

**National Park Service  
U.S. Department of the Interior**

**Capitol Reef National Park  
Utah**

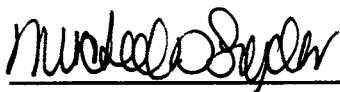


---

**Final Environmental Impact Statement  
and Assessment of Effect  
Burr Trail Modifications**

**Record of Decision**

**Approved:**



10/23/06

---

**Michael D. Snyder  
Intermountain Regional Director  
National Park Service**

**UNITED STATES DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE**

**RECORD OF DECISION**

**FINAL ENVIRONMENTAL IMPACT STATEMENT  
AND ASSESSMENT OF EFFECT**

**BURR TRAIL MODIFICATIONS**

**Capitol Reef National Park  
Utah**

**SUMMARY**

The United States Department of the Interior, National Park Service has prepared this Record of Decision on the *Final Environmental Impact Statement and Assessment of Effect* concerning modifications to the Burr Trail in Capitol Reef National Park. The proposed action is the product of the environmental compliance process that fulfills the May 30, 2001 settlement agreement that established a mutually agreeable procedure among the National Park Service, the state of Utah, and Garfield County, Utah to address road modifications that Garfield County would like to make to a one-mile segment of the Burr Trail within Capitol Reef National Park. This Record of Decision includes a description of the background of the project, a statement of the decision made, synopses of other alternatives considered, the basis for the decision, findings on impairment of park resources and values, a description of the environmentally preferred alternative, a listing of measures to minimize environmental harm, and an overview of public and agency involvement in the decision-making process.

**PROJECT BACKGROUND**

The Burr Trail, also known as the Boulder-to-Bullfrog Road, is a 66-mile-long backcountry road that passes through lands administered by two federal agencies, the National Park Service (NPS) and the Bureau of Land Management. About 8.4 miles of this road pass through the southern portion of Capitol Reef National Park. As decided by federal district court, Garfield County, Utah has a valid, existing right-of-way for the road under Revised Statute 2477.

Since the 1970s, the National Park Service has evaluated proposals to modify the Burr Trail within the park. These proposals have included paving and constructing an all-weather road. The most recent environmental assessment, prepared in 1993, evaluated the impacts of road modifications on both National Park Service and Bureau of Land Management lands.

In February 1996, a Garfield County road crew performed unauthorized road work along a one-mile segment of the Burr Trail at the park's eastern boundary. The U.S. Department of Justice filed a trespass suit against the county, which resulted in a February 1999 trial in U.S. District Court. In a decision dated October 24, 2000, the court found that the work performed by Garfield County was unauthorized "construction" rather than "maintenance" and that the county did the work without a permit or NPS approval. In particular, the court said that the work by the county precluded an analysis of the action under the National Environmental Policy Act of 1969 (as amended) and frustrated the National Park Service in its ability to develop alternatives that would have a lesser level of effect. Specifically, the court said that:

- Pursuant to the Property Clause of the United States Constitution, pertinent Acts of Congress, and lawful rules and regulations issued by the Secretary of the Interior, the National Park Service has the power to regulate construction work performed by Garfield County in the Burr Trail right-

of-way within the boundaries of Capitol Reef National Park to the extent provided by 36 C.F.R. §5.7 and other pertinent statutes and rules.

- Garfield County may not perform construction within the meaning of 36 C.F.R. §5.7 without first obtaining a permit, approval, or agreement from the National Park Service.
- Any Garfield County road construction action in the park is subject to review and disclosure under the provisions of the National Environmental Policy Act.
- When the National Park Service receives from Garfield County a proposed plan for construction along the Burr Trail, the National Park Service shall proceed in timely fashion:
  - To determine if the work falls within the county's right-of-way;
  - To comply with the National Environmental Policy Act, as well as any other applicable legal requirements;
  - To consider alternatives; and
  - To grant timely approval of the proposed work within the existing right-of-way, unless the work will significantly and adversely affect park lands, resources, values, or administration, in which case the National Park Service needs to formulate alternatives to reduce effects.

The court also ordered that Garfield County can do road maintenance to preserve the existing condition of the road without prior National Park Service approval.

A settlement agreement was filed in district court on May 30, 2001, on a counterclaim filed by Garfield County regarding the original case. The agreement established a cooperative process for addressing modifications that Garfield County and the state of Utah would like to make to the one-mile segment of the Burr Trail within Capitol Reef National Park. The settlement agreement commits the National Park Service to carry out the necessary environmental analysis in a timely fashion consistent with the district court's order. It also established that Garfield County and the state of Utah would be cooperating agencies in completing the environmental compliance process. A copy of the settlement agreement is provided in Appendix A of the FEIS. Appendix A also includes a Memorandum of Agreement, signed by the National Park Service, Garfield County, Utah, the State of Utah, and the National Parks Conservation Association, to confirm a mutually agreeable procedure to address improvements that the county and state want to make on the one-mile segment of the Burr Trail through Capitol Reef National Park.

In accordance with the settlement agreement, Garfield County has proposed road modifications to the Burr Trail within Capitol Reef National Park. Under the provisions of the National Environmental Policy Act of 1969, (as amended), the National Park Service prepared the *Final Environmental Impact Statement* to evaluate the effects of Garfield County's proposal and alternatives that were developed during the compliance process.

Garfield County's proposed action includes road widening, resurfacing, roadbed and road bank stabilization, and drainage modifications along the Burr Trail. The proposed action also includes two drainage modifications outside the one-mile segment. These actions would be implemented about three miles northwest of the one-mile segment and would include the Burr Trail crossing of Halls Creek and a drainage crossing near the base of the switchbacks in Burr Canyon. The installation of a cattle guard at the east park boundary, which has been proposed by the National Park Service, also is included in the proposed action.

## **DECISION (SELECTED ACTION)**

### **Description of the Selected Action**

After thorough analysis and extensive public involvement, the National Park Service has determined it will implement Alternative A (the preferred alternative in the *Final Environmental Impact Statement*) because it meets the general management objectives of the National Park Service for protecting park resources

and values while being consistent with the park's enabling legislation, purpose, mission, and goals. Alternative A will also meet Garfield County's identified purposes of safety, stabilization and improved drainage. The need to protect the natural environment and support the recreational interests of visitors is recognized under this alternative. The preferred alternative was selected based on evaluation of the following factors and their respective objectives:

Area of disturbance - the goal was to minimize the area of disturbance.

- Visual quality or effect - the goals were to maintain high scenic quality and unobstructed views.
- Functional differences - the objectives were to maximize the ability of road drainage structures to handle storm events, maximize visitor safety, and minimize traveler delays.
- Maintenance and operations - the goal was to have the simplest design to maintain and the easiest to repair/replace when needed.
- Visitor use and experience - the goal was to maximize the ability to achieve park visitor use and experience objectives.

Alternative A will emphasize maintaining the rustic character of the road, minimizing disturbance to the environment, and integrating the visitor's experience with the surrounding landscape, while improving safety for motorists. Road surface and drainage modifications will conform to the natural terrain and blend with the surrounding landscape. Advisory signs will warn travelers against crossing drainages when water is flowing over the road. Visitors traveling along the winding, hilly terrain will expect to experience the remote feeling and sense of adventure currently provided on the Burr Trail within the park.

Under this alternative, road modifications involving portions of the road surface, width, bank stabilization, slope protection, and drainage will be conducted at specified locations. The road will remain passable during the majority of the year; some sections will occasionally be impassable when drainage crossings are overtopped by floodwaters.

Opportunities for visitors to experience the surrounding geologic features will be retained at various locations. The driving experience in Alternative A will be consistent with the geology, topography, and environment through which the road passes.

## **Key Actions**

The key actions associated with the implementation of Alternative A will include the following.

The road surface has a high bentonite clay content from mile point 0.00 to 0.45, from mile point 0.85 to 0.90, and in a few other isolated locations. In these areas, a gravel surface course will be constructed to increase safety. Geotextile fabric may be used between the aggregate and subbase to prevent gravel loss into the subgrade. This action will improve vehicle passage and decrease the tendency of the road to become slippery during wet weather.

Without altering the overhanging rock, a narrow section of the road at mile point 0.65 will be widened by 6 feet to 10 feet. This will be accomplished by moving the northern roadside ditch toward the overhanging rock. A rock embankment will be added to the southern side of the road (the north bank of Sandy Creek) to provide structural stability for a portion of the road as well as slope protection. This will produce a road segment with two 9-foot-wide lanes with 1-foot-wide shoulders and a design speed of less than 25 miles per hour. This action will improve vehicle passage in accordance with the existing contours and current design standards.

The road bank in the vicinity of mile points 0.75 and 0.85 will be stabilized using slope protection to reduce erosion and maintain the natural contours of the existing stream channel. Up to 530 linear feet of slope protection will be placed along the base and 6 feet or more up the sides of the road embankment. The base width of the protection will remain aligned with the slope to minimize placement of rock within the existing stream channel.

Two paved fords, impassable whenever water flows across the roadway, will be constructed at mile points 0.10 and 0.20. The construction of the paved fords will disturb approximately 6,500 and 4,500

square feet of ground at mile points 0.10 and 0.20, respectively. Two vented paved fords will be constructed at mile points 0.50 and 0.60. These crossings will be passable during 2-year storm events; floodwaters will be conveyed through two 24-inch-diameter corrugated metal pipe culverts. The vented paved fords will be impassable during events greater than the 2-year storm because floodwater may overtop the paved portion of the roadway. Construction of the vented paved fords will disturb about 8,000 and 7,000 square feet of ground at mile points 0.50 and 0.60, respectively. The paved fords (vented and unvented) will be relatively consistent with the existing topography, and their length will be sufficient to contain overtopping by 10-year storm event floodwaters within the paved area. Each of the fords will include slope protection to protect the upstream and downstream banks and inlet and outlet protection to reduce and minimize erosion and scour.

Paved fords, similar to those that will be constructed at mile points 0.10 and 0.20, will be constructed at each of the two minor drainage channels. There will be approximately 4,000 square feet of new ground disturbance associated with the construction of each of the paved fords at the minor crossings. The upstream channel (i.e., inlet) will be recontoured to direct surface flow over the paved ford, and inlet and outlet protection will be installed to minimize erosion and scour. Slope protection will be added to portions of the downstream road embankment to minimize erosion.

A vented paved ford will be constructed to facilitate crossing Halls Creek. This ford will include four 36-inch-diameter corrugated metal pipe culverts. Floodwaters from a 2-year storm event will be contained in the culverts, while events up to the 10-year storm may overtop the roadway within the limits of the concrete pavement, thus preventing erosion of the roadway. The roadway at the crossing will be shifted a short distance downstream (i.e., to the south) from the Halls Creek/Burr Canyon drainage confluence so that the culverts in the paved ford can accommodate flows from the two drainages. Construction of the vented paved ford and the roadway shift will disturb about 6,000 square feet, with approximately 3,500 square feet of that disturbance outside the existing roadway footprint. Inlet and outlet protection will be added to minimize scouring and erosion. Slope protection will also be placed on the stream banks both upstream and downstream of the crossing if necessary to reduce the potential for erosion of the stream banks.

An existing culvert near the base of the switchbacks in Burr Canyon will be replaced by three 36-inch-diameter corrugated metal pipe culverts. Inlet protection will be installed while the outlet will use the existing rock channel as erosion protection. An approximately 50-foot length of road just east of the existing culvert will be widened 6 to 10 feet by adding a rock embankment and backfilling to widen the road on the south slope of the Burr Canyon drainage. These modifications in Burr Canyon will create about 8,000 square feet of new ground disturbance.

A cattle guard will be placed at the park boundary to prevent cattle from entering the park from adjacent Bureau of Land Management-administered lands, and the existing cattle guard at mile point 0.55 will be removed when the current park grazing allotment expires.

## **Mitigating Measures**

An important element of this National Park Service-selected action (Alternative A) is the protection it will provide for resources in the park as well as improvements it will make to visitor safety. Measures to avoid or minimize environmental impacts that could result from implementation have been identified and incorporated into the selected action. Best management practices to control erosion and sediment transport processes will be used during all construction activities. Generally accepted methods to protect soil, water, and vegetation resources will be implemented in association with all road modification activities.

Protective measures designed to avoid disturbance to cultural resource sites will be developed prior to construction. There are several cultural resource sites in the project area and care will be taken to avoid and protect the sites. Those areas will be identified in the construction requirements. In addition, if previously undiscovered archeological resources are uncovered during construction, all work in the immediate vicinity of the discovery will be halted until the resources are identified and documented, and

an appropriate mitigation strategy developed in consultation with the Utah State Historic Preservation Office. In the unlikely event that human remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act (25 United States Code §3001) of 1990 would be followed.

Measures designed to minimize adverse impacts to visitor use and experience and to avoid disturbance of the natural landscape will be developed prior to construction. Generally accepted methods to protect public health and safety while providing for visitor use and experience include, but will not be limited to:

- Providing signs at all paved ford crossings to warn travelers not to cross if water is overtopping the roadway. Signs will advise drivers that the general nature of the road changes from a relatively straight road outside the park to a narrower, winding road when entering Capitol Reef National Park, and that a change from pavement to native surfacing material occurs where the road crosses into the park from the west.
- Minimizing adverse impacts to visitor use and experience of the natural landscape. These measures can include the use of rock facing at culvert inlets and outlets, and the use of coloring on constructed elements to blend their appearance with the surrounding landscape.

## **OTHER ALTERNATIVES CONSIDERED**

### ***The No Action Alternative: Continue Current Management***

The No Action Alternative is defined as the continuation of current road management and project area conditions. It does not mean that road management would cease. The No Action Alternative was used as the baseline condition against which all other alternatives were compared.

Under the No Action Alternative, current characteristics of the Burr Trail would not be modified. Road features would include the following:

- The road would continue to be maintained to provide travel on a variable-width, unpaved road of gravel and native material.
- During inclement weather, the road might be impassable at drainage crossings and the road surface would be slippery along sections of the road with high clay content on the surface.
- Maintenance needs as a result of storm-related drainage would remain at their current moderately high levels.
- The overhanging rock at mile point 0.65 would remain as a natural feature along the road, and only one vehicle at a time would be able to pass around the curve adjacent to the rock.
- The road design would remain consistent with the management goals described in the park's general management plan.
- The Burr Trail at Halls Creek would remain a gravel and native material, low- water crossing, unless Garfield County replaces the previously washed out 60-inch-diameter corrugated metal pipe culvert with an in-kind culvert.
- Surface water runoff from the Burr Canyon side drainage would cross beneath the road and drain through the existing 24-inch-diameter corrugated metal pipe and, occasionally, overtop the road when flow volumes exceed the capacity of the pipe.
- The lower portion of the Burr Canyon drainage would channel storm flows and sediment directly onto the road, causing further erosion of the road and displacement of drainage culverts (if replaced) where it intersects with Halls Creek.
- During the winter grazing period, cattle would trespass across the eastern park boundary and adversely affect soils and vegetation along the road.

## **Alternative B**

Alternative B would remove the overhanging rock at mile point 0.65 by widening the road and shifting the alignment. Other features of the road modification would include gravel surfaces, culverts at drainage crossings, and a cattle guard.

The road surface in areas with high bentonite clay content would be improved, and corrugated metal pipe culverts would direct drainage at the major and minor crossings underneath the road. Road elevations would be raised at drainage crossings to accommodate the large culverts that would pass floodwaters associated with a 25-year storm event. Stone and rock used to stabilize road banks, frame culverts, and reduce erosion would be treated, if sufficiently different than local materials, to blend into the surrounding landscape.

Under Alternative B, the following road surface, width, bank stabilization, and road drainage modifications would be made:

- Gravel road base material would be installed on the road surface along the sections of the road with high bentonite clay content on the surface and would be maintained, as needed.
- The overhanging rock (or a large portion of it) would be removed and the road would be widened by 6 to 10 feet at mile point 0.65. The widening would occur on the north side of the road, eliminating the need for additional slope protection along the bank of Sandy Creek at mile point 0.65. The curve radius would be straightened with removal of the overhanging rock, and the line-of-sight distance would be increased.
- Slope protection would be added between mile points 0.75 and 0.85, as described for Alternative A.
- Drainage crossing structures along the road would be constructed to improve surface drainage at the four major and two minor crossings using corrugated metal pipe culverts that could pass 25-year and 2-year storm floodwaters, respectively.
  - Corrugated metal pipes designed to pass 25-year storm event floodwaters would be installed at mile points 0.10, 0.20, 0.50, and 0.60. These drainage structures would involve installing five 48-inch-diameter corrugated metal pipes with concrete headwalls and wingwalls and slope protection for the inlets and outlets.
  - The two minor drainage crossings would involve installing one 24-inch-diameter corrugated metal pipe culvert capable of passing 2-year storm event floodwaters, with slope protection at the inlet and outlet channels.
  - Outlet protection would be added to the existing 24-inch culvert at mile point 0.75.
- The Halls Creek drainage would be modified using eight 72-inch-diameter corrugated metal pipe culverts, a headwall and wingwalls, and erosion protection at the outlet. The culvert installation would create about 11,000 square feet of disturbance. This configuration would effectively pass 25-year storm event floodwaters.
- Culvert installation would require realignment of 300 linear feet of the Burr Canyon drainage channel in a northerly direction to intersect Halls Creek approximately 100 feet upstream of the Halls Creek crossing.
- Drainage structures and road widening at a drainage near the base of the switchbacks in Burr Canyon would remain the same as described for Alternative A.
- A cattle guard would be installed on the Burr Trail at the eastern park boundary, as in Alternative A.

## **Alternative C**

Alternative C would stabilize road surfaces and provide two-way passage for vehicles at the overhanging rock by removing the rock and realigning the road to the north, similar to Alternative B. Road elevations would increase at drainages to accommodate multiple 60-inch corrugated metal pipe culverts. In this alternative, visitors could expect to travel over a cattle guard, gravel surfaces, and pass easily over drainages with culverts. Natural undisturbed visual characteristics would be noticeably changed by removing the overhanging rock. Stone and rock treated to blend into the surrounding landscape would be used to stabilize road banks, protect against erosion, and frame culverts.

Under Alternative C, there would be road surface, width, bank stabilization, and drainage crossing modifications to the Burr Trail. Road surfaces along the sections of the road with high bentonite clay content would be stabilized in the same manner described for Alternative B.

The overhanging rock would be removed, and the narrow sections of the road at mile point 0.65 would be widened in the same manner described under Alternative B.

Slope protection would be added between mile points 0.75 and 0.85, as described for Alternatives A and B. Outlet protection would be added to the existing 24-inch culvert at mile point 0.75.

Drainage crossing structures would be constructed at the four major drainage crossings using corrugated metal pipes designed to pass 50-year storm event floodwaters. These drainage structures would include six 60-inch corrugated metal pipe culverts, concrete headwalls and wingwalls, and outlet erosion protection at mile points 0.10, 0.20, 0.50 and 0.60. Modifications at the two minor drainage crossings would include installing one 36-inch corrugated metal pipe culvert to accommodate the 10-year storm event, with erosion protection and inlet and outlet protection to reduce and minimize erosion and scour.

Halls Creek would cross under the road through a corrugated metal pipe culvert structure capable of passing 25-year storm event floodwaters, and the Burr Canyon drainage channel would be realigned as described for Alternative B.

Drainage structures and road widening at the side drainage near the base of the switchbacks at Burr Canyon would be the same as described for Alternatives A and B.

A cattle guard would be installed on the Burr Trail at the eastern park boundary, as in Alternatives A and B.

## **BASIS FOR DECISION**

The National Park Service determined that the selected action (Alternative A, the preferred alternative) provides the greatest combination of benefits and protections to both the natural, cultural, and human environments in the park. Based upon detailed environmental analysis and with consideration of American Indian tribes, public, and agency comments on all the alternatives, Alternative A, the preferred alternative, was deemed to best achieve the mandates of the National Park Service to ensure long-term natural and cultural resource preservation, while accommodating appropriate levels of visitor use and providing appropriate means of visitor enjoyment. Alternative A also meets the identified Garfield County purposes. It is the option which best reconciles the needs and desires expressed by diverse reviewers. The selected action best achieves the goals and objectives identified in the *Final Environmental Impact Statement* and fulfills the purposes of the park as described in the legislation that established Capitol Reef National Park.

The primary National Park Service objectives associated with the proposed action are to:

- Provide for safe travel on an all-weather, maintained, variable-width, unpaved, gravel and native material road, acknowledging that the road would be occasionally impassable depending on weather conditions;



- Retain the winding nature and adventuresome character of the Burr Trail through Capitol Reef National Park; and
- Protect the natural and cultural resources of the park.

The primary project objectives identified by Garfield County that are associated with the proposal are: safety, stabilization and improved drainage.

With these objectives in mind, Alternative A was selected because it provides for safe travel on the Burr Trail and it will retain the winding nature and adventuresome character of travel through the southern portion of Capitol Reef National Park. Visitors traveling along the winding, hilly terrain will continue to experience the remote feeling and sense of adventure currently provided on the Burr Trail. Although Alternative A will have some adverse effects on natural resources as a result of construction of fords and installation of culverts, the impacts will be short term and small scale. Alternative A will retain the overhanging rock. In the long term, the road modifications will protect the park's natural and cultural resources.

The No Action Alternative would not adequately meet the project objectives because the narrow roadway near the overhanging rock contributes to safety concerns, the clay portions of the road surface can be slippery when wet, and erosion of the roadbank can undermine the road.

Alternatives B and C would have incorporated culverts at the stream crossings that would have made travel safer and had fewer closures than Alternative A as a result of the capacity to pass 25-year and 50-year floods, respectively. However, these alternatives would have increased elevations at the drainage crossings, resulting in adverse visual impacts at the crossings and long-term adverse impacts to natural resources. Re-alignment and bank stabilization of the Burr Canyon drainage would have adverse visual impacts on the landscape under Alternatives B and C. Removal of the overhanging rock under these alternatives would have an adverse impact on geologic resources and could adversely affect ethnographic resources. As a result, neither the No Action Alternative, Alternative B, nor Alternative C met the project objectives as well as Alternative A.

## **FINDINGS ON IMPAIRMENT**

The National Park Service has determined that implementation of Alternative A, the preferred alternative, will not constitute impairment of park resources and values at Capitol Reef National Park. In reaching this determination, the *Final Environmental Impact Statement, General Management Plan, and Development Concept Plan: Capitol Reef National Park* was reviewed to reaffirm the park's purpose and significance, resource values, and resource management goals or desired future conditions; the management objectives specific to resource protection goals at the park were identified; thresholds were established for each resource of concern to determine the context, intensity, and duration of impacts; and an analysis was conducted to determine if the magnitude of the impact reached the level of impairment defined in *NPS Management Policies 2001*. Based on a thorough analysis of the environmental impacts described in the *Final Environmental Impact Statement*, the public comments received, and the application of the provisions of the *NPS Management Policies 2001*, the National Park Service has concluded that the implementation of Alternative A will not result in impairment of any of the resources and values of Capitol Reef National Park.

*NPS Management Policies 2001* requires analysis of potential effects to determine whether the actions would impair park resources. As stated in *NPS Management Policies 2001* section 1.4.5:

"The impairment that is prohibited...is an impact that, in the professional judgment of the responsible National Park Service manager, would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resource or values. Whether an impact meets this definition depends on the particular resources and values that would be affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in question and other impacts.

Any impact to any park resource or value may constitute an impairment. An impact would be more likely to constitute an impairment to the extent that it affects a resource or value whose conservation is:

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

When fully implemented, Alternative A will not impair resources or values. Although Alternative A will likely have adverse impacts on air quality, geological features and landform, biological soil crusts and soils, vegetation, wildlife, surface water and hydrology, natural soundscapes, ethnographic resources, public health and safety, visitor use and experience, and park operations, the impacts will be no greater than minor and primarily associated with short-term construction activities. The potential adverse effects will be minimized or offset with the implementation of mitigation measures. Furthermore, Alternative A will not significantly impact resources or values whose conservation is 1) necessary to fulfill specific legislative purposes; 2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or 3) identified as a goal in the park's general management plan or other relevant National Park Service planning documents.

## **ENVIRONMENTALLY PREFERRED ALTERNATIVE**

The environmentally preferred alternative is the alternative that will best promote the national environmental policy expressed in the National Environmental Policy Act. The environmentally preferred alternative would cause the least damage to the biological and physical environment, and would best protect, preserve, and enhance historical, cultural, and natural resources.

Section 101 (b) of the National Environmental Policy Act identifies six criteria to help determine the environmentally preferred alternative. The act directs that federal plans should:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.
- Assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings.
- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences.
- Preserve important historical, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment that supports diversity and variety of individual choice.
- Achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities.
- Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

This discussion also summarizes the extent to which each alternative meets §102 (1) of the National Environmental Policy Act, which stipulates that agencies administer their own plans, regulations, and laws so that they are consistent with the policies outlined above to the fullest extent possible.

Alternative A is the environmentally preferred alternative because it will provide the greatest balance in meeting the objectives set out in §101 of the National Environmental Policy Act. Alternative A will prevent the loss of natural and cultural resources, and will more effectively provide for the primary

functions for which the Burr Trail is intended. Paved fords at all major and minor drainage crossings and signs warning against crossing drainages when water is present on the road will enhance public safety while resulting only in minor adverse impacts on the geological landscape as the road dips into and out of drainages. The paved fords will be at approximately the same grade as the stream bed (top of unvented fords, invert of pipe in vented fords). Their presence will result in negligible to minor adverse effects on the natural hydrologic conditions in drainages, or on water quality, vegetation, or wildlife.

Road surfaces with high bentonite clay content become extremely slippery when wet. Under Alternative A, these areas will be stabilized with a gravel surface course to make the road safer and to reduce maintenance needs. Geotextile fabric may be used between the aggregate and subbase to prevent gravel loss into the subgrade.

The road at the overhanging rock will be widened by reconfiguring the ditch alignment on the north side of the road and adding a rock embankment to the south side of the road (the north bank of Sandy Creek) to provide structural stability for a portion of the road as well as slope protection so that there will be adequate travel width (two 9-foot lanes with 1-foot shoulders on each side). The overhanging rock will be retained as a geologic feature within the landscape, and soils and water resources will be protected.

Stream banks that are eroding and threatening to encroach on the road will be stabilized with erosion protection that will have a negligible to minor adverse effect on the visitor appreciation of the visual characteristics of the natural stream channel and associated landscape. Soil, water, and vegetation resource protection will be enhanced by the bank stabilization efforts in the long-term.

The shift in the roadway at the Halls Creek crossing will allow the culverts in the vented paved ford to operate properly and efficiently, while minimizing erosion potential and additional disturbance to soils and vegetation.

Alternatives B and C were not selected as the environmentally preferred alternative because removal of the overhanging rock would alter a prominent geologic feature; an important element of the view seen by visitors as they approach the Waterpocket Fold from the east.

Alternatives B and C would provide somewhat greater protection of public health, safety, and welfare with corrugated metal pipe culverts designed to accommodate 25- and 50-year storm events, respectively. The culverts would also increase the frequency and duration of times that the road would be passable during and immediately following storm events. However, neither alternative would be the environmentally preferred alternative because these crossing structures would adversely affect soils, vegetation, topography, and stream hydrology more than the paved fords associated with Alternative A. Additionally, Alternatives B and C would realign the Burr Canyon drainage channel, which would result in additional adverse effects to natural resources and potential adverse effects to ethnographic resources in the project area.

The corrugated metal pipe culvert crossing structures of Alternatives B and C would alter the characteristics of the natural landscape by elevating the road surface and separating it from the natural contour of the land, thus altering the geological landform and visitor appreciation of the visual character of the undulating landscape.

The No-Action Alternative does not meet as many of the six criteria as Alternative A. Although there are fewer natural and cultural resource impacts, the No-Action Alternative does not attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences.

Based on this analysis, Alternative A is the environmentally preferred alternative. It best fulfills the National Park Service's responsibilities as trustee of the outstanding natural resources; ensures safe, healthful, productive, and aesthetically and culturally pleasing surroundings; and attains a wider range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences.

## **PUBLIC AND AGENCY INVOLVEMENT**

In April 2002, the park notified the public of the intent to prepare an environmental impact statement for Burr Trail modifications in an announcement in the *Federal Register*. The notice requested that the public comment on the scope of the environmental impact statement, issues and alternatives related to road modifications, and other concerns. The notice also announced the park's intent to issue a public scoping brochure to further facilitate public participation in the process.

The National Park Service conducted public scoping in May and June 2002. A public scoping brochure was sent to the public and other interested groups. The planning team used public scoping/agency comment and cooperating agency input to revise the preliminary alternative concepts into the No Action Alternative and three alternatives for Burr Trail modifications that were evaluated in the *Draft Environmental Impact Statement*.

In March 2004, a mail-back postcard was sent to the public mailing list announcing the upcoming release of the *Draft Environmental Impact Statement*. The postcard gave respondents various choices for reviewing the document. As a result of extensive consultation among the cooperating agencies, the *Draft Environmental Impact Statement* was not released to the public for review until May 13, 2005.

### **Agency and American Indian Consultation and Coordination**

#### *U. S. Fish and Wildlife Service*

In accordance with section 7 of the *Endangered Species Act* (16 U.S.C. 1531 *et seq.*), the National Park Service notified the U.S. Fish and Wildlife Service of the proposed project in a April 12, 2002 letter. The U.S. Fish and Wildlife Service had no comment on the project in a July 16, 2002 letter and in response to an October 11, 2005 NPS letter, concurred with the NPS finding that the project would not likely adversely affect listed species.

#### *Utah State Historical Society*

On April 22, 2002, Capitol Reef National Park sent a letter to the Utah State Historical Society notifying the State Historic Preservation Officer about the proposed road modifications. The park also informed them that the National Park Service planned to use the environmental impact statement to fulfill the requirements of section 106 of the National Historic Preservation Act in addition to complying with provisions of the *National Environmental Policy Act*. A reply dated May 6, 2002 was received from the Utah State Historic Preservation Office acknowledging that the park will be using the environmental impact statement process to accomplish section 106 compliance and concurring with the National Park Service' determination of "No Potential to Affect."

#### *Tribal*

Capitol Reef National Park sent letters to the 21 tribes associated with the park (as identified in the *Final Environmental Impact Statement*) in April 2002 inviting them to participate in the planning process. The Hopi Cultural Preservation Office responded on April 30, 2002, noting that the Hopi Tribe did not have any concerns with the proposed project at that time, but requested that they be notified should Hopi resources be identified. No concerns related to the project were expressed by other tribes associated with the park.

### **Public Comment**

Following the May 2005 release of the *Draft Environmental Impact Statement*, there was a 60-day public review and comment period on the document. The Notice of Availability was published in the *Federal Register* on May 13, 2005 and the 60-day review period ended on July 19, 2005. The public was encouraged to comment via the NPS Planning, Environment, and Public Comment website.

The National Park Service received 12 comment documents during the public comment period. Collectively, they contained 23 substantive comments. Comments were received by postal letter, electronically at a park email address and on the NPS Planning, Environment, and Public Comment

website. Responses to the substantive public and agency comments, as well as the comment documents, are included in the *Final Environmental Impact Statement* that was distributed to the public on June 20, 2006. A Notice of Availability of the *Final Environmental Impact Statement* was published by the Environmental Protection Agency in the *Federal Register* on July 14, 2006, initiating a no-action period that concluded on August 15, 2006.

## **CONCLUSION**

Alternative A, the selected action, provides the most comprehensive and proactive strategy among the alternatives considered for meeting the National Park Service's purposes, goals, and criteria to manage and implement Burr Trail road modifications in Capitol Reef National Park in accordance with federal laws, court decisions, and NPS *Management Policies 2001*. The selection of Alternative A, as reflected by the analysis contained in the *Final Environmental Impact Statement*, would not result in the impairment of park resources and would allow the National Park Service to conserve park resources and provide for their enjoyment by park visitors.