacts would be long-term, adverse and of minor intensity.

Conclusion

As a result of Alternative C, direct impacts to soils would be minor to moderate and beneficial in the long-term due to substantial repair or retaining walls and physical barriers to social trailing. Cumulative and indirect impacts would also be minor to moderate and beneficial in the long-term in conjunction with other trail work elsewhere in the park. Overall, there would be no impairment of the park's soil resources as a result of Alternative C.

VEGETATION

AFFECTED ENVIRONMENT

The existing vegetation in the project area primarily consists of trees and shrubs in the Ponderosa Pine/Greenleaf Manzanita plant community. Tree species include: ponderosa pine (*Pinus ponderosa*) and Rocky Mountain juniper (*Juniperus scopulorum*). Shrubs include: greenleaf manzanita (*Arctostaphylos patula*), Utah mountain-lilac (*Ceanothus martinii*), snowberry (*Symphoricarpos oreophilus*), Oregon grape (*Mahonia repens [Berberis repens]*), and alderleaf mountain mahogany (*Cercocarpus montanus*). Various forbs are present, such as gumweed aster (*Machaeranthera grindelioides*) and rock goldenrod (*Petradoria pumila*).

Non-native plants are present in low densities near the project area. These species are actively managed through vegetative control and revegetation activities.

METHODOLOGY

Analyses of the potential intensity of impacts to vegetation were first determined by identifying the area that could be affected. Interdisciplinary specialists defined the affected area as the

Paria Viewpoint and the lands immediately adjacent to the walkways. The analysis of impacts on vegetation was based on the amount/location of direct disturbance/removal of vegetation to complete the alternatives. It was also based on the potential for the introduction of non-native species. The impact thresholds are:

Negligible: No native vegetation would be affected or some individual native plants could be affected as a result of the alternative, but there would be no effect on native species populations. The effects would be short-term and on a small scale.

Minor: Some individual native plants would be affected, along with a relatively minor portion of that species' population. Mitigation to offset adverse effects could be required and would be effective.

Moderate: Some individual native plants would be affected, along with a sizeable segment of the species' population in the long-term and over a relatively large area. Mitigation to offset adverse effects could be extensive, but would likely be successful.

Major: There would be a considerable long-term effect on native plant populations and would affect a relatively large area in and outside of the park. Mitigation measures to offset the adverse effects would be required and extensive; success of the mitigation measures would not be assured.

Duration: Short-term - Recovers in less than 3 years.

Long-term - Takes more than 3 years to recover.

Regulations and Policies

Current laws and policies require that the following conditions be achieved in the park:

Desired Condition	Source
The NPS is directed by the Organic Act to conserve the scenery and the natural objects unimpaired for future generations. The NPS Management Policies 2006 define the general principles for managing biological resources as maintaining all the components and processes of naturally evolving park ecosystems, including the natural abundance, diversity and ecological integrity of plant communities. When NPS management actions cause native vegetation to be removed, then the NPS will seek to ensure that such removals will not cause unacceptable impacts to native resource, natural process, or other park resources.	NPS Organic Act NPS Management Policies 2006
Non-native species, also referred to as non-native, exotic or alien, are not a natural component of the ecosystem. Management of populations of exotic plant and animal species, up to and including eradication, will be undertaken wherever such species threaten park resources or public health and when control is prudent and feasible.	DO -77, Natural Resource Protection, Executive Order 13112, Invasive Species

Impacts of Alternative A: No-Action

Impact Analysis

Minor, adverse, long-term impacts to viewpoint vegetation would continue in Alternative A. Vegetation around the viewpoint has been disturbed with social trails established by visitors. As current management of the viewpoint would continue under this alternative, visitors would still have complete access to the areas off of established walkways and the surrounding vegetation. Potential for the introduction of non-native species does exist, but mitigation measures would

reduce this risk. These impacts are long-term, minor and adverse, and would continue under this alternative. These impacts would be considered local as only this vegetation in the immediate area would be disturbed.

Cumulative Impacts

Impacts from the Bryce Canyon FMP on vegetation would be minor to moderate and adverse in the short-term for very localized areas, but long-term moderate benefits would result due to the restoration of a more natural fire regime and ecological processes. The introduction of non-native species provides a minor and adverse long-term impact to native park vegetation. Other trail and maintenance work throughout the park, including the “Replace and Expand Sunset Point Restroom and Renovate Picnic Facility” and “Rehabilitate the Rim Trail between Sunset and Sunrise Points” projects, would contribute minor to moderate adverse impacts to vegetation in the short-term, but be beneficial in the long-term due to the reduction of social trails and revegetation. Overall, cumulative impacts would be minor and adverse in the short-term and minor and adverse in the long-term.

Conclusion

As a result of Alternative A, direct impacts to vegetation would be minor and adverse in the long-term due to continued loss of vegetation with social trailing. Cumulative and indirect impacts would be minor to moderate and adverse in the long-term in conjunction with fire management activities, introduction of non-native species, and other trail and maintenance work elsewhere in the park. Overall, there would be no impairment of the park’s vegetation resources as a result of the Alternative A.

Impacts of Alternative B: Minimal Improvement

Impact Analysis

Alternative B would have long-term, minor and adverse impacts to vegetation as erosion of material would continue with no erosion control measures and trampling would still occur from visitor social trails. Limited construction activities with like materials (asphalt and barriers) would possibly have short-term, negligible adverse impact on area vegetation, as these activities would stay within the existing, denuded walkway alignment. Some beneficial, minor long-term impacts would result from the closure and restoration of some heavily impacted areas of the viewpoint. Overall, this alternative would have long-term, negligible to minor adverse impacts on area vegetation.

Cumulative Impacts

Impacts from the Bryce Canyon FMP on vegetation would be minor to moderate and adverse in the short-term for very localized areas, but long-term moderate benefits would result due to the restoration of a more natural fire regime and ecological processes. The introduction of non-native species provides a minor and adverse long-term impact to native park vegetation. Other trail and maintenance work throughout the park, including the “Replace and Expand Sunset Point Restroom and Renovate Picnic Facility” and “Rehabilitate the Rim Trail between Sunset and Sunrise Points” projects, would contribute minor to moderate adverse impacts to vegetation in the short-term, but be beneficial in the long-term due to the reduction of social trails and revegetation. Overall, cumulative impacts would be minor and adverse in the short-term and minor and adverse in the long-term.

Conclusion

As a result of Alternative B, direct impacts to vegetation would be negligible to minor and adverse in the long-term due to erosion and limited construction activities. Cumulative and indirect impacts would be minor and adverse in both the short-term and long-term in conjunction with fire management activities, introduction of non-native species, and other trail and

maintenance activities elsewhere in the park. Overall, there would be no impairment of the park's vegetation resources as a result of Alternative B.

IMPACTS OF ALTERNATIVE C: REHABILITATION OF PARIA VIEW

Impact Analysis

Alternative C would have long-term, minor, adverse impacts to vegetation as a result of construction activities. With the realignment of the Paria Viewpoint walkways, some individual plants or trees would be removed. Furthermore, some of the soils which currently provide for vegetation near existing walkways would be graded and paved over, causing vegetative loss. Construction of new, larger-footprint stone/log barriers would also require some removal and displacement of a few individual plants, since the project area is located in a naturally bare or previously disturbed area. The disturbance of soils and removal of plants would also provide improved conditions for the establishment and spread of non-native plants, although this risk would be mitigated through standard construction practices.

Long-term, minor to moderate, beneficial impacts to vegetation would also occur with this alternative. New stone/log barriers would better enclose viewpoint walkways, discouraging continued use and further development of off-walkway social trails. Previously disturbed areas would be revegetated with native plants to restore denuded soils with vegetation, for a gain of vegetation.

Overall, the amount of vegetation gained through restoration and protection would be comparable to the amount lost to construction activities. Therefore, Alternative C would provide long-term, negligible to minor, beneficial impacts to area vegetation.

Cumulative Impacts

As with Alternative A, impacts from the Bryce Canyon FMP on vegetation would be minor to moderate and adverse in the short-term for very localized areas, but long-term moderate benefits would result due to the restoration of a more natural fire regime and ecological processes. The introduction of non-native species provides a minor and adverse long-term impact to native park vegetation. Other trail and maintenance work throughout the park, including the "Replace and Expand Sunset Point Restroom and Renovate Picnic Facility" and "Rehabilitate the Rim Trail between Sunset and Sunrise Points" projects, would contribute minor to moderate adverse impacts to vegetation in the short-term, but be beneficial in the long-term due to the reduction of social trails and revegetation. Overall, cumulative impacts would be minor and adverse in the short-term and minor to moderate and beneficial in the long-term.

Conclusion

As a result of Alternative C, direct impacts to vegetation would be negligible to minor and beneficial in the long-term due to reduced erosion and social trailing. Cumulative and indirect impacts would be minor to moderate and beneficial in the long-term due to fire management activities and minor and adverse in the short-term in conjunction with fire management activities and other trail and maintenance activities elsewhere in the park. Overall, there would be no impairment of the park's soil resources as a result of Alternative C.

VISITOR USE AND EXPERIENCE

AFFECTED ENVIRONMENT

Bryce Canyon National Park is open year-round and has averaged over 1.5 million visitors per year over the last five years. Paria View is a special destination for many park visitors. The viewpoint provides a very unique experience for park visitors with limited time in the park, as Paria View contrasts from the hectic and sometimes congested viewpoints along the close-by main amphitheater. Paria View is the only Bryce viewpoint restricting large recreation vehicles

and buses, and is characterized as a quieter and more aesthetically serene viewpoint for many visitors. This viewpoint is also open to skiing and snowshoeing in the winter, providing a unique winter opportunity in the park.

Currently, pedestrian facilities are eroding into the wash below Paria View and introducing safety and accessibility concerns every year. Without major repairs, the viewpoint's pedestrian facilities are at risk of complete failure and imminent closure. In addition, the viewpoint is not ADA-accessible.

METHODOLOGY

Staff observation of visitation patterns and the ability of the visitor to effectively experience and understand resources mentioned in the park's significance statements were the basis for determining potential impacts of each alternative. For purposes of analyzing potential impacts, the thresholds of change for the intensity of an impact are defined as follows:

Negligible: Visitors would not be affected or changes in visitor use and/or experience would be below or at the level of detection. Any effects would be short-term. The visitor would not likely be aware of the effects associated with the alternative.

Minor: Changes in visitor use and/or experience would be detectable, although the changes would be slight and likely short-term. The visitor would be aware of the effects associated with the alternative, but the effects would be slight.

Moderate: Changes in visitor use and/or experience would be readily apparent and likely long-term. The visitor would be aware of the effects associated with the alternative, and would likely be able to express an opinion about the changes.

Major: Changes in visitor use and/or experience would be readily apparent and have substantial long-term consequences. The visitor would be aware of the effects associated with the alternative, and would likely express a strong opinion about the changes.

Duration: Short-term - Recovers in less than 3 years.

Long-term - Takes more than 3 years to recover.

REGULATIONS AND POLICIES

Current laws and policies require that the following conditions be achieved in the park:

Desired Condition	Source
Visitor and employee safety and health are protected.	NPS Management Policies 2006, National Environmental Policy Act
Visitors understand and appreciate park values and resources and have the information necessary to adapt to park environments; visitors have opportunities to enjoy the parks in ways that leave park resources unimpaired for future generations.	NPS Organic Act; NPS Management Policies 2006
Park recreational uses are promoted and regulated and basic visitor needs are met in keeping with park purposes.	NPS Organic Act; Title 36 of the Code of Federal Regulations; NPS Management Policies 2006
All reasonable efforts will be made to make NPS facilities, programs, and services accessible to and usable by all people, including those with disabilities.	Americans with Disabilities Act; Architectural Barriers Act; Rehabilitation Act; NPS Management Policies 2006
Visitors who use federal facilities and services for outdoor recreation may be required to pay a greater share of the cost of providing those opportunities than the population	NPS Management Policies 2006; 1998 Executive Summary to Congress, Recreational Fee Demonstration Program, Progress Report to

Desired Condition	Source
as a whole.	Congress, Volume I -- Overview and Summary (U.S. Department of the Interior, National Park Service, U.S. Fish and Wildlife Service, Bureau of Land Management; U.S. Department of Agriculture, Forest Service)
The park has identified implementation commitments for visitor carrying capacities for all areas of the unit.	1978 National Parks and Recreation Act (P.L. 95-625); NPS Management Policies 2006

IMPACTS OF ALTERNATIVE A: NO-ACTION

Impact Analysis

In this alternative, visitors using the walkway would continue to be exposed to possible safety hazards due to erosion of the walkway and undercutting of pedestrian barriers and retaining walls. The walkway would continue to deteriorate, resulting in long-term minor adverse impacts on visitor use and experience. In the event that the pedestrian facilities were lost due to severe erosion or deemed too unsafe for use, the viewpoint may have to be closed. As this is the only viewpoint in the northern portion of the park with such serene aesthetics, there would be adverse minor to moderate impacts in the long-term.

Many visitors currently visit Paria View and enjoy viewing the cliff walls and wash below from different angles, off of the developed walkways. For some of these visitors, Alternative A would have minor to moderate beneficial impacts in the long-term due to continued full access to the social trails that extend from the established walkways. Unfortunately, the vegetative and soil resources are being damaged by this visitor traffic. As Alternative A allows visitors to continue using and extending social trails, resource damage is likely to continue and may result in a diminished experience for visitors. As a result, Alternative A would have minor to moderate adverse and long-term impacts to visitor use and experience due to damaged resources.

Paria View is currently not ADA-accessible, adding to many other viewpoints with limited accessibility in the park. Though some pavement restoration would occur in this alternative, the specifications of this work would not bring any portion of the viewpoint to ADA compliance. This impact would be moderate, adverse, and long-term.

Overall, Alternative A would provide a moderate, adverse, long-term impact on visitor use and experience.

Cumulative Impacts

The Bryce Canyon National Park FMP would contribute short-term, minor to moderate, adverse impacts to visitor use and experience, but would contribute moderate, beneficial impacts in the long-term. Other trail and maintenance work throughout the park, including the “Replace and Expand Sunset Point Restroom and Renovate Picnic Facility” and “Rehabilitate the Rim Trail between Sunset and Sunrise Points” projects, would contribute short-term, minor to moderate, adverse impacts to visitor use and experience, but would also contribute moderate, beneficial impacts in the long-term. Overall, cumulative impacts to visitor use and experience would be moderate and adverse in the long-term, due to the eventual deterioration of Paria View.

Conclusion

As a result of Alternative A, direct impacts to visitor use and experience would be moderate and adverse in the long-term due to deterioration of pedestrian services, safety issues, and eventual closure of the viewpoint. Cumulative and indirect impacts would be moderate and adverse in the long-term in conjunction with fire management activities and other trail and maintenance work elsewhere in the park. Overall, there would be no impairment of the park’s visitor use and experience as a result of Alternative A.

Impacts of Alternative B: Minimal Improvement

Impact Analysis

Under Alternative B, impacts to visitor use and experience would be minor to moderate and adverse in the long-term. Visitor safety would be greatly increased in the short-term with resurfacing, repair of barriers, and closure of unsafe areas, but these improvements would only suffice until continued erosion resulted in a return to the existing conditions. Further, closures would inevitably provide a minor, adverse and long-term impact for visitors seeking to view the rim and canyon bottom from all angles. Restoration of closed areas would provide long-term, minor beneficial impacts to some visitors' experience, but not offset the adverse impacts overall.

Cumulative Impacts

The Bryce Canyon National Park FMP would contribute short-term, minor to moderate, adverse impacts to visitor use and experience, but would contribute moderate, beneficial impacts in the long-term. Other trail and maintenance work throughout the park, including the "Replace and Expand Sunset Point Restroom and Renovate Picnic Facility" and "Rehabilitate the Rim Trail between Sunset and Sunrise Points" projects, would contribute short-term, minor to moderate, adverse impacts to visitor use and experience, but would also contribute moderate, beneficial impacts in the long-term. Alternative B would contribute adverse, minor to moderate long-term impacts. The cumulative impacts on visitor use and experience would be minor to moderate and adverse in the long-term, due to the continued erosion of Paria View.

Conclusion

As a result of Alternative B, direct impacts to visitor use and experience would be minor to moderate and adverse in the long-term due to continued erosion and eventual closure of the viewpoint. Cumulative and indirect impacts would be minor to moderate and adverse in the long-term in conjunction with fire management activities and other trail and maintenance work elsewhere in the park. Overall, there would be no impairment of the park's visitor use and experience as a result of Alternative B.

Impacts of Alternative C: Rehabilitation of Paria View

Impact Analysis

Under Alternative C, impacts to visitor use and experience would be moderate and adverse in the short-term, but minor to moderate and beneficial in the long-term. Short-term impacts would undoubtedly be moderate and adverse with the closure of the viewpoint during construction, but would be necessary for visitor safety during the rehabilitation of the viewpoint. Such a closure would also expedite the completion of work without the need to monitor visitors. Long-term, minor to moderate beneficial impacts would be provided through the addition of fully-accessible and safe viewpoint with natural vegetative surroundings and pedestrian facilities consistent with the rest of the park.

Some visitors may notice an adverse, long-term, minor impact to experience with the enclosure of the viewpoint from off-walkway social trails, but this impact would be offset by other visitors' beneficial, long-term, moderate appreciation of rehabilitated vegetative and soil surroundings.

Overall, this alternative would provide moderate beneficial impacts in the long-term.

Cumulative Impacts

The Bryce Canyon National Park FMP would contribute short-term, minor to moderate, adverse impacts to visitor use and experience, but would contribute moderate, beneficial impacts in the long-term. Other trail and maintenance work throughout the park, including the "Replace and Expand Sunset Point Restroom and Renovate Picnic Facility" and "Rehabilitate the Rim Trail between Sunset and Sunrise Points" projects, would contribute short-term, minor to moderate,

adverse impacts to visitor use and experience, but would also contribute moderate, beneficial impacts in the long-term. Alternative C would contribute beneficial, minor to moderate long-term impacts. The cumulative impacts on visitor use and experience would be minor to moderate and beneficial in the long-term.

Conclusion

As a result of Alternative C, direct impacts to visitor use and experience would be moderate and beneficial in the long-term due to improved facilities and long-term protection of facilities. Cumulative and indirect impacts would be minor to moderate and beneficial in the long-term in conjunction with fire management activities and other trail and maintenance work elsewhere in the park. Overall, there would be no impairment of the park's visitor use and experience as a result of Alternative C.

SOUNDSCAPES

AFFECTED ENVIRONMENT

Natural soundscapes are comprised of the natural sound conditions in a park that exist in the absence of any human-produced noises. These conditions are actually composed of many natural sounds, near and far, which often are heard as a composite, not individually. The opportunity to experience Bryce Canyon National Park's natural soundscape unimpaired by the sounds of human civilization is an important part of the overall visitor experience, especially as it contributes to the solitude and wilderness experience that is integral to much of the park.
The soundscape of Paria View is a key component of the viewpoint's unique character. Without the regular traffic of large recreation vehicles and tour buses, this viewpoint tends to have much less noise and a generally quiet and serene setting. The primary unnatural sound that permeates the soundscape of Paria View is the regular flyovers of aircraft.

METHODOLOGY

Staff observation of the general soundscape of Paria View and the ability of the visitor to effectively experience the natural soundscape were the basis for determining potential impacts of each alternative. For purposes of analyzing potential impacts, the thresholds of change for the intensity of an impact are defined as follows:

Negligible: Visitors would not be affected or changes in soundscapes would be below or at the level of detection. Any effects would be short-term. The visitor would not likely be aware of the effects associated with the alternative.

Minor: Changes in soundscape would be detectable, although the changes would be slight and likely short-term. The visitor would be aware of the effects associated with the alternative, but the effects would be slight.

Moderate: Changes in soundscape would be readily apparent and likely long-term. The visitor would be aware of the effects associated with the alternative, and would likely be able to express an opinion about the changes.

Major: Changes in soundscape would be readily apparent and have substantial long-term consequences. The visitor would be aware of the effects associated with the alternative, and would likely express a strong opinion about the changes.

Duration: Short-term - Recovers in less than 3 years.

Long-term - Takes more than 3 years to recover.

REGULATIONS AND POLICIES

Current laws and policies require that the following conditions be achieved in the park:

Desired Condition	Source
Natural soundscape of park is preserved from unacceptable impacts. Restore to natural condition where soundscapes have become degraded by unnatural sounds (noise).	NPS Management Policies 2006.
Strong consideration of soundscape and noise issues on park planning and management.	NPS Director's Order #47, Soundscape Preservation and Noise Management

Impacts of Alternative A: No-Action

Impact Analysis

Alternative A would provide very little impact to the soundscape surrounding Paria View. Aside from routine patching and sealing of deteriorating walkway sections, no further unnatural sounds would be introduced to the area as a result of the maintenance activities of Alternative A. Therefore, this alternative would provide only negligible to minor, short-term adverse impacts to the natural soundscape around Paria View.

Cumulative Impacts

Beyond regular Bryce Canyon National Park trail work and management, other impacts to the soundscape surrounding Paria View are the regular overflight of tour and commercial aircraft and vehicular traffic. These impacts are long-term, adverse, and moderate in intensity. Many times aircraft are the predominant sound at this viewpoint and other natural or unnatural sounds are masked by aircraft sounds. Alternative A would contribute short-term, adverse, negligible to minor impacts to the area soundscape. Overall, cumulative impacts to soundscapes would be long-term, moderate and adverse, primarily due to aircraft.

Conclusion

As a result of Alternative A, direct impacts to soundscapes would be negligible to minor and adverse in the short-term due to limited maintenance activities. Cumulative and indirect impacts would be moderate and adverse in the long-term in conjunction with existing air traffic and vehicular traffic. Overall, there would be no impairment of the park's natural soundscape as a result of Alternative A.

Impacts of Alternative B: Minimal Improvement

Impact Analysis

Like Alternative A, Alternative B would provide very little impact to the soundscape surrounding Paria View. Aside from resurfacing deteriorating walkway sections, only the potential for short-term pavement removal sounds would be introduced to the area as a result of the maintenance activities of Alternative B. Therefore, this alternative would provide only minor to moderate, short-term adverse impacts to the natural soundscape around Paria View.

Cumulative Impacts

Beyond regular Bryce Canyon National Park trail work and management, other impacts to the soundscape surrounding Paria View are the regular overflight of tour and commercial aircraft and vehicular traffic. These impacts are long-term, adverse, and moderate in intensity. Many times aircraft are the predominant sound at this viewpoint and other natural or unnatural sounds are masked by aircraft sounds. Alternative B would contribute short-term, adverse, minor to moderate impacts to the area soundscape. Overall, cumulative impacts to soundscapes would be long-term, moderate and adverse, primarily due to tour aircraft.

Conclusion

As a result of Alternative B, direct impacts to soundscapes would be minor to moderate and adverse in the short-term due to limited maintenance activities. Cumulative and indirect impacts would be moderate and adverse in the long-term in conjunction with air traffic and vehicular noise. Overall, there would be no impairment of the park's natural soundscape as a result of Alternative B.

IMPACTS OF ALTERNATIVE C: REHABILITATION OF PARIA VIEW

Impact Analysis

Alternative C has the potential to provide short-term, moderate, adverse impacts to the natural soundscape of Paria View. The pulverization of asphalt, potential blasting of rock, grading, and removal activities involved in the construction of Alternative C all would provide impacts to soundscapes, ranging from short-term minor to moderate in intensity. Blasting technology has improved over the years and can be done more quietly than in the past. Blasting would be completed in minutes and provide less impact than hammering with heavy equipment for hours.

Cumulative Impacts

Beyond regular Bryce Canyon National Park trail work and management, other impacts to the soundscape surrounding Paria View are the regular overflight of tour and commercial aircraft and vehicular traffic. These impacts are long-term, adverse, and moderate in intensity. Many times aircraft are the predominant sound at this viewpoint and other natural or unnatural sounds are masked by aircraft sounds. Alternative C would contribute short-term, adverse, moderate impacts to the area soundscape. Overall, cumulative impacts to soundscapes would be long-term, moderate and adverse, primarily due to tour aircraft.

Conclusion

As a result of Alternative C, direct impacts to soundscapes would be moderate and adverse in the short-term due to construction activities. Cumulative and indirect impacts would be moderate and adverse in the long-term in conjunction with air traffic and vehicular traffic. Overall, there would be no impairment of the park's natural soundscape as a result of Alternative C.

WILDERNESS

AFFECTED ENVIRONMENT

A total of 20,810 acres (58 percent) of Bryce Canyon has been recommended as wilderness. These lands are primarily located below the rim of the canyon along the eastern side of the park. While not yet legislatively designated, this wilderness, which was recommended by the President to Congress in 1978, is managed as designated wilderness in accordance with NPS Management Polices (NPS 2006). These areas provide visitors with an opportunity to experience Bryce's backcountry unimpaired by the sights and sounds of human civilization. Paria View lies directly above Bryce Canyon National Park's wilderness. The wilderness boundary extends along the "breaks" just below the rim. The wilderness character of the area is currently impacted by falling asphalt chunks eroded from the viewpoint and other unnatural debris.

METHODOLOGY

Staff observation of the general wilderness areas around Paria View and the ability of the visitor to effectively experience the wilderness qualities in this area were the basis for determining potential impacts of each alternative. For purposes of analyzing potential impacts, the thresholds of change for the intensity of an impact are defined as follows:

Negligible: the impact is at the lowest levels of detection, barely measurable, with no perceptible effects.

Minor: the impact is slight but detectable, with few perceptible effects, and localized in area.

Moderate: the impact is readily apparent and measurable.

Major: the impact is severely adverse or exceptionally beneficial.

Duration: Short-term - Recovers in less than 3 years.

Long-term - Takes more than 3 years to recover.

REGULATIONS AND POLICIES

Current laws and policies require that the following conditions be achieved in the park:

Desired Condition	Source
The NPS is directed by the Organic Act to conserve the scenery and the natural objects unimpaired for future generations. The NPS Management Policies 2006 define the general principles for managing biological resources as maintaining all the components and processes of naturally evolving park ecosystems, including the natural abundance, diversity and ecological integrity of plant communities.	NPS Organic Act NPS Management Policies 2006

IMPACTS OF ALTERNATIVE A: NO-ACTION

Impact Analysis

Under Alternative A, no structural improvements would occur at Paria View. Maintenance activities that currently occur at the viewpoint, such as patching and sealing pavement sections, would continue as necessary. Therefore, there would be no change to existing conditions. However, implementation of Alternative A would have long-term, minor and adverse impacts to adjacent wilderness due to the continuation of erosion of asphalt walkways and retaining walls into the wash below the cliff rim at Paria View.

Cumulative Impacts

Trail and maintenance work throughout the park including the “Replace and Expand Sunset Point Restroom and Renovate Picnic Facility” and “Rehabilitate the Rim Trail between Sunset and Sunrise Points” projects, would contribute minor adverse impacts to wilderness character due to noise impacts. Beyond regular Bryce Canyon National Park management, other impacts to the wilderness adjacent to Paria View are the regular overflights of tour and commercial aircraft and vehicular traffic. These impacts are long-term, adverse, and moderate in intensity. Alternative A would contribute long-term, adverse, minor impacts to the area wilderness. Overall, cumulative impacts to wilderness would be long-term, minor and adverse with the implementation of Alternative A.

Conclusion

As a result of Alternative A, direct impacts to wilderness would be minor and adverse in the long-term due to the erosion of manmade materials into wilderness areas. Cumulative and indirect impacts would be minor and adverse in the long-term in conjunction with the sounds of aircraft and vehicular traffic. Overall, there would be no impairment of the park’s wilderness resources or values as a result of Alternative A.

Impacts of Alternative B: Minimal Improvements

Impact Analysis

Alternative B would have long-term, minor adverse effects, identical to those identified above in Alternative A, due to the continued deterioration of walkways and retaining barriers and subsequent erosion into the wash below Paria View. Additionally, minimal construction activities to repair damaged walkways and move barriers away from eroded sections of walkways would have short-term, negligible to minor adverse effects to other wilderness values and resources, such as natural quiet.

Cumulative Impacts

Trail and maintenance work throughout the park including the “Replace and Expand Sunset Point Restroom and Renovate Picnic Facility” and “Rehabilitate the Rim Trail between Sunset and Sunrise Points” projects, would contribute minor adverse impacts to wilderness character due to noise impacts. Beyond regular Bryce Canyon National Park management, other impacts to the wilderness adjacent to Paria View are the regular overflights of tour and commercial aircraft and vehicular traffic. These impacts are long-term, adverse, and moderate in intensity. Alternative B would contribute long-term, adverse, minor impacts to the area wilderness. Overall, cumulative impacts to wilderness would be long-term, minor and adverse with the implementation of Alternative B.

Conclusion

As a result of Alternative B, direct impacts to wilderness would be minor and adverse in the long-term due to the sounds of limited maintenance activities and continued erosion of manmade material into wilderness areas. Cumulative and indirect impacts would be minor and adverse in the long-term in conjunction with the sounds of air traffic and vehicular noise. Overall, there would be no impairment of the park’s wilderness resources or values as a result of Alternative B.

Impacts of Alternative C: Rehabilitation of Paria View

Impact Analysis

Implementation of Alternative C, the Preferred Alternative, would have short-term, minor adverse effects to wilderness qualities. Mechanized construction activities to improve structural quality of walkways, retaining barriers, and fences would have minor impacts to the natural quiet of the recommended wilderness for the duration of the construction activities. Conversely, long-term minor beneficial impacts would be realized from the reduction of erosion of walkways and retaining barriers into the wilderness area below Paria View.

Cumulative Impacts

Trail and maintenance work throughout the park including the “Replace and Expand Sunset Point Restroom and Renovate Picnic Facility” and “Rehabilitate the Rim Trail between Sunset and Sunrise Points” projects, would contribute minor adverse impacts to wilderness character due to noise impacts. Beyond regular Bryce Canyon National Park management, other impacts to the wilderness adjacent to Paria View are the regular overflights of tour and commercial aircraft and vehicular traffic. These impacts are long-term, adverse, and moderate in intensity. Alternative C would contribute short-term, adverse, minor impacts and long-term, beneficial, minor impacts to the area wilderness. Overall, cumulative impacts to wilderness would be negligible with the implementation of Alternative C.

Conclusion

As a result of Alternative C, direct impacts to wilderness would be minor and adverse in the short-term due to the noise of construction activities and minor and beneficial in the long-term

due to reduced erosion of manmade materials into wilderness areas. Cumulative and indirect impacts would be negligible in conjunction with the sounds of air traffic and vehicular noise. Overall, there would be no impairment of the park's wilderness resources or values as a result of Alternative C.

SPECIAL STATUS SPECIES

AFFECTED ENVIRONMENT

Special Status Species are those species which are not protected by federal listing as a threatened or endangered species, but are afforded special protections by individual states, localities, or land managers. No federal-listed threatened and endangered species were found in the Paria View area.

The cliffs surrounding Paria View are important nesting areas for peregrine falcons, a species the park regularly monitors in conjunction with the State of Utah and treats as a special status species. Peregrine falcons were formally delisted under the Endangered Species Act in 1999. Peregrine falcon individuals have been monitored by park staff for many years (See Appendix C). Changes in nesting habits, numbers of individuals, and location have all been documented. Over the past five years, peregrine falcons have been found within the Paria Wash.

METHODOLOGY

Analyses of the potential intensity of impacts to special status species were first determined by identifying the area that could be affected. Interdisciplinary specialists defined the affected area as the Paria Viewpoint and the lands immediately adjacent to the walkways. The analysis of impacts on special status species was based on the amount/location of direct disturbance/removal of species to complete the alternatives. The impact thresholds are:

Negligible: No special status species would be affected or some individuals could be affected as a result of the alternative, but there would be no effect on populations of the sensitive species. The effects would be short-term and on a small scale.

Minor: Some individuals would be affected, along with a relatively minor portion of that species' population. Mitigation to offset adverse effects could be required and would be effective.

Moderate: Some individuals would be affected, along with a sizeable segment of the species' population in the long-term and over a relatively large area. Mitigation to offset adverse effects could be extensive, but would likely be successful.

Major: There would be a considerable long-term effect on populations and would affect a relatively large area in and outside of the park. Mitigation measures to offset the adverse effects would be required and extensive; success of the mitigation measures would not be assured.

Duration: Short-term - Recovers in less than 3 years.

Long-term - Takes more than 3 years to recover.

REGULATIONS AND POLICIES

Current laws and policies require that the following conditions be achieved in the park:

Desired Condition	Source
The NPS is directed by the Organic Act to conserve the scenery and the natural objects unimpaired for future generations. The NPS Management Policies 2006 define the general principles for managing biological resources	NPS Organic Act NPS Management Policies

Desired Condition	Source
as maintaining all the components and processes of naturally evolving park ecosystems, including the natural abundance, diversity and ecological integrity of plant communities.	2006

Impacts of Alternative A: No-Action

Impact Analysis

Under Alternative A, no structural improvements would occur at Paria View. Maintenance activities that currently occur at the viewpoint, such as patching and sealing pavement sections, would continue as necessary. Therefore, there would be no change to existing conditions. However, implementation of Alternative A would have long-term, minor and adverse impacts to special status species due to the continuation of erosion of asphalt walkways and retaining walls into the wash below the cliff rim at Paria View, near nesting peregrine falcons.

Cumulative Impacts

Trail and maintenance work throughout the park including the “Replace and Expand Sunset Point Restroom and Renovate Picnic Facility” and “Rehabilitate the Rim Trail between Sunset and Sunrise Points” projects, would contribute negligible impacts to special status species, due to the location of these activities away from peregrine nesting areas. Other impacts to special status species surrounding Paria View are the regular overflights of tour and commercial aircraft and vehicular traffic. These impacts are long-term, adverse, and moderate in intensity. Alternative A would contribute long-term, adverse, minor impacts to special status species. Overall, cumulative impacts to special status species would be long-term, minor and adverse with the implementation of Alternative A.

Conclusion

As a result of Alternative A, direct impacts to special status species would be minor and adverse in the long-term due to the erosion of manmade materials over areas critical to nesting peregrine falcons. Cumulative and indirect impacts would be minor and adverse in the long-term in conjunction with sounds from air traffic and vehicular noise. Overall, there would be no impairment of the park’s special status species as a result of Alternative A.

Impacts of Alternative B: Minimal Improvements

Impact Analysis

Alternative B would have long-term, minor adverse effects, identical to those identified above in Alternative A, due to the continued deterioration of walkways and retaining barriers and subsequent erosion into the wash below Paria View. Additionally, minimal construction activities to repair damaged walkways and move barriers away from eroded sections of walkways would have short-term, negligible to minor adverse effects to special status species.

Cumulative Impacts

Trail and maintenance work throughout the park including the “Replace and Expand Sunset Point Restroom and Renovate Picnic Facility” and “Rehabilitate the Rim Trail between Sunset and Sunrise Points” projects, would contribute negligible impacts to special status species, due to the location of these activities away from peregrine nesting areas. Other impacts to special status species surrounding Paria View are the regular overflights of tour and commercial aircraft and vehicular traffic. These impacts are long-term, adverse, and moderate in intensity. Alternative B would contribute long-term, adverse, minor impacts to special status species. Overall, cumulative impacts to special status species would be long-term, minor and adverse with the implementation of Alternative B.

Conclusion

As a result of Alternative B, direct impacts to special status species would be minor and adverse in the long-term due to continued erosion over peregrine falcon nests. Cumulative and indirect impacts would be minor and adverse in the long-term in conjunction with sounds from air traffic and vehicular noise. Overall, there would be no impairment of the park's special status species as a result of Alternative B.

IMPACTS OF ALTERNATIVE C: REHABILITATION OF PARIA VIEW

Impact Analysis

Implementation of Alternative C, the Preferred Alternative, would have short-term, minor to moderate adverse effects to special status species. Mechanized construction activities to improve the structural quality of walkways, retaining walls, and barriers would have minor to moderate impacts to the natural quiet of the area for the duration of the construction activities, potentially disrupting peregrine falcons. Mitigation measures would avoid loud and potentially disruptive construction activities (such as blasting) during critical periods for peregrine falcons, from March 1st to July 1st. Conversely, long-term minor beneficial impacts would be realized from the reduction of erosion of walkways and retaining barriers into the special status species habitat.

Cumulative Impacts

Trail and maintenance work throughout the park including the "Replace and Expand Sunset Point Restroom and Renovate Picnic Facility" and "Rehabilitate the Rim Trail between Sunset and Sunrise Points" projects, would contribute negligible impacts to special status species, due to the location of these activities away from peregrine nesting areas. Other impacts to special status species surrounding Paria View are the regular overflights of tour and commercial aircraft and vehicular traffic. These impacts are long-term, adverse, and moderate in intensity. Alternative C would contribute short-term, adverse, minor to moderate impacts to special status species. Overall, cumulative impacts to special status species would be long-term, minor and beneficial and short-term, moderate, and adverse during construction activities.

Conclusion

As a result of Alternative C, direct impacts to special status species would be minor to moderate and adverse in the short-term due to sounds from construction activities. Cumulative and indirect impacts would be moderate and adverse in the short-term due to increased sounds from construction activities, but minor and beneficial in the long-term due to reduction of the erosion of manmade materials over areas critical to peregrine falcon nesting. Overall, there would be no impairment of the park's special status species as a result of Alternative C.

CONSULTATION/COORDINATION

PREPARERS

Joe David, Biological Science Technician, Bryce Canyon National Park

Kristin Legg, Chief, Resource Management, Bryce Canyon National Park

David Roemer, Resource Management Specialist, Bryce Canyon National Park

Deirdre Hanners, Fire Program Analyst, Zion National Park

LIST OF RECIPIENTS

The Environmental Assessment will be released for public review on June 1, 2007. To inform the public of the availability of the Environmental Assessment, the National Park Service will publish and distribute a letter or press release to various agencies, and members of the public on the park's mailing list, as well as place an ad in the local newspaper. Copies of the Environmental Assessment will be provided to interested individuals, upon request. Copies of the document will also be available for review at Bryce Canyon National Park's visitor center and on the internet at the National Park Service Planning, Environment, and Public Comment website (http://parkplanning.nps.gov/BRCA).

The Environmental Assessment is subject to a 30-day public comment period ending July 1, 2007. During this time, the public is encouraged to submit their written comments to the National Park Service address provided at the beginning of this document. Following the close of the comment period, all public comments will be reviewed and analyzed, prior to the release of a decision document. The National Park Service will issue responses to substantive comments received during the public comment period, and will make appropriate changes to the Environmental Assessment, as needed.

FEDERAL AGENCIES

Advisory Council on Historic Preservation
Forest Service
- Kaibab NF
- Dixie NF

Natural Resource Conservation Service
Army Corps of Engineers
Environmental Protection Agency
Department of Interior
- Fish and Wildlife Service
- Geological Survey
- National Biological Survey
- Bureau of Land Management
- National Park Service
  - Multiple parks in the region

INDIAN TRIBES

Skull Valley Band of Goshute Indians
Moapa Paiute Tribe
Kaibab Band of Paiute Indians
Chemehuevi Indian Tribe
Las Vegas Paiute Tribe
Teec Nos Pos Chapter
Paiute Tribe of Utah

Red Mesa Chapter
Pueblo of Zuni
The Hopi Tribe, Cultural Preservation Office
Aneth Chapter
Shivwits Paiute Band
NW Band of Shoshoni Tribe, Satellite Office
Oljato Chapter
San Juan Southern Paiute Tribe
Navajo Nation Utah Commission
Ute Indian Tribe
Goshute Indian Tribe
Utah Navajo Trust Fund
White Mesa Ute Council
Northwestern Band of Shoshoni Tribe
Dennehotso Chapter
Ute Mountain Ute Tribe

STATE AND LOCAL AGENCIES

City of Cannonville
City of Hatch
City of Panguitch
City of Tropic
City of Cedar City
Mayor of Kanab
Orderville

Iron County
Garfield County
Kane County

State Historic Preservation Office
State Land Department
Anasazi Indian Village State Park
Coral Pink Sand Dune State Park
Kodachrome Basin State Park
Utah Department of Agriculture and Food
Utah Division of Air Quality
Utah Division of Drinking Water
Utah Department of Environmental Quality
Utah Natural Heritage Program
Utah Office of Planning and Budget
Utah Department of Transportation
Utah Division of Water Quality
Utah Department of Water Resources
Utah Division of Water Rights
Utah Division of Wildlife Resources
Utah Office of the Governor
Utah State Clearinghouse
Utah State Parks and Recreation

ORGANIZATIONS

Scenic Byway 12 Committee
Utah Wildlife Federation

National Parks Conservation Association
National Trust on Historic Preservation
National Wildlife Federation
Sierra Club
The Wilderness Society
The Nature Conservancy
Southwest Forest Alliance
National Park Foundation
Southern Utah Wilderness Alliance
Defenders of Wildlife
Utah Native Plant Society
Bryce Valley Business Association
Grand Canyon Trust
Grand Canyon Wildlands Council
Audubon Society
Wilderness Watch
Utah Wilderness Association
Utah Heritage Foundation
Partners in Parks

INDIVIDUALS

The list of individuals receiving this Environmental Assessment is available from Bryce Canyon National Park.

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2002 Bryce Canyon Archeological Inventory Report by Christopher Wenker, U.S. Department of the Interior, National Park Service, Intermountain Support Office, Santa Fe, New Mexico.

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1995 *Interior Departmental Manual, Part 512: American Indian and Alaska Native Programs, Chapter 2: Departmental Responsibilities for Indian Trust Resources.*

F. J. Peabody

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Roberts, D.R., D.W. Wright, and G.P.Hallsten

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United States Congress (USC)

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1970 National Environmental Policy Act of 1969. Pub. L. 91- 190, 42 USC 4321- 4347. January 1, 1970. Washington, D.C.

1966 National Historic Preservation Act. PL 89- 665; 16 U.S.C. 470 et seq. October 15, 1966. Washington, D.C.

1916 National Park Service Organic Act. 39 Stat. 535; 16 USC 1- 4. August 25, 1916. Washington, D.C.

U.S. Fish and Wildlife Service

2002 Memorandum with List of Threatened and Endangered Species from Utah Field Office, West Valley City, Utah. Memo on file at Denver Service Center.

U.S. Department of Agriculture

1990 Soil Survey of Panguitch Area, Utah, Parts of Garfield, Iron, Kane, and Piute Counties. USDA, Soil Conservation Service, Soil Survey Staff.

APPENDIX A: PUBLIC INVOLVEMENT

Notice of Scoping
Bryce Canyon National Park, Utah
Paria View Rehabilitation Project
March 2007

Dear Friend of Bryce Canyon National Park:

The National Park Service (NPS) is preparing to determine the level of compliance necessary under the National Environmental Policy Act (NEPA; e.g., an Environmental Assessment or Environmental Impact Statement) in order to repair an area of erosion damage and take additional measures to reduce social trails and improve safety along the visitor walkways at Paria View. This compliance is needed in order to evaluate potential impacts to the environment that may result from the proposed removal of deteriorated asphalt walks, rebuilding of stone walls beneath undercut sections of trail, relocation of the trail an average of three feet back from the rim, and installation of new concrete walkways and safety railing. The NPS is soliciting comments from the public to help identify issues and develop alternative repair approaches that will be evaluated through the compliance process.
You are invited to provide your comments and take part in this planning effort. For your convenience, a comment form is attached to this scoping notice.

Why does Bryce Canyon need to plan and mitigate erosion repairs?

The purpose of the Paria View Rehabilitation Project is to provide a safe and accessible trail system for viewing the hoodoos, amphitheater, and Paria River Valley from Paria View, while preventing the resource damage that occurs from social trails. Foot traffic from the parking area to the rim has expanded beyond the existing system of asphalt trails that were designed to handle this flow, creating a network of social trails that are impacting the surrounding natural environment. The main 900-foot asphalt trail and supporting stone walls along the rim are being undercut by erosion and collapsing material into the canyon, threatening the stability and safety of the trail. If no repairs are conducted, there is a high likelihood that the trail will be undercut and fail.
The Paria View overlook and sidewalks, located off of the spur road to Bryce Point, were last improved during the late 1950s and early 1960s. No major improvements have been made in the recent past. The existing asphalt trails are unsafe and riddled with potholes and undulations. The historic stone retaining wall is undercut in several locations and will eventually collapse if it is not set back and rebuilt further from the rim. The present pedestrian safety railings are antiquated, showing their age, and are insufficient in length to protect visitors. The existing pedestrian safety railing does not provide adequate protection to visitors in areas of 900-foot vertical cliffs. Social trails lead off from un-railed portions of the existing trail, especially at the trail endpoint. The redesign and replacement of deteriorated asphalt walks and stone retaining walls, the replacement of pedestrian railings, and the installation of drainage features to reduce erosion, will eliminate safety hazards, social trailing and impacts to the surrounding natural environment.
In this plan, the NPS will identify options for all proposed repair activities at Paria View. Visitor safety and the protection of resources will be taken into account during the design and planning for this project. Impacts of future repairs required on park trails will be addressed in future plans as the need arises.

Have preliminary issues and alternatives been identified?

The NPS has identified preliminary issues related to repair activities that will be analyzed through the NEPA process. The NPS has not yet identified alternatives. Issues and/or alternatives identified through public scoping will be added to the following and addressed during the planning process.
The compliance will identify and analyze:

- methods to address the visitor safety problems and resource damage

associated with deteriorated asphalt walkways, undercutting and erosion of stone retaining walls, and aging safety railings along the rim trail at Paria View;

- methods to redesign and redirect visitor traffic between the parking area and the viewpoints to prevent the development of social trails;

- methods to restore and revegetate existing social trails and disturbed areas along the parking area and trail;

- methods to improve trail accessibility using American with Disabilities Act (ADA) Standards for Accessible Design;

- methods to improve drainage to minimize erosion and undercutting along the rim trail at Paria View;

- effects on soils, vegetation, cultural resources, and visitor experience; and

- a plan that is consistent with the principles and mandates of the Endangered Species Act, U.S. Fish and Wildlife Service policy, the NPS Organic Act, and the National Historic Preservation Act.

What's next?

After the scoping comments have been received and reviewed, the NPS will begin to develop alternatives. The public will have an opportunity at that time to review a summary of the scoping comments received and to comment on the preliminary alternatives. The next step will be to determine the appropriate NEPA pathway (i.e., EA, EIS, Categorical Exclusion, etc.) to ensure that the resulting plan addresses all potential environmental impacts. The final draft document should be available for review in summer 2007.

If you wish to remain on the mailing list and receive future information about this planning and compliance process, please check the box on the comment form, print your name and mailing address, and return to the address listed above.

Thank you for your interest in Bryce Canyon National Park and your participation in the development of the Paria View Rehabilitation project. If you have questions, please contact David Roemer, Resource Management Specialist, Bryce Canyon National Park, (435) 834-4901.

Please submit your comments on any issues associated with this project in one of the following ways by April 27, 2007:

Submit written comments to: Bryce Canyon National Park Paria View Rehabilitation Project PO Box 640201 Bryce, UT 84764

Comment via the internet through the NPS's Planning, Environment, and Public Comment website, <http://parkplanning.nps.gov>

Hand-deliver comments to Bryce Canyon NP headquarters at: Visitor Center Building Hwy 63 Bryce Canyon NP, UT

APPENDIX B: USFWS LETTER

United States Department of the Interior
FISH AND WILDLIFE SERVICE
UTAH FIELD OFFICE
2369 WEST ORTON CIRCLE, SUITE 50
WEST VALLEY CITY, UTAH 84119

BRYCE CANYON
JAN 26 2004
NATIONAL PARK

In Reply Refer To
FWS/R6
ES/UT
04-0416

January 22, 2004

To: Craig C. Axtell, Superintendent, Bryce Canyon National Park, National Park Service

From: Utah Field Supervisor, Ecological Services, U.S. Fish and Wildlife Service, Salt Lake City, Utah

Subject: Fire Management Plan EA Bryce Canyon National Park

The U.S. Fish and Wildlife Service (FWS) has reviewed your letter of January 5, 2004, announcing your intent to prepare an Environmental Assessment (EA) in support of a Fire Management Plan (FMP). The purpose of the project is to provide a comprehensive plan covering all vegetation communities found in Bryce Canyon National Park. The EA will evaluate the potential impacts to the natural and cultural environments from proposed fire management activities.

Consistent with NEPA regulation 40 CFR § 1503.1(a)(1) that the action agency shall obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved, we are responding to your request for concerns and comments on this project. In Section 1 of this letter we convey our concerns that should be addressed in the EA for the FMP. Section 2 of this letter addresses your Endangered Species Act (ESA) Section 7 responsibilities and provides a species list.

Section 1.

Based on a telephone conversation between Bruce Fields (NPS) and Bekee Megown (FWS) on January 20, 2004, it is our understanding that invasive species issues will be addressed in the EA. Detailed inventory and mapping of invasive species in and near project areas could identify potential problems. Fire Management tools should be evaluated to assess potential for increased spread of invasive species and develop measures to avoid and/or control invasive plant species.

Impacts on wildlife and their habitats from project activities would vary depending on disturbance size, patterns, seasonality, and frequency. We recommend that the EA discuss the range of impacts this project would cause to plants, pollinators, terrestrial and aquatic wildlife, and sensitive areas. The EA should discuss the expected future vegetation communities and

effects to wildlife resulting from changes in the extent, distribution, and composition of vegetative communities. To minimize impacts to endangered, threatened, and sensitive species, suitable acres and juxtaposition of habitat for the species should be maintained through time.

Activities should avoid, to the extent possible, sensitive wildlife periods and areas (breeding season, calving season, migration corridors). Impacts to migratory bird habitat should be evaluated and minimized, focusing on species on the Service's 2002 List of Birds of Conservation Concern and the Partners in Flight Priority Bird Species. To help meet responsibilities under Executive Order 13186 (Responsibilities of Federal Agencies to Protect Migratory Birds), we recommend you conduct activities outside critical breeding seasons for migratory birds, minimize temporary and long-term habitat losses, and mitigate unavoidable habitat losses. If your activities occur in the spring or summer, we recommend you conduct surveys for migratory birds to assist you in your efforts to comply with the Migratory Bird Treaty Act (16 U.S.C. 703-712) and E.O. 13186.

We recommend use of the *Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances* (Romin and Muck, 2002) which were developed in part to provide consistent application of raptor protection measures statewide and provide full compliance with environmental laws regarding raptor protection. Raptor surveys and mitigation measures are provided in the Raptor Guidelines as recommendations to ensure that proposed projects will avoid adverse impacts to raptors. Locations of existing raptor nests should be identified prior to the initiation of the project activities. Direct loss of nesting sites or territories should be avoided. Appropriate spatial buffer zones of inactivity should be established during crucial breeding and nesting periods relative to raptor nest sites or territories. Arrival at nesting sites can occur as early as December for certain raptor species. Nesting and fledging continues through August. Generally we recommend spatial buffers of 1.0 mile for threatened or endangered raptors, 0.5 mile for other diurnal raptors, and 0.25 mile for nocturnal raptor nests.

For fire management projects near streams, we recommend that the NPS consider using the guidelines listed in the Inland Native Fish Strategy (INFISH) (USFS 1995). As per INFISH, no disturbance should occur within a buffer zone of 300' on each side of perennial fish bearing streams, 150' on each side of perennial non-fish bearing streams, and between 50' - 100' on each side of intermittent streams. Riparian areas are sensitive habitats which are relatively scarce and highly valuable to many species of insects, amphibians, reptiles, fishes, birds and mammals. Impacts to these areas should be avoided to the greatest extent possible.

The impacts to channel/riparian processes should be limited by reducing sedimentation into streams. If the fire management activities are likely to lead to some form of erosion, proposed erosion control measures should be discussed in the EA.

Section 2.

Federal agencies have specific additional responsibilities under Section 7 of the ESA. To help you fulfill these responsibilities, we are providing an updated list of threatened (T), endangered (E) and candidate (C) species that may occur within Kane County:

Species	Scientific Name	Status[1]
Aquarius Paintbrush	*Castilleja aquariensis*	C
Autumn Buttercup	*Ranunculus aestivalis*	E
Jones Cycladenia	*Cycladenia humilis* var. *jonesii*	T
Kodachrome Bladderpod	*Lesquerella tumulosa*	E
Maguire Daisy	*Erigeron maguirei*	T
Navajo Sedge	*Carex specuicola*	T
Siler Pincushion Cactus	*Pediocactus sileri*	T
Ute Ladies'-tresses	*Spiranthes diluvialis*	T
Welsh's Milkweed[2]	*Asclepias welshii*	T
Bald Eagle[3]	*Haliaeetus leucocephalus*	T
California Condor[4]	*Gymnogyps californianus*	E
Mexican Spotted Owl[2,5]	*Strix occidentalis lucida*	T
Southwestern Willow Flycatcher	*Empidonax traillii extimus*	E
Western Yellow-billed Cuckoo	*Coccyzus americanus occidentalis*	C
Utah Prairie Dog	*Cynomys parvidens*	T

[1] Candidate species have no legal protection under the Endangered Species Act. However, these species are under active consideration by the Service for addition to the Federal List of Endangered and Threatened Species and may be proposed or listed during the development of the proposed project.
[2] Critical habitat designated in this county.
[3] Wintering populations (only four known nesting pairs in Utah).
[4] Experimental nonessential population.
[5] Nests in this county of Utah.

The proposed action should be reviewed and a determination made if the action will affect any listed species or their critical habitat. If it is determined by the Federal agency, with the written concurrence of the Service, that the action is not likely to adversely affect listed species or critical habitat, the consultation process is complete, and no further action is necessary.

Formal consultation (50 CFR 402.14) is required if the Federal agency determines that an action is "likely to adversely affect" a listed species or will result in jeopardy or adverse modification of critical habitat (50 CFR 402.02). Federal agencies should also confer with the Service on any action which is likely to jeopardize the continued existence of any proposed species or result in the destruction or adverse modification of proposed critical habitat (50 CFR 402.10). A written request for formal consultation or conference should be submitted to the Service with a completed biological assessment and any other relevant information (50 CFR 402.12).

Candidate species have no legal protection under the Endangered Species Act (ESA). Candidate species are those species for which we have on file sufficient information to support issuance of a proposed rule to list under the ESA. Identification of candidate species can assist environmental planning efforts by providing advance notice of potential listings, allowing resource managers to alleviate threats and, thereby, possibly remove the need to list species as endangered or threatened. Even if we subsequently list this candidate species, the early notice provided here could result in fewer restrictions on activities by prompting candidate conservation measures to alleviate threats to this species.

Only a Federal agency can enter into formal Endangered Species Act (ESA) section 7 consultation with the Service. A Federal agency may designate a non-Federal representative to conduct informal consultation or prepare a biological assessment by giving written notice to the Service of such a designation. The ultimate responsibility for compliance with ESA section 7, however, remains with the Federal agency.

Your attention is also directed to section 7(d) of the ESA, as amended, which underscores the requirement that the Federal agency or the applicant shall not make any irreversible or irretrievable commitment of resources during the consultation period which, in effect, would deny the formulation or implementation of reasonable and prudent alternatives regarding their actions on any endangered or threatened species.

Please note that the peregrine falcon which occurs in all counties of Utah was removed from the federal list of endangered and threatened species per Final Rule of August 25, 1999 (64 FR 46542). Protection is still provided for this species under authority of the Migratory Bird Treaty Act which makes it unlawful to pursue, hunt, take, capture, or kill migratory birds, their parts, nests, or eggs (16 U.S.C. 703-712). When taking of raptors or other migratory birds is determined by the applicant to be the only alternative, application for federal and state permits must be made through the appropriate authorities. For take of raptors; nests occupied by eggs or nestlings; nests still essential to the survival of the juvenile bird; nestlings; or eggs, Migratory Bird Permits pursuant to 50 CFR parts 13 and 21 must be obtained through the Service's Migratory Bird Permit Office in Denver at (303) 236-8171

The following is a list of species that occur within the counties that the project area lies within and are managed under Conservation Agreements/Strategies. Conservation Agreements are voluntary cooperative plans among resource agencies that identify threats to a species and implement conservation measures to proactively conserve and protect species in decline. Threats that warrant a species listing as a sensitive species by state and federal agencies and as threatened or endangered under the ESA should be significantly reduced or eliminated through implementation of the Conservation Agreement. Project plans should be designed to meet the goals and objectives of these Conservation Agreements.

Species	Scientific Name
Aquarius Paintbrush	*Castillega aquariensis*
Arizona Willow	*Salix arizonica*
Colorado River Cutthroat Trout	*Oncorhynchus clarki pleuriticus*

We appreciate the opportunity to provide these comments. If you need further assistance, please contact Bekee Megown, Fish and Wildlife Biologist, at the letterhead address or (801) 975-3330 ext. 146.

APPENDIX C: SPECIAL STATUS SPECIES INFORMATION

Plants

The following list was provided through consultation with the U.S. Fish and Wildlife Service (USFWS) website (*http://mountain-prairie.fws.gov/ut.html*). These species may occur within the two counties in which the park lies.

Federally Listed Plant Species			
Common Name	**Scientific Name**	**Federal Status**	**Found in Bryce Canyon***
Autumn Buttercup	*Ranunculus aestivalis*	Endangered	No
Kodachrome Bladderpod	*Lesquerella tumulosa*	Endangered	No
Navajo Sedge	*Carex specuicola*	Threatened	No
Siler Pincushion Cactus	*Pediocactus sileri*	Threatened	No
Welsh's Milkweed	*Asclepias welshii*	Threatened	No
Jones Cyclandenia	*Cyclandenia humilis var. jonesii*	Threatened	No
McGuire Daisy	*Erigeron maguirei*	Threatened	No
Ute's Ladies Tresses	*Spiranthes diluvialis*	Threatened	No
Aquarius Paintbrush	*Castilleja aquariensis*	Candidate	No

*Based on staff knowledge, various plant surveys documented by the Utah State Conservation Data Center, and/or lack of preferred habitat in the park.

As noted in the above table, none of the species listed above are known to occur in Bryce Canyon. Specific notes for each species are listed below.

Autumn buttercup (*Ranunculus agestivalis)* is a narrow endemic and occurs only in the Sevier River Valley, Garfield County, in wet meadows.

Kodachrome bladderpod (*Lesquerella tumulosa)* is a narrow endemic and occurs only in Kane County on shallow soils intermixed with shale fragments derived from the Windsor Member of the Carmel Formation.

Navajo sedge (*Carex specuicola)* occurs in canyons in Kane County but is restricted to seeps, springs, and hanging garden habitats in Navajo sandstone.

Siler pincushion cactus (*Pediocactus sileri)* occurs in Kane County on sandy or clay soils derived from the various members of the Moenkopi Formation.

Welsh's milkweed (*Asclepias welshii)* occurs in Kane County on dunes derived from Navajo sandstone.

Jones cyclandenia (*Cycladenia humilis var. jonesii)* is restricted to the canyonlands of the Colorado Plateau and grows in gypsum soils derived from the Summerville, Cutler, and Chinle Formations.

McGuire daisy (*Erigeron maguirei)* grows on the sand and detritus weathered from

Navajo sandstone in crevices, on ledges, and bottoms of washes.

Ute's ladies tresses (*Spiranthes diluvialis)* occurs in several Utah counties, but is found only in moist to very wet meadows, along streams, and near seeps, springs, or lake shores.

Aquarius paintbrush (*Castilleja aquariensis)* occurs on the Aquarius Plateau and on the Boulder Top in Garfield and Wayne Counties, in clay loam or gravelly clay soils.

Bryce Canyon is home to nine plant species considered sensitive or of special concern due to their limited distribution (endemism) or because they are disjunct from more abundant population centers. These species are recognized by park staff or past studies as being rare (Peabody 1995; 1997), and/or are listed by the State of Utah National Heritage Program and documented on the list of "Endemic and Rare Plants of Utah: An Overview of their Distribution and Status" (State of Utah 2004). In 1997, Dr. F. Peabody completed a field survey of eight of these species that were formerly "Candidate—Priority 2" (C2) federal species. Many of these species are found only on barren areas along the breaks and in open pine woodland habitats on bare, gravelly soils. The table below lists Bryce Canyon's sensitive plants according to habitat and their associated state status, if applicable. There are no known federally or state listed plant species that occur within the area of the proposed rehabilitation project. Therefore, no federally listed or state listed plant species will be considered in this assessment.

Sensitive Plant Species			
Common Name	**Scientific Name**	**State Status Category1**	**State Heritage Program Classification2**
Paria Breadroot	*Lomatium minimum*	Watch	G3/S3
Painted Desert Beard-Tongue	*Penstemon caespitosus*	Watch	G5T3/S2
Reveal Paintbrush	*Castilleja parvula var. revealii*	--	--
Yellow-White Cryptanth	*Cryptantha ochroleuca*	--	--
Jones Goldenaster	*Heterotheca jonesii*	--	--
Jones Oxytrope	*Oxytropis oreophila var. jonesii*	--	--
Platy Penstemon or Red Canyon Beardstongue	*Penstemon bracteatus*	--	--
Maguire Campion	*Silene petersonii*	Watch	G2G3/S2S3
Least Townsendia	*Townsendia montana var. minima*	Watch	G3/S3

[1] Watch – plants regionally endemic but without range-wide viability concern.
[2] G = Global /S = State. Numbers indicate rarity, with lower numbers (1, 2) indicating extreme rarity or vulnerability to extinction.

Wildlife

The animal species listed in the following table and described below either occur or have

the potential to occur within Bryce Canyon. The list is based on consultation with the USFWS. If the species is also listed by the State of Utah, its state status is indicated.

Federally Listed and Candidate Animal Species					
Common Name	**Scientific Name**	**Federal Status**	**State Status**	**Found in Bryce Canyon?***	**Comments**
Mexican Spotted Owl	*Strix occidentalis lucida*	Threatened	S-ESA (sensitive)	No	None found during several park surveys
Bald Eagle	*Haliaeetus leucocephalus*	Threatened	S-ESA (sensitive)	Yes	Winter resident/migrant
California Condor	*Gymnogyps californianus*	Endangered	S-ESA (sensitive)	Yes	Intermittent visitor; experimental population
Western Yellow-Billed Cuckoo	*Coccyzus americanus occidentalis*	Candidate	S-ESA (sensitive)	Yes	One sighting in Sheep Creek; no known nesting
Southwestern Willow Flycatcher	*Empidonax traillii extimus*	Endangered	S-ESA (sensitive)	Yes	A few sightings along Sheep and Yellow Creeks; no nesting
Utah Prairie Dog	*Cynomys parvidens*	Threatened	S-ESA (sensitive)	Yes	Breeds in park; several colonies
Kanab Ambersnail	*Oxyloma haydeni kanabensis*	Endangered	S-ESA (sensitive)	No	Limited habitat
Coral Pink Sand Dune Tiger Beetle	*Cincindela limbata albissima*	Candidate	S-ESA (sensitive)	No	No habitat
Colorado Pikeminnow	*Ptychocheilus lucius*	Endangered	S-ESA (sensitive)	No	Limited habitat
Razorback Sucker	*Xyrauchen texanus*	Endangered	S-ESA (sensitive)	No	Limited habitat
Humpback Chub	*Gila cypha*	Endangered	S-ESA (sensitive)	No	Limited habitat
Bonytail	*Gila elegans*	Endangered	S-ESA (sensitive)	No	Limited habitat

*Based on surveys, park staff knowledge, presence of preferred habitat, and known range.

The **Mexican spotted owl** (*Strix occidentalis lucida*), which is federally listed as a threatened species and a state-listed sensitive species, is not found within Bryce Canyon. Surveys were performed from 1993 to 1995 in several areas predicted to be suitable habitat for the owl in order to identify the extent of the Utah Range for this species. No Mexican spotted owls were seen or heard along any of the surveyed transects in the park (Bryce Canyon National Park 2002a). Another survey was completed in 2003, and no owls were documented at that time (K. Legg, personal communication 2004). Bryce Canyon contains very limited preferred habitat for the owl,

so these results are not unexpected.

The **bald eagle** (*Haliaeetus leucocephalus*), a federally threatened species and state-listed sensitive species, is a winter resident and migrant, and does not breed in the park. Bald eagles are more commonly seen along the cliffs and breaks of the park and along some streams and reservoirs outside of the park.

The federally endangered and state sensitive **California condor** *(Gymnogyps californianus)* is an intermittent visitor in the park and is part of an experimental population in Utah. They are not known to use the park consistently, and do not use the park as a breeding area.

The **western yellow-billed cuckoo** *(Coccyzus americanus occidentalis)* is a federal candidate species and state-listed sensitive species. It is considered a rare visitor in the park, and there has been only one sighting of this bird along Sheep Creek in 2002 (Bryce Canyon National Park 2002b). Their primary breeding habitat is an overstory of cottonwood canopy, which is rare in the park.

The **southwestern willow flycatcher** (*Empidonax traillii extimus*) is federally endangered and a state-listed sensitive species. It nests primarily in mid-to-low elevation riparian habitat along rivers, streams, or other wetlands where a dense growth of willows or other plants are present. This habitat is very rare in Bryce Canyon. Several surveys for southwestern willow flycatcher were conducted along riparian areas in the park since 1995. A few sightings were recorded along the Yellow Creek and Sheep Creek/Swamp Canyon drainages, but no signs of nesting or nesting behavior have been observed (Bryce Canyon National Park 1996-2002).

The **Utah prairie dog** (*Cynomys parvidens*), a federally threatened species and state-listed sensitive species, occurs in several colonies in the central and northern portions of the park that contain open, grassy meadows. The Utah prairie dog, a burrowing rodent in the squirrel family (Sciuridae), occurs only in southwestern Utah. It is a member of the white-tailed prairie dog group that once inhabited vast areas of the western Great Plains. The Utah prairie dog is the most restricted of the three members of this group. Its total numbers declined drastically from the 1920s to 1976. This decline was caused by human-related habitat alteration and by intentional poisoning, which resulted from the belief that prairie dogs compete with domestic livestock for forage. At present, the Utah prairie dog is still threatened over much of its range by loss of habitat. Despite the problems listed above, the Utah prairie dog saw an increase in overall population numbers between 1976 and 1991 (USFWS 1991). However, the population numbers have fluctuated overtime and have not continued on an upward trend (Utah Prairie Dog Recovery Implementation Team 1997). At Bryce Canyon National Park, Utah prairie dog reestablishment occurred between 1974 and 1988 after being eradicated from the park in the 1950s (Bryant 1995; Stebbins 1971). Since the reestablishment program, prairie dog population numbers at Bryce Canyon have fluctuated from under 50 animals to over 200 (Wallen 2000). Colonies are found in the meadows of the park. The Mixing Circle and Mixing Circle Junction areas are meadows and the Mixing Circle represents the largest viable colony of Utah prairie dogs in the park. There are no colonies located in the area of the proposed rehabilitation project so no impacts are expected as a result of initiating this project.

The **Kanab ambersnail** *(Oxyloma haydeni kanabensis)*, a federally endangered and

state-listed sensitive species, is not known to occur in the park. Kanab ambersnails are found in three distinct localities: Three Lakes and Kanab Creek in Utah, and another population in Arizona (UDWR 2001). All of these areas are disjunct from the park.

The **Coral Pink Sand Dunes tiger beetle** *(Cincindela limbata albissima)*, a federally endangered and state-listed sensitive species, is not found in Bryce Canyon. Its distribution is limited to the sand dunes within Coral Pink Sand Dunes State Park and also on adjacent lands managed by the Bureau of Land Management (USDI, USFWS 1997).

The remaining species listed as endangered by the USFWS for Garfield and Kane Counties are fish, including the **Colorado pikeminnow** (*Ptychocheilus lucius*), **razorback sucker** (*Xyrauchen texanus*), **humpback chub** (*Gila cypha*), and **bonytail** (*Gila elegans*). None of these is found within Bryce Canyon, primarily due to a lack of appropriate habitat (K. Legg, personal communication 2004).

State-Listed or Other Sensitive Species
Three other species that occur in Bryce Canyon are listed by the State of Utah or recognized by park staff as sensitive or rare as discussed below.

The **peregrine falcon** *(Falco peregrinus anatum)* was removed from the federal list of endangered and threatened species in 1999 and is not on the state list, but Bryce Canyon staff continues to keep data on nesting sites. Surveys for peregrines have been conducted at Bryce Canyon National Park since 1982. All nesting territories are located to the east of the rim and south of the main amphitheater, including below the project area. There are seven known nesting sites/territories within the park, all located along the breaks or cliffs. Falcons nest on cliff ledges, but hunt in surrounding open woodlands and grasslands.

The **northern goshawk** *(Accipiter gentilis)*, a state-listed species that is under a Conservation Agreement, is known to nest in the park and hunt over open grasslands.

The **fringed myotis** *(Myotis thysanodes)* is listed as a state wildlife species of concern and has been documented in and near the park. A bat survey performed in 1995 using mist nets caught fringed myotis at two of six locations in the park, along East Creek and Yovimpa Pass. Habitat along these drainages was characterized as montane grassland and montane forest/woodland (Foster et al. 1995).