National Park Service
U.S. Department of the Interior
Bryce Canyon National Park
Bryce, Utah

FINDING OF NO SIGNIFICANT IMPACT

MULTIMODAL TRANSPORTATION PLAN

BACKGROUND

In compliance with the National Environmental Policy Act, the National Park Service (NPS) prepared an environmental assessment (EA) to examine various alternatives and environmental impacts associated with implementing the proposed multimodal transportation plan, which will provide Bryce Canyon National Park with both short- and long-term strategies to improve the overall transportation system by reducing congestion and safety concerns on roadways, in parking lots, on the shuttle, and at key visitor destinations.

The increasing number of vehicles entering Bryce Canyon National Park bring with them increasing pressure on the park's transportation system and infrastructure. The park recorded its first one million visitors in 1992 and since that time has recorded only five years of visitation under one million. Park visitation exceeded 1.2 million in 1996, 2009, and 2010, and the park has seen a continuous increase in annual visitation from 2005 to 2010. In addition, shoulder season (the months adjacent to peak season) use is rising, and the park is challenged with managing this change in visitor demand. During the past five years, the park has seen over 50,000 visitors in March, but many visitor services do not fully cover the shoulder season (i.e., March, April, October, and November). These increases in visitation are leading to shuttle capacity issues and congestion at parking areas and viewpoints.

The park launched its shuttle system in 2000 to address congestion, visitor experience, and resource protection. Despite the success of the shuttle system, it can be at or over capacity during peak visitation periods. The park shuttle alone does not currently have the capacity to effectively reduce congestion and related safety issues. During peak season, all primary parking areas are at or over capacity for at least several hours a day. When a parking lot is at or over capacity, the effects are numerous: drivers idling as they wait for parking spots, drivers parking along roadsides and damaging resources, and conflicts between vehicles and pedestrians with resultant safety issues. Park rangers are being pulled from their primary duties to direct traffic, and there is an overall degradation in the visitor experience.

The park's 1987 *General Management Plan* is no longer adequate to address the full range of transportation issues now facing park management. Consequently, the park is planning for and addressing heavy congestion, safety and visitor use related to public transportation, private vehicles, tour buses, pedestrians, and bicycles. An integrated transportation plan is critical to the continued successful operation of the park shuttle service, as it identifies future locations for intermodal connections (e.g., parking to transit, trails to parking, bicycle connections). For all of

these reasons, the park is developing a comprehensive and strategic framework for improving, maintaining, and operating its complex transportation system.

THE SELECTED ALTERNATIVE

Four alternatives were evaluated in the EA, including the No-Action Alternative (Continue Current Approach Alternative), the Greatest Parking Supply Alternative, the Highest Visitor Demand Management Alternative, and the Adaptive Travel Management Alternative, which is the park's Selected Alternative. The Adaptive Travel Management Alternative is NPS's selected alternative because it best meets the purpose and need for the plan as well as the plan goals.

1. Manage individual transportation assets (e.g., parking lots, road, shuttle bus shelters, trails) efficiently to maintain the transportation system as a whole at or above a safe, acceptable condition.
2. Provide seamless transportation connections within the park and to the shuttle staging area in the gateway community with multimodal connections, and manage visitor use by leveraging partnership and outreach opportunities.
3. Enhance the experience of all visitors with safe, efficient, and sustainable transportation options, as well as timely, relevant information that strengthens appreciation for the park's resources.
4. Minimize impacts to the park's natural and cultural resources from transportation activities. Address existing and future transportation system-related effects on wildlife related to habitat fragmentation/connectivity and wildlife vehicle strikes, particularly for the federally threatened Utah prairie dog (*Cynomys parvidens*), and minimize adverse effects on wildlife associated with the park transportation system.
5. Develop and maintain a financially and environmentally sustainable transportation system that effectively uses staff time and resources and incorporates innovative technology as feasible.

Under the Adaptive Travel Management Alternative, the park will limit facility expansion to the extent possible and alternatively seek to repurpose and/or decommission existing infrastructure to help protect park resources and conserve limited funding. Related to this, the park will implement strategies to reduce congestion and related emissions in heavily congested areas of the park, and discourage social trailing in key areas to help protect natural and cultural resources.

Under the Adaptive Travel Management Alternative (Selected Alternative), the park will promote a wide range of access and circulation choices to improve visitor mobility. The park will seek to reduce congestion and preserve key park experiences by conducting pilot studies for restricting private vehicles at the Bryce Point/Inspiration Point and Fairyland Point areas, expanding shuttle service, increasing parking availability, as well as by conducting pilot studies for restrictions during the peak season for those oversized vehicles without a campground permit or a Bryce Canyon Lodge reservation. Visitors driving oversized vehicles who have a campground permit or a lodge reservation will be permitted to enter the campground or lodge area to park and then ride the shuttle. This alternative will also include new or improved multimodal hubs to facilitate easy transfer between transportation modes, as well as improved visitor information and expanded travel choices. The pilot restrictions will be part of the adaptive management approach and will determine if full or modified implementation of oversized vehicle restrictions would resolve the parking and congestion issues at targeted locations. As with other strategies, the park will test and monitor how effective these restrictions are in addressing congestion and adjust management strategies as needed.

The Selected Alternative incorporates a strong adaptive management framework to meet the goals of the plan. Through a well-rounded and feasible set of performance measures, the park will closely monitor progress towards meeting those goals. The park will test the effectiveness of improvements before any additional actions are taken. In that context, each transportation improvement will be considered in phases over time, and will only be implemented if determined necessary at the time. Therefore, some of the projects included in the Selected Alternative may not be implemented at all because conditions improved, the projects were not needed, or because pilot projects were tested and found not to work. The adaptive management framework will provide the park with the greatest flexibility and widest range of management strategies to respond to changing visitor use and resource conditions.

The park will build on its current monitoring program to track quantitative information, such as location, date, and time of parking lot closures, as well as qualitative information, such as crowding at key destinations. Through adaptive management, park staff will modify the timing or intensity of transportation improvements as they gather information and feedback and track patterns. Data collected will demonstrate the impact of investments on furthering the five goals of the plan.

The park will initially implement relatively low-build and low-cost improvements—such as operational, educational, and partnership strategies that shift visitor demand and use patterns and promote alternative modes of transportation—with limited parking expansion in the park. Initial travel demand strategies, such as oversized vehicle restrictions, will address the most pressing transportation-related needs. At the same time, the park will invest in operational strategies, such as working in cooperation with partners to market the convenience of parking outside the park and riding the shuttle. Using the adaptive management approach—based on monitoring for performance measures over time—shuttle hubs and parking may be expanded (for an approximate total of 440 parking spaces in the park), if warranted.

MITIGATION MEASURES

General Measures

- All active construction areas must be fenced with high-visibility construction safety fence until construction has been completed and the area is safe.
- Impact areas and buffer zones will be flagged prior to construction to ensure that resource damage (as determined by the project footprint and buffer zone surrounding construction areas) will not be exceeded during construction.
- Staging areas for the construction office (a trailer), construction equipment, and material storage will either be located in previously disturbed areas near project sites (such as at existing parking areas), or in other disturbed areas that best meet project needs and minimize new ground disturbance. All staging areas will be returned to pre-construction conditions or better once construction is completed. Standards for this, and methods for determining when the standards are met, will be developed in consultation with the park's vegetation program manager.
- Before construction, the contractor(s) for individual projects will work with park staff to develop a construction traffic management plan. The plan will include information on construction phases and duration, traffic scheduling, proposed haul routes, staging area management, visitor safety, detour routes, and pedestrian and bicyclist movements on adjacent routes. The NPS will limit the transport of debris, construction equipment, and materials to periods of off-peak traffic whenever possible.

- Garbage, trash, and other solid waste associated with construction operations will be disposed of in trash bins and disposed of weekly, or sooner if warranted, outside of the park at an approved facility.
- All tools, equipment, barricades, signs, surplus materials, and rubbish will be removed from the project work limits upon project completion. Any asphalt surfaces damaged during construction of the project will be repaired to original conditions. All demolition debris will be removed from the project site. This material will be disposed of outside the park at an approved facility or recycled as appropriate.
- The deployment of best management practices will be sequenced in relation to the scheduling of earth-disturbing activities, including before, during, and after such activities.
- All equipment on projects will be maintained in a clean and well-functioning state to avoid or minimize contamination from mechanical fluids. All equipment will be checked daily. Spill remediation kits will be available on-site every day and contractor staff trained in their use.
- A hazardous spill plan will be in place, stating what actions would be taken in the case of a spill, notification measures, and preventive measures to be implemented, such as the placement of refueling facilities, storage, and handling of hazardous materials.
- Construction vehicles will not be allowed to park within meadows or other specified sensitive habitats.

Air Quality

- Fugitive dust generated by construction will be controlled by spraying water on the construction site, if necessary.
- To reduce entrainment of fine particles from hauling material, sufficient freeboard will be maintained, and loose material loads (aggregate, soils, etc.) will be covered with tarps.

Water Quality

- Erosion will be minimized, to the extent possible, by designing paved or hardened surfaces to direct water flows away from sensitive areas. Existing roads and paved surfaces will be used as much as possible for construction activities and for keeping heavy equipment off undesignated paths and trails.
- The requirements for a storm water pollution prevention plan will be addressed by the contractor during the construction contract and will meet all statutory NPS standards. All National Pollutant Discharge Elimination System requirements will be met.
- Standard erosion control measures—such as silt fences, sand bags, or equivalent control methods—will be used to minimize any potential sediment delivery to ephemeral streams.

Soundscapes

- To reduce noise and emissions, construction equipment will not be permitted to idle for longer than five minutes following initial engine warm-up unless specifically authorized by park management.
- Project inspectors and construction foremen will include briefings to crews on vehicle use and related soundscape protection as a part of pre-construction conferences.
- Contractors will be required to properly maintain construction equipment (e.g., mufflers) to minimize noise from equipment use.
- Work will be restricted to dawn to dusk to reduce noise impacts to guests within the campgrounds and lodge, as well as to reduce impacts to wildlife active from dusk to dawn.

Night Sky

- Construction activities will occur only during daylight hours, from dawn to dusk, so as to avoid the need for night work or night lighting, unless specifically authorized by park management.
- Lighting will only be provided where necessary for the mobility or safety of visitors.
- Different use areas, such as tour bus parking and privately owned vehicle parking, will be zoned for lighting. This will provide maximum flexibility to minimize impacts from parking area lighting by enabling the park to not light areas that are not used at night.
- The minimum amount of light necessary will be used in each new developed area. Only target areas, such as parking lots, will be lit, and the illumination footprint will not be extended beyond the target. Trees and other light-absorbing elements will also be used in the landscape design to reduce impacts of lighting.
- Fully shielded fixtures with asymmetrical light throws will be used to minimize the number of bollards for path lighting; these will concentrate lighting on the horizontal surface to direct light only where needed. It is assumed that, where illumination is necessary, there will be no horizontal light spread beyond paved surfaces.
- Design elements will be incorporated into construction plans to reduce the amount of headlight shine and glare in areas where night sky interpretation occurs, including the visitor center and North Campground outdoor amphitheater.
- All outdoor lighting should be fully shielded or be full cutoff fixtures, and lamp types chosen for spectral characteristics should be compatible with NPS goals for natural resources, including wildlife and dark sky preservation, as well as NPS safety regulations.

Soils

- Only those areas necessary for construction will be cleared and grubbed.
- Before clearing and grading, the area will be marked to minimize the amount of ground cleared.
- Because disturbed soils are susceptible to erosion until revegetation takes place, standard erosion control measures such as silt fences, straw wattles, and/or sand bags will be used to minimize any potential soil erosion.
- The amount of soil disturbance will be minimized, and the duration of soil exposure to rainfall limited.
- Topsoil will be removed and stockpiled separately from deeper excavations and used to assist native plant revegetation in disturbance corridors that are not converted to pavement, asphalt, or gravel surfaces, including buffer areas and shoulders of parking expansions.

Vegetation

- Inventories for existing populations of nonnative species will occur in all project and staging areas and will be treated before construction, as deemed necessary by the park's vegetation program manager. As design plans develop, they will be cross-referenced with existing vegetation survey information to ensure that no new survey is necessary before work starts.
- A pre-construction survey for rare plants will be conducted in any areas suspected of containing populations of these species. Avoidance of rare plant populations will be practiced. Salvage via transplant will be conducted, when feasible, where populations cannot be avoided.
- Vegetation program staff at the park will provide input on salvage potential and tree avoidance at project sites, where necessary. A supervisory biologist will also spot-check work in progress.

- Revegetation and recontouring of disturbed areas in the buffer zone will take place following construction and will be designed to minimize impacts on native vegetation and deter the possible spread of invasive species. Revegetation efforts will strive to reconstruct the natural spacing, abundance, and diversity of native plant species found in similar vegetated landscapes of the park. All disturbed areas surrounding newly constructed/improved areas (such as expanded parking lots, multimodal hubs or road reconfigurations) will be restored as nearly as possible to pre-construction or better conditions shortly after construction activities are completed.
- A revegetation plan for individual construction activities will be developed by the park's vegetation program manager in consultation with a landscape architect. Any revegetation efforts will use site-adapted native species and/or site-adapted native seed, and park policies regarding revegetation and site restoration will be incorporated. The plan will consider, among other things, use of native species, plant salvage potential, nonnative vegetation management, and pedestrian barriers. Policies related to revegetation will be referenced from the *Bryce Canyon National Park Vegetation Management Plan* and NPS *Management Policies 2006*.
- Social trails created by construction activities will be obliterated and revegetated. These revegetated areas will be protected from pedestrian impact upon the completion of the project to reduce further resource damage.
- Weed control methods will be implemented to minimize the introduction of noxious weeds including power-washing construction equipment and vehicles before they enter the park. The location selected for vehicle washing will be approved by a supervisory biologist and power washing will be approved by the Contracting Officer's Representative or park-approved Contracting Officer's Technical Representative.
- Staging area locations for construction equipment will be park approved, and the need to treat for nonnative vegetation will be considered.
- Nonnative species encroachment and distribution will be monitored for two to three years after construction.
- Revegetation efforts will be initiated as soon as possible following construction to minimize the competition between native and nonnative species.
- The impact of tree removal will be minimized by salvaging as many suitable trees as possible for use in revegetating disturbed areas in each project area following construction and other disturbed areas throughout the park (including areas needed to minimize social trailing). Salvage will be limited to small trees and will not constitute a one-to-one tree loss because of slow growth patterns and high percentage of transplant die-off.
- Vehicle parking would be limited to existing roads or the staging areas.
- Any fill, rock, or additional topsoil needed will be obtained from a park-approved source. Topsoil from the project area will be retained and used for site restoration whenever feasible.
- To reduce the spread of noxious invasive species, surveys of the project area will be completed prior to any ground-disturbing activities. If noxious invasive species are found, a pre- and post-construction treatment of the area will be conducted using species-specific targeted herbicides approved in the park's vegetation management plan.

Special Status Species: Utah Prairie Dog

- General conservation measures included in the park's 2015 draft "Utah Prairie Dog Stewardship Plan" will be incorporated into best management practices to reduce and mitigate any associated impacts to colonies during and following construction related to transportation management planning. These measures will be implemented in a proactive manner to address road mortality, habitat fragmentation, impacts from noise disturbance, and human habituation. Management actions could include, but are not limited to, installation of

vegetative and physical barriers, enhanced movement corridors via clearing/addition/expansion of underground culverts, temporary road closures, interpretive material, such as wayside exhibits, and speed-calming measures.

- During construction in areas adjacent to active Utah prairie dog colonies (including the new multimodal hub across from the Historic Service Station and/or the tour bus holding area along the Lodge Loop Road and improvements near the visitor center), the park will install a visual barrier surrounding the Utah prairie dog colony to deter road crossings and reduce the impacts of construction traffic and activity on the colony. Movement between colonies that are bisected by roads will be enhanced via clearing out underground drainage culverts prior to installation of visual barriers. Visual barriers may be removed following construction, or a more permanent barrier (e.g., metal fence or rock wall with an underground barrier) may be constructed depending on monitoring results.
- The park will monitor Utah prairie dog behavior during and following construction activities in areas within 350 feet of active colonies, including the following areas: Dave's Hollow West, Dave's Hollow East, Historic Housing, and Sunset Point (if active). If roadkill mortalities increase from baseline conditions (at a level >10% or other increase percentage as determined in consultation with the United States Fish and Wildlife Service (USFWS)), the park will implement conservation measures to further protect colonies. Mitigation measures will be determined through consultation with the USFWS and follow recommendations as outlined in the park's "Utah Prairie Dog Stewardship Plan".
- Construction activities within 350 feet of an active Utah prairie dog colony will be monitored by the park's biologist or qualified staff. Monitoring will occur for no less than 8 hours per colony in two-hour (or greater) observation periods. A monitoring plan will be developed by the park and submitted for approval by the USFWS prior to implementation of any proposed improvements. Activities that have an observably detrimental impact on Utah prairie dog colonies and which extend beyond acceptable impacts as outlined in the biological opinion for this project would cause cessation of construction and result in reconsultation with the USFWS. Construction workers and supervisors will be informed about the status of the Utah prairie dog and appropriate activities around active colonies. Contract provisions will require the cessation of construction activities that have a detectably detrimental effect on Utah prairie dogs in the project area until the park's biologist re-evaluates the project and its impact on the prairie dog. This may include modification of the contract for any determined protection measures, which may include timing or equipment restrictions.
- No construction equipment will be stored within 500 feet of an active colony or within mapped Utah prairie dog habitat in the park.
- All conservation measures from the June 25, 2014 USFWS biological opinion for this EA and the park's "Utah Prairie Dog Stewardship Plan" will be incorporated into project implementation.

Wildlife

- To minimize effects on wildlife, construction activities will be restricted to daylight hours, from dawn to dusk.
- Construction and staging in areas of unique or ecologically important wildlife habitat will be avoided or minimized. This will include meadow ecosystems, assemblages of structurally diverse vegetation, mature tree stands, known wildlife movement corridors, known nesting sites for raptors, and habitat known to be significant for foraging or breeding.
- To minimize negative impacts to nesting birds, trees needing removal will not be cut during nesting season for northern goshawk (*Accipiter gentilis*) or any birds protected under the Migratory Bird Treaty Act, generally from April 1 through July 31. If construction activities or vegetation removal is required during this time, pre-construction/pre-vegetation removal bird surveys will be conducted for nests. Consultation with the park's wildlife biologist will be

required prior to any tree removal. Pre-tree cutting bird surveys may also be required outside this timeframe. No construction activities will be conducted in identified nesting areas until the young have fledged.

Historic Properties

- If previously unknown archeological resources are discovered during the project, a park archeologist will be contacted immediately. All work in the immediate vicinity of the discovery would be halted until the resources can be identified and documented and an appropriate mitigation strategy developed, if necessary, in consultation with the Utah State Historic Preservation Office (SHPO) and tribes traditionally associated with the park. If the site would be adversely affected, a treatment plan will also be prepared as needed. Treatment plans will fully evaluate avoidance, project redesign, and data recovery alternatives.
- All workers will be informed of appropriate site etiquette and the penalties of illegally collecting artifacts or of intentionally damaging any archeological or historic property. Workers will also be informed of correct procedures if previously unknown resources are uncovered during construction activities.
- Staging areas for construction equipment and materials storage will be in designated areas where there is no potential for archeological resource disturbance. If the sites selected for these activities changed during later design phases for any alternative, additional archeological surveys will be conducted to ensure that the staging areas are clear of archeological resources.
- The April 25, 2015 programmatic agreement between the park and the SHPO specifies roles and responsibilities and provides a programmatic approach to protecting and preserving historic properties throughout the implementation of the plan per Section 106 of the National Historic Preservation Act (Section 106). Known archeological sites and isolated occurrences will be flagged and avoided during any construction activities associated with the plan, and an NPS archeologist will be on-site during the entire ground disturbance near the site. Contractor-selected, noncommercial areas outside of the project limits including, but not limited to, material sources, disposal sites, waste areas, haul roads, and staging areas, will not encroach upon sites listed or eligible for listing in the National Register of Historic Places (NRHP). Written proof satisfactory to the NPS and the SHPO shall document, for compliance with Section 106, that no historic properties would be affected because:

    - there are no historic resources present, or
    - there is no effect on historic properties.

- In compliance with Native American Graves Protection and Repatriation Act, the NPS will also notify and consult concerned American Indian tribal representatives for the proper treatment of human remains and funerary and sacred objects should these be discovered during project construction.
- Archeological resources found within the construction area will be removed only by the NPS or their designated representatives.
- Cultural landscapes and viewsheds, historic structures/districts, and features will be protected.
- Impacts to native vegetation in and near cultural landscapes and historic districts will be minimized.
- The design, materials, and physical appearance of new ramps, curbs, gutters, and sidewalks within cultural landscapes and historic districts will match the existing historic counterparts.

Visitor Experience and Health and Safety

- The park or its contractor will develop and implement a visitor protection/safety plan for park review and approval that will:
  - provide procedures for managing staging areas to restrict public access and maintain site safety.
  - ensure that visitors are safely and efficiently routed around construction areas.
  - outline measures to protect the safety of visitors by providing established and maintained walkways across the site, as well as barrier fencing along trails and paths.
- To the extent practicable, work will be scheduled to avoid construction activity and construction-related delays during peak visitation times. In general, no holiday or nighttime work will be allowed. Unless otherwise approved by the park, operation of heavy construction equipment will be restricted to dawn to dusk, year-round. Weekend work (Friday through Sunday) will not be allowed unless authorized by park staff overseeing the construction.
- As allowed by time and funding, information about this transportation project and other foreseeable future projects will be shared with the public through park publications and other appropriate means during construction periods. This could take the form of an informational brochure or flyer distributed at the entrance station and sent to those with reservations at park facilities, postings on the park's website, press releases, and other methods. The purpose would be to minimize the potential for negative impacts to visitor experience during project implementation and other planned projects during the same construction season.
- NPS employees, residents, and concessioners will be notified about project implementation and road delays or road closures, as appropriate.
- The contractor will provide a weekly construction schedule with daily updates to the NPS field supervisor to assist the park in managing visitation and park operations during construction.
- A traffic control plan will be developed in conjunction with the construction documents for use during the construction period(s) associated with roadway, entrance station, overlooks, and parking area improvements. The plan will be provided by the contractor to the park superintendent for review and approval before implementation. Traffic delays could be possible; however, emergency vehicle access will be provided immediately.
- Parking areas might have to be closed on a short-term basis on limited occasions. Such closures will be for the minimum time required to complete the work.
- To ensure continuity in the availability of visitor and tour bus parking and loading/unloading during implementation, new parking and drop-off areas will be constructed and put into service before the demolition of existing parking areas. New parking could be constructed in phases, but demolition will be implemented after an equivalent number of replacement parking spaces have been constructed so as to avoid any net loss of parking at one time.
- If required, flaggers, signs, or new technology, as appropriate, will be used to manage traffic around work areas.
- Continued vehicular and pedestrian access to visitor facilities will be provided during construction. Temporary pedestrian pathways will be provided, as needed, between key visitor destinations and then removed and restored to natural conditions upon project completion.

Gateway Communities

- To coordinate with gateway communities in relation to project implementation, the NPS will develop and maintain a constructive dialogue and outreach effort with public and private organizations and businesses, including state and local tourism and travel offices, and establish positive and effective working relationships with park concessioners and others in the tourism industry to ensure a high quality of service to park visitors.

Park Operations and Management

- The NPS will develop performance measures and a monitoring program in advance of implementing transportation management techniques, including any initial phase of construction projects. The monitoring program will use conventional benchmarking tools to track progress and will be updated on a regular basis. It will be used to assess the plan's effectiveness on an ongoing basis and to aid managers in making decisions as to when to implement subsequent techniques and/or construction. The monitoring program will track the park's success in meeting quantitative goals, such as shuttle capacity and ridership, parking occupancy in lots, the incidence of unauthorized/overflow parking, traffic volumes, and the daily volume of vehicles. It will also assess conformance with standards for safety, noise, and direct resource effects. If plan objectives are not being reached, park managers could then decide to implement other actions identified in this plan as part of future work phases.
- The NPS will continue to actively manage shuttle and transportation operations in cooperation with park concessioners and in coordination with other park operations.

ALTERNATIVES CONSIDERED

Four alternatives were evaluated in the EA including a no-action alternative and three action alternatives. All alternatives were developed to guide management through 2035.

The Continue Current Approach Alternative (No-Action Alternative) would continue the park's present strategy of maintenance and repairs and implementation of previously approved plans. The park would operate and maintain its current transportation system, including the shuttle system, with minor improvements as needed and as funding allows. To the extent possible, the current transportation network would be operated and maintained to acceptable standards. The park would continue to maintain and rehabilitate park roads and parking lots in an incremental fashion as the budget allows.

Under the Greatest Parking Supply Alternative, the park would expand infrastructure, primarily enlarging parking lots that have higher use, to improve vehicle access and movement through the park with less traffic congestion around key parking lots. This alternative would potentially add up to 625 parking spaces, have the most emphasis on capital construction projects, and provide visitors with only the most basic information about planning their visit to the park. This alternative would focus primarily on increasing the availability of parking spaces in the park.

With the Highest Visitor Demand Management Alternative, the park would increase the number of parking spaces by as many as 400, expanding the shuttle system and associated infrastructure, and limit vehicle access within the park, thereby reducing social trailing and vehicle emissions to help protect natural and cultural resources and visitor experience. Under this alternative, the park would manage travel demand to a greater extent than the other alternatives by mandating that all visitors, during peak season or peak hours, access the Bryce Amphitheater overlooks and facilities

either by an expanded park shuttle system or by bicycle and pedestrian facilities. During these times, private autos would be prohibited from accessing the Bryce Amphitheater overlooks and facilities unless visitors have lodge or campground reservations. The park would attempt to improve visitor mobility, reduce congestion, and improve safety throughout the park by providing the most efficient visitor circulation patterns via alternate modes of travel. These goals would be accomplished after testing restrictions on private vehicles at the most heavily congested areas in the park, and adaptive management would focus primarily on visitor demand.

The Adaptive Travel Management Alternative is the Selected Alternative, as described in the previous section.

ENVIRONMENTALLY PREFERABLE ALTERNATIVE

Two alternatives are considered environmentally preferable alternatives. According to the Council on Environmental Quality regulations implementing National Environmental Protection Act (43 Code of Federal Regulations [CFR] 46.30), the environmentally preferable alternative is the alternative that causes the least damage to the biological and physical environment and best protects, preserves, and enhances historical, cultural, and natural resources. Both the Highest Visitor Demand Management Alternative and the Adaptive Travel Management Alternative are considered environmentally preferable alternatives because the level of impact is very similar.

The Highest Visitor Demand Management Alternative is an environmentally preferable alternative. This alternative would seek to improve mobility by providing the most efficient means to circulate large volumes of visitors through the park, reduce congestion and improve safety by removing private vehicles from the most heavily congested areas within the park, and provide efficient visitor access into and through the park via alternate modes of travel. The Highest Visitor Demand Management Alternative would limit facility expansion, limit vehicle access, and potentially reduce impacts to resources from reduced vehicle emissions and inappropriate parking. For these reasons, the Highest Visitor Demand Management Alternative will cause the least damage to the cultural, biological, and physical environment and will best protect, preserve, and enhance natural and cultural resources, thereby making it an environmentally preferable alternative.

The Adaptive Travel Management Alternative (Selected Alternative) is also an environmentally preferable alternative for several reasons. The Adaptive Travel Management Alternative will improve mobility by promoting a wide range of access and circulation choices, including shuttle, bicycle, and pedestrian, in addition to appropriate vehicle restrictions; limit facility expansion and alternatively seek to repurpose and/or decommission existing infrastructure to help protect park natural and cultural resources; and incorporate the most extensive adaptive management component to best protect natural and cultural resources. For these reasons, the Adaptive Travel Management Alternative (Selected Alternative) will cause the least damage to the cultural, biological, and physical environment and best protect, preserve, and enhance natural and cultural resources, thereby making it an environmentally preferable alternative.

WHY THE SELECTED ALTERNATIVE WILL NOT HAVE A SIGNIFICANT EFFECT ON THE HUMAN ENVIRONMENT

As defined in 40 CFR §1508.27, significance is determined by examining the following criteria:

Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.

Implementation of the Selected Alternative will result in some adverse impacts; however, the overall benefit of the plan outweighs these negative effects. The Selected Alternative will not result in any significant adverse impacts. The adverse effects are summarized as follows.

Improved shuttle service will result in increased shuttle emissions and shuttle-related sounds, leading to short-term, negligible to minor adverse impacts on local air quality and soundscapes. Improved shuttle service and increased parking availability will likely result in an increase in visitor use of recreational resources surrounding the improvement areas, which may result in short- and long-term, negligible to minor adverse impacts on recreational resources and visitor experience in areas with a higher concentration of visitors.

Expanding shuttle capacity and increasing the availability and level of shuttle services will lead to a decrease in automobile trips and/or changes in the average daily traffic volume and associated mobile source emissions in the park, such as nitrates and particulates. A decrease in the number of private vehicles will result in decreased vehicle-related sounds in the park and will have short- and long-term, minor beneficial impacts on the park soundscape.

Vehicle restrictions may prevent some visitors, including visitors who travel to the park in recreational vehicles (RVs) and trailers, from accessing recreation opportunities in the Fairyland and Bryce Amphitheater areas, resulting in short- and long-term, minor adverse effects on recreation resources and visitor use and experience.

Implementing the multimodal transportation plan will result in a negligible to minor adverse effect on operations and operating costs, as compared to existing levels, due to staffing needed, operation costs of vehicle restrictions, expanded shuttle capacity and increased service frequency costs, construction and improvement costs, increased maintenance costs (materials and staff time), and other plan implementation costs.

Improvement activities will result in disturbance to vegetation in previously undisturbed areas and in previously disturbed but revegetated areas. Approximately 20.88 acres could be disturbed if all proposed improvements occur (i.e., full build-out); however, improvements will be minimized as much as possible under the adaptive management approach. Effects on individual native plants due to the proposed construction and improvements will be minor adverse and local. Impacts on vegetation communities in the park due to the proposed improvements will be negligible to minor adverse. The reduction in congestion, increased use of alternate modes of visitor travel, and vehicle restrictions at Fairyland Point will reduce potential vegetation disturbance in areas where visitors may park outside of paved, designated lots due to congestion and over-capacity parking. The potential reduction in visitor disturbance of vegetation will result in short-term negligible to minor beneficial effects on individual native plants in local areas, with limited, if any, effects on native plant species populations. Expanding shuttle capacity and increasing service frequencies will likely decrease the number of private vehicles in the park and will have a short-term, negligible beneficial effect on individual native plants in local areas, with limited, if any, effects on native plant species populations. Overall, implementing the Selected

Alternative will result in short-term, negligible to minor adverse and beneficial impacts on vegetation at a local scale. Cumulative effects of the Selected Alternative will be short-and long-term, negligible adverse, and at a local scale.

Implementing the Selected Alternative will result in short- and long-term, minor to moderate adverse and minor beneficial impacts to federally threatened Utah prairie dogs. A biological assessment was submitted to the USFWS as part of Endangered Species Act formal Section 7 consultation for this species on January 9, 2014. Implementing the Selected Alternative will result in a may affect, likely to adversely affect determination for the Utah prairie dog. The biological opinion was issued from the USFWS on June 25, 2014. The USFWS concluded that the proposed action was not likely to jeopardize the continued existence of the Utah prairie dog. Further discussion about impacts to special status species is found later in this document. Conservation measures developed in consultation with the USFWS for the park's "Utah Prairie Dog Stewardship Plan" will be implemented and will include, but will not be limited to, vegetative and physical barriers, enhanced movement corridors via clearing/addition/expansion of underground culverts, temporary road closures, and speed-calming measures. The park will implement these measures to mitigate ongoing and potential additional adverse impacts such as human disturbance to habitat, habitat fragmentation, and vehicle strikes.

The reconfiguration of and improvements at the General Store parking lot will result in negligible impacts on the cultural landscape of Bryce Inn/General Store, because the footprint of the improvements will be within the existing disturbance area. The multimodal hub at the lodge and Sunrise loops is outside the boundaries of the Old NPS Housing and the Bryce Canyon Lodge Historic Districts; however, construction activities will most likely be visible from both districts and will result in short-term, negligible adverse effects since there will be a temporary visual disruption of the historic scene and feeling of the cultural landscapes. Following construction, visual impacts on the landscapes of these historic districts will be restored with the removal of construction equipment. Section 106 compliance will be completed prior to implementation of individual projects in accordance with the April 21, 2015 programmatic agreement between the park and the SHPO.

Construction activities related to the improvements and infrastructure expansion will likely result in temporary increases in dust and vehicle emissions, leading to short-term minor adverse effects on local air quality. During construction, human-caused sounds will likely increase temporarily, lasting only as long as the construction activity is generating the sounds, and will have a negligible to minor adverse impact on visitors and employees. Construction and maintenance activities will likely result in temporary disruptions in the ability of visitors to circulate and access portions of the park. These activities may lead to short-term, negligible adverse effects on visitors' traveling convenience and travel time for local residents traveling to, from, and in the park area, as well as the social and economic condition. Following construction and maintenance, circulation and access will be restored.

The overall benefits of implementing the Selected Alternative include improving visitor mobility by promoting a wide range of access and circulation choices (shuttle, bicycle, and pedestrian). Enhancing visitor experience by providing expanded visitor information and wayfinding materials, as well as implementing appropriate vehicle restrictions, will provide opportunities for a quiet experience at Fairyland and Bryce points. The proposed changes will also improve visitor safety by reducing congestion through increased shuttle use and seasonal vehicle restrictions. The Selected Alternative will limit facility expansion and alternatively seek to repurpose and/or decommission existing infrastructure to help protect the park's natural and cultural resources. The Selected Alternative will also incorporate the most extensive adaptive management strategy to best protect natural and cultural resources.

The degree to which the proposed action affects public health or safety

The Selected Alternative will have an overall beneficial effect on public health and safety. Reconfiguring the entrance station will reduce vehicle and pedestrian conflicts and result in short- and long-term, minor beneficial impacts on visitor safety and experience. Developing new parking lots on a limited basis, expanding existing lots, and reconfiguring the General Store and High Plateaus Institute area will increase parking availability and improve traffic flow, which will consequently reduce vehicle congestion, noise, and vehicle emissions while increasing visitor safety.

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

The Selected Alternative will not impact unique characteristics of the area, including park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas, because these resources do not exist in the plan area. The Selected Alternative will impact the Bryce Inn and Old NPS Historic Housing District cultural landscapes as discussed later in this document.

The degree to which the effects on the quality of the human environment are likely to be highly controversial

Throughout the environmental process, the proposed multimodal transportation plan was not highly controversial, nor are the effects expected to generate future controversy. Certain components of the plan (e.g., vehicle restrictions) were, however, controversial at a local level.

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

The effects of implementing the multimodal transportation plan are not highly uncertain and do not involve unique or unknown risks.

Because detailed plans have not been developed for all of the projects covered in the EA, a programmatic agreement was developed for this project to provide for SHPO and tribal consultation as projects are developed and implemented. As a result of implementing the programmatic agreement, it is expected that any adverse impacts will be minor and that adverse effects under Section 106 will be minimized or adequately mitigated. No significant impacts are expected to cultural or ethnographic resources.

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

The Selected Alternative is not expected to set a precedent for future actions with significant effects, nor does it represent a decision in principle about a future consideration.

Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively

significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.

Cumulative effects were analyzed in the EA and no significant cumulative impacts were identified.

The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

The reconfiguration of and improvements to the NRHP-listed Bryce Inn (General Store) parking lot will be within the existing disturbance area and will, therefore, result in negligible impacts on the cultural landscape of the Bryce Inn (General Store) area. Because the area is already being used for parking, additional parking will result in negligible effects to this cultural landscape. The footprint for construction and maintenance associated with the development of the tour bus parking lot along Lodge Loop Road is outside the boundaries for Bryce Inn and Old NPS Housing Historic Districts and will likely result in negligible impacts. The multimodal hub at the lodge and Sunrise loops is outside the boundaries of the Old NPS Housing and Bryce Canyon Lodge Historic Districts; however, construction activities will most likely be visible from both districts and will result in short-term, negligible adverse effects since there will be a temporary visual disruption of the historic scene and feeling of the cultural landscapes. Following construction, visual impacts on the landscapes of these historic districts will be restored with the removal of construction equipment. There will be no loss or destruction of significant scientific, cultural, or historical resources. Section 106 compliance will be completed prior to implementation of individual projects in accordance with the April 21, 2015 programmatic agreement between the park and the SHPO.

The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

Other than the effects on Utah prairie dog, the Selected Alternative will not affect any federally listed species. Potential impacts on state-listed and rare plant species will be minor or less. The USFWS provided comments on the draft alternatives for the multimodal transportation plan on March 13, 2013. The NPS and USFWS reviewed and determined impact topics for this EA on an April 10, 2013 conference call. Effects of the Selected Alternative on Utah prairie dog were also discussed during the call.

A biological assessment was submitted to the USFWS as part of Endangered Species Act formal Section 7 consultation for this species on January 9, 2014. Implementing the Selected Alternative will result in a may affect, likely to adversely affect determination for the Utah prairie dog. The biological opinion was issued from the USFWS on June 25, 2014. The USFWS concluded that the proposed action was not likely to jeopardize the continued existence of the Utah prairie dog. Conservation measures referenced within the USFWS biological opinion will be implemented to mitigate impacts to Utah prairie dogs and are incorporated by reference within the mitigation measures previously listed within this FONSI. Mitigation measures also include all applicable and additional conservation measures included in the park's 2015 draft "Utah Prairie Dog Stewardship Plan".

Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment

The action will not violate any federal, state, or local laws or environmental protection laws.

PUBLIC INVOLVEMENT AND NATIVE AMERICAN CONSULTATION

The EA was made available for public review and comment during a 30-day period ending March 19, 2014. To notify the public of this review period, a letter was mailed to stakeholders, American Indian tribes, interested parties, and newspapers. Copies of the document were sent to agencies and interested parties; made available in local repositories; and posted on the NPS Planning, Environment, and Public Comment website at http://parkplanning.nps.gov/. Eight comment letters were received during this review period from the USFWS, Garfield County Office of Tourism, Hopi Cultural Preservation Office, and five unaffiliated individuals. The park received additional comment letters from the National Parks Conservation Association, Panguitch City, and the Navajo Nation after the formal review period. Substantive comments centered on accuracy of the information in the EA and adequacy of the environmental analysis. These comments are addressed in the Errata Sheets attached to this FONSI. The FONSI and Errata Sheets will be sent to all organizations and individuals that commented on the EA.

Affiliated American Indian tribes, the public, potential interested parties, and the SHPO were consulted several times during the preparation of a draft programmatic agreement for this project in accordance with Section 106 to gage interest in the process and use input to develop appropriate stipulations. Bryce Canyon National Park invited the public and affiliated American Indian tribes, to review and submit comments on the draft programmatic agreement between the park and the SHPO to avoid, mitigate, or minimize potential adverse effects to historic properties that may occur as a result of the implementation of the *Multimodal Transportation Plan.* The public comment period ran from January 25 through March 23, 2015. The Hopi Tribe formally declined to be a consulting party. No other comments were received. The programmatic agreement was signed by the SHPO and went into effect on April 21, 2015. The programmatic agreement provides a process for completing Section 106 compliance for individual projects prior to the implementation of each project.

CONCLUSION

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

Based on the foregoing, the NPS has determined that an environmental impact statement is not required for this project and thus will not be prepared.

Approved:

Laura E. Joss 11/20/2015

for Sue E. Masica Date

Regional Director, Intermountain Region, National Park Service

ERRATA SHEETS

MULTIMODAL TRANSPORTATION PLAN

BRYCE CANYON NATIONAL PARK

According to NPS policy, substantive comments are those that 1) question the accuracy of the information in the EA, 2) question the adequacy of the environmental analysis, 3) present reasonable alternatives that were not presented in the EA, or 4) cause changes or revisions in the proposal.

Some substantive comments may result in changes to the text of the EA, in which case, they are addressed in the *Text Changes* section of the Errata Sheets. Other substantive comments may require a more thorough explanatory response and are addressed in the *Response to Comments* section. NPS responds to all substantive comments in either or both of these sections.

Of the comments that were received during public review of the EA, 11 are considered substantive. Substantive comments for this EA centered on accuracy of the information in the EA and adequacy of the environmental analysis. These concerns resulted in minor changes to the text of the EA and are also explained more thoroughly in the *Response to Comments* section.

TEXT CHANGES

Page 7, ***Relationship to Other Plans and Policies*** — To demonstrate full awareness of and commitment to existing regulations, the bulleted list shall read as follows:

- *Endangered Species Act*
- *Migratory Bird Treaty Act*
- *Executive Order 13186*
- *NPS Organic Act*
- *NPS Director's Orders*
- *Memorandum of Understanding between the NPS and the USFWS to Promote the Conservation of Migratory Birds*
- *Bryce Canyon National Park Enabling Legislation*
- *Bryce Canyon National Park Asset Management Plan*
- *Bryce Canyon National Park Wildlife Viewing Pullouts EA*
- *Bryce Canyon National Park Foundation Statement*
- *Scenic Byway 12 Corridor Management Plan*
- *Bryce Canyon National Park Superintendent's Jurisdictional Compendium*

Page 52, Figure 10, *Adaptive Travel Management Alternative* — add "Possible relocation of fee booths" to the Entrance Station notation on the map.

Page 58, Figure 14, *General Store/Sunrise Point: Proposed Multimodal Transportation Hub, Adaptive Travel Management Alternative* — The correct Figure 14 depicting the details of the Adaptive Travel Management Alternative at the General Store/Sunrise Point area is attached at the end of the text changes and replaces Figure 14 provided in the EA.

Page 61, *Roadway and Parking* — add at end of second paragraph "Fee booths may be relocated north of their current location, to a location between the park boundary and the visitor center area. Relocation of the fee booths would be based on recommendations from the Implementation Plan showing changes made to the traffic pattern around the fee booths are not effective in mitigating safety concerns in the area."

Page 67, Table 7, *Mitigation Measures and Best Management Practices* — change the last bullet to "If construction activities or vegetation removal is required during this time, pre-construction/pre-vegetation removal bird surveys will be conducted for nests."

Page 68, Table 7, *Mitigation Measures and Best Management Practices* — the following mitigation measures for Historic Properties have been deleted because they were redundant with other measures:

- Develop a plan of action for inadvertent archeological discoveries during construction associated with the implementation of the plan. The inadvertent discovery plan of action would be documented in an archeological monitoring and inadvertent discovery plan included in the programmatic agreement as an appendix.
- All workers will be informed of appropriate archeological site etiquette and the penalties of illegally collecting artifacts or intentionally damaging any archeological or historic property. Workers will also be informed of correct procedures if previously unknown resources were uncovered during construction activities.
- Should previously unknown archeological resources be discovered during construction, work would be halted in the discovery area, the site would be secured, and the appropriate park staff would consult with the SHPO and affiliated tribes, if necessary, according to 36 CFR 800.13 and, as appropriate, provisions of Native American Graves Protection and Repatriation Act. If the archeological resource would be adversely affected, a treatment plan would also be prepared as needed. Treatment plans would fully evaluate avoidance, project redesign, and data recovery alternatives.

Page 69, Table 7, *Mitigation Measures and Best Management Practices* — the last mitigation measure under Historic Properties shall read "The design, materials, and physical appearance of new ramps, curbs, gutters, and sidewalks in cultural landscapes and historic districts will match the existing historic counterparts."

In addition, the mitigation measure for ethnographic resources has been deleted, because no ethnographic resources were identified in the park.

Page 118, Table 11, *Federally Listed, Proposed, and Candidate Species with Potential to Occur in the Park* — the row of the table pertaining to the California condor shall read as follows to more accurately reflect the species status, population, and effect determination:

Name	Status	Habitat	Potential to Inhabit the Park	Critical Habitat	Effect Determination
California condor (*Gymnogyps californianus*)	Endangered; Experimental / Nonessential Experimental Population	Habitat generally consists of foothill grassland and oak savannah foothills for foraging deer and cattle. Large trees, dead snags, and cliffs are used for roosting sites. Mountainous areas with cliffs and pine forest or chaparral vegetation are used for breeding habitat.	California condors have been intermittent visitors to the park. Birds in the park are part of the experimental, nonessential population. This species is not known to inhabit the park consistently and it is not known to use the park as a breeding area.	Not in park	*No jeopardy*

Page 190, *Native American Consultation* — The last sentence of the first paragraph shall indicate that the park did receive comments from the Hopi Tribe. "The park received comments from the Hopi Cultural Preservation Office. They requested consultation on any proposal that may adversely affect prehistoric cultural resources in Bryce Canyon National Park and to receive copies of survey reports and treatment plans for those resources." This is consistent with the following statement found on page 8, *Scoping*, and page 189, *External Scoping*, in the EA: "The Hopi Tribe also requested copies of the cultural resources survey report and proposed treatment plans for review and comment."

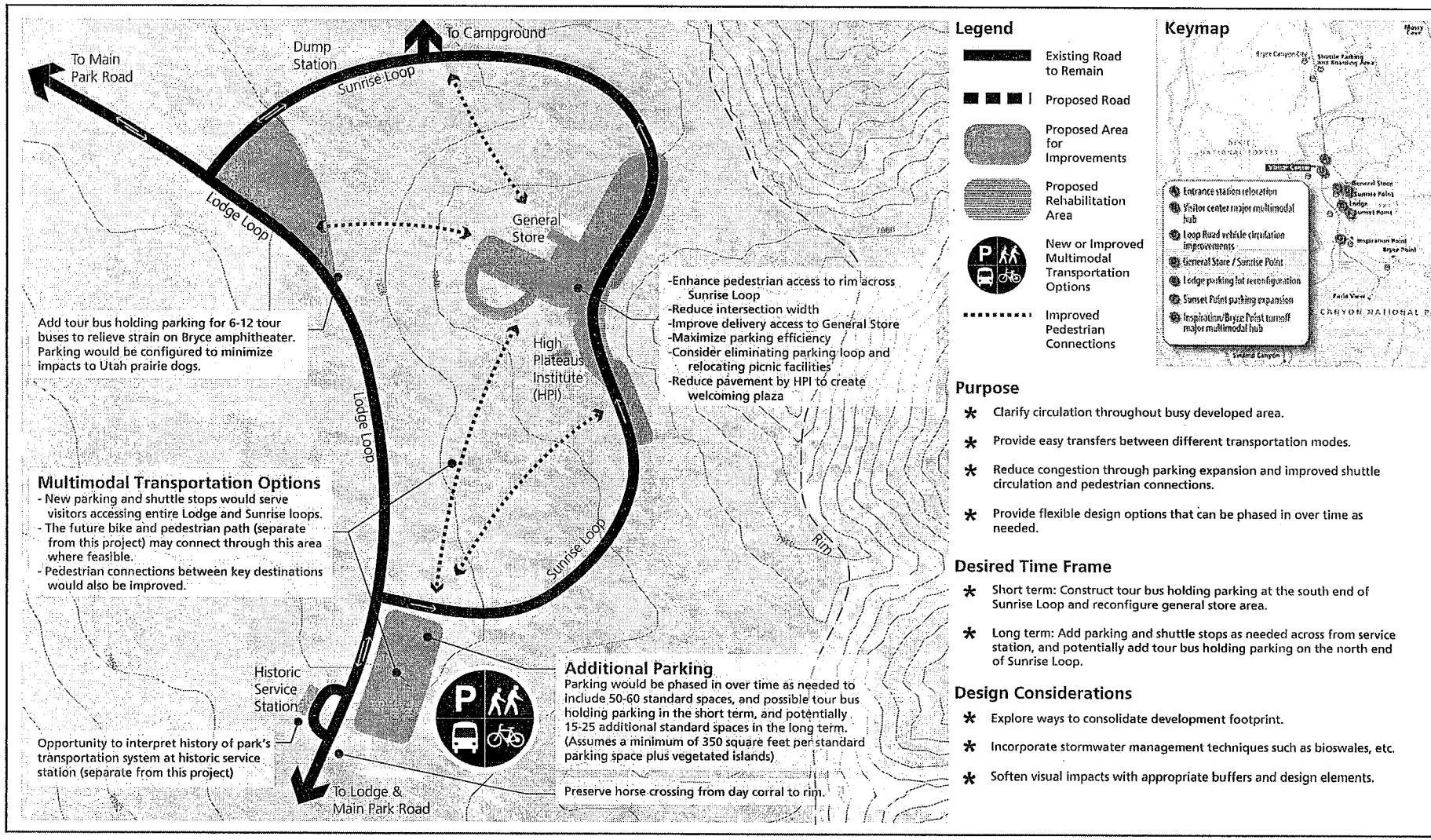

FIGURE 14

General Store/Sunrise Point: Proposed Multimodal Transportation Hub, Adaptive Travel Management Alternative

Bryce Canyon National Park
Multimodal Transportation Plan

United States Department of the Interior / National Park Service
April 2014

RESPONSES TO COMMENTS

Comment 1 — "I don't feel as if the impact of Visitor Use and Experience is accurately assessed in the preferred alternative.

'Implementing the Adaptive Travel Management Alternative would result in short- term negligible adverse and short- and long-term, minor beneficial impacts on visitor use and experience. Cumulative effects would be short- and long-term, moderate beneficial.'

I think it's fair to say we don't truly understand what affect this plan will have on visitors. We are essentially changing the visitor experience at Bryce. If you are a family traveling by rented RV the impact on your experience could be significant. If you aren't camped in the Park you will likely have to catch a shuttle from outside of the Park. This could create enough adversity that visitors don't consider a stop at Bryce worth their time."

NPS Response to Comment 1 —

The EA describes the expected impacts of the selected alternative on pages 161–63. Although there are some unknowns, such as how much visitation will increase in the future, the adaptive management strategy will allow NPS employees to adapt parking and traffic strategies to meet changing conditions.

Page 155 of the EA states that, according to the visitor survey, crowding was the primary detraction from the visitor experience (NPS 2010d). Because the selected alternative will reduce crowding and impacts to resources and safety, it is expected to have an overall beneficial effect on visitor experience.

Additionally, implementing the Adaptive Travel Management Alternative will not significantly affect the use and experience of the park by visitors in RVs. RVs account for 2% of vehicles and 2% of visitors entering the park.

New restrictions on RVs would be limited to the Bryce Amphitheater area and in effect only when the shuttle is running for the season, allowing visitors in RVs an alternative means to access the park. Visitors can park outside the park and ride the shuttle into the park. If visitors have a reservation at North Campground or Sunset Campground, they could park their RVs at the campground parking lot and use the shuttle. Visitors driving to the park in RVs will be able to access areas of the park south of the Bryce Amphitheater without restrictions, such as Rainbow Point.

The park's desire is to allow full access to the park, but will adaptively manage transportation challenges resulting from limited parking availability and increased visitation. The Adaptive Travel Management Alternative provides the park with the option to offer shuttle service beyond the turnoff to Bryce Point, providing expanded shuttle access to the park. Visitor use and experience of the park can be enhanced by taking the shuttle and avoiding traffic congestion and limited RV parking availability. Adverse effects of the RV restrictions will be offset by the positive experience of visitors who are not impacted by low parking availability and congestion, particularly relating to inappropriately parked RVs .

Comment 2 — "Really no EA issues with all the new/expanded parking lots/hubs? Especially 2 new ones off lodge loop by the old gas station/Sunrise Pt – one of our top 3 UPD areas. . .likely potential for increased roadway UPD mortality, compatibility with new/expanded UPD fence?"

NPS Response to Comment 2 — Impacts on Utah prairie dogs, resulting from implementing the multimodal transportation plan, have been identified and analyzed in the Special Status Species section of the EA. Overall, impacts on Utah prairie dog were determined to be minor to moderate adverse. Mitigation measures specific to the Utah prairie dog have been provided in Table 7 in Chapter 1 of the EA. In addition, the "Utah Prairie Dog Stewardship Plan" currently being developed also contains mitigation measures. The June 25, 2014 USFWS biological opinion provides further clarification regarding the effects to prairie dogs and mitigation measures. The mitigation measures provided in Table 7 of the EA are compatible with and cross-referenced with the "Utah Prairie Dog Stewardship Plan" and the USFWS biological opinion. The park will use these documents and the measures they contain to mitigate the effects on prairie dogs during implementation of the transportation plan.

Comment 3 — "Doesn't really refer to new 2013 Compendium restrictions (not yet enforced but planned for 2014 season):

(a)(2) **The Bryce Point Road east of the Inspiration Point Intersection, including the Paria View Road, is closed to vehicles over 25 feet in length. Except buses.**

Due to the nature of the parking areas, there is inadequate room to turn around a motor vehicle that is longer than 25 feet in total length. Allowing longer vehicles in those parking areas would lead to an increased number of motor vehicle collisions.

(a)(2) **Sunset, Sunrise and Inspiration view point parking lots will be closed to oversize Recreational Vehicles (RV) longer than 25 feet in length; during peak hours of the day when the Bryce Canyon Shuttle is operating. This regulation does not apply to Commercial Use Authorized operators or Motor coach tour buses.**

Due to the nature of the parking areas, there is inadequate room due to overcrowding and conflicts related to limited RV/bus parking. When posted, vehicles that are longer than 25 feet in total length will be directed to park at their overnight accommodations (if registered guests at the campgrounds or Lodge within the park) or at overflow parking near the entrance of North Campground or Bryce Canyon Shuttle staging at Bryce Canyon City. Allowing longer vehicles in those parking areas would lead to an increased number of motor vehicle collisions."

NPS Response to Comment 3 — The Compendium was not analyzed in the EA. The Compendium is subject to annual changes. It will be revised as necessary to be consistent with the goals and actions approved in the transportation plan.

Comment 4 — "Doesn't address immediate impacts of some changes—traffic south to rainbow/back to Sunset/Sunrise immediately once and (inspiration/Bryce/paria) vehicle restrictions are enacted."

NPS Response to Comment 4 — The park currently works to manage the traffic overflows resulting from existing vehicle restrictions and will continue to do so on a short-term basis as necessary. In the earliest stages of planning for the multimodal transportation plan, the park understood that traffic overflows resulting from vehicle restrictions would be a challenge to address. An adaptive management approach was determined to be an effective way to address this and other transportation challenges. Although vehicle restrictions for the Bryce Amphitheater area will create additional overflow due to the popularity of that area, the park will use the adaptive management options in the Selected Alternative to address traffic increases resulting

from these additional restrictions. For example, the timeframe of the multimodal transportation plan allows the option of offering shuttle service, pending available funding, to Rainbow Point, which is visited by approximately 42% of park visitors.

Comment 5 — "Relationship to Other Plans and Policies, page 7: To demonstrate awareness of and commitment to existing regulations, in this section we recommend incorporating references to the following: Endangered Species Act; Migratory Bird Treaty Act; Executive Order 13186; and the Memorandum of Understanding between the NPS and the USFWS to Promote the Conservation of Migratory Birds."

NPS Response to Comment 5 —These references have been included in the Text Changes section of the FONSI errata.

Comment 6 — "Table 7, page 67: Recommend changing "tree cutting" to "vegetation removal" to broaden the scope of protection to all nesting birds, rather than just the tree nesting species."

NPS Response to Comment 6 — This text change was made.

Comment 7 — "Table 11, page 118, California Condor section:

- Status – recommend changing "E" to "E;EXP/NEP" to reflect the fact that the species has two designations within Utah depending on the location of occurrence.
- Potential to Inhabit the Park – Recommend changing, "The current population in Utah is experimental," to "Birds in the Park are part of the experimental, nonessential population" to more accurately categorize the status of the birds analyzed in the EA.
- Effect Determination – the "No effect" determination can only be made for federally endangered condor. Because the condor in the Park are part of the 10j, nonessential population we recommend that NPS make a determination of [no jeopardy] for the species."

NPS Response to Comment 7 — These changes have been included in the Text Changes section of the FONSI errata.

Comment 8 — "I would share one suggestion representative of my point; one which we initially implemented when the shuttle system began. Given our desire to accommodate the increasing number of visitors without experiencing the additional cars; i.e., we wanted more people to come into the park via the shuttle system, we proposed and received approval for a fee structure that provided a reduced fee for those who entered the park in the shuttle. This provided an incentive for visitors to leave their cars and use the shuttle. Bryce Canyon should return to this proposal as one alternative to expanding parking lots."

NPS Response to Comment 8 — Incentivizing shuttle use via reduced fees is an effective approach to addressing some of the transportation challenges faced by the park. In fact, the multimodal transportation plan does not preclude the park from incentivizing shuttle use; while the park does not have the authority to do so at the present time, a reduced entry fee for shuttle users may be an option proposed in concert with revised regulations when the Federal Lands Recreation Enhancement Act is reauthorized.

Comment 9 — "The Environmental Assessment (both printed and electronic copies) includes an image (Figure 14) of the Bryce Point area mislabeled as General Store/Sunrise Point. Since the actual graphic for Bryce Point is not included, it is very difficult to understand what is proposed at

that location; a location that has very limited space for expansion without impacting both natural and historic resources. The public should be provide accurate graphical presentations of that location for consideration and comment."

NPS Response to Comment 9 — Although Figure 14 in the EA is labeled correctly, the depiction in the figure of the Bryce Point area is incorrect. The correct Figure 14 has been included in the Text Changes section of the FONSI errata.

Comment 10 — "Page nine (9) of the Environmental Assessment is entitled: "IMPACT TOPICS RETAINED FOR FURTHER ANALYSIS." Soundscapes and Vegetation are two of the topics briefly discussed in the table. The short description of the impacts to the Soundscapes primarily focuses on impacts during construction and then suggests that the new and expanded parking areas "would result in long-term, minor to moderate adverse impacts on the local soundscape." The discussion on "Vegetation" is similar and suggests that "Effects ... due to proposed construction and improvements would be short term, minor adverse, and local."

I respectfully disagree and suggest that in both cases, the new and permanent impact to these park resources must be analyzed in the context of cumulative impacts; i.e., given the lost vegetation and natural soundscapes from existing park facilities, what will be the cumulative impacts were these new developments to occur.

I request that these cumulative impacts be analyzed and presented to the public before selection of a preferred alternative."

NPS Response to Comment 10 — Impacts on soundscapes and vegetation resulting from implementing the multimodal transportation plan are analyzed and presented to the public for review. Cumulative impacts on soundscapes and vegetation are not addressed in the Impact Topics table, but are analyzed in the respective resource sections in Chapter 3 of the EA. In addition, the park is continuing its soundscape monitoring program into the future to help gauge and implement adaptive strategies.

Comment 11 — "We have now reviewed the enclosed environmental assessment which incorrectly states that the park did not receive any comments from Native American tribes. Therefore, we reiterate that if prehistoric sites are identified that will be adversely affected by project activities, we requested to be provided with copies of the cultural resources survey report and any proposed treatment plans for review and comment."

NPS Response to Comment 11 — The statement regarding comment from the Hopi Tribe has been revised and included in the Text Changes section of the FONSI errata. This revised statement is consistent with the following statement found on page 8, *Scoping*, and page 189, *External Scoping*, in the EA: "The Hopi Tribe also requested copies of the cultural resources survey report and proposed treatment plans for review and comment."

Comment 12 — "Our greatest concern with the Bryce Canyon Multimodal Transportation Plan preferred alternative is the expected short- and long-term, minor to moderate adverse impacts on federally threatened Utah prairie dogs. We recognize the challenges park managers face with prairie dog colonies concentrated in close proximity to existing human infrastructure. Since vehicle strikes account for 97% of Utah prairie dog mortality in the park and proposed new and expanded parking facilities would increase exposure to human activity at higher numbers and in new locations, the park's "Utah Prairie Dog Stewardship Plan" should be completed prior to implementing construction proposals in the Transportation Plan. We are particularly concerned

about the potential for the preferred alternative to impact genetic dispersal among colonies and increase vehicle strikes at the visitor center and especially at the Historic Housing colony where vehicle strikes are already the highest."

NPS Response to Comment 12 — NPS notes the commenter's concern that the "Utah Prairie Dog Stewardship Plan" be completed prior to commencing construction for improvements identified in the multimodal transportation plan, particularly those areas near Utah prairie dog colonies. The park will complete the "Utah Prairie Dog Stewardship Plan" prior to constructing transportation plan improvements in areas near Utah prairie dog colonies. The mitigation measures provided in Table 7 of the EA are compatible with and derived from the "Utah Prairie Dog Stewardship Plan" process to date and the June 25, 2014 USFWS biological opinion. The park will use the biological opinion and the final "Utah Prairie Dog Stewardship Plan" and the measures they contain to mitigate the effects on prairie dogs during implementation of the transportation plan.

Comment 13 — "We particularly support the preferred alternative's focus on shifting visitor demand and use patterns and encouraging alternate forms of transportation through the park including the shuttle system, biking and walking. We do note that the Adaptive Travel Management alternative is listed as having "the greatest flexibility and widest range of management strategies to respond to changing visitor use and resource conditions" yet two key proposals to address increased visitor demand and vehicle conflicts presented in alternative 3, Highest Visitor Demand Management, are not included in the preferred alternative. We specifically encourage park managers to retain the long term proposal for mandatory shuttle access (private vehicle restrictions) at viewpoints throughout the Bryce Amphitheater during peak season and the option to expand to a full shuttle system to Rainbow Point. Inclusion of these proposals in the preferred alternative would provide the broadest range of options and flexibility that, under the adaptive management framework, would only be implemented if deemed necessary based on established thresholds, pilot studies and funding."

NPS Response to Comment 13 — The long-term proposal for mandatory shuttle use under the Highest Visitor Demand Management Alternative would help manage the transportation challenges facing the park. The shuttle would be mandatory to Bryce Point during peak times as cars would park at the turnoff. However, this proposal would result in much higher operational costs and would require more and larger parking areas in the local community and on US Forest Service property. In addition, because mandatory shuttle service is not currently proposed for the full 32-mile circuit to Rainbow Point and back, the park would face complicated logistical and operational issues associated with allowing private vehicle to access Rainbow Point.

The Adaptive Travel Management Alternative does not preclude offering shuttle service to Rainbow Point in the future. As noted in the EA, a commercial operator could consider expanding the service in the future, but NPS does not plan to do so for cost and logistical reasons. The park does retain the option to offer shuttle service beyond the Bryce Point turnoff. Any future service expansion would depend on the availability of funds and the interest of a commercial entity operating under a permit, agreement, or contract with NPS.

This page is intentionally blank.

APPENDIX A

NON-IMPAIRMENT DETERMINATION

NON-IMPAIRMENT OF PARK RESOURCES OR VALUES

The NPS *Management Policies 2006* require analysis of potential effects to determine whether or not actions would impair park resources. The fundamental purpose of the national park system, established by the Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve park resources and values. NPS 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 NPS 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 NPS the management discretion to allow certain impacts within parks, that discretion is limited by the statutory requirement that the NPS 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 NPS manager, would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of these resources or values. An impact to any park resource or value may, but does not necessarily, constitute an impairment; an impact would be more likely to constitute an impairment when there is 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.

An impact would be less likely to constitute an impairment if it is an unavoidable result of an action necessary to pursue or restore the integrity of park resources or values and it cannot be further mitigated.

NPS *Management Policies 2006* requires analysis of potential effects to determine whether or not actions would impair park resources. The park resources and values that are subject to the no-impairment standard include:

- the park's scenery, natural and historic objects, wildlife, and the processes and conditions that sustain them, including, to the extent present in the park: the ecological, biological, and physical processes that created the park and continue to act upon it; scenic features; natural visibility, both in daytime and at night; natural landscapes; natural soundscapes and smells; water and air resources; soils; geological resources; paleontological resources; archeological resources; cultural landscapes; ethnographic resources; historic and prehistoric sites, structures, and objects; museum collections; and native plants and animals;
- appropriate opportunities to experience enjoyment of the above resources, to the extent that can be done without impairing them;

- the park's role in contributing to the national dignity, the high public value and integrity, and the superlative environmental quality of the national park system, and the benefit and inspiration provided to the American people by the national park system; and
- any additional attributes encompassed by the specific values and purposes for which the park was established.

Based on the Presidential Proclamation No. 1664 of June 8, 1923, the park purpose was stated in part:

> Whereas certain lands within the Powell National Forest in the State of Utah, known as Bryce Canyon, are of unusual scenic beauty, scientific interest and importance, and it appears that the public interest will be promoted by reserving these areas with as much land as may be necessary for the proper protection thereof as a national monument.

On June 7, 1924, Bryce Canyon National Monument was established as the Utah National Park "for the benefit and enjoyment of the people" and renamed Bryce Canyon National Park by Congress in 1928.

Bryce Canyon National Park objectives, as stated in the 1987 *General Management Plan*, are as follows:

- To secure, through research or other means, adequate information to increase management efficiency and to ensure conservation of park resources.
- To cooperate with outside agencies, organizations, and members of the public in (1) assuring, to the greatest extent possible, that nearby lands are developed and managed in ways that are compatible with preserving the park's air and water quality, geological resources, ecological communities, solitude, extreme quiet, and the scenery for which the park is famous; (2) minimizing the adverse effects of public use on the park's resources through the provision of recreational lodging, and other visitor service facilities in the park's vicinity; and (3) disseminating information about the park to the general public, with particular emphasis on the regional community.
- To protect and enhance the natural and scenic values of the park by maintaining an adequate land base to permit achievement of the park's purpose and acquiring outstanding mineral interests on the lands providing culinary water supply for the park.
- To protect park resources and the safety of park visitors through enforcement of applicable laws, rules, and regulations.
- Provide for the visitor's enjoyment and appreciation of park resources through primary interpretive emphasis on the park's geomorphology, but provide also for an understanding of the park's geology, natural history, history, archeology, night skies, and air quality.
- Develop a fire management program for the park to facilitate the protection and maintenance of the natural environment including, as necessary, research on fire burns to determine the need for, the effectiveness and desirability of, and the problems associated with implementing a prescribed fire management program for the park.
- Retain those facilities necessary for visitor use and park management at acceptable standards for health, safety, and comfort, and maintain historic structures as near as practicable to their original exterior appearance consistent with the adaptive use of these buildings.
- Provide the visiting public, through concession-operated facilities, the highest quality of accommodations, food service, and visitor needs consistent with reasonable pricing and comparability with local business.
- Ensure a representative proportion of minorities and female employees, both seasonal and permanent.

Impairment may result from NPS activities in managing the park, visitor activities, or activities undertaken by concessioners, contractors, and others operating in the park. The NPS's threshold for considering whether there could be an impairment is based on whether an action would have major (or significant) effects.

Impairment findings are not necessary for visitor use and experience, socioeconomics, public health and safety, environmental justice, land use, and park operations, because impairment findings relate back to park resources and values, and these impact areas are not generally considered park resources or values according to the Organic Act, and cannot be impaired in the same way that an action can impair park resources and values. Topics dismissed from further analysis in the EA include: greenhouse gases and climate change; geological resources; wetlands; floodplains; introduction of native and nonnative species; wildlife or wildlife habitat; historic structures; archeological resources; paleontological resources; wilderness; visual resources/scenic resources; resources, including energy, conservation potential, and sustainability; prime and unique farmlands; and Indian trust resources.

After dismissing the above topics, topics remaining to be evaluated for impairment include: air quality; soundscapes; night sky; vegetation; special status species; cultural landscapes; ethnographic resources; recreation; and gateway communities.

Fundamental resources and values for Bryce Canyon National Park are identified in the *General Management Plan* (1987). Impairment determinations are included for all impact topics analyzed in the EA, unless dismissed in the preceding paragraph.

Impairment Determinations

Air Quality. Bryce Canyon National Park is in Garfield and Kane counties in Utah. Both counties are in attainment areas of the state. Bryce Canyon National Park is designated a Class 1 area under the Clean Air Act. Air quality in Bryce Canyon National Park is generally excellent. Vistas in the park are occasionally obscured by pollution-caused haze, which typically consists of fine particulates and gases in the atmosphere. Pollutants affecting the park come primarily from sources outside the park boundaries, including the large urban source of Las Vegas and nearby sources. Local fires, both prescribed and wild, also create occasional air quality disturbances.

Impacts to air quality from key features of the Selected Alternative include the following:

- Travel Demand Management: Real-time transportation information will reduce congestion in the park by allowing visitors to access information prior to their arrival, encouraging them to park in Bryce Canyon City and ride the shuttle or bicycle on high-visitation days or during peak-traffic periods. The reduction in congestion and decrease in automobile trips from increased use of alternate modes of visitor travel in the park will result in a reduction to mobile source emissions and will have short- and long-term, minor beneficial impacts on local air quality. Any exhaust, emissions, and fugitive dust generated from visitor vehicles will be short-term and local and will likely dissipate rapidly. Implementing the flex-time interpretation programs could disperse the vehicles in the park to less congested times and locations, which could provide a short-term, negligible, beneficial impact on local air quality. Testing non-motorized only access at Fairyland Point could result in more visitors accessing the restricted Fairyland area by foot or bicycle, which will result in a slight decrease in automobile trips and associated mobile source emissions and could have a short-term, negligible beneficial impact on local air quality.

- Education and Visitor Information: By clearly communicating parking, transportation, and visitation options in the park and encouraging the use of these options, these short- and long-term improvements will help visitors better plan their trip and will allow the park to better manage traffic, parking, and visitation patterns and promote alternate transportation, which will have short- and long-term, minor beneficial impacts on local air quality.

- Shuttle: Expanding shuttle capacity and increasing the availability and level of shuttle services will lead to a decrease in automobile trips and/or changes in the average daily traffic volume and associated mobile source emissions in the park. These improvements will have short- and long-term, minor beneficial impacts on local air quality. Increased shuttle service will also result in increased shuttle emissions and have a short-term, negligible to minor adverse impact on local air quality. Overall, these short-term and minor adverse impacts will not likely affect visibility or noticeably contribute to atmospheric deposition.

- Roadway and Parking: Construction and maintenance associated with proposed short- and long-term roadway and parking improvements will likely be minimal and will include best management practices and mitigation measures. Any exhaust, mobile source emissions such as nitrates, and fugitive dust generated from construction activities will be short-term and local and will likely dissipate rapidly. Construction activities related to the infrastructure expansion will likely result in short-term, minor adverse effects on local air quality. Increased parking availability will likely result in long-term, minor beneficial effects on local air quality by reducing congestion and potentially reducing vehicle idling times and associated mobile source emissions.

The Selected Alternative includes mitigation measures and best management practices that will be implemented to minimize pollutant emissions. The Selected Alternative will not result in impairment of the park air quality because adverse impacts will be short- and long-term, minor and mitigation measures will reduce impacts.

Soundscapes. In the absence of human-caused sound, ambient noise levels in the park often fall below 20 decibels. Disturbances to the park's natural soundscapes primarily come in the form of aircraft, in addition to idling buses, shuttles, and RVs. The park has placed "Turn off Engine" signs at viewpoint parking areas to discourage idling. Visitors in the area near the visitor center experience soundscape disturbances from the constant noise of traffic entering and exiting the park. Once a visitor ventures from traveled roadways, unnatural sound diminishes markedly.

Impacts to soundscapes from key features of the Selected Alternative include the following:

- Travel Demand Management: Using electronic technology to communicate transportation options based on real-time information will reduce congestion in the park by encouraging visitors to park in Bryce Canyon City and ride the shuttle or bicycle on high-visitation days or during peak-traffic periods. The reduction in congestion and increased use of alternate modes of visitor travel in the park will result in a reduction in vehicle-related sounds and will have short- and long-term, minor beneficial impacts on the park soundscape. Implementing the flex-time interpretation programs could disperse the vehicles in the park to less congested times and locations, which could provide a short-term, negligible, beneficial impact on the park soundscape. Restricting vehicles at Fairyland Point could result in more visitors accessing the restricted Fairyland area by foot or bicycle, which will result in a reduction in vehicle-related sounds in that area and will have a short-term negligible to minor beneficial impact on the area soundscape.

- Education and Visitor Information: By clearly communicating parking, transportation, and visitation options in the park and encouraging the use of these options, these short- and long-term improvements will help better manage traffic, parking, and visitation patterns and promote alternate transportation, which will have short- and long-term, minor, beneficial impacts on the park soundscape from reduced private vehicle-related noise.

- Shuttle: Expanding shuttle capacity and increasing service frequencies will decrease the number of private vehicles and vehicle-related sounds in the park and will have short- and long-term, minor beneficial impacts on the park soundscape. Increased shuttle service will also result in increased shuttle-related sounds and have a short-term, negligible to minor adverse impact on the park soundscape.

- Roadway and Parking: Construction activities related to the infrastructure expansion will likely result in short-term, minor adverse effects on the area soundscape. During construction, human-caused sounds will likely increase due to construction activities, equipment, vehicular traffic, and construction crews. Any sounds generated from construction will be temporary, lasting only as long as the construction activity is generating the sounds, and will have a negligible to minor adverse impact on visitors and employees. Expanding and reconfiguring the parking lots to provide additional visitor parking will reduce vehicle delays, idling time, and associated vehicle sounds, and will result in a short-term, minor, beneficial impact on the park soundscape. In areas with new and reconfigured parking lots, primarily within the Bryce Amphitheater area, additional parking spaces will also result in an increase in vehicles and visitors, resulting in an increase in noise (e.g., vehicles entering and exiting parking areas, shuttles, car doors, visitor related noise). This increase in noise in and surrounding new and expanded parking areas will result in long-term, minor to moderate adverse impacts on the local soundscape.

The Selected Alternative includes mitigation measures and best management practices that will be implemented to minimize construction-related sounds. The Selected Alternative will not result in impairment of the park soundscape because adverse impacts will be short- and long-term, minor adverse and mitigation measures will reduce impacts.

Night Sky. Bryce Canyon National Park strives to limit the use of artificial outdoor lighting to that which is necessary for basic safety requirements. The park also strives to ensure that all outdoor lighting is shielded to the maximum extent possible, to keep light on the intended subject and from diffusing to impact the night sky. The absence of in-park light pollution, good air quality, and the remoteness of Bryce Canyon National Park make for exceptional stargazing. On a clear dark night, visitors can see approximately 7,500 stars and 2.2 million light years to the Andromeda Galaxy. The primary sources of light are concentrated in the northern area of the park, near the visitor center and the Lodge Loop.

Impacts to night sky from key features of the Selected Alternative include the following:

- Travel Demand Management: Using electronic technology to communicate transportation options based on real-time information will reduce congestion in the park by encouraging visitors to park in Bryce Canyon City and ride the shuttle or bicycle on high-visitation days or during peak-traffic periods. The use of lighted variable message signs will have a negligible adverse effect on the nightscape. There will be no changes to the lightscape in the park as a result of conducting the Intelligent Transportation System Feasibility study, testing and evaluating the Fairyland restrictions, or implementing the timed entry system restrictions.

- Education and Visitor Information: By clearly communicating parking and transportation options in the park and encouraging the use of these options, these short- and long-term improvements will help better manage traffic, parking, and visitation patterns and promote alternate transportation. These improvements will not change the existing lightscape or result in additional light sources in the park.

- Shuttle: Expanding shuttle capacity and increasing service frequencies will decrease the number of private vehicles traveling within the park. Shuttle activities occur only during daylight hours, no shuttle activities occur at night. These improvements will not change the existing lightscape or result in additional light sources in the park.

- Roadway and Parking: Construction and maintenance activities could potentially include minimal temporary lighting. No permanent lighting will be installed as part of parking lot, shuttle hub, or other proposed improvements. Proposed improvements will not change the existing lightscape or result in additional light sources in the park. Roadway and parking improvements under the Adaptive Travel Management Alternative will result in short-term, negligible adverse effects on the lightscape.

The Selected Alternative includes mitigation measures and best management practices that will be implemented to minimize impacts to the night sky. The Selected Alternative will not result in impairment of the park's night sky because adverse impacts will be short- and long-term, negligible and mitigation measures will reduce these impacts.

Vegetation. The elevation of Bryce Canyon National Park ranges from 6,850 feet above sea level on the eastern side of the park to 9,115 feet at its southern end. The vegetation in the park reflects the change in elevation and topography, as well as the geology, soils, and water availability. Within the area of proposed improvements, there are three major vegetation communities: Ponderosa Pine Forests, Mountain Grasslands, and Fir–Spruce–Aspen Forests. The remaining two major vegetation communities in the park—Pinyon and Juniper Woodlands and Breaks Communities—are outside the area of proposed improvements.

Impacts to vegetation from key features of the Selected Alternative include the following:

- Travel Demand Management: The reduction in congestion and increased use of alternate modes of visitor travel in the park, as well as vehicle restrictions at Fairyland Point, will result in a reduction in potential disturbance of vegetation in areas where visitors may park outside of paved designated lots due to congestion and over-capacity parking. A potential reduction in visitor disturbance of vegetation will result in short-term, negligible to minor, beneficial effects on individual native plants in local areas with limited, if any, effects on native plant species populations.

- Education and Visitor Information: By clearly communicating parking, transportation, and visitation options in the park and encouraging the use of these options, the proposed short- and long-term improvements will help better manage traffic, parking, and visitation patterns and promote alternate transportation, which could have a short-term, negligible, beneficial effect on individual native plants in local areas with limited, if any, effects on native plant species populations.

- Shuttle: Expanding shuttle capacity and increasing service frequencies will decrease the number of private vehicles in the park and will have a short-term, negligible, beneficial effect

on individual native plants in local areas with limited, if any, effects on native plant species populations.

- Roadway and Parking: Proposed parking construction and improvement activities under the Adaptive Travel Management Alternative will result in disturbance to vegetation in previously undisturbed areas and in previously disturbed but revegetated areas. Approximately 20.88 acres could be disturbed if all proposed improvements occur (i.e., full build-out); however, improvements will be minimized as much as possible under the adaptive management approach. Some proposed parking expansion and improvements will occur in previously disturbed or paved areas. Effects on individual native plants due to the proposed construction and improvements, including conversion of areas into permanent parking facilities, will be minor adverse and local. Impacts on vegetation communities in the park due to the proposed improvements will be negligible to minor adverse. Mitigation measures and best management practices will minimize effects on vegetation in the construction area. Revegetation measures will be implemented to mitigate impacts on vegetation communities in areas disturbed during construction that will not be needed for visitor improvements.

The Selected Alternative includes mitigation measures and best management practices that will be implemented to minimize impacts to vegetation. The Selected Alternative will affect a small portion of vegetation communities in the park and result in negligible changes to plant species composition. The Selected Alternative will not result in impairment of the park's vegetation communities because adverse impacts will be short-term, negligible to minor adverse and mitigation measures will reduce these impacts.

Special Status Species. Federally listed, proposed, and candidate species that may inhabit the park include California condor (*Gymnogyps californianus*), southwestern willow flycatcher (*Empidonax traillii extimus*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), and Utah prairie dog. The Utah prairie dog currently inhabits the park. Critical habitat has not been designated for this species. The remaining three federally listed species have been observed in Bryce Canyon National Park but observations have been limited. These species were excluded from further analysis.

Bryce Canyon National Park is within the Utah prairie dog Paunsaugunt Recovery Unit. The Paunsaugunt Recovery Unit is primarily in Garfield County, with small areas in Piute and Kane counties. There are 15,620 acres of mapped prairie dog habitat within this recovery unit. The Paunsaugunt Recovery Unit contains up to 20% of all adult Utah prairie dogs. Spring survey counts generally vary from 654 to 2,205 adult prairie dogs.

Utah prairie dogs have colonized multiple areas in open grassy meadows of the central and northern portions of the park, and their numbers have fluctuated due to natural predators, fires, road fatalities, plague, as well as seasonal or episodic weather events. Park biologists currently perform management activities, such as DeltaDust insecticide treatments to control fleas, which are vectors for the outbreak of sylvatic plague in colonies, and to help sustain healthy populations of Utah prairie dog.

Surveys are conducted each spring to monitor active colonies and population trends. Historic and active burrows in the park have been mapped and updated periodically. The park estimates that there are approximately 600 acres of suitable Utah prairie dog habitat with 7 active colonies currently in the park. All of the active colonies have low numbers and densities of Utah prairie dogs (fewer than 100 prairie dogs counted during surveys in 2013).

The peregrine falcon (*Falco peregrinus anatum*) and northern goshawk are sensitive bird species that are known to breed in Bryce Canyon National Park. The park conducts management and monitoring activities for these bird species.

A variety of migratory birds have been observed in the park. Raptor species have been observed using meadow habitat as foraging grounds, and possibly nest in trees along the edge of meadows.

There are no known populations of rare plant species in the proposed action areas. The majority of the known populations of rare plants in the park inhabit barren areas along breaks and in open pine woodland habitats on bare, gravelly soils.

Impacts to Utah prairie dogs from key features of the Selected Alternative include the following:

- Travel Demand Management: Using electronic technology to communicate transportation options based on real-time information will reduce congestion in the park by encouraging visitors to park in Bryce Canyon City and ride the shuttle or bicycle on high-visitation days or during peak-traffic periods. The reduction in congestion and increased use of alternate modes of visitor travel in the park will result in a reduction in potential vehicle/wildlife strikes and will have a short- and long-term, negligible to minor, beneficial effect on Utah prairie dogs in the park. Restricting vehicles at Fairyland Point could result in more visitors accessing the restricted area by foot or bicycle, which will result in a reduction in the number of vehicles traveling to Fairyland Point and result in a reduction in potential vehicle/wildlife strikes. This will have a short- and long-term, negligible to minor, beneficial effect on Utah prairie dogs (if they are re-established in this area) in the Fairyland Point area.

- Education and Visitor Information: By clearly communicating parking and transportation options in the park and encouraging the use of these options, these short- and long-term improvements will help better manage traffic, parking, and visitation patterns and promote alternate transportation, which will have short- and long-term, negligible to minor, beneficial impact on Utah prairie dogs in the park by potentially reducing vehicle/wildlife strikes. In addition, Utah prairie dog conservation measures include interpretive material that will inform visitors about the status of prairie dogs and appropriate visitor activities and behavior near colonies to improve visitor awareness, with the goal of decreasing visitor disturbance.

- Shuttle: Expanding shuttle capacity and increasing service frequencies will decrease the number of private vehicles on park roadways. A reduction in vehicles in the park may result in minor beneficial effects on Utah prairie dogs and special status species due to reduced visitor traffic along roadways from expanded shuttle service. Reduced traffic will result in the reduction of potential injury or death of prairie dogs from vehicle strikes.

- Roadway and Parking: Approximately 20.88 acres of vegetation, primarily within Ponderosa Pine/Mixed Herbaceous Woodland, could be disturbed if all proposed improvements occur (i.e., full build-out); however, proposed improvements will be minimized as much as possible under the adaptive management approach. The effects of the activities under the Adaptive Travel Management Alternative are discussed below.

  No new or expanded development will occur within Utah prairie dog habitat; therefore, no direct impacts to prairie dog habitat, including burrows, will occur. The Dave's Hollow West colony (active colony with 11 prairie dogs in 2013) is less than 350 feet from the existing visitor center and entrance station. Proposed changes to the entrance station area will occur within existing paved and disturbed areas. Proposed changes to the entrance station will not

result in actions outside current activity areas (roadway with existing entrance stations). Minimal indirect effects may occur to prairie dog dispersal between the Dave's Hollow West and East colonies during construction activities.

The proposed visitor center parking lot expansion and visitor center improvements may result in adverse impacts to Utah prairie dogs. The visitor center is adjacent to the Dave's Hollow West colony and north of the Dave's Hollow East colony (active colony with 13 prairie dogs in 2013). The proposed improvements and activities related to the visitor center will occur within the 350-foot and 0.5-mile buffer zones of the active portions of the Dave's Hollow West colony and the historic portion of the Dave's Hollow East colony, but not directly within the colonies or within meadow habitat. For the active portion of the Dave's Hollow West colony, 2.6 acres are within the 350-foot buffer and 14.9 acres (entire active colony) are within the 0.5-mile buffer area. For the active portion of the Dave's Hollow East colony, 0.2 acre is within the 350-foot buffer and 4.0 acres (entire active colony) are within the 0.5-mile buffer area. Proposed visitor center improvements may result in disturbance to individual Utah prairie dogs from noise, dust, ground vibration, and increased human presence during improvement-related construction activities. Noise and increased human activity may result in reduced prairie dog foraging, affect vigilance activities, affect dispersal activity, or result in possible temporary displacement. However, prairie dogs in this area may be acclimatized to noise and human activity due to their proximity to the existing visitor center, related traffic, and human activities. The rerouting of traffic to the east may have a beneficial long-term impact on Utah prairie dogs in the Dave's Hollow West colony due to a large reduction in the number of private vehicles driving past the main colony area (where most vehicle strikes in the area occur). All parking lot expansions will occur within the Ponderosa Pine vegetation community and previously disturbed areas (paved, graded, and social trail areas). No meadow habitat will be disturbed.

Proposed circulation and reconfiguration improvements around the General Store and High Plateaus Institute may result in minimal indirect adverse impacts to the prairie dog. The Historic Housing colony (active colony with 5 prairie dogs found in 2013) is less than 350 feet from the General Store and High Plateaus Institute area, but it is currently buffered by Ponderosa Pine Forest. Proposed changes to the General Store and High Plateaus Institute area will occur within existing paved and disturbed areas. Proposed changes will not result in actions outside current activity areas; however, activities may result in minimal disturbance to prairie dogs during construction activities, due to noise and increased human presence similar to those detailed for actions adjacent to the visitor center. The Historic Housing and Dave's Hollow East active prairie dog colonies (13 prairie dogs found in 2013) are within 0.5 mile of the proposed changes to the General Store and High Plateaus Institute area. Proposed changes may result in disturbance to prairie dog dispersal; however, disturbance will likely be minimal, if any, due to the lack of dispersal habitat within and surrounding the General Store and High Plateaus Institute area.

The new multimodal hub with parking lot and shuttle stop proposed along the main park road at the Inspiration Point and Bryce Point turnoff will not result in short-term, construction-related, adverse impacts (direct, indirect, or cumulative) to active prairie dog colonies within the 350-foot buffer area. The proposed Inspiration Point and Bryce Point turnoff parking lot will not be within the boundaries of any active colonies. In addition, development of a new parking lot and shuttle stop at the Inspiration Point and Bryce Point turnoff will not likely result in long-term adverse impacts to prairie dogs, because the nearest active colonies are nearly 0.5 mile away and the area is not identified as a potential future translocation site due to the proximity of the road corridor. The nearby active colonies are the Sunset colony (presumed active but no prairie dogs were found during the 2013 survey) and the Mixing Circle Junction colony (four prairie dogs were found in 2013). The Rainbow

Gate historic colony is within the 350 foot buffer, but it is not within the proposed parking lot footprint.

The proposed parking and circulation reconfiguration at the Lodge area will not likely result in adverse effects on prairie dogs. Proposed changes will occur in existing paved and disturbed areas. There are no Utah prairie dog colonies within 350 feet of the Lodge parking lot area.

The proposed tour bus parking lot along the Lodge Loop Road will likely result in short- and long-term adverse impacts on prairie dogs. The majority of the Historic Housing colony is within 350 feet of the proposed parking lot, with the entire colony within the 0.5-mile buffer. Short-term impacts may include disturbance to individual Utah prairie dogs from noise, dust, ground vibration, and increased human presence while construction activities are occurring. Construction noise and increased human activity may result in reduced prairie dog foraging or possible temporary displacement. Prairie dogs in these areas are likely acclimatized to vehicle traffic and related noise due to their proximity to the existing roadways and parking lots. The proposed tour bus parking lot will result in increased traffic in the area, an increased potential for ground attractants being deposited by tour buses and visitors, as well as increased and regular human activity in an area that is immediately adjacent to the Lodge Loop Road and previously disturbed from past road reconstruction. These short- and long-term, adverse impacts will likely result in greater vehicle strike occurrences and increase the potential for habituation and food conditioning for the prairie dogs in the Historic Housing colony. The active portions of the Historic Housing, Mixing Circle Junction, and Dave's Hollow East colonies are within the 0.5-mile buffer of the proposed parking lot. Prairie dogs were observed in this area in 2013, and multiple vehicle strikes resulting in mortality occurred. The proposed parking lot will likely also result in long-term, adverse impacts on prairie dog dispersal activities in the area.

The proposed new multimodal hub (parking lot and temporary tour bus parking) across from the existing historic service station may result in adverse effects on prairie dogs. The Historic Housing prairie dog colony is more than 350 feet from the proposed parking lot area; however, prairie dogs forage and travel within this area.

The proposed new parking lot at the Fairyland Road entrance will not likely result in adverse effects on Utah prairie dogs. The historic Fairyland colony is more than 350 feet from the road entrance and has been inactive for several years. If Utah prairie dogs are reestablished in the historic colony along Fairyland Road, as proposed under an alternative in the "Utah Prairie Dog Stewardship Plan", vehicle restrictions in this area could have a moderate, long-term, beneficial impact on the colony. Vehicle restrictions will result in beneficial effects on the Fairyland prairie dog colony due to the reduction or elimination of vehicle traffic along Fairyland Road. Reduced traffic will result in the reduction of potential injury or death of prairie dogs and other special status species in the area from vehicle strikes.

The proposed parking lot expansion near Bryce Point viewing area along Bryce Point Road will not occur within or near any currently active colony or mapped habitat. The historic Paria East and West colonies (inactive colonies) occur within 0.5 mile of the proposed parking lot; however, these colonies have not shown prairie dog activity since 2005. The historic Paria East and West colonies may be considered for Utah prairie dog reestablishment in the future; however, they will not be priority areas due to their distance from other colonies (dispersal distance).The nearest active colonies are almost 2 miles away. The proposed parking lot expansion near the Bryce Point viewing area will not likely result in adverse effects to prairie dogs or their habitat.

Effects from expanding parking near the visitor center, adding a shuttle stop, expanding parking at the Inspiration and Bryce points turnoff along the main park road, and developing a new Bryce

Point parking lot will result in disturbance within vegetated as well as previously disturbed areas. The majority of disturbance will occur within Ponderosa Pine Woodlands. Parking and facility improvements will be minimized as much as possible through using an adaptive management approach. The expansion of the visitor center parking will occur along the east side of the main park road, on the opposite side of the road from the Dave's Hollow West prairie dog colony. Although the proposed parking expansion area is within 350 feet of the prairie dog colony, the vegetation community consists primarily of Ponderosa Pine and Mixed Herbaceous Woodland, which are not the primary habitat for prairie dogs. The proposed visitor center parking area, along with other proposed improvements, will have minor to moderate, long-term, adverse effects on Utah prairie dogs in the area. The Selected Alternative includes mitigation measures and best management practices that will be implemented to minimize impacts to special status species, including the Utah prairie dog.

A biological assessment was submitted to the USFWS as part of Endangered Species Act formal Section 7 consultation for this species on January 9, 2014. Implementing the Selected Alternative will result in a may affect, likely to adversely affect determination for the Utah prairie dog. The biological opinion was issued from the USFWS on June 25, 2014. The USFWS concluded that the proposed action was not likely to jeopardize the continued existence of the Utah prairie dog.

The Selected Alternative will result in potential impacts to Utah prairie dog, particularly during construction activities. The Selected Alternative will not result in impairment of special status species, because adverse impacts will be short- and long-term, minor to moderate, and mitigation measures will reduce these impacts.

Cultural Landscapes. Five cultural landscapes have been identified in the park, including Bryce Canyon Lodge and Deluxe Cabins area, Bryce Inn (Sunrise Camper Store, now known as the General Store), NPS Historic Housing Historic District, Rim Road, and Bryce Canyon National Park Scenic Trails Historic District. The latter is outside the areas proposed for improvements and will not be discussed further. Cultural landscape inventories have been completed for Bryce Canyon Lodge and Deluxe Cabins area, Bryce Inn, NPS Historic Housing area, and Rim Road. Cultural landscape reports have been completed for the Bryce Canyon Lodge and Deluxe Cabins area and NPS Historic Housing area.

Impacts to cultural landscapes from key features of the Selected Alternative include the following:

- Travel Demand Management: Using electronic technology to communicate transportation options based on real-time information will reduce congestion in the park by encouraging visitors to park in Bryce Canyon City and ride the shuttle or bicycle on high-visitation days or during peak-traffic periods. The reduction in congestion and increased use of alternate modes of visitor travel in the park will result in a reduction of inappropriate parking and will have long-term, negligible to minor, beneficial effects on cultural landscapes. Implementing the flex-time interpretation programs could disperse the vehicles in the park to less congested times and locations and provide a negligible to minor beneficial effect on cultural landscapes.

- Education and Visitor Information: By clearly communicating parking, transportation, and visitation options in the park and encouraging the use of these options, these short- and long-term improvements will help better manage traffic, parking, and visitation patterns and promote alternate transportation, which will have long-term, negligible to minor, beneficial impacts on cultural landscapes.

- Shuttle: Expanding shuttle capacity to North Campground and Bryce Amphitheater and increasing service frequencies will decrease the number of private vehicles and inappropriate parking in the park and will have long-term, minor beneficial effect on cultural landscapes.

- Roadway and Parking: The reconfiguration of the entrance station, the road spur to the visitor center, new parking lot at the turnoff to Fairyland Point, and the multimodal transportation hub and new parking lot at the turnoff to Inspiration and Bryce points will have no effect on cultural landscapes. The reconfiguration and improvements of the General Store parking lot will result in negligible impacts on cultural landscape of Bryce Inn/General Store, because the footprint of the improvements will be within the existing disturbance area and are within the existing conditions. Because the area is already being used for parking, additional parking will result in negligible effects to Bryce Inn/General Store. The construction and maintenance associated with the development of the tour bus parking lot along Lodge Loop Road will likely be negligible, because the footprint of the parking area is outside the boundaries for Bryce Inn/General Store and Old NPS Housing District. The multimodal hub at the Lodge and Sunrise loops is outside the boundaries of the Old NPS Housing and Bryce Canyon Lodge districts; however, construction activities will most likely be visible from both districts and will result in short-term negligible adverse effects since there will be a temporary visual disruption of the historic scene and feeling of the cultural landscapes. Following construction, visual impacts on the landscapes of these historic districts will be restored with the removal of construction equipment. Increased parking availability will likely result in long-term, negligible to minor, beneficial effects on cultural landscapes by reducing parking in inappropriate areas.

The Selected Alternative includes mitigation measures and best management practices that will be implemented to minimize impacts to the cultural landscapes of the park. The Selected Alternative will not result in impairment of the park's cultural landscapes, because adverse impacts will be long-term, negligible to minor, and mitigation measures will reduce these impacts.

Summary

As described above, adverse impacts anticipated as a result of implementing the Selected Alternative on 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 to opportunities for enjoyment of the park, or identified as significant in the park's general management plan or other relevant NPS planning documents, would not rise to levels that would constitute impairment.