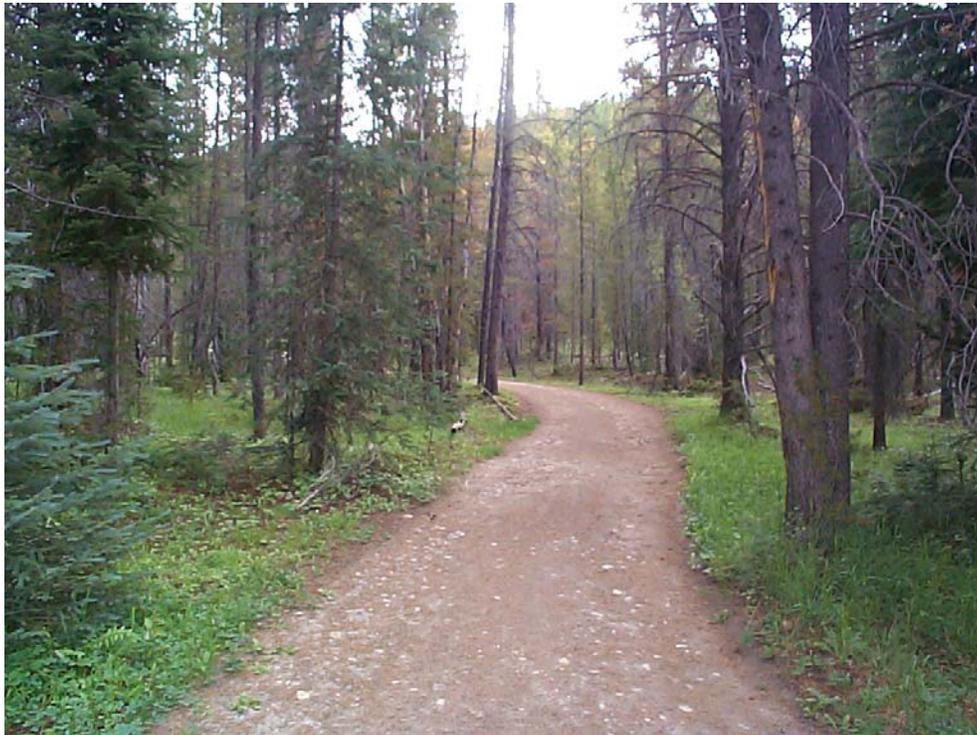


**National Park Service  
U.S. Department of the Interior  
Rocky Mountain National Park  
Colorado**



## Baker Gulch & Bowen Gulch Trailhead Consolidation Environmental Assessment



August 10, 2007

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## Environmental Assessment

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### Baker Gulch & Bowen Gulch Trailhead Consolidation Rocky Mountain National Park • Colorado

#### Summary

Rocky Mountain National Park provides several Hunter Access Corridors, including the Baker Gulch Trail and the Bowen Gulch Trail. While hunting is prohibited within the national park, Hunter Access Corridors allow access to adjacent National Forest lands where hunting for elk and deer is permitted at certain times of the year. Wildlife that has been legally taken outside the park in accordance with Colorado hunting laws and regulations, and properly tagged and identified, may be transported through the park along identified Hunter Access Corridors.

Hunters and park visitors are permitted to drive to the Baker Gulch Trailhead and the Bowen Gulch Trailhead during the Colorado combined deer and elk hunting season, which generally runs from about October 20 until November 20 each year. The ability to drive to the Baker Gulch Trailhead reduces the distance a hunter or park visitor must walk by about  $\frac{3}{4}$  mile each way. For the Bowen Gulch Trailhead, the distance is about  $\frac{1}{3}$  mile each way. The remainder of the year (11 months), visitors must park in the Bowen-Baker parking lot located near Trail Ridge Road and the only access to either trailhead is on foot or horseback.

Rocky Mountain National Park is proposing to close the Baker Gulch Trailhead and restore the parking lot and access road to natural conditions because the narrow dead-end road leading to the trailhead and the remote parking area create safety challenges for law enforcement rangers. A new connecting trail would be constructed from Baker Gulch to the Bowen Gulch Trailhead, and the Bowen Gulch Trailhead would provide parking for both trails. The changes contemplated by this Environmental Assessment would affect hunters and park visitors for approximately one (1) month each year.

**Alternative 1** is the “No Action” alternative where both trailheads would continue to be managed as they are now. **Alternative 2** is the National Park Service “Preferred Alternative” where the Baker Gulch Trailhead would be moved to the Bowen Gulch Trailhead which would be enlarged so that there is no net loss of parking, the access road to Baker Gulch would be removed and the ground restored to natural conditions, and a new connecting trail would be built to provide direct access to Baker Gulch.

This Environmental Assessment has been prepared in compliance with the National Environmental Policy Act (NEPA) to provide a decision making framework that: 1) analyzes a reasonable range of alternatives to meet the identified need; 2) evaluates the consequences of each alternative on the natural and human environment; and 3) identifies mitigation measures to ensure protection of resources and values throughout construction and implementation of the proposed trailhead changes. No major impacts are anticipated as a result of this proposal.

#### Public Comment

We welcome your comments on this Environmental Assessment. If we receive important new information, or if significant new issues are raised during the public comment period, we will revise the Environmental Assessment. **Your comments must be received in writing by close of business on September 10, 2007.**

If you have Internet access, the preferred method for submitting comments is to use the National Park Service Planning, Environment and Public Comment (PEPC) website:

<http://parkplanning.nps.gov>

From the home page, use the drop down menu to select Rocky Mountain National Park. A list of current planning projects will be displayed, and you can select the Baker Gulch & Bowen Gulch Trailhead Consolidation Environmental Assessment. Review comments can be submitted online.

If you do not have Internet access, you can submit your comments to us in several ways:

- By mail: Superintendent, Rocky Mountain National Park, Estes Park, Colorado 80517
- By fax: (970) 586-1397
- By Express Delivery: Superintendent, Rocky Mountain National Park, 1000 U.S. Highway 36, Estes Park, Colorado 80517
- Hand deliver: Rocky Mountain National Park Headquarters, 1000 Highway 36, Estes Park, Colorado or to the Kawuneeche Visitor Center, Rocky Mountain National Park, 16018 U.S. Highway 34, Grand Lake, Colorado 80447

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

Superintendent  
Rocky Mountain National Park  
Estes Park, Colorado 80517

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# **PURPOSE AND NEED**

## **Purpose**

### **Introduction**

Rocky Mountain National Park (RMNP) is located in north central Colorado. The park was established by an Act of Congress on January 26, 1915 to preserve the natural conditions and scenic beauties, conserve the natural and historic objects and wildlife, and provide the freest recreational use and enjoyment for the people of the United States. RMNP's mission is the care, protection, management, improvement, understanding, and interpretation of park resources while maintaining positive visitor experiences. The two primary gateway communities are Estes Park on the east side of the park and Grand Lake on the west side.

The Arapaho and Roosevelt National Forests adjoin much of the park boundary. Over sixty percent (60%) of the park boundary is contiguous with lands administered by the U.S. Forest Service. While hunting is prohibited within RMNP, it is allowed in the adjoining national forests. During the combined deer and elk hunting season, which lasts for approximately one month each year, RMNP provides several Hunter Access Corridors to allow hunters to gain access to the adjacent national forests. Wildlife that has been legally taken outside the park in accordance with Colorado hunting laws and regulations, and properly tagged and identified, may be transported through the park along identified Hunter Access Corridors. Approximately 260 hunters register at the Grand Lake entrance station each year.

Because hunting is prohibited with the national park, and because deer and elk have very few natural predators, hunting is the most effective means of managing deer and elk populations. Except within the national park, responsibility for game management within the state of Colorado rests with the Colorado Division of Wildlife. The National Park Service supports hunting on adjacent lands by providing Hunter Access Corridors within RMNP.

The purpose of this proposed trailhead consolidation is to:

- Continue to provide hunter and visitor access to Baker Gulch and Bowen Gulch;
- To do so in a manner that provides for public safety; and,
- To do so in a manner that provides for the safety of park personnel

## **Need**

Please refer to Figure 1 on page 13.

The Bowen-Baker parking lot is located just west of Trail Ridge Road and can accommodate approximately 30 vehicles. This parking lot is open and available to park visitors all year. The unpaved Bowen-Baker access road originates at the west end of the parking lot and crosses the Colorado River via a bridge that is located just west of the parking lot. A gate is located at the west end of the bridge. The gate is normally closed to prohibit vehicular access, but is opened for about one month each year, roughly from October 20 until November 20 during the Colorado combined hunting season for deer and elk. During this time the road provides vehicular access to the Bowen and Baker Gulch trailheads for both hunters and park visitors. Visitors are permitted to walk and ride horses along the Bowen-Baker access road throughout the year.

For the first ¼ mile, the unpaved Bowen-Baker access road is wide enough for two vehicles to

pass each other. This access road is maintained by RMNP road crews. Beyond the first ¼ mile, the road divides. By bearing left and continuing for another 200 feet one reaches the Bowen Gulch trailhead parking lot, which currently accommodates about 10 vehicles. By bearing right and continuing for another ½ mile one reaches the Baker Gulch trailhead parking lot which currently accommodates about 5 vehicles. At all other times of the year these access roads are closed to vehicles but are available for hiking and horseback riding.

The access road to Baker Gulch is a narrow two-track dirt road with few opportunities for vehicles approaching from opposite directions to pass one another. The route is somewhat circuitous and the road comes to a dead end with no secondary means of access. The Baker Gulch access road and parking lot are surrounded by lodgepole pine forest which limits visibility to only a few yards as one travels along the road. The characteristics of the Baker Gulch access road and trailhead parking area pose several challenges for RMNP law enforcement rangers: The narrow, circuitous, dead end, two-track road is problematic for emergency response. Larger emergency vehicles, including ambulances or fire fighting equipment, would have a difficult time accessing the current trailhead or maneuvering to exit the parking lot.

Surveillance of the area for law enforcement violations, including wildlife poaching or dogs off leash, is difficult because the access road and parking lot are surrounded by lodgepole pine forest.

Law enforcement rangers must always be cognizant of their own safety and the safety of park visitors in the event that a law enforcement incident should occur, and especially when weapons like hunting rifles could be involved. The narrow, circuitous, dead end road creates a setting that is troublesome for park rangers.

In addition to the challenges for law enforcement rangers, the road must be maintained by the park's roads crew. While the maintenance cost is not significant, the work does include the removal of downed trees, occasional snow removal and grading to fill in potholes. For the reasons that are described above, RMNP is proposing to close the Baker Gulch trailhead and access road, and consolidate parking at the Bowen Gulch trailhead which does not have all of the undesirable characteristics described above.

## **Scoping**

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

Internal scoping was conducted by the staff of RMNP and involved law enforcement rangers, park management staff, trails crew, maintenance personnel and cultural and natural resource specialists. This interdisciplinary process defined the purpose and need, identified potential actions to address the need, determined what the likely issues and impact topics would be, and identified the relationship, if any, of the proposed action to other planning efforts at the park.

During the Combined Hunting Season in 2005 and again in 2006 park staff posted fliers at the Baker Gulch Trailhead and the Bowen Gulch Trailhead to inform hunters and park visitors about the proposed changes. Two comments were received in 2005; one opposed to any changes and

the other recommending a more direct route from the Bowen Gulch trailhead parking lot to Baker Gulch. In response to the latter comment, we revised the proposed plans to provide a more direct trail connection. The revised plans were posted during the 2006 hunting season but generated no additional public comments. Park staff also consulted with the U.S. Forest Service and the Colorado Division of Wildlife regarding the proposed action.

In October 2006 a press release was sent to area newspapers inviting the public to attend an open house, which was scheduled to be held in Grand Lake on October 17. Two additional public comments were received following the open house:

1. Allow dogs on leash to use the trailhead and connecting trail to access the Arapaho National Forest.
2. Consider enlarging the Bowen Gulch trailhead even more than is planned and provide room for horse trailers. Also consider keeping this parking area open all year.

The undertakings described in this EA are subject to §106 of the National Historic Preservation Act, as amended in 1992 (16 USC §470 et seq.). Consultations with the Colorado State Historic Preservation Office (SHPO) have been completed. The SHPO concurred with our determination of “No historic properties affected” (please see Appendix C).

Informal consultation with the U.S. Fish & Wildlife Service (FWS) regarding potential impacts to federally listed endangered, threatened and rare species has been completed. The FWS concurred with the park’s determination that the preferred alternative, as described in detail in this document, *May Effect, but is not Likely to Adversely Affect*” Canada Lynx (Appendix B).

## **RELATIONSHIP TO OTHER PLANS**

Consolidating the Bowen and Baker Gulch Trailheads is consistent with the following RMNP documents and other agency plans:

- Master Plan (1976)
- Resources Management Plan (1998)
- Invasive Exotic Plant Management Plan (2003)
- Bark Beetle Management Plan (2005)
- Fire Management Plan (1992, updated in 2004)
- Vegetation Restoration Management Plan (1994)
- Wildland-Urban Interface Fuels Management Plan (2002)
- Elk and Vegetation Management Plan (in preparation)
- National Park Service Management Policies (2006)

A Trail Plan for RMNP was approved in 1982. In the plan, no new trails were proposed for the Kawuneeche Valley Planning Unit. However, the planning horizon for the plan was 20 years, and it did not foresee the need to provide hunter access corridors from the park to the adjacent Arapaho National Forest to help address the burgeoning elk population. Consolidating parking at the Bowen Gulch Trailhead and constructing a new connecting trail to Baker Gulch does meet the spirit and intent of the Trails Plan, which is to “provide diverse recreational opportunities for both hikers and horseback riders while reducing environmental damage” (NPS 1982).

## **IMPACT TOPICS Retained for further analysis**

Issues and concerns affecting the proposed action were identified by specialists in the National

Park Service, as well as by the public. Impact topics are the resources of concern that could be affected by the range of alternatives. Specific impact topics were developed to ensure that alternatives were compared on the basis of the most relevant topics. The following impact topics were identified on the basis of federal laws, regulations, orders, and National Park Service Management Policies (2006), and from input from the public. A brief rationale for the selection of each impact topic is given below, as well as the rationale for dismissing specific topics from further consideration.

## **Soils**

National Park Service Management Policies (2006) state that the NPS will strive to understand, maintain, restore, and protect the inherent integrity of the natural resources, processes, systems, and values of the parks while providing meaningful and appropriate opportunities to enjoy them. Natural resources include physical resources such as water, air, soils, topographic features, geologic features and paleontological resources. The NPS manages the natural resources of parks to maintain them in an unimpaired condition for present and future generations. Expansion of the Bowen Gulch Trailhead parking area would disturb approximately 4,500 sq. ft. of soil. Construction of the new connecting trail (about 900 ft. long) would disturb approximately 9,000 sq. ft. of soil. The combined disturbance would amount to 13,500 sq. ft. or 0.3 acre. For this reason, this topic has been retained for further analysis in this document.

## **Vegetation**

National Park Service Management Policies (2006) state that the NPS will strive to understand, maintain, restore, and protect the inherent integrity of the natural resources, processes, systems, and values of the parks while providing meaningful and appropriate opportunities to enjoy them. Natural resources include biological resources such as native plants, animals, and communities. The NPS manages the natural resources of parks to maintain them in an unimpaired condition for present and future generations.

The existing vegetation at the proposed site of the expanded Bowen Gulch Trailhead parking lot and the proposed connecting trail is dominated by lodgepole pine with very little understory vegetation. In order to expand the Bowen Gulch Trailhead parking area and to build about 900 feet of new trail, approximately 75 lodgepole pine trees of various ages would need to be cut down and removed. Therefore this topic has been retained for further analysis in this document.

## **Wilderness**

Wilderness management programs and policies apply to parks that have designated wilderness, potential wilderness, and recommended/study wilderness (NPS-41). A wilderness recommendation for RMNP was first submitted to Congress in 1974, but was not acted upon. Since that time there have been several RMNP wilderness bills introduced, but no action has been taken. The most recent RMNP wilderness bill was introduced in the 109<sup>th</sup> Congress but failed to pass. It is anticipated that an RMNP wilderness bill will be introduced in the 110<sup>th</sup> Congress. If a wilderness bill is passed by Congress and signed by the President, it is anticipated that approximately 95 percent of RMNP would be designated as wilderness. NPS policies state, "The NPS will take no action that would diminish the wilderness suitability of an area recommended for wilderness study or for wilderness designation until the legislative process has been completed." (USDI-NPS Management Policies Chapter 7:2, 2006, NPS-41).

Construction of a new connecting trail from the Bowen Gulch Trailhead parking area to Baker Gulch would occur within recommended wilderness. Therefore this topic has been retained for further analysis in this document.

## **Visitor Use and Experience**

National Park Service Management Policies (2006) state that 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. The fundamental purpose of all parks also includes providing for the enjoyment of park resources and values by the people of the United States. The enjoyment that is contemplated by the statute is broad; it is enjoyment by all the people of the United States and includes enjoyment both by people who visit parks and by those who appreciate them from afar.

A yearlong visitor survey revealed that tranquility, clean air, clean water, scenery, and wildlife are extremely important attractions for RMNP visitors (Valdez, 1996). RMNP is one of the busiest national parks in the System, with annual visitation of approximately 3 million people. Hiking, camping, sightseeing, and wildlife viewing are prime activities in the park.

With the proposed consolidation of the Baker and Bowen Gulch Trailheads, hunters and visitors who park at the Bowen Gulch Trailhead parking area would have to walk approximately 1/3 mile to reach Baker Gulch. Under existing conditions hunters and visitors can drive to the Baker Gulch Trailhead during the combined deer and elk hunting season. At other times, there would be no impact to park visitors.

Within the adjacent Arapaho National Forest, visitors are allowed to take dogs. However, within RMNP, there is no trail connection to the national forest where park visitors can legally walk a dog. During public scoping, a comment was received requesting access for visitors with dogs. For these reasons this topic has been retained for further analysis in this document.

## **Park Operations**

The circuitous, dead end, two-track road that provides access to the Baker Gulch Trailhead parking area poses challenges for park law enforcement rangers, emergency responders and park facility managers. If the “No Action” alternative were selected none of these challenges would be addressed, and park operations, and especially the effectiveness and safety of law enforcement rangers, would continue to experience moderate impacts. If the trailheads were consolidated and the access road and parking area for the Baker Gulch Trailhead were eliminated, park operations would experience a moderate beneficial impact. For these reasons this topic has been retained for further analysis in this document.

## **IMPACT TOPICS Dismissed from further consideration**

Issues and concerns affecting this project were identified by NPS specialists, as well as from the input of the public and other federal, state, and local agencies. After public scoping, issues and concerns were distilled into distinct impact topics to facilitate the analysis of environmental consequences, which allows for a standardized comparison between alternatives based on the most relevant information. The impact topics were identified on the basis of federal laws, regulations, and orders, NPS Management Policies (2006), and NPS knowledge of park resources. The rationale for dismissing specific topics from further consideration is given below.

## **Aquatic, Wetland and Riparian Communities**

Executive Order 1190 Protection of Wetlands requires federal land agencies to avoid, where possible, adversely affecting wetlands. NPS policies for wetlands, stated in National Park Service Management Policies (2006) and Directors Orders and Director's Orders 77-1, Wetlands Protection, strive to prevent loss or degradation to wetlands and to preserve and enhance the natural and cultural beneficial values of wetlands.

There are no wetlands in the vicinity of this project. Because this project would have no effect on aquatic, wetland or riparian communities, this topic is dismissed from further consideration and will not be evaluated further in this document.

## **Topography and Geology**

National Park Service Management Policies (2006) state that the NPS will strive to understand, maintain, restore, and protect the inherent integrity of the natural resources, processes, systems, and values of the parks while providing meaningful and appropriate opportunities to enjoy them. Natural resources include physical resources such as water, air, soils, topographic features, geologic features and paleontological resources. The NPS manages the natural resources of parks to maintain them in an unimpaired condition for present and future generations. The location of the Bowen Gulch Trailhead parking area and the proposed route for the new connecting trail are on level ground and no rock outcrops are evident. There would be no alteration of topography and no impact to geological resources if the parking lot was expanded or the new trail was constructed. Because this project would have no effect on topography or geology, this topic is dismissed from further consideration and will not be evaluated further in this document.

## **Wildlife**

According to the National Park Service Management Policies (2006), the NPS strives to maintain all components and processes of naturally evolving park unit ecosystems, including the natural abundance, diversity, and ecological integrity of plants and animals. Common wildlife species inhabiting the project area include deer, elk, moose, fox, coyotes, badgers, porcupines, meadow voles, deer mice, ground squirrels, and cottontail rabbits. Bird species include: mountain bluebird, pygmy nuthatch, northern 3-toed woodpecker, goshawk, sharp-shinned hawk, evening grosbeak, Stellar's jay, gray jay, magpie, lazuli bunting, Cassesins and house finch, red crossbill, and chickadee.

Because the proposed project would have a negligible impact on these species, this topic is dismissed from further consideration and will not be evaluated further in this document.

## **Endangered, Threatened and Rare Species**

The Endangered Species Act (1973) requires an examination of impacts on all federally-listed threatened or endangered species. National Park Service Management Policies (2006) state that the NPS will survey for, protect, and strive to recover all species native to national park system units that are listed under the Endangered Species Act. The NPS will fully meet its obligations under the NPS Organic Act and the Endangered Species Act to both proactively conserve listed species and prevent detrimental effects on these species. Through the park planning process, the NPS will determine park management actions that will protect and perpetuate state or locally listed species, and will include consultation with state agencies as appropriate.

RMNP maintains an Endangered Species Act (ESA) Endangered, Threatened, and Candidate Species List for the park, which is updated periodically and sent to the U.S. Fish and Wildlife Service (USFWS) for review and concurrence. The most recent concurrence letter from the USFWS was dated October 18, 2005 (Appendix A). RMNP also maintains a State-listed Endangered, Threatened, and Rare Species list for the park. The state list was last updated in February 2006. Copies of these lists are on file at park headquarters and are available upon request.

Based upon available maps of potential habitat for Canada lynx (*Lynx Canadensis*) it was determined that the existing Baker Gulch trailhead parking area and 400 feet of the road leading from the parking area were located within potential winter foraging habitat. Under the No Action alternative there would be no change from current conditions. Under the Preferred Alternative (described in detail in this document) the trailhead parking area and the portion of the access road located within potential lynx habitat would be removed, leaving only a footpath through the area. The park entered into informal consultation with the U.S. Fish & Wildlife Service (FWS) regarding the possible impacts of the project on Canada lynx and lynx habitat. Given that the Baker Gulch parking lot is proposed for removal and that there would no longer be vehicular access into this area, the FWS concurred with the park's determination that the proposed project *May Affect, but is not Likely to Adversely Affect* Canada lynx. Appendix B contains the concurrence letter from FWS.

The impact of the proposal on State-listed endangered, threatened and rare species would also be negligible. The Northern goshawk would be an occasional and fleeting visitor to the project area.

Because this project would not adversely affect endangered, threatened, candidate and rare species, this topic is dismissed from further consideration and will not be evaluated further in this document.

## **Floodplains**

Executive Order 11988 Floodplain Management requires all federal agencies to avoid undertakings within the 100-year floodplain unless no other practical alternative exists. The National Park Service under its Management Policies (2006) and Director's Order 77-2 Floodplain Management strives to preserve floodplain values and minimize hazardous floodplain conditions.

Because there are no floodplains in the vicinity of this project, this topic is dismissed from further consideration and will not be evaluated further in this document.

## **Air Quality**

The Clean Air Act (42 Section 118 of the 1963 Clean Air Act (42 U.S.C. 7401) requires a park unit to meet all federal, state, and local air pollution standards. Further, it provides that federal land managers have an affirmative responsibility to protect air quality related values (including visibility, plants, animals, soils, water quality, cultural resources, and visitor health) from adverse pollution impacts. RMNP is designated a mandatory Class I area. In the absence of pollution, the natural visual range is approximately 140 miles at RMNP. The current average, however, ranges between 33 and 90 miles at RMNP. Pollutants can be traced to the populated Front Range of Colorado, but possibly as far away as Mexico, Texas, and California.

There would be temporary negligible impacts from dust that is created during construction and emissions from machinery while grading the expanded parking lot, constructing the connecting trail and restoring the existing two-track road that leads to the Baker Gulch Trailhead. During construction, vehicle emissions and dust generation would be mitigated by requirements to use best management practices, such as bio-diesel or ultra-low sulfur diesel fuel, construction equipment retrofitted to reduce emissions, and watering or other dust suppression strategies.

Because impacts to air quality would be negligible, this topic is dismissed from further consideration and will not be evaluated further in this document.

## **Lightscape Management**

In accordance with National Park Service Management Policies, the NPS strives to preserve natural ambient landscapes, which are natural resources and values that exist in the absence of human caused light (NPS 2006). RMNP strives to limit the use of artificial outdoor lighting to that which is necessary for building security and human safety. 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 out of the night sky.

No structures or outdoor lighting are proposed for the trailhead. For one month each year there is the possibility that vehicles could be present at the trailhead at night, including ranger patrol vehicles. Headlights could therefore illuminate the area at night during that one month period. The impact of this nighttime illumination would be negligible. For this reason, this topic is dismissed from further consideration and will not be evaluated further in this document.

## **Natural Soundscape**

National Park Service Management Policies (2006) and Director's Order #47, Sound Preservation and Noise Management, state that preservation of the natural soundscape is an important mission of the NPS. Natural soundscapes occur in the absence of human-caused sound. The natural ambient soundscape is the aggregate of all natural sounds within the park, together with the physical capacity for transmitting natural sound through air, water, or solid material. RMNP strives to preserve the natural soundscape associated with the physical and biological resources of the park. From elk bugling to thunderous waterfalls, natural sounds of RMNP contribute to a sense of wilderness and solitude important to park visitors and are therefore critical to protect.

There would be minor, temporary noise impacts during the construction of the expanded parking lot at the Bowen Gulch Trailhead, construction of the new connecting trail, and restoration of the existing two-track road to the Baker Gulch Trailhead. Upon completion of construction, there would be minor noise impacts caused by motorized vehicles traveling to and from the Bowen Gulch Trailhead parking area during the hunting season. This impact would only occur for one month each year, roughly from October 20 to November 20. With the elimination of the Baker Gulch Trailhead parking area and access road, the level of noise impact would be reduced over current levels because motorized vehicles would no longer be traveling to and from the trailhead.

Because impacts to the natural soundscape would be minor and temporary in nature, this topic is dismissed from further consideration and will not be evaluated further in this document.

## **Cultural Resources**

Section 106 of the National Historic Preservation Act, as amended, (16USC 470 et seq.) and the National Park Service's Director's Order 28 Cultural Resource Management Guidelines require the consideration of impacts on historic properties that are listed on or are eligible to be listed on the National Register of Historic Places. They also require federal agencies to coordinate with State Historic Preservation Officers regarding the potential effects listed on or eligible for the National Register of Historic Places.

A cultural resource survey and archival and records review was conducted in July of 2006 for the project area, and no cultural resources were identified that would be affected by the project. Therefore, this topic is dismissed from further consideration and will not be evaluated further in this document.

### **State Historic Preservation Office Comments**

The Colorado State Historic Preservation Office concurred on August 9, 2006 that this project will have no effect on cultural resources (Appendix C).

## **Archeological Resources**

There are no historic or prehistoric archeological resources associated with this project. This topic is dismissed from further consideration and will not be evaluated further in this document.

## **Historic Structures**

There are no historic structures associated with this project. This topic is dismissed from further consideration and will not be evaluated further in this document.

## **Cultural Landscapes**

According to the National Park Service Director's Order 28 Cultural Resource Management Guidelines, a cultural landscape is a reflection of human adaptation and use of natural resources and is expressed in the way land is organized, patterns of settlement, land use, systems of circulation, and types of structures that are built. Cultural landscape features include buildings, structures (roads, trails, bridges, ditches, and fences), native vegetation, historic plantings, ponds, wildlife, and viewsheds.

There are no cultural landscapes associated with this project. This topic is dismissed from further consideration and will not be evaluated further in this document.

## **Museum Collections**

According to Director's Order 24, the NPS requires the consideration of impacts on museum collections. The park's museum collection is housed in the east side of the park and would not be affected by the proposed construction. This topic is dismissed from further consideration and will not be evaluated further in this document.

## **Ethnographic Resources**

According to D0-28 and Executive Order 13007 on sacred sites, the National Park Service should try to protect ethnographic resources – any site structure, object, landscape, or natural

feature assigned traditional significance in a cultural group traditionally associated with it.

John Brett (CU Denver) in the ethnographic overview for the park asked the Ute, Arapaho, Apache, Sioux and other tribes if there were any ethnographic resources in the park. The answer was “No.” Thus, in this study, Rocky Mountain National Park performed all of the ethnographic resource consultation for the entire park. In addition, none of the Arapaho or Ute elders or other tribal members has ever mentioned a resource of concern during their many visits to the park beginning in 1996. Moreover, if there were any cultural resources documented (prehistoric, historic, protohistoric, or ethnographic) during a literature review for the project (an NPS, state and professionally required procedure) or during field work, they would have been addressed in the reports. Therefore, this topic has been dismissed from further consideration and will not be evaluated further in this document.

## **Indian Trust Resources**

Secretarial Order 3175 requires that any anticipated impacts to Indian trust resources from a proposed project or action by the Department of the Interior agencies be explicitly addressed in environmental documents. The federal Indian trust responsibility is a legally enforceable fiduciary obligation on the part of the United States to protect tribal lands, assets, and treaty rights, and it represents a duty to carry out the mandates of federal law with respect to American Indians and Alaska Native tribes.

There are no Indian trust resources at Rocky Mountain National Park. The lands comprising the park are not held in trust by the Secretary of the Interior for the benefit of Indians due to their status as Indians. Since no impacts to Indian trust resources would occur as a result of this project, this topic is dismissed from further analysis and will not be evaluated further in this document.

## **Prime and Unique Farmlands**

In August 1980, the Council on Environmental Quality (CEQ) directed that federal agencies must assess the effects of their actions on farmland soils classified by the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) as prime or unique. Prime or unique farmland is defined as soil that particularly produces general crops such as common foods, forage, fiber, and oil seed; unique farmland produces specialty crops such as fruits, vegetables, and nuts. According to NRCS, none of the soils in the project area are classified as prime and unique farmlands. Therefore, the topic of prime and unique farmlands was dismissed as an impact topic in this document.

## **Socioeconomic Environment**

The proposed action would not change local and regional land use or impact local businesses. The additional ½ mile walk for hunters to access Baker Gulch could discourage some hunters from using that area if the two trailheads are consolidated at the Bowen Gulch Trailhead. It is anticipated that those hunters would choose to use other locations in the Arapaho National Forest, which would therefore create negligible impacts for the Colorado Division of Wildlife and the Arapaho National Forest. Therefore, this topic is dismissed from further consideration and will not be evaluated further in this document.

## **Environmental Justice**

Executive Order 12898, "General Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing disproportionately high and adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities. The proposed action would not have disproportionate health or environmental effects on minorities or low-income populations or communities as defined in the Environmental Protection Agency's Environmental Justice Guidance (1998). Therefore, this topic is dismissed from further consideration and will not be evaluated further in this document.

# ALTERNATIVES CONSIDERED

## Alternative 1: No-Action Alternative

The no action alternative describes the action of continuing the present management operation and condition (please refer to Figure 1); it does not imply or direct discontinuing the present action or removing existing uses, developments, or facilities. The no-action alternative provides a basis for comparing the management direction and environmental consequences of the proposed action and must always be considered in every EA. Should the no-action alternative be selected, NPS would respond to future needs and conditions associated with the Baker Gulch and Bowen Gulch Trailheads without major actions or changes in course.

The “No-Action” alternative includes the following:

- The Baker Gulch Trailhead parking area would remain in place
- The two-track access road to the Baker Gulch Trailhead would remain and would be periodically maintained (see below for information on the level of maintenance).
- The Bowen Gulch Trailhead parking area would remain in its present configuration
- The access roads to the Baker Gulch Trailhead and Bowen Gulch Trailhead parking areas would be open for vehicular traffic only during the combined deer and elk hunting seasons each year (roughly October 20 – November 20). They would be closed to hunter and visitor vehicular traffic at all other times of the year.
- The access roads mentioned above would be available for administrative travel by NPS personnel at any time
- The access roads would be periodically maintained. Maintenance could include, but is not limited to, removal of downed trees, minor grading and occasional snow removal.
- Dogs on leash would be permitted on the access roads when the access roads are open during the Colorado combined hunting season for deer and elk (roughly October 20 – November 20 each year). The access roads would revert to trail status when the hunting season is over and dogs would not be permitted.
- As is currently the case, dogs are not permitted to travel beyond the trailhead parking lots

## Alternative 2: Preferred alternative

The preferred alternative is the NPS preferred alternative (and is the proposed undertaking for §106 compliance) and defines the rationale for the action in terms of resource protection and management, visitor and operational use, costs, and other applicable factors (please refer to Figure 2). All actions described in the preferred alternative are consistent with the approved 1976 general management plan and related park documents.

The preferred alternative includes the following:

- The Bowen Gulch Trailhead parking area would be enlarged to accommodate approximately 12 additional vehicles. Provision would be made so that vehicles towing horse trailers could turn around. Providing space for the additional vehicles would entail enlarging the parking lot to the north by approximately 20 feet. Young trees growing on the north side of the parking lot would be removed, the area would

# Bowen-Baker Trailhead Existing Conditions



Figure 1

0 255 510 1,020 1,530 2,040 Feet



# Bowen-Baker Trailhead Preferred Alternative

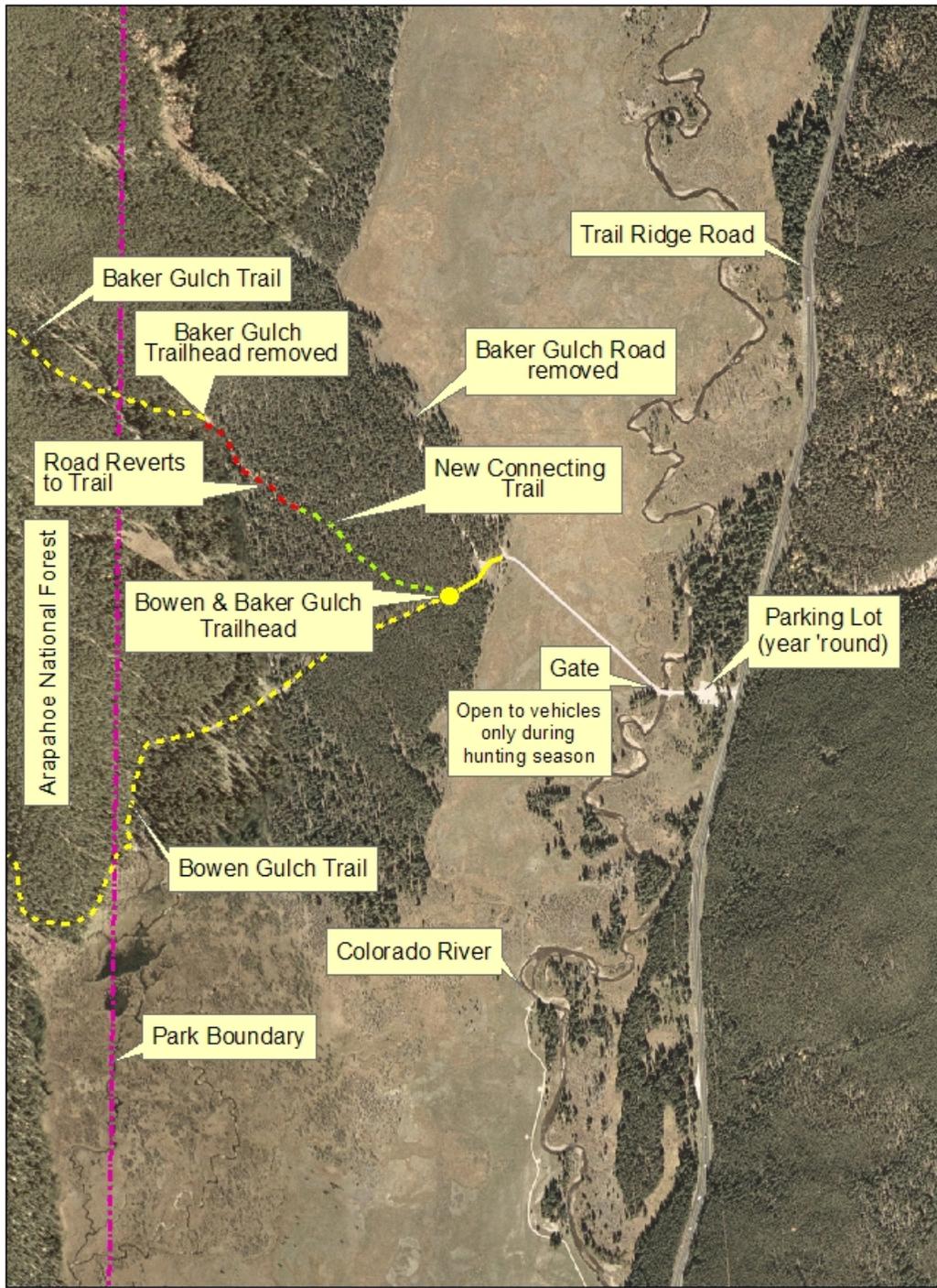


Figure 2

0 262.5 525 1,050 1,575 2,100 Feet



be graded, drainage improvements would be made, and the parking lot would be surfaced with gravel.

- A new connecting trail approximately 900 feet long would be constructed to connect the Bowen Gulch Trailhead to Baker Gulch. The trail tread would be approximately 4 feet wide and appropriate log checks, drainage improvements and water bars would be installed. For most of the trail length natural earth would form the trail tread. There may be some locations where tread material would be imported to stabilize the surface of the trail. The trail would be designed to avoid the removal of trees whenever possible, but it is anticipated that approximately 30 lodgepole pine trees would be removed during construction.
- The Baker Gulch Trailhead parking area would be closed, and areas that have been compacted by vehicle traffic would be scarified using heavy equipment and allowed to revegetate naturally.
- A portion of the access road to Baker Gulch (approximately 700 feet) would revert to a trail. Therefore, approximately one-half of the road width would be scarified using heavy equipment, tree branches, logs, boulders and other debris would be placed on the reclaimed portion, and the reclaimed area would be allowed to revegetate naturally, or may be reseeded and/or replanted with native plants.
- The remaining portion of the access road to Baker Gulch (approximately 1,700 feet) would be obliterated. This would entail scarification using heavy equipment, and the placement of tree branches, logs, boulders and other debris on the reclaimed area. The reclaimed area would be allowed to revegetate naturally, or may be reseeded and/or replanted with native plants.
- The combined Bowen-Baker Trailhead and access road would be open to vehicles during the combined deer and elk hunting season each year (roughly October 20 through November 20). The remainder of the year the access road and trailhead would revert to trail status and no hunter or visitor vehicles would be permitted to access the area. Park personnel would be able to access the area for administrative purposes at any time.
- Visitors with dogs on leash would be able to use the access road and the combined Bowen-Baker Trailhead parking area when the area is open for the Colorado combined hunting season for deer and elk (roughly October 20 through November 20).
- As is currently the case, dogs would not be permitted beyond the trailhead, and dogs would not be permitted to use the area outside of the designated hunting season.

## **Mitigation Measures**

The following mitigation measures would be employed if the preferred alternative is selected for implementation:

1. Construction zones would be identified and fenced with construction tape, snow fencing, or some similar material prior to any construction activity. The fencing would define the construction zone and confine activity to the minimum area required for construction. All protection measures would be clearly stated in the construction specifications and workers would be instructed to avoid conducting activities beyond the construction zone as defined by the construction zone fencing.
2. Temporary impacts associated with enlarging the Bowen Gulch parking lot and construction of the connecting trail to Baker Gulch would occur, such as soil and vegetation disturbance and the possibility of soil erosion. In an effort to avoid

introduction of exotic plant species, no hay bales would be used. Hay often contains seed of undesirable or harmful invasive exotic plant species. Therefore, on a case-by-case basis the following materials may be used for any erosion control dams that may be necessary: rice straw, straws determined by NPS to be weed-free (e.g., Coors barley straw or Arizona winter wheat straw), cereal grain straw that has been fumigated to kill weed seed, and wood excelsior bales. Standard erosion control measures such as silt fences and/or sand bags would also be used to minimize any potential soil erosion.

3. Silt fencing fabric would be inspected weekly or after every major storm. Accumulated sediments would be removed when the fabric is estimated to be approximately 75% full. Silt removal would be accomplished in such a way as to avoid introduction into any wetlands or flowing water bodies.
4. Although soil side-cast during construction would be susceptible to some erosion, such erosion would be minimized by placing silt fencing around the excavated soil. Excavated soil may be used in the construction project; excess soil would be stored in approved areas.
5. Revegetation plantings would use native species from genetic stocks originating in the park. Revegetation efforts would focus on recreating the natural spacing, abundance, and diversity of native plant species. All disturbed areas would be restored as nearly as possible to pre-construction conditions shortly after construction activities are completed. The principal goal is to avoid interfering with natural processes.
6. In many areas soils and vegetation are already impacted to a degree by various human and natural activities. Construction would take advantage of these previously disturbed areas wherever possible. Soils within the project construction limits would be compacted and trampled by the presence of construction equipment and workers. Soils would be susceptible to erosion until revegetation takes place. Vegetation impacts and potential compaction and erosion of bare soils would be minimized by conserving topsoil in windrows. The use of conserved topsoil would help preserve micro-organisms and seeds of native plants. The topsoil would be replaced as close to the original location as possible, and supplemented with scarification, mulching, seeding, and/or planting with species native to the immediate area. This would reduce construction scars and erosion.
7. Some petrochemicals from construction equipment could seep into the soil. To minimize this possibility, equipment would be checked frequently to identify and repair any leaks.
8. Although no blasting is expected for this project, any blasting would conform to NPS-65, Explosives Use and Blasting Program (1991), specifications. All blasting charges would use the minimum amount necessary to accomplish the task. All blasting would be used to shatter, not distribute, any material.
9. Should construction unearth previously undiscovered archeological resources, work would be stopped in the area of any discovery and the park would consult with the state historic preservation officer/tribal historic preservation officer and the Advisory Council on Historic Preservation, as necessary, according to §36 CFR 800.13, Post Review Discoveries. In the unlikely event that human remains are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act (1990) would be followed.

10. The Park Service would ensure that all contractors and subcontractors are informed of the penalties for illegally collecting artifacts or intentionally damaging archeological sites or historic properties. Contractors and subcontractors would also be instructed on procedures to follow in case previously unknown archeological resources are uncovered during construction. Equipment traffic would be minimized in the area of the site. Equipment and materials staging areas would also avoid known archeological resources.
11. Enlargement of the Bowen Gulch parking lot, construction of the new connecting trail, and reclamation of the Baker Gulch access road and parking lot would occur at a time during the year that would not interfere with hunter access for the Colorado combined hunting season for deer and elk.
12. Construction activities would be phased so that hiker access to Baker Gulch and Bowen Gulch would remain open.
13. Visitors would be kept informed of construction activities.
14. Contractors would coordinate with park staff to reduce disruption to normal park activities. Construction workers and supervisors would be informed about the special sensitivity of park values, regulations, an appropriate housekeeping.

## **Environmentally Preferred Alternative**

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

- (1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
- (2) assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
- (3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;
- (4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity, and variety of individual choice;
- (5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and
- (6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources."

Alternative 1 would provide for continued visitor use and access to Baker Gulch and Bowen Gulch. However, by retaining the circuitous, dead end, two-track access road to Baker Gulch, this alternative does not fulfill the safety policies as stated in items 2 and 3, above.

Under Alternative 2, park resources would continue to be protected while providing visitor and hunter access to Baker Gulch and Bowen Gulch. The circuitous, dead end, two-track access road to Baker Gulch would be eliminated, and a new connecting trail would be built to provide hunter and hiker access. This alternative improves employee and visitor safety and best fulfills the policies 1 – 6 stated above. Alternative 2 is the environmentally preferred alternative.

## **Summaries/Costs**

This section provides a comparative summary of impacts, the features of the alternatives, and a discussion of the degree to which each alternative accomplishes the purposes or fulfills the need identified in the purpose and need section.

**Table 1: Methods Each Alternative Uses to Ensure Each Objective is Met**

Objective	Alternative 1: No Action	Alternative 2: Preferred Alternative
<p>1. Continue to provide hunter and visitor access to Baker Gulch and Bowen Gulch</p>	<p>Two separate trailhead parking areas would be maintained – one for Baker Gulch and one for Bowen Gulch. During the hunting season, hunters and visitors would be permitted to drive to the two trailheads, park their vehicles, and hike to Bowen or Baker Gulch on existing trails. Hunter and visitor access would continue to be provided</p>	<p>One trailhead parking area would be maintained and a new connecting trail would be constructed to Baker Gulch. During the hunting season, hunters and visitors would be permitted to drive to the single trailhead, park their vehicles and hike to Bowen or Baker Gulch. Hunter and visitor access would continue to be provided.</p>
<p>2. Provide access in a manner that provides for public safety.</p>	<p>Access to Baker Gulch by vehicle during the hunting season is via a circuitous two-track road where public safety is compromised. The narrow, circuitous, dead end, two-track road is problematic for emergency response. Larger emergency vehicles, including ambulances or fire fighting equipment, would have a difficult time accessing the current trailhead or maneuvering to exit the parking lot.</p>	<p>Developing a single trailhead for both trails at the Bowen Gulch parking lot provides for public safety:</p> <ul style="list-style-type: none"> <li>- Road access and parking lot design take public safety into consideration.</li> <li>- Adequate access and turn around space for emergency vehicles</li> </ul>
<p>3. Provide access in a manner that provides for the safety of park personnel.</p>	<p>Access to Baker Gulch during the hunting season is via a circuitous two-track road where employee safety is compromised. Law enforcement rangers are more vulnerable because of lack of visibility and a single means of ingress and egress to the Baker Gulch trailhead.</p> <p>Maintenance of the narrow, circuitous access road poses some safety risks for park maintenance crews.</p>	<p>Providing a single trailhead for both trails at the Bowen Gulch provides for the safety of park personnel.</p> <ul style="list-style-type: none"> <li>- Good visibility along the access road and within the parking lot.</li> <li>- Reduced need for road maintenance lowers accident risk.</li> </ul>

**Table 2: Comparison of Alternatives**

<b>Element</b>	<b>Alternative 1: No Action</b>	<b>Alternative 2: Preferred Alternative</b>
Timing of Hunting and Public Access	Pedestrian access is permitted year-round. Vehicular would be permitted during the hunting season.	Same as alternative 1.
Vehicular Access	During the hunting season, vehicular access would be permitted to both the Baker Gulch and Bowen Gulch Trailheads.	The Baker Gulch Trailhead and access road would be closed and restored to natural conditions. During the hunting season, vehicular access would be provided to the Bowen Gulch Trailhead.
Parking	Parking would continue to be available at the Baker Gulch Trailhead and the Bowen Gulch Trailhead during the hunting season.	The parking lot at the Baker Gulch Trailhead would be closed and restored to natural conditions. The parking lot at the Bowen Gulch Trailhead would be enlarged and vehicles could park there during the hunting season.
Trail Access	Trail access would remain unchanged from current conditions.	A trail would be constructed from the Bowen Gulch parking area to Baker Gulch. Hikers and hunters who park at the Bowen Gulch parking area would have to walk an additional 1,600 feet (0.3 mile) each way when compared to the No Action alternative, which permits parking at the Baker Gulch Trailhead.

**Table 3: Summary Comparison of Impacts**

<b>Impact Topic</b>	<b>Alternative 1: No Action</b>	<b>Alternative 2: Preferred Alternative</b>
Soils	There would be no new impacts to soils. But, there would be no restoration of disturbed soils as proposed in Alternative 2. The net impact to soils is 16,000 sq. ft. greater under the No Action Alternative as compared to the Preferred Alternative. For this reason, the impact to soils is considered <i>moderate</i> .	Impact to soils is expected to be <i>negligible</i> . Very little soil disturbance would occur for the enlargement of the Bowen Gulch parking lot or for construction of the new connecting trail. Total area of new disturbance would be approximately 8,000 square feet. The area of soil to be restored to natural conditions by removing the Baker Gulch Trailhead and access road would be approximately 24,000 square feet.
Vegetation	There would be no new impacts to vegetation. But, there would be no restoration of vegetation on in previously disturbed areas as proposed in Alternative 2. The net impact to vegetation is 16,000 sq. ft. greater under the No Action Alternative as compared to the Preferred Alternative. For this reason, the impact to vegetation is considered <i>moderate</i>	Enlargement of the Bowen Gulch Trailhead parking lot is expected to result in the loss of approximately 50 young lodgepole pine trees. Construction of the connecting trail is expected to result in the loss of approximately 30 mature lodgepole pine trees. Impacts are expected to be <i>negligible</i> . The area that is currently devoid of vegetation that is to be restored to natural conditions by removing the Baker Gulch Trailhead and access road would be approximately 24,000 square feet.
Wilderness	For approximately one month each year, vehicles would be permitted to drive to the Baker Gulch Trailhead. Vehicle noise and associated impacts would extend approximately 1,400 feet further west and would affect surrounding recommended wilderness to a greater than the Preferred Alternative. Should wilderness designation be secured for RMNP, the Baker Gulch Access road and trailhead parking area would not become part of designated wilderness because they would continue to be used for vehicular access. The impact to wilderness is expected to be <i>minor</i> .	670 feet of the connecting trail would cross through recommended wilderness. The impacts to wilderness are expected to be <i>negligible</i> because the effects of trail construction would be short-term, on a small scale, and there would be no permanent impact. Upon removal of the Baker Gulch access road and commencement of the restoration process, the area could automatically be included within designated wilderness if wilderness legislation for RMNP were to be passed by Congress.

Impact Topic	Alternative 1: No Action	Alternative 2: Preferred Alternative
Visitor Experience	No change from the current situation.	The Baker Gulch trailhead would be closed and a new connecting trail would be constructed from the Bowen Gulch parking area to Baker Gulch. Hikers and hunters who park at the Bowen Gulch parking area would have to walk an additional 1,600 feet (0.3 mile) each way as compared to the No Action Alternative, which permits parking at the Baker Gulch Trailhead. Hunters who are successful harvesting an elk or deer in the Arapaho National Forest would have to transport the carcass an additional 1,600 feet (0.3 mile) to the Bowen Gulch trailhead as compared to the No Action alternative. These impacts are limited to one month each year when hunters and visitors are permitted to drive to the Baker and Bowen Gulch trailheads and are considered minor. For the remaining eleven months of the year the proposed changes would have <i>no impact</i> on park visitors because they can continue to access the Baker Gulch on foot or on horseback using the new connecting trail.
Park Operations	Concern for employee and visitor safety at the Baker Gulch trailhead would not be addressed. Park law enforcement rangers and facilities management personnel would continue to deal with <i>moderate adverse</i> impacts associated with the retention of the Baker Gulch trailhead parking area and access road. Park Facilities Management crews would continue to provide a minimum level of maintenance on the access road to Baker Gulch and within the trailhead parking lot.	Employee and visitor safety concerns at the Baker Gulch trailhead would be addressed. Law enforcement rangers would no longer be required to conduct vehicle patrols to the Baker Gulch trailhead during the combined hunting season for deer and elk (approximately one month each year). Park trail crews would construct and maintain a new 900-foot connecting trail between the Bowen Gulch trailhead parking area and Baker Gulch. Park crews would remove the Baker Gulch trailhead parking area and access road (approximately 24,000 sq. ft.) and those areas would be restored to natural conditions. Upon removal of the parking area and access road the area would revert to recommended wilderness. These changes would provide <i>moderate benefits</i> .

# ENVIRONMENTAL CONSEQUENCES

## Methodology

Potential impacts are described in terms of the following:

- Type (are the effects beneficial or adverse?)
- Context (are the effects site-specific, local, or even regional?)
- Duration (are the effects short-term, lasting less than one year, or long-term, lasting more than one year?)
- Timing (is the project seasonally timed to avoid adverse effects); and
- Intensity (are the effects negligible, minor, moderate, or major)

Because definitions of intensity (negligible, minor, moderate, or major) vary by impact topic, intensity definitions are provided separately for each impact topic analyzed in this environmental assessment/assessment of effect.

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

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

Impairment may result from National Park Service activities in managing the park, visitor activities, or activities undertaken by concessionaires, contractors, and others operating in the park. A determination on impairment is made in the Environmental Consequences section for soils, vegetation, wilderness, visitor experience and park operations.

## Cumulative Impact scenario

The Council on Environmental Quality (CEQ) regulations, which implement the National Environmental Policy Act of 1969 (42 USC 4321 et seq.), require assessment of cumulative impacts in the decision-making process for federal projects. Cumulative impacts are defined

as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions" (40 CFR 1508.7). Cumulative impacts are considered for both the no-action and preferred alternatives.

Cumulative impacts were determined by combining the impacts of the No Action Alternative and the Preferred Alternative (closing the access road to Baker Gulch, enlarging the Bowen Gulch parking lot and constructing a new connecting trail to Baker Gulch) with other past, present, and reasonably foreseeable future actions. Therefore, it was necessary to identify other ongoing or reasonably foreseeable future projects at Rocky Mountain National Park.

## **Soils**

### **Affected Environment**

The soil type in the Bowen-Baker trailhead area is Enentah very stony loam. The parent material consists of loamy colluvium and/or till derived from granite and/or gneiss and/or schist. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent.

### **Methodology**

The predicted intensity of adverse impacts is articulated according to the following criteria:

*Negligible:* Soil disturbance would be minimal, and only a small quantity of soil would be displaced from where it lies or removed from the site. Changes to the ecosystem would not be perceptible and there would be no consequences to habitat function.

*Minor:* There would be some soil disturbance either from grading by hand or by machine, but only a small quantity of soil would be displaced from where it lies or removed from the site. Impacts would be very localized. Changes to the ecosystem would be barely perceptible even with considerable scientific study, and there would be no consequences to habitat function.

*Moderate:* Soil disturbance would be readily apparent, and cut and fill slopes created by earth moving machinery would be evident. In the construction zone, soil would be displaced from where it would naturally occur on the site, and significant quantities of soil would be moved on site, removed from the site, or imported from elsewhere. Minor changes to ecosystem function would be evident and there could be consequences to habitat function.

*Major:* Soil disturbance would be extensive, and there would be extensive cut and fill slopes or surface modification. In the construction zone, large quantities of soil would be displaced from where it would naturally occur on the site, and large quantities of soil would be moved around on the site, removed from the site, or imported from elsewhere. Changes to ecosystem function would be clearly evident and there would be significant consequences to habitat function.

## Regulations and Policy

Current laws and policies require that the following conditions be achieved for soils:

Desired Condition	Source
The National Park Service will actively seek to understand and preserve the soil resources of parks, and to prevent, to the extent possible, the unnatural erosion, physical removal, or contamination of the soil or its contamination of other resources. Management action will be taken by superintendents to prevent or at least minimize potentially irreversible impacts on soils. When soil excavation is an unavoidable part of an approved facility development project, the Service will minimize soil excavation, erosion, and off-site soil migration during and after the development activity.	National Park Service Management Policies, 2006

### Impacts of the No Action Alternative

There would be no new impacts to soils if the No Action Alternative was selected. However, with the No Action Alternative there would be no restoration of disturbed soils as proposed under the Preferred Alternative. The soils on the Baker Gulch access road and trailhead would continue to be compacted by vehicles (approximately 24,000 sq. ft.). Under the Preferred Alternative, this area of soil could be restored by scarifying the road bed and replanting native vegetation or by allowing the area to reseed through natural processes.

The net impact to soils is 16,000 sq. ft. greater under the No Action Alternative when compared to the Preferred Alternative. For this reason, the impact to soils is considered *moderate*.

### Cumulative Impacts of the No Action Alternative

No ground disturbing projects are proposed for the immediate area in the foreseeable future. Approximately 2 miles away RMNP is proposing to construct 1 mile of new trail to accommodate a proposed reroute of the Continental Divide Trail. The cumulative effect of both projects on soils is expected to be *moderate*.

### Conclusion for the No Action Alternative

The net impact to soils is 16,000 sq. ft. greater under the No Action Alternative when compared to the Preferred Alternative because no restoration of previously disturbed soil would take place. Under the No Action Alternative there would be no new soil disturbance. Therefore the direct impact to soils in the No Action Alternative is considered *moderate*. Cumulative impacts to soils with the proposed reroute of the Continental Divide Trail are expected to be *moderate*. Because there would be no major, adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation and proclamation of Rocky Mountain National Park; (2) key to the natural or cultural integrity of the national park; or (3) identified as a goal in the park's master plan or other relevant National Park Service planning documents, there would be no impairment of the park's resources or values.

### **Impacts of the Preferred Alternative**

Impacts to soils are expected to be *negligible*. The terrain in the Bowen-Baker trailhead area is mostly level, with minor undulations. Very little soil disturbance would occur for the enlargement of the Bowen Gulch parking lot, and much of the expansion area has previously been disturbed as evidenced by the regrowth of young lodgepole pine trees in the proposed expansion area. Because of the gentle terrain, very little soil would be disturbed for the construction of the trail connecting the Bowen Gulch trailhead parking lot with Baker Gulch. No soil would be hauled from the site, and no soil would be imported from elsewhere.

Soil resources would be restored with the closure of the two-track road leading to the Baker Gulch trailhead and the closure of the parking area. The restored areas would be scarified to loosen compacted soil and the area would be allowed to revegetate naturally or would be reseeded with native plant species. The area to be restored would be three times the size of the area that would be disturbed. The total area of new disturbance would be approximately 8,000 sq. ft. The area to be restored would be approximately 24,000 sq. ft. The net area of restoration is therefore 16,000 sq. ft.

### **Cumulative Impacts of the Preferred Alternative**

No ground disturbing projects are proposed for the immediate area in the foreseeable future. Approximately 2 miles away RMNP is proposing to construct 1 mile of new trail to accommodate a proposed reroute of the Continental Divide Trail. The cumulative effect of both projects on soils is expected to be *minor*.

### **Conclusion for the Preferred Alternative**

Direct impacts to soils under the preferred alternative are expected to be *negligible*. Cumulative impacts to soils with the proposed reroute of the Continental Divide Trail are expected to be *minor*. Because there would be no major, adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation and proclamation of Rocky Mountain National Park; (2) key to the natural or cultural integrity of the national park; or (3) identified as a goal in the park's master plan or other relevant National Park Service planning documents, there would be no impairment of the park's resources or values.

## **Vegetation**

### **Affected Environment**

The predominant vegetation type is *Pinus contorta* var. *latifolia* – Lodgepole pine, which dominates the canopy of this association at a height of 30 – 50 ft. and coverage of 20-60%. *Pinus flexilis* – Limber pine, can occur in the subcanopy in concentrations of up to 10%. *Populus tremuloides* – Aspen, and *Pinus ponderosa* – Ponderosa pine, can be present in trace quantities. The shrub stratum is dominated by the dwarf-shrub *Arctostaphylos uva-ursi* – Kinnikinnik, at a cover of 20-50%. *Juniperus communis* var. *montana* – Common juniper, *Mahonia repens* – Creeping mahonia, and *Vaccinium caespitosum* – Dwarf blueberry, may also be present in the shrub stratum with <5% cover. There is typically very little herbaceous coverage in this association. Herbaceous cover may be trace (<1%) or present (1-5%) and is most commonly represented by *Carex geyeri*, *Carex rossii*, *Antennaria parvifolia* – Pussytoes, and *Thermopsis divaricarpa* – Golden banner. None of these species is listed as endangered, threatened or rare.

## Methodology

The predicted intensity of adverse impacts is articulated according to the following criteria:

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

*Minor:* The alternative would affect some individual native plants and would also affect a relatively minor portion of that species' population. Mitigation to offset adverse effects, including special measures to avoid affecting species of special concern, could be required and would be effective.

*Moderate:* The alternative would affect some individual native plants and would also affect a sizeable segment of the species' population in the long-term and over a relatively large area. Mitigation to offset adverse effects could be extensive, but would likely be successful. Some species of special concern could also be affected.

*Major:* The alternative would have a considerable long-term effect on native plant populations, including species of special concern, and affect a relatively large area in and out of the national park. Mitigation measures to offset the adverse effects would be required, extensive, and success of the mitigation measures would not be guaranteed.

## Regulations and Policy

Current laws and policies require that the following conditions be achieved for soils:

Desired Condition	Source
Whenever the Service removes native plants . . . the Service will seek to ensure that such removals will not cause unacceptable impacts on native resources, natural processes, or other park resources. In addition, the Service will manage such removals to prevent them from interfering broadly with: <ul style="list-style-type: none"><li>▪ natural habitats, natural abundances, and natural distributions of native species and natural processes</li><li>▪ rare, threatened, and endangered plant or animal species or their critical habitats</li><li>▪ scientific study, interpretation, environmental education, appreciation of wildlife, or other public benefits</li><li>▪ opportunities to restore depressed populations of native species breeding or spawning grounds of native species</li></ul>	National Park Service Management Policies, 2006

## Impacts of the No Action Alternative

There would be no new impacts to vegetation if the No Action Alternative was selected.

However, with the No Action Alternative there would be no restoration of vegetation as proposed under the Preferred Alternative. The soils on the Baker Gulch access road and trailhead would continue to be compacted by vehicles (approximately 24,000 sq. ft.) and no substantial vegetation would grow under these conditions. Under the Preferred Alternative, this area would be restored to natural conditions by scarifying the road bed and replanting native vegetation or by allowing the area to reseed through natural processes.

The net impact to vegetation is 16,000 sq. ft. greater under the No Action Alternative when compared to the Preferred Alternative. For this reason, the impact to vegetation is considered *moderate*.

#### **Cumulative Impacts of the No Action Alternative**

No ground disturbing projects are proposed for the immediate area in the foreseeable future. Approximately 2 miles away RMNP is proposing to construct 1 mile of new trail to accommodate a proposed reroute of the Continental Divide Trail. The cumulative effect of both projects on vegetation is expected to be *moderate*.

#### **Conclusion for the No Action Alternative**

The net impact to vegetation is 16,000 sq. ft. greater under the No Action Alternative when compared to the Preferred Alternative because no restoration of previously disturbed areas would take place. Under the No Action Alternative there would be no new disturbance to vegetation. Therefore the direct impact to vegetation in the No Action Alternative is considered *moderate*. Cumulative impacts to vegetation with the proposed reroute of the Continental Divide Trail are also expected to be *moderate*. Because there would be no major, adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation and proclamation of Rocky Mountain National Park; (2) key to the natural or cultural integrity of the national park; or (3) identified as a goal in the park's master plan or other relevant National Park Service planning documents, there would be no impairment of the park's resources or values.

#### **Impacts of the Preferred Alternative**

The impacts to vegetation are expected to be *negligible*. No listed endangered, threatened or rare plant species are present at the project site. The enlargement of the parking lot would result in the loss of approximately 50 young lodgepole pine trees that have been growing in what was a previously disturbed area. There is very sparse understory and groundcover vegetation at this location. The connecting trail would be carefully planned to avoid the removal of mature trees to the greatest extent possible. However, it is anticipated that up to 30 mature lodgepole pine trees may have to be removed to construct the trail. There is very sparse understory and groundcover vegetation in the trail corridor so impacts would be negligible.

Vegetation would be restored with the closure of the two-track road leading to the Baker Gulch trailhead and the closure of the parking area. The restored areas would be scarified to loosen compacted soil and the area would be allowed to revegetate naturally or would be reseeded with native plant species. The area to be restored would be three times the size of the area that would be disturbed. The total area of new disturbance would be approximately 8,000 square feet. The area to be restored would be approximately 24,000 square feet. Over time, lodgepole pine trees are expected to become reestablished along the road corridor and the Baker Gulch parking lot, which would help to offset the loss of immature and mature lodgepole pine trees that had to be

removed to accommodate the expanded parking lot and the connecting trail.

### **Cumulative Impacts of the Preferred Alternative**

No ground disturbing projects are proposed for the immediate area in the foreseeable future. Approximately 2 miles away RMNP is proposing to construct 1 mile of new trail to accommodate a proposed reroute of the Continental Divide Trail. The cumulative effect of both projects on vegetation is expected to be *minor*.

### **Conclusion for the Preferred Alternative**

Direct impacts to vegetation are expected to be *negligible*. Cumulative impacts to vegetation with the proposed reroute of the Continental Divide Trail are expected to be *minor*. Because there would be no major, adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation and proclamation of Rocky Mountain National Park; (2) key to the natural or cultural integrity of the national park; or (3) identified as a goal in the park's master plan or other relevant National Park Service planning documents, there would be no impairment of the park's resources or values.

## **Wilderness**

### **Affected Environment**

Congress passed the Wilderness Act in 1964. At the time, the Department of the Interior (National Park Service) was given ten (10) years to prepare a wilderness recommendation to be submitted to Congress for consideration. A wilderness recommendation for RMNP was submitted to Congress in 1974. Congress never acted on the proposal. Since then, several wilderness proposals have been introduced to Congress by various members of the Colorado Congressional Delegation. These proposals have not made their way through Congress.

In the 110<sup>th</sup> Congress (2007 -2008) the Colorado Congressional Delegation introduced wilderness legislation for RMNP. The map that accompanied the legislation depicts ninety-five percent (95%) of the park as proposed for wilderness designation. This proposal was significantly different than what was proposed in 1974 because there have been substantial changes to the park boundary, and lands have been added to the park since then. Until the legislation passes Congress, it is simply a wilderness recommendation. NPS policies (NPS 2006) state that parks are to manage recommended wilderness as though it were designated wilderness so that future opportunities for wilderness designation by Congress are not precluded.

In the Bowen Gulch and Baker Gulch area, the map that accompanied the most recent RMNP wilderness legislation contains two categories: there's *proposed wilderness*, and *potential wilderness additions*. If the legislation were to pass:

- *Proposed wilderness* would become *designated wilderness*
- *Potential wilderness additions* could become *designated wilderness* in the future without any further action by Congress once the improvements have been removed and the process of restoring the land to natural conditions is underway.

Approximately 750 feet of the connecting trail from the Bowen Gulch parking lot to Baker Gulch is situated in recommended wilderness. The current Baker Gulch parking lot, the Bowen Gulch parking lot, and the local access roads are all situated in potential wilderness additions. Therefore, if Congress were to pass wilderness legislation for RMNP, and if the Baker Gulch parking lot and access road were to be closed and were in the process of being restored to natural

conditions, that area could become part of designated wilderness within the park. Doing so would add approximately 2 acres to designated wilderness within RMNP.

**Methodology**

The predicted intensity of adverse impacts is articulated according to the following criteria:

- None:* No wilderness resources or values would be affected as a result of the alternative.
- Negligible:* Wilderness resources or values would be affected as a result of the alternative, but the effects would be short-term, on a small scale, and there would be no permanent impact.
- Minor:* The alternative would affect wilderness resources and values and would result in a permanent impact, but the effects would be on a small scale.
- Moderate:* The alternative would affect wilderness resources and values and would result in a permanent impact, with effects extending over several acres.
- Major:* The alternative would have a considerable long-term impacts on wilderness resources and values, with effects extending over a large area, perhaps affecting several square miles.

**Regulations and Policy**

Current laws and policies require that the following conditions be achieved for wilderness:

Desired Condition	Source
For those lands that possess wilderness characteristics, no action that would diminish their wilderness suitability will be taken until after Congress and the President have taken final action. The superintendent of each park containing wilderness will develop and maintain a wilderness management plan to guide the preservation, management, and use of the park’s wilderness area, and ensure that wilderness is unimpaired for future use and enjoyment as wilderness.	National Park Service Management Policies, 2006

In addition to managing these areas for the preservation of the physical wilderness resources, planning for these areas must ensure that the wilderness character is likewise preserved. This policy will be applied to all planning documents affecting wilderness.

Because the proposed connecting trail from the Bowen Gulch parking lot to Baker gulch crosses recommended wilderness, wilderness management provisions apply. RMNP has an approved “Backcountry/Wilderness Management Plan” (NPS 2001). The following excerpts are from the plan:

*Two park goals are to provide visitor access to the park resources to a degree that enables the visitor to understand and appreciate the process they reflect, and to provide the opportunity to fully sample the various geographic regions, geological features and*

*ecological attributes. Trails are the primary minimum impact tool used to achieve these goals of access to the backcountry/wilderness.*

*The objective is to provide a wide range of experiences with a certain level of expected trail conditions. Safety, resource compatibility, prevention of environmental degradation, and to a certain extent, ease of travel, are all considerations for trail management.*

*Trails are widely recognized as being consistent with wilderness.*

*The park will not generally design and construct new trails in the backcountry/wilderness except for trail reroutes or if critical to protect natural or cultural resources. The need for new trails will be evaluated on a case-by-case basis when necessary to balance visitor use and resource protection. New trail construction will require Project Proposal/Clearance review and approval and may require appropriate NEPA compliance (e.g., Environmental Assessment) and a Minimum Requirement Analysis (ROMO 180).*

The proposal to close the current access to the Baker Gulch trailhead, and to construct a new connecting trail approximately 900 feet long within recommended wilderness is consistent with the park's "Backcountry/Wilderness Management Plan."

#### **Impacts of the No Action Alternative**

The current Baker Gulch parking lot, the Bowen Gulch parking lot, and the local access roads are all situated in potential wilderness additions. Under the No Action Alternative these locations would all maintain their status as potential wilderness additions. For approximately one month each year, vehicles would be permitted to drive to the Baker Gulch Trailhead. Vehicle noise and associated impacts would extend approximately 1,400 feet further west and would affect surrounding recommended wilderness to a greater degree when compared to the Preferred Alternative. Should wilderness designation be secured for RMNP, the Baker Gulch Access road and trailhead parking area, covering approximately 2 acres, would not become part of designated wilderness because they would continue to be used for vehicular access under the No Action Alternative. The impact to wilderness under the No Action Alternative is expected to be *minor*.

#### **Cumulative Impacts of the No Action Alternative**

No additional impacts to wilderness are expected for the immediate area in the foreseeable future. Approximately 2 miles away, RMNP is proposing to construct 1 mile of new trail to accommodate a proposed reroute of the Continental Divide Trail. This new trail would be located within recommended wilderness. The cumulative impacts to wilderness from both projects are expected to be *minor*.

#### **Conclusion for the No Action Alternative**

Direct impacts to wilderness under the No Action Alternative are expected to be *minore*. Cumulative impacts to wilderness with the proposed reroute of the Continental Divide Trail are also expected to be *minor*. Because there would be no major, adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation and proclamation of Rocky Mountain National Park; (2) key to the natural or cultural integrity of the national park; or (3) identified as a goal in the park's master plan or other relevant National Park Service planning documents, there would be no impairment of the park's resources or values.

### **Impacts of the Preferred Alternative**

The “Backcountry/Wilderness Management Plan” (NPS 2001) for RMNP established administrative conditions for actions that are contemplated in proposed wilderness. These administrative conditions are consistent with the provisions of the 1964 Wilderness Act and the Minimum Requirement concept. Section 4(c) of the Wilderness Act reads as follows:

*“ . . . except as necessary to meet the minimum requirements for the administration of the area for the purpose of this Act (including measures required in emergencies involving the health and safety of persons within the area) there shall be no temporary road, no use of motor vehicles, motorized equipment or motorboats, no landing of aircraft, no other form of mechanical transport, and no structure or installation. . . ”*

The Act allows for the administrative exception, but it is an exception not to be abused and to be exercised very sparingly and only when it meets the test of being the minimum necessary for wilderness. NPS policy dictates that all management decisions affecting wilderness must be consistent with the Minimum Requirement Concept.

The Minimum Requirement Concept enables managers to examine and document if a proposed management action is appropriate in wilderness, and if it is, what is the least intrusive equipment, regulation, or practice (minimum tool) that will achieve wilderness management objectives. The completion of this process assists managers in making informed and appropriate decisions.

To apply the Minimum Requirement concept at RMNP, a Minimum Requirement Analysis must be completed for any management action within wilderness. The Minimum Requirement Analysis for this project can be found in Appendix D.

The impacts to wilderness are expected to be *negligible* because the effects would be short-term, on a small scale, and there would be no permanent impact. In addition, upon removal of the Baker Gulch access road and beginning the restoration process, the area could automatically be included within designated wilderness if wilderness legislation for RMNP were to be passed by Congress. This would add approximately 2 acres to designated wilderness within RMNP.

### **Cumulative Impacts of the Preferred Alternative**

No additional impacts to wilderness are expected for the immediate area in the foreseeable future. Approximately 2 miles away, RMNP is proposing to construct 1 mile of new trail to accommodate a proposed reroute of the Continental Divide Trail. This new trail would be located within recommended wilderness. The cumulative impacts to wilderness from both projects are expected to be *negligible* because the effects would be short-term, on a small scale, and there would be no permanent impact.

### **Conclusion for the Preferred Alternative**

Direct impacts to wilderness under the preferred alternative are expected to be *negligible*. Cumulative impacts to wilderness with the proposed reroute of the Continental Divide Trail are also expected to be *negligible*. Because there would be no major, adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation and proclamation of Rocky Mountain National Park; (2) key to the natural or cultural integrity of the national park; or (3) identified as a goal in the park’s master plan or other relevant National Park Service planning documents, there would be no impairment of the park’s resources or values.

## Visitor Experience

### Affected Environment

This topic analyzes what park visitors experience while visiting RMNP. This includes the ability to experience a minimally affected environment; the ability to freely travel about the park without encountering traffic congestion or impediments; the ability to see and experience the “real thing,” and to participate in traditional, high quality recreational activities.

For approximately one month each year, from October 20 until November 20, during the Colorado combined hunting season for elk and deer, hunters and visitors can drive to the Baker Gulch Trailhead and the Bowen Gulch Trailhead. The access roads and trailheads are part of the hunting access corridors that the park provides so that hunters can access adjacent national forest lands. At all other times of the year the access roads and trailheads are only accessible on foot or horseback. The distance from the gate located on the access road at the Colorado River to the Bowen Gulch Trailhead is approximately ¼ mile. The distance from the gate to the Baker Gulch Trailhead via the access road is roughly ¾ mile. Under current conditions, these are the distances that park visitors must walk in order to reach the trailheads when the area is closed to vehicles (11 months each year).

It has been reported that during the one month period when visitors can drive to the Bowen Gulch and Baker Gulch trailheads, some visitors have taken their dogs on the Bowen Gulch and Baker Gulch trails in the park in order to reach the Arapaho National Forest, where dogs are permitted. While dogs on leash are allowed on park roads when they are open to vehicle traffic, park regulations do not permit dogs on trails within the park. Park law enforcement rangers would enforce this regulation, and with the implementation of the preferred alternative, dogs would not be permitted beyond the Bowen Gulch Trailhead.

Public scoping and personal observation of visitation patterns combined with assessment of what is available to visitors under current management were used to estimate the effects of the actions in the various alternatives.

### Methodology

The predicted intensity of adverse impacts is articulated according to the following criteria:

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

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

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

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

opinion about the changes.

### **Regulations and Policy**

Current laws and policies require that the following conditions be achieved for visitor experience:

Desired Condition	Source
<ul style="list-style-type: none"><li>– Visitor and employee safety and health are protected.</li><li>– Enjoyment of park resources and values by the people of the United States is part of the fundamental purpose of all parks. The Service is committed to providing appropriate, high-quality opportunities for visitors to enjoy the parks, and the Service will maintain within the parks an atmosphere that is open, inviting, and accessible to every segment of American society.</li><li>– To provide for enjoyment of the parks, the National Park Service will encourage visitor activities that:<ul style="list-style-type: none"><li>• are appropriate to the purpose for which the park was established; and</li><li>• are inspirational, educational, or healthful, and otherwise appropriate to the park environment; and</li><li>• will foster an understanding of and appreciation for park resources and values, or will promote enjoyment through a direct association with, interaction with, or relation to park resources; and</li><li>• can be sustained without causing unacceptable impacts to park resources or values.</li></ul></li><li>– Any closures or restrictions—other than those imposed by law—must be consistent with applicable laws, regulations, and policies, and (except in emergency situations) require a written determination by the superintendent that such measures are needed to:<ul style="list-style-type: none"><li>• protect public health and safety;</li><li>• prevent unacceptable impacts to park resources or values;</li><li>• carry out scientific research;</li><li>• minimize visitor use conflicts; or</li><li>• otherwise implement management</li></ul></li></ul>	National Park Service Management Policies, 2006

responsibilities.

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### **Impacts of the No Action Alternative**

There would be no changes to the current use of the Baker and Bowen Gulch trailheads and thus *no impact* to the current visitor experience. Hunters and park visitors would continue to drive to the Baker Gulch trailhead for approximately one month each year during the combined hunting season for deer and elk. For the remaining eleven months each year, visitors would be able to access both trailheads on foot or on horseback.

For visitors on foot or horseback that appreciate a more solitary experience, Alternative 1 has the potential to negatively impact visitor experience for approximately one month each year as motorized vehicles intrude further into the park as compared to Alternative 2. Based on very little response received from hikers and horseback riders this intrusion is expected to have a *negligible* impact on visitor experience.

### **Cumulative Impacts of the No Action Alternative**

No other changes are anticipated in the immediate vicinity of the Bowen and Baker Gulch trailheads that would alter visitor experience. Approximately 2 miles away RMNP is proposing to reroute a portion of the Continental Divide Trail (CDT). The purpose for the reroute is to relocate the CDT from a motorized route in the Arapaho National Forest to a non-motorized route. Because the CDT would be entering the park at a new location, a reroute of the trail within the park is needed. The ability to travel on foot or horseback on the CDT without competition from motorized vehicles would enhance the experience of park visitors who desire that experience. There would be a *minor beneficial* cumulative impact on visitor experience if both projects were to be implemented.

### **Conclusion for the No Action Alternative**

There would be *no impact* on hunters and others who drive to the Baker Gulch Trailhead if the No Action Alternative was implemented. Keeping the access road to Baker Gulch open to motorized vehicles during the hunting season is expected to have a *negligible* impact on hikers and horseback riders who prefer a more solitary experience free from the intrusion of motorized vehicles. When considered in conjunction with the reroute of the Continental Divide Trail, the cumulative impact to visitor experience is expected to be *minor* and *beneficial*. There would be no major, adverse impacts to visitor experience if the No Action Alternative was selected and implemented.

### **Impacts of the Preferred Alternative**

With the changes proposed in the Preferred Alternative, the NPS is not prohibiting access to Baker Gulch. The access is being relocated and consolidated at the Bowen Gulch Trailhead. Given that very few comments expressing concern about the trailhead consolidation were received during public scoping, the preferred alternative is expected to have a *minor* impact on visitor use and experience. Closing the Baker Gulch Trailhead would be for the long-term.

For one month each year, during the Colorado combined hunting season for deer and elk, hunters and park visitors would have to walk an additional 1/3 mile each way to access Baker Gulch as compared to the current situation. Hunters who are successful at harvesting a deer or elk within the Arapaho National Forest would have to transport the carcass an additional 900 feet (0.3 mile) as compared to the current situation.

During the 11 months each year when the Bowen Gulch trailhead is not open to vehicle traffic, visitors desiring to access Baker Gulch must walk (or ride horseback) from the gate across the road at the Colorado River to the Bowen Gulch Trailhead and then to Baker Gulch via the new connecting trail. The total distance is 0.6 mile, which is slightly less than the current situation.

For those visitors who desire more of a wilderness or “backcountry” experience, they may prefer the “Preferred Alternative” to the “No Action” alternative because the intrusion of the Bowen Gulch access road and trailhead parking lot and associated vehicle noise would be removed.

### **Cumulative Impacts of the Preferred Alternative**

No other changes are anticipated in the immediate vicinity of the Bowen and Baker Gulch trailheads that would alter visitor experience. Approximately 2 miles away RMNP is proposing to reroute a portion of the Continental Divide Trail (CDT). The purpose for the reroute is to relocate the CDT from a motorized route in the Arapaho National Forest to a non-motorized route. Because the CDT would be entering the park at a new location, a reroute of the trail within the park is needed. The ability to travel on foot or horseback on the CDT without competition from motorized vehicles would enhance the experience of park visitors who desire that experience. There would be a *negligible* beneficial cumulative impact on visitor experience if both projects were to be implemented.

### **Conclusion for the Preferred Alternative**

The impact of the preferred alternative on visitor experience is expected to be *minor* and *adverse*. When considered in conjunction with the reroute of the Continental Divide Trail, the cumulative impact to visitor experience is expected to be *negligible* and *beneficial*. There would be no major, adverse impacts to visitor experience if the preferred alternative were selected and implemented.

## **Park Operations**

Implementation of a project can effect the operations of a park such as the number of employees needed; the type of duties that need to be conducted; when and who should conduct these duties; how activities should be conducted; administrative procedures; and short and long-term budget implications.

### **Methodology**

The predicted intensity of adverse impacts is articulated according to the following criteria:

*Negligible:* Park operations would not be affected or the effect would be at or below the lowest levels of detection, and would not have an appreciable effect on park operations or budget.

*Minor:* The effect would be detectable, but would be of a magnitude that would not have an appreciable adverse or beneficial effect on park operations or budget. If mitigation were needed to offset adverse effects, it would be relatively simple and successful.

*Moderate:* The effects would be readily apparent and would result in substantial adverse or

beneficial change in park operations and/or budget in a manner noticeable to staff and the public. Mitigation measures to offset adverse effects would likely be successful.

*Major:* The effects would be readily apparent and would result in a substantial adverse or beneficial change in park operations and/or budget in a manner noticeable to staff and the public, and be markedly different from existing operations. Mitigation measures to offset adverse effects would be needed, could be expensive, and their success could not be guaranteed.

**Regulations and Policies**

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

Desired Condition	Source
<ul style="list-style-type: none"> <li>- Management accountability is the expectation that managers are responsible for the quality and timeliness of program performance, increasing productivity, controlling costs, and mitigating the adverse aspects of agency operations, and for assuring that programs are managed with integrity and in compliance with applicable law.</li> <li>- The concept of management accountability will be applied to all strategies, plans, guidance, and procedures that govern programs and operations throughout the NPS. The NPS will, through its organization, policies, and procedures, implement systems of controls to reasonably ensure that:               <ul style="list-style-type: none"> <li>• Programs achieve their intended results;</li> <li>• Resources are used consistent with the NPS mission;</li> <li>• Programs and resources are protected from fraud, waste, abuse, and mismanagement;</li> <li>• Laws and regulations are followed; and</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• NPS Management Policies 2006;</li> <li>• OMB Circular A-123;</li> <li>• Federal Managers’ Financial Integrity Act of 1982 (31 USC 3512(d))</li> <li>• Government Performance and Results Act of 1993 (GPRA)</li> </ul>
Reliable and timely information is obtained, maintained, reported, and used for decision-making.	

**Impacts of the No Action Alternative**

Park law enforcement rangers and facilities management personnel would continue to deal with *moderate adverse* impacts associated with the retention of the Baker Gulch trailhead parking area and access road. Law enforcement officers would continue to patrol the area, particularly during the one month each year during the combined hunting season for deer and elk. Park road crews would continue to provide a minimal level of maintenance on the access road and within the trailhead parking lot.

From a park operations perspective, the main concern would continue to be visitor and employee safety because of the limited visibility afforded law enforcement officers when approaching the trailhead, and the difficulty of emergency response on the narrow, circuitous access road. None of these concerns would be addressed under the No Action Alternative.

**Cumulative Impacts of the No Action Alternative**

No actions are contemplated in the immediate vicinity of the Bowen and Baker Gulch trailheads

that would further impact park operations. Approximately 2 miles away RMNP is proposing to reroute a portion of the Continental Divide Trail (CDT) that will require the construction of a new one mile trail connection. Construction and ongoing maintenance of the new trail would affect park operations. The cumulative effect on park operations is expected to be *moderate*.

### **Conclusion for the No Action Alternative**

The direct impacts on park operations under the No Action Alternative are expected to be *moderate* and *adverse*. Cumulative impacts to park operations with the proposed reroute of the Continental Divide Trail are expected to be *moderate* and *adverse*. There would be no major, adverse impacts to park operations if the No Action Alternative was selected and implemented.

### **Impacts of the Preferred Alternative**

Implementation of the preferred alternative would result in *moderate benefits* for park law enforcement rangers. During the combined hunting season for deer and elk (approximately one month each year) they would be patrolling one single trailhead rather than two. The Bowen Gulch Trailhead is much more accessible and visible for patrol rangers than the Baker Gulch Trailhead, which would be closed.

Implementation of the preferred alternative would result in minor benefits for park road maintenance operations. The park would no longer be maintaining the circuitous two-track road leading to Baker Gulch, or the small parking lot at the end of the road. Clearing the Baker Gulch access road of downed trees and snow, and grading of the road surface would no longer be required once the road has been closed.

Maintenance of the enlarged Bowen Gulch Trailhead parking lot would result in minor impacts to park operations related to increased work for park road crews and associated costs. Maintenance of the enlarged parking lot would involve periodic grading and possibly snow removal.

Maintenance of the new connecting trail from the Bowen Gulch Trailhead to Baker Gulch would result in minor impacts to park operations related to increased work for the park's trails crew and associated personnel and materials costs. Maintenance of the connecting trail would include removal of downed trees, replacement of water bars and other trail appurtenances, and occasional replacement of tread material where needed.

There would be no change in park operations related to opening the Bowen Gulch Trailhead and access road to vehicle traffic during the hunting season. The access road and trailhead would be open to vehicles during the combined hunting season for deer and elk, and the access road and parking lot would be closed to vehicles at other times of the year.

### **Cumulative Impacts of the Preferred Alternative**

No actions are contemplated in the immediate vicinity of the Bowen and Baker Gulch trailheads that would further impact park operations. Approximately 2 miles away RMNP is proposing to reroute a portion of the Continental Divide Trail (CDT) that will require the construction of a new one mile trail connection. Construction and ongoing maintenance of the new trail would affect park operations, but with the closure of the Baker Gulch trailhead parking area and access road, the cumulative effect on park operations is expected to be *minor* and *beneficial*.

### **Conclusion of the Preferred Alternative**

The direct impacts on park operations under the preferred alternative are expected to be *moderate* and *beneficial*. Cumulative impacts to park operations with the proposed reroute of the Continental Divide Trail are expected to be *minor* and *beneficial*. There would be no major, adverse impacts to park operations if the preferred alternative were selected and implemented.

# CONSULTATION/COORDINATION

## **Agencies/Tribes/Organizations/Individuals Contacted**

Fish and Wildlife Service  
Colorado State Historic Preservation Office  
Brad Orr – Sulphur Ranger District of the Arapaho and Roosevelt National Forests  
James Shockey – Town of Grand Lake  
Kirk Oldham – Colorado Division of Wildlife  
Bruce VanHaveren  
Lou Tyler  
Jim Cervenka  
Al Simonds

## **Preparers**

Lawrence H. Gamble – Chief of the Branch of Planning & Compliance, Rocky Mountain National Park

## **List of Recipients**

### ***Organizations***

Town of Grand Lake  
Grand County Commissioners  
Colorado Division of Wildlife  
Sulphur Ranger District – Arapaho & Roosevelt National Forests  
Sierra Club  
The Wilderness Society  
Wilderness Watch  
Colorado Division of Wildlife  
Colorado Mountain Club  
Colorado Environmental Coalition  
Al White – Colorado House District 57  
Jack Taylor – Colorado Senate District 8  
Juniper Library – Grand Lake, Colorado  
National Parks and Conservation Association (NPCA)  
Office of Ken Salazar – U.S. Senate  
Office of Wayne Allard – U.S. Senate  
Office of Mark Udall – U.S. House of Representatives  
Sky Hi News

### ***Individuals***

Al Simonds  
Jim Cervenka  
James Shockey  
Bruce VanHaveren  
Lou Tyler

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## APPENDIX A: UNIT SPECIFIC SPECIES LIST FOR RMNP



### United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Ecological Services  
Colorado Field Office  
755 Parfet Street, Suite 361  
Lakewood, Colorado 80215

IN REPLY REFER TO:  
ES/CO: NLAA/RMNP  
Mail Stop 65412

OCT 18 2005

Mr. Larry Gamble  
Chief, Branch of Planning & Compliance  
Rocky Mountain National Park  
Estes Park, Colorado 80517

Dear Mr. Gamble:

The U.S. Fish and Wildlife Service has received your October 3, 2005, emailed correspondence requesting concurrence for your revised Threatened and Endangered Unit Species List (revised December 2004). The purpose of the "unit species list" is to streamline the section 7 consultation required of Federal agencies under the Endangered Species Act. This list would eliminate the Rocky Mountain National Park (RMNP) agencies from having to request a threatened and endangered species list each time they require consultation with the Service.

The Service concurs with your updating the status listed for the Boreal toad, *Bufo boreas boreas*. This species is no longer a candidate species and it is appropriate to remove it from your Threatened and Endangered Unit Species List. The Service also concurs that the following listed species may be affected by activities of the Rocky Mountain National Park and consultations will be needed. Although candidate species presently receive no protection under the Act, it is within the spirit of the Act to consider project impacts to potentially sensitive species. Please be aware that threatened and endangered species lists should be updated every 90 days by telephone or in writing. If the update requires a change in the list below, the change will be documented in writing. The following species are of potential concern for your projects.

#### Unit Species List for the Rocky Mountain National Park

Bald eagle	<i>Haliaeetus leucocephalus</i>
Bonytail	<i>Gila elegans</i>
Canada lynx	<i>Lynx canadensis</i>
Colorado butterfly plant	<i>Gaura neomexicana</i> spp. <i>Coloradensis</i>
Colorado pikeminnow	<i>Ptychocheilus lucius</i>
Greenback cutthroat trout	<i>Oncorhynchus clarki stomias</i>
Humpback chub	<i>Gila cypha</i>
Least Tern	<i>Sterna antillarum</i>
Mexican spotted owl	<i>Strix occidentalis lucida</i>

Pallid sturgeon	<i>Scaphirhynchus albus</i>
Piping plover	<i>Charadrius melodus</i>
Preble's meadow jumping mouse	<i>Zapus hudsonius preblei</i>
Razorback sucker	<i>Xyrauchen texanus</i>
Ute ladies'-tresses	<i>Spiranthes diluvialis</i>
Whooping crane	<i>Grus americana</i>
Yellow-billed cuckoo	<i>Coccyzus americanus</i>

If the Service can be of further assistance, contact Andrea Jackson of my staff at (303)275-2349.

Sincerely,



Susan Linner  
Colorado Field Supervisor

Reference: SpeciesList/ RMNP 10-2005

**APPENDIX B: USFWS CONCURRENCE LETTER**



**United States Department of the Interior**

FISH AND WILDLIFE SERVICE  
Ecological Services  
Colorado Field Office  
P.O. Box 25486, DFC (65412)  
Denver, Colorado 80225-0486

IN REPLY REFER TO:  
ES/CO: NPS/RMNP  
Tails: 65412-2007-I-0416

**MAY 31 2007**

Mr. Vaughn Baker  
Superintendent  
Rocky Mountain National Park  
Estes Park, Colorado 80517

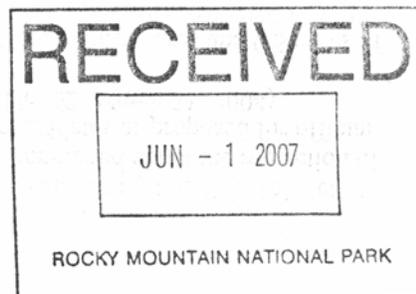
Dear Mr. Baker:

This responds to your letter received April 26, 2007, regarding the proposed **Consolidation of Trailheads at Bowen Gulch in Rocky Mountain National Park, Colorado**. You requested concurrence with your determination that the proposed project may affect, but is not likely to adversely affect the Canada lynx (*Lynx canadensis*). These comments have been prepared under the provisions of the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. 1531 et. seq.). The United States Fish and Wildlife Service (Service) is concerned about the protection of threatened and endangered species, as well as species that are candidates or proposed for official listing as threatened or endangered (Federal Register, Vol. 69, No. 62, March 31, 2004).

The proposed project consists of closing the Baker Gulch Trailhead parking area and 0.5 miles of road to the trailhead and restoring those areas to natural conditions. Approximately 900 feet of new trail will be constructed from the Bowen Gulch Trailhead to Baker Gulch. The Baker Gulch Trailhead and part of the road (400 feet) is in lynx winter forage habitat in the Upper Colorado Lynx Analysis Unit (LAU). The project will result in the reclamation of approximately 6,000 square feet of currently disturbed lynx habitat and will removed motorized traffic to Bowen Gulch, which currently experiences motorized traffic during the hunting season only from October 20 to November 20. No new construction of trails will occur in lynx habitat.

Based on the information provided in your letter, the Service concurs that the proposed project may affect but is not likely to adversely affect the Canada lynx.

If any additional species that are Federally-listed, proposed for Federal listing, or candidate for Federal listing are found in the project area, if critical habitat is designated in the project area, or if project plans change, this office should be contacted to determine if further consultation will be required.



If you require additional information, please contact Leslie Ellwood of this office at (303) 236-4747.

Sincerely,



Susan C. Linner  
Colorado Field Supervisor

cc: CFO-GJ (K. Broderdorp)

Ref: Projects\NPS\RMNP\NPS\_RMNP\_BowenBaker\_FWSconcur

APPENDIX C: CULTURAL RESOURCES DOCUMENTATION

48541



United States Department of the Interior

NATIONAL PARK SERVICE  
Rocky Mountain National Park  
Estes Park, Colorado 80517

RECEIVED

AUG 09 2006

CHS/OAHP

IN REPLY REFER TO:

JUL 24 2006

H4217 (ROMO)

Ms. Georgianna Contiguglia  
State Historic Preservation Officer  
Colorado Historical Society  
1300 Broadway  
Denver, CO 80203

Reference: **No resources effected: Baker Gulch Trail Reroute**  
ROMO Cultural Resource Project C-06-07

Dear Ms. Contiguglia:

Rocky Mountain National Park is planning on building a new trail in order to close a National Park Service – Forest Service access road near Baker Gulch in the Kawuneeche Valley.

A survey did not identify any cultural resources in the trail corridor, and we therefore believe this project constitutes a no effect action.

Enclosed is the limited results survey report for the Baker Gulch Trail Reroute. Also enclosed are the site forms for two sites recorded outside the project area: a pit privy as 5GA3513, and a re-evaluation form for 5GA2494. We do not believe either site to be eligible for the National Register of Historic Places.

As with all our projects involving ground disturbance, construction will cease and the Park Archeologist will be contacted if any cultural resources are discovered during construction.

If you have further questions or comments, please contact Dr. William B. Butler at telephone number (970) 586-1332.

Sincerely,

  
Vaughn L. Baker  
Superintendent

  
Susan M. Collins  
State Historic Preservation Office  
Concurrence

Enclosures

# Appendix D MINIMUM REQUIREMENT ANALYSIS WORKSHEET ROCKY MOUNTAIN NATIONAL PARK



ROMO-180 (3/2000)

**PROPOSED ACTION:** Bowen-Baker Trailhead Consolidation      **DATE:** March 1, 2007

**LEAD PERSON(S):** Larry Gamble      **WORK UNIT(S):** Resources Management

**PART A: Minimum Requirement (should the action be done in wilderness)**

**1** IS ACTION AN EMERGENCY?

YES

NO

ACT ACCORDING TO  
APPROVED EMERGENCY  
MINIMUM TOOL CRITERIA

Answer:  Yes  No

Explain: The Division of Resource Protection and Visitor Management has requested that the Bowen Gulch and Baker Gulch trailheads be consolidated to improve employee and visitor safety. This project is not an emergency.

**2** DOES ACTION CONFLICT WITH LEGISLATION, PLANNED WILDERNESS GOALS, OBJECTIVES OR FUTURE DESIRED CONDITIONS?

YES

NO

DO NOT DO IT

Answer:  Yes  No

Explain: Construction of a new connecting trail and elimination of the current Baker Gulch access road and parking lot (which can be added to recommended wilderness), is consistent with law and policy and the park's Backcountry/Wilderness Management Plan.

**3** IS ACTION PRE-APPROVED BY THE WILDERNESS AND BACKCOUNTRY OR OTHER PARK MANAGEMENT PLAN?

YES

NO

DO ACCORDING TO  
APPROVED CRITERIA

Answer:  Yes  No

Explain: The plan states that new trail construction in recommended wilderness will be evaluated on a case-by-case basis, it will require a Minimum Requirement Analysis and may require NEPA compliance. An EA is being prepared for this project.

**4** CAN ACTION BE ACCOMPLISHED THROUGH A LESS INTRUSIVE ACTION THAT SHOULD BE TRIED FIRST? (Visitor Education...)

YES

NO

DO IT

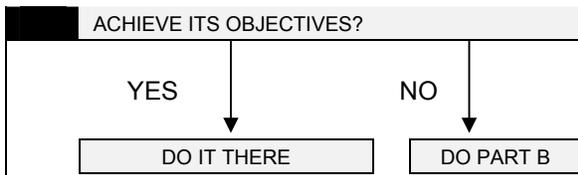
Answer:  Yes  No

Explain: Routing a connecting trail that does not cross recommended wilderness was explored and public scoping was done. Concern was expressed that a more circuitous route (outside of recommended wilderness) would encourage shortcuts through wilderness.

**5** CAN ACTION BE ACCOMPLISHED OUTSIDE OF WILDERNESS AND STILL

Answer:  Yes  No

Explain: The most direct trail connection



**PART B: Minimum Tool (how the action should be done in wilderness)**

**6** DESCRIBE, IN DETAIL, ALTERNATIVE WAYS TO ACCOMPLISH THE PROPOSED ACTION \* (These may include, primitive skill/tool, mechanized/motorized, and/or combination alternatives) (Use addition pages if necessary)

\* Minimum questions to answer for each alternative:  
 What is proposed?  
 Where will the action take place?  
 When will the action take place?  
 What design and standards will apply?  
 What methods and techniques will be used?  
 How long will it take to complete the action?  
 Why is it being proposed in this manner?  
 What mitigation will take place to minimize action impacts?

GO TO NEXT STEP

**7** EVALUATE WHICH ALTERNATIVE WOULD HAVE THE LEAST OVERALL IMPACT ON WILDERNESS RESOURCES, CHARACTER AND VISITOR EXPERIENCE \*\*

\*\* Minimum criteria used to evaluate each alternative:  
 Biophysical effects  
 Social/Recreational/Experiential effects  
 Societal/Political effects  
 Health/Safety concerns  
 Economical/Timing considerations

GO TO NEXT STEP

**8** SELECT AN APPROPRIATE, PREFERRED ALTERNATIVE

IF REQUIRED

**9** ATTACH TO APPROPRIATE PROJECT PROPOSAL/CLEARANCE FORM FOR REVIEW AND APPROVAL/DISAPPROVAL SIGNATURE

**Alternative 1:**

What is proposed? To enlarge the current Bowen Gulch parking lot and construct a 900' connecting trail that will lead directly to the Baker Gulch trailhead. The Baker Gulch trailhead parking area and the access road can be removed and the ground reseeded and restored to natural conditions. Once the project is complete, the area that was occupied by the Baker Gulch parking lot and access road can be included in recommended wilderness. Currently those facilities are labeled as "Potential Wilderness Addition."

Where will the action take place?  
 Bowen Gulch and Baker Gulch trailheads within Rocky Mountain National Park.

When will the action take place?  
 The action will not take place until NEPA compliance has been completed. It is anticipated that a Finding of No Significant Impact (FONSI) will be signed by the end of May, 2007. A Minimum Requirement Analysis and a Minimum Tool Analysis are also required. The project will not proceed until all of these items have been completed and approved. Construction will likely take place in 2007 – 2008, with most construction activities occurring during the summer or fall.

What design and standards will apply?  
 The park's trail design standards will apply. This will be a "Standard D" trail, which is a high-standard trail carefully designed and aligned for minimum maintenance that can accommodate intermediate horse and hiker volumes, requiring construction and clear delineation of the treadway throughout.

What methods and techniques will be used?  
 For NEPA compliance purposes, the trail has been flagged in the field by the Trails Foreman to follow a favorable alignment. Because of gentle grades, and little understory vegetation, trail construction for this 900' trail will not be difficult.

For this alternative, construction using **motorized equipment** will be analyzed. Chainsaws would be used to cut down approximately 50 lodgepole pine trees, and a Bobcat with a front end loader would be used to haul and place tread material.

#### How long will it take to complete the action?

Cutting, limbing and hauling 50 lodgepole pine trees with a crew using chainsaws is expected to require 6 days of work.

Clearing and grubbing the trail with a crew using hand tools is expected to require 8 days of work.

Placement of tread material using a bobcat and a crew using hand tools is expected to require 6 days of work.

Total construction time would be 20 days + 10% contingency = 22 days

#### Why is it being proposed in this manner?

While the proposed trail passes through recommended wilderness for a distance of approximately 670 feet, there is road access at either end. The configuration of the roads in the vicinity of the proposed trail means that no point on the proposed trail is more than 330 feet from an existing road. Using mechanized equipment is proposed for the following reasons:

- Ease of access – mechanized equipment can access both ends of the proposed trail by road.
- Minimal impacts on wilderness values – Use of mechanized equipment will occur for a brief period of time, and would occur in an area that already experiences impacts from motor vehicles traveling on nearby roads.
- Safety of the trails crew - Using motorized equipment for some of the construction steps will reduce the physical wear on the trails crew that would result from using hand tools for the entire project.

#### What mitigation will take place to minimize action impacts?

- Construction would take place during late summer to avoid impacts to breeding birds and elk and deer during calving and the rut.
- Construction during late summer would also have no impact on hunter access or success.
- The size of the trail crew assigned to this project will be sufficient to complete the project within the timeframe stated above.

#### Biophysical effects

- Soils – The area of disturbance will be approximately 8,000 square feet. Closure and restoration of the Baker Gulch access road and parking lot will result in the restoration of approximately 24,000 square feet, which will be included in recommended wilderness.
- Vegetation – Approximately 30 mature even-aged lodgepole pine trees would be removed within recommended wilderness to accommodate the proposed trail. Once the Baker Gulch access road and parking lot have been removed, lodgepole pine trees will naturally reseed the previously disturbed area. Over the course of the next 60 to 100 these trees will mature and replace what was lost due to trail construction.
- Wildlife – Effects on wildlife would be negligible. Work would be done in late summer to avoid affecting breeding birds or the elk rut.

#### Social/Recreational/Experiential effects

- Visitor access to the area would remain unchanged until the expanded parking lot at the Bowen Gulch trailhead and the connecting trail were completed. Visitor use would not be curtailed during construction, although work zones would be fenced off for safety reasons.
- Visitor experience would be affected during construction due to the noise produced by the use of mechanical equipment. As a mitigation measure, use of mechanized equipment would be limited to 22 days.
- Upon completion of the proposed project, the access road to Baker Gulch and the trailhead parking area would be removed and the area restored to natural conditions. These man-made features adversely impact wilderness values because they facilitate motor vehicle access to an area that is surrounded by recommended wilderness. With completion of this project, motorized vehicle intrusion into recommended wilderness would be reduced.
- Hunters are currently able to drive to the Baker Gulch trailhead. Upon completion of this project, hunters and other recreational users would have to walk 1/3 mile further. For visitors seeking an enhanced wilderness experience this would be a positive outcome. For hunters, the extra 1/3 mile could be an added burden. However, this concern was never raised during public scoping that was conducted during the hunting season in 2005 and again in 2006.

#### Societal/Political effects

No effects have been identified.

#### Health/Safety concerns

- Eliminating the Baker Gulch trailhead parking area and access road is being done at the request of the park's law enforcement rangers primarily for safety reasons. The narrow, circuitous, dead end, two-track road is problematic for emergency response. Larger emergency vehicles, including ambulances or fire fighting equipment would have a difficult time accessing the current trailhead or maneuvering to exit the parking lot. Also, surveillance of the area for law enforcement violations, including wildlife poaching or dogs off leash, is difficult because the access road and parking lot are surrounded by lodgepole pine forest. Law enforcement rangers must always be cognizant of their own safety and the safety of park visitors in the event that a law enforcement incident should occur, and especially when weapons like hunting rifles could be involved.
- The preferred method for tree removal and trail construction is to use mechanized equipment. One of the significant reasons for doing so is to reduce the physical wear on the trails crew that would result from the exclusive use of hand saws and other hand tools.

#### Economical/Timing considerations

- Construction would occur during late summer to avoid conflicts with the deer and elk hunting seasons.
- Using mechanized equipment would save time and would reduce labor costs for this project.
- By using mechanized equipment the project can be completed in a shorter period of time, thus reducing some of the impacts on wilderness values.

## Alternative 2:

What is proposed? Same as Alternative 1

Where will the action take place? Same as Alternative 1

When will the action take place? Same as Alternative 1

What design and standards will apply? Same as Alternative 1

What methods and techniques will be used?

For this alternative construction using **non-motorized equipment** will be analyzed.

How long will it take to complete the action?

Cutting, limbing and hauling 50 lodgepole pine trees with a crew using hand saws is expected to require 12 days of work.

Clearing and grubbing the trail with a crew using hand tools is expected to require 10 days of work.

Placement of tread material using non-motorized equipment and a crew using hand tools is expected to require 12 days of work.

Total construction time would be 34 days + 15% contingency = 39 days. In comparison, using mechanized equipment would shorten the construction time to 22 days.

Why is it being proposed in this manner?

Solely to protect wilderness values.

What mitigation will take place to minimize action impacts?

Same as Alternative 1

Biophysical effects

Same as Alternative 1

Social/Recreational/Experiential effects

Same as Alternative 1 with the exception that visitor experience would not be adversely affected by the use of motorized equipment, such as chainsaws, since no motorized equipment would be used for construction.

Societal/Political effects

No effects have been identified.

Health/Safety concerns

Same as Alternative 1, with the exception that with the exclusive reliance on the use of hand tools there is greater physical wear on the trails crew. This is a safety concern.

Economical/Timing considerations

- Construction would occur during late summer to avoid conflicts with the deer and elk hunting seasons.
- Because the project would be completed with the exclusive use of hand tools for tree removal and trail construction, the project would take longer to complete and would be more costly.

### **List preferred alternative and give justification:**

The preferred alternative is to use mechanized (motorized) equipment to remove trees and construct the proposed connecting trail. There are several reasons for doing so:

1. While the proposed trail passes through recommended wilderness for a distance of approximately 670 feet, there is road access at either end. The configuration of the roads in the vicinity of the proposed trail means that no point on the proposed trail is more than 330 feet from an existing road. Therefore, there is easy access for construction equipment and the use of motorized equipment for a short period of time would occur in an area that already experiences impacts from motor vehicles traveling on nearby roads.
2. Safety of the trails crew - Using motorized equipment for some of the construction steps will reduce the physical wear on the trails crew that would result from using hand tools for the entire project. Physical wear includes the effects from cumulative repetitive motions such as pushing wheel barrows of dirt for days which would be required if this project was accomplished with non-motorized means.
3. The project can be completed in a shorter period of time if motorized equipment is used. This shorter time period for construction translates into less impact on some wilderness values as compared to the exclusive use of hand tools. For example, it is estimated that the trails crew would be working in recommended wilderness for 22 days if motorized equipment is used. If the trail crew must rely exclusively on hand tools to remove trees and construct the trail, it is estimated that they would be working in recommended wilderness for 39 days.