

**U.S. Department of the Interior
Bureau of Land Management
Royal Gorge Field Office
3170 E. Main Street
Canon City, CO 81212**

ENVIRONMENTAL ASSESSMENT

NUMBER: CO-200-2008-0012 EA

CASEFILE/PROJECT NUMBER (optional):

PROJECT NAME: Browns Canyon Trail Re-route

PLANNING UNIT: Arkansas River Subregion #1

LEGAL DESCRIPTION: T.15 S., R. 78 W., Sec 13, Chaffee County

APPLICANT: BLM

ISSUES AND CONCERNS:

- This project is within a Wilderness Study Area (WSA) and an Area of Critical Environmental Concern.
- This project must meet the non-impairment standard of BLM's *Interim Management Policy For Lands Under Wilderness Review*.
- The existing trails in this area are user created and difficult to maintain due to poor location and erosion. Portions of the trails are dangerous.
- Some of the user created routes, including the main trail, are partially on private land and encourage trespass by the public.
- The rerouted trail will be the main access for hikers, backpackers, fisherman and equestrians for years to come. It will likely receive increasing levels of use due to population growth and renewed interest in the area.
- The re-route should be designed to maintain wilderness characteristics and be compatible with the "wilderness experience" sought by the public.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:

Background/Introduction: Browns Canyon Wilderness Study Area (WSA) (CO-050-002) is located approximately 6 miles south of Buena Vista and 7 miles northwest of Salida in Chaffee County. The WSA was studied under Section 603 of the Federal Land Policy and Management Act and was included in the *Cañon City District Wilderness Final Environmental Impact Statement* published in December, 1987. In this document, the BLM recommended 6,614 acres for Wilderness designation. Currently, a proposal for wilderness designation is in the United States Congress; this proposal covers approximately 20,000 acres including the BLM WSA and

adjacent National Forest. Management of Browns Canyon WSA is guided by BLM's *Interim Management Policy for Lands Under Wilderness Review*. The Browns Canyon WSA is managed under this policy until Congress either designates these lands as wilderness or releases them for other purposes.

The Ruby Mountain trailhead and trail provides the easiest access to Browns Canyon WSA from its northern end. More visitors come into the WSA here than any other WSA access point (more than from Turret, FR1434, Aspen Ridge or by crossing the Arkansas River). This area is closed to motorized vehicles but shares a parking lot with motorized users who are accessing the Fourmile Recreation Area. This northern portion of the WSA is within the Fourmile Travel Management Area. The Ruby Mountain trailhead is adjacent to one of the most popular Arkansas Headwaters Recreation Area recreation sites, Ruby Mountain Recreation Site. This area is popular with rock hounds, equestrian users, hikers, backpackers, hunters and fisherman. The current trails in this area are user created. The trails are steep, in drainages, highly erodible and trespass on private property.

Proposed Action: BLM proposes to construct a sustainable trail from the Ruby Mountain trailhead into Browns Canyon WSA. This would include 0.7 miles of new trail that connects to the existing trail. [Refer to the map.](#) The trail would be entirely on public land eliminating any conflict with private landowners.

The trail design would use natural vegetation patterns and terrain to make it unobtrusive. All of the trail would be constructed using hand tools to clear vegetation, define the trail tread, and construct erosion control features to promote surface water drainage. The maintained tread width of the new trail segment would vary from 24 to 36 inches depending on the terrain. Where the trail passes through brush and trees, vegetation would be trimmed and cleared as necessary to allow for the passage of hikers and to maintain the trail corridor. Tree trimming/pruning would follow the Royal Gorge Field Office guidelines to avoid unnatural appearance and unnecessary damage to trees. Any slash generated would be lopped and widely scattered. Any plant stems/tree stumps created would be cut flush with the ground wherever possible and covered with dirt and leaf litter. Where this cannot be accomplished, cut stumps would not exceed 6 inches from the ground. Surface water control would be accomplished by using natural terrain and constructed dips and waterbars. In areas where the edges of the trail need to be defined, native materials would be used. Pack animals may be used to facilitate the movement of tools and materials during trail construction.

Following construction of the re-route, many of the user created trails would be closed and reclaimed by diverting water at critical points, stabilizing and filling the most eroded areas, breaking up compacted soils, and naturalizing the trail tread. If necessary, signs would be posted closing these trail segments and directing use to the new trail segment. These signs would be removed when the user created trails have recovered to the point where signs are no longer needed to discourage use.

Volunteers for Outdoor Colorado (VOC) in cooperation with BLM and local organizations such as the Quiet Use Coalition, Friends of Fourmile, and the Buffalo Peaks Back Country Horsemen would construct the re-route during the spring or fall of 2009. The majority of the work would

be accomplished during a weekend project with up to 80 volunteers and staff on site. All staff and volunteers would hike or ride on horseback to the work site. Any overnight camping and staging areas would be located outside of the WSA. "Leave No Trace" principles would be followed. The immediate area of the project would be closed to the public during the VOC project. This is necessary to effectively accomplish the work and to ensure the safety of staff, volunteers and the public.

No Action Alternative: Under No Action Alternative, the trail would not be re-routed and the new trail segment would not be constructed.

ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD: Acquiring an easement from adjacent private landowners to allow public access was considered, but not carried forward, because BLM lacks the staff to pursue this alternative and the adjacent landowners have not expressed interest in this alternative.

NEED FOR THE ACTION: The purpose of this trail re-route is to: 1) avoid private property along the Arkansas River corridor that is adjacent to Browns Canyon Wilderness Study Area and 2) create a sustainable trail alignment and tread that can be used by hikers and equestrians. As the trail(s) exist now, there are numerous routes. These routes are highly eroded and are difficult to walk or ride horses on. The main user created trail zigzags through public lands and private property.

PLAN CONFORMANCE REVIEW: The Proposed Action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3):

Name of Plan: Royal Gorge Resource Management Plan and Fourmile Travel Management Plan

Date Approved: 05/13/96 and 12/16/2002

Decision Number: 1-50, 1-66, 1-82 (RMP); 15 (Fourmile TMP)

Decision Language:

Royal Gorge RMP:

1-50: The transportation system will be improved and maintained to facilitate public access and administrative monitoring through providing access to all retention lands.

1-66: All or portions of Browns Canyon are designated as ACECs and will be managed to protect and enhance their special values.

1-82: Recreation will be managed to provide for a variety of recreational opportunities and settings; facility development will be accomplished to reduce user conflicts and to improve visitor health and safety.

Fourmile TMP:

15: Increase public education and awareness related to wilderness values. Properly sign and maintain non-motorized trails in the WSA.

Standards for Public Land Health: In January 1997, Colorado BLM approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. Because a standard exists for these five categories, a finding must be made for each of them in an environmental analysis. These findings are located in specific elements listed below.

AFFECTED ENVIRONMENT / ENVIRONMENTAL CONSEQUENCES / MITIGATION MEASURES:

CRITICAL ELEMENTS

AIR QUALITY

Affected Environment: Air quality in the area is generally, good to excellent. The area receives little public use and since the railroad has terminated its use of the corridor, at least for the near future, there is no single contributor to degraded air quality in the area.

Environmental Consequences/Mitigation:

Proposed Action: Will not degrade air quality beyond the construction phase. Even then construction, as proposed will not generate significant dust or disturbance.

Recommended Mitigation Measures: None

No Action Alternative: Same as proposed action

Recommended Mitigation Measures: None

Cumulative Impacts of the Proposed Action: Geographic scope: None

CULTURAL RESOURCES

Affected Environment: Both prehistoric and historic sites are present in the vicinity of the area of potential effect. However, no cultural resources were recorded during the cultural resources inventory [see Reports CR-RG-09-37 (N)].

Environmental Consequences/Mitigation: Because no historic properties were found, none will be affected by the proposed undertaking. Therefore, no additional work is necessary.

Environmental Consequences/Mitigation:

Proposed Action: No effect.

Recommended Mitigation Measures: No mitigation necessary.

No Action Alternative: No effect

Recommended Mitigation Measures: No mitigation necessary.

Cumulative Impacts of the Proposed Action: None foreseen.

ENVIRONMENTAL JUSTICE

Affected Environment: The proposed action area is used heavily by recreationalists. There are no low-income or minority populations that would be affected by this action.

Environmental Consequences/Mitigation:

Proposed Action: A trail re-route.

Recommended Mitigation Measures: None

No Action Alternative: Not re-routing the trail will not adversely affect low income or minority populations

Recommended Mitigation Measures: None

Cumulative Impacts of the Proposed Action: Geographic scope; Time Scope:
None

FARMLANDS, PRIME AND UNIQUE

Affected Environment: There are no prime or unique farmlands involved in the proposed action or the alternatives.

Environmental Consequences/Mitigation:

Proposed Action: No impacts.

Recommended Mitigation Measures: None required.

No Action Alternative: No impacts.

Recommended Mitigation Measures: None required.

Cumulative Impacts of the Proposed Action: Geographic scope; Time Scope:
None.

FLOODPLAINS, WETLANDS & RIPARIAN ZONES (includes a finding on Standard 2)

Affected Environment: The project area elevation is about 7800 feet with an annual precipitation of 10-12 inches. The dominant vegetation is pinyon-juniper and mountain mahogany with upland grasses and forbs. The proposed trail crosses or is adjacent to some dry, ephemeral drainages and terminates in an upland meadow.

Environmental Consequences/Mitigation:

Proposed Action: Since the project area is a dry upland site, riparian and/or wetland resources are not present. There would be minimal short term disturbance to upland resources in these small dry channels. With adequate erosion control structures and trail design, any disturbance would be short term and no wetlands would be directly or indirectly affected.

Recommended Mitigation Measures: Apply appropriate BMP's for proper trail design.

No Action Alternative: Under this alternative the existing, unstable user-created trails will continue to erode and public access into this area will remain difficult.

Recommended Mitigation Measures: Construct erosion control structures where possible.

Cumulative Impacts of the Proposed Action: Geographic scope; Time Scope: Construction of a new, user-friendly trail in this area would probably result in increased public use. This could result in some impact to riparian resources from increased use in areas that are accessed by the trail. Current use of the area is low and, even with increased use from new trail, it is likely that recreational use would remain low and any impacts would be minimal. These minor impacts would continue for many years into the future.

Finding on the Public Land Health Standard for Riparian Systems: The proposed action would not affect the Public Land Health Standard for Riparian Systems.

INVASIVE, NON-NATIVE SPECIES

Affected Environment: The project site is prone to noxious weed invasion if severe soil surface disturbance occurs.

Environmental Consequences/Mitigation:

Proposed Action: This alternative would not result in the type of disturbance that would increase the risk of noxious weed invasion.

Recommended Mitigation Measures: None required.

No Action Alternative: This alternative would not result in the type of disturbance that would increase the risk of noxious weed invasion.

Recommended Mitigation Measures: None required.

Cumulative Impacts of the Proposed Action: Geographic scope; Time Scope:
None.

MIGRATORY BIRDS

Affected Environment: The habitat on the slopes in the area is primarily pinyon pine and juniper. Open areas of mountain grassland are interspersed throughout the area and mountain shrubs such as currant and mountain mahogany are abundant, especially on south slopes. Pinyon-juniper habitat supports the largest nesting bird species list of any upland vegetation type in the West. The richness of the pinyon-juniper vegetation type, however, is important due to its middle elevation. Survey tallies in pinyon-juniper are similar in species diversity to the best riparian. Several species are found in the pinyon-juniper habitat and include: black-chinned hummingbird, gray flycatcher, Cassin's kingbird, gray vireo, pinyon jay, juniper titmouse, black-throated gray warbler, Scott's oriole, ash-throated flycatcher, Bewick's wren, mountain chickadee, white-breasted nuthatch, and chipping sparrow.

The following birds are listed on the US Fish and Wildlife Service Birds of Conservation Concern (BCC) – 2002 List for BCR 16-Southern Rockies/Colorado Plateau. These species have been identified as species that may be found in the project area, have declining population's and should be protected from habitat alterations.

The golden eagle is a bird of grasslands, shrublands, pinyon-juniper woodlands, and ponderosa pine forests, may occur in most other habitats occasionally, especially in winter. Nests are placed on cliffs and sometimes in trees in rugged areas, and breeding birds range widely over surrounding habitats.

Northern harriers reside throughout Colorado, with highest densities on the eastern plains, mountain parks, and western valleys. These hawks feed on small mammals, birds, reptiles, and amphibian's. They hunt by flying low over wetlands, grasslands, shrublands, and croplands.

Prairie falcons nest in scattered locations throughout the state where they inhabit the grassland and cliff/rock habitat types. These falcons breed on cliffs and rock outcrops, and their diet during the breeding season is a mix of passerines and small mammals.

Virginia's warblers in Colorado nest between 5,000-9,000' elevation. They breed most abundantly in the western quarter of the state, along the eastern slope foothills, and in the upper Arkansas River drainage. Virginia's warblers nest in dense shrublands and on scrub-adorned slopes of mesas, foothills, open ravines, and mountain valleys in semiarid country. They use scrubby brush, pinyon-juniper woodland with a well-developed shrubby understory, ravines

covered with gambel oak, and dense shrublands. They also breed in open ponderosa pine savannahs that have a dense understory of tall shrubs.

Environmental Consequences/Mitigation:

Proposed Action: Construction of the trail reroute should be completed outside the bird nesting season. In order to be in compliance with the Migratory Bird Treaty Act, which requires that BLM avoid actions that “take” migratory birds, it is recommended that all vegetation disturbance be avoided from May 15 thru July 15. This is the breeding and brood rearing season for most Colorado migratory birds.

Recommended Mitigation Measures: Avoid the migratory bird nesting season. Do not remove any snags or other wildlife trees.

No Action Alternative: There would be no impacts to migratory birds if the trail is not constructed.

Recommended Mitigation Measures: None

Cumulative Impacts of the Proposed Action: Geographic scope; Time Scope: Not anticipated.

NATIVE AMERICAN RELIGIOUS CONCERNS

Affected Environment: Although aboriginal sites are present in the vicinity of the area of potential effect, no possible traditional cultural properties were located during the cultural resources inventory (see Cultural Resources section, above). There is no other known evidence that suggests the project area holds special significance for Native Americans.

Environmental Consequences/Mitigation: Several cultural resource inventories have been conducted in the area, and no sites that might hold special significance for Native Americans (e.g., traditional cultural properties) were found. However, new inventories will be conducted before initiation of any undertakings that might affect such sites.

Proposed Action: None.

Recommended Mitigation Measures: None

No Action Alternative: Same as Proposed Action.

Recommended Mitigation Measures: None

Cumulative Impacts of the Proposed Action: Geographic scope; Time Scope: None foreseen.

THREATENED, ENDANGERED, AND SENSITIVE SPECIES (includes a finding on Standard 4)

Affected Environment: The habitat on the slopes in the area is primarily pinyon pine and juniper. Open areas of mountain grassland are interspersed throughout the area and mountain shrubs such as currant and mountain mahogany are abundant, especially on south slopes. Two sensitive species could occur in the area: peregrine falcon and bald eagle.

The Browns Canyon wilderness study area contains numerous cliffs that are suitable for nesting peregrines. Many of the cliffs are small and better suited for prairie falcon nesting, and typically are occupied by prairie falcons.

Bald eagles could be expected to occur along the Arkansas river during the winter months. There are no bald eagles nesting in the area. Delisting of the bald eagle became effective August 8, 2007, however it is still protected by the Bald and Golden Eagle Protection Act and Migratory Bird Treaty Act. The Bald and Golden Eagle Protection Act prohibits the take, possession, sale, purchase, barter, offer to sell, purchase, or barter, transport, export or import, of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit (16U.S.C 668(a); 50 CFR 22). "Take" is defined as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb" a bald or golden eagle. The term "disturb" under the Bald and Golden Eagle Protection Act was recently defined via a final rule published in the Federal Register on June 5, 2007 (72 Fed. Reg.31332). "Disturb" means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.

Peregrine falcons could also be expected to forage along the river corridor during the breeding season. There are several breeding cliffs in the upper Arkansas river valley, however, there are no nesting sites in the vicinity of the project area. Cliffs in the WSA are generally small and more suitable for prairie falcons.

Environmental Consequences/Mitigation:

Proposed Action: The proposed action is not considered to be a major disturbance action and will occur over a short time frame. There should be no impacts to T&E species or their habitat.

Recommended Mitigation Measures: None

No Action Alternative: There would be no impact to T&E species or their habitat under the no action alternative.

Recommended Mitigation Measures: None

Cumulative Impacts of the Proposed Action: Geographic scope; Time Scope: Not anticipated.

Finding on the Public Land Health Standard for Threatened & Endangered species: The proposed action will have no affect on the public land health standards for T&E species.

WASTES, HAZARDOUS OR SOLID

Affected Environment: Area is not affected by the dumping of waste. Remoteness eliminates the potential for dumping by those who would seek to avoid the tipping fees at the local landfill.

Environmental Consequences/Mitigation:

Proposed Action: The proposed action will not result in the use, storage or disposal of hazardous materials on public lands.

Recommended Mitigation Measures: None

No Action Alternative: The no action alternative will not result in the use, storage or disposal of hazardous materials on public lands.

Recommended Mitigation Measures: None

Cumulative Impacts of the Proposed Action: Geographic scope; Time Scope:
None

WATER QUALITY, SURFACE AND GROUND (includes a finding on Standard 5)

Affected Environment: The trail reroute would occur in a dry upland area well removed from any surface water, but it does cross or is adjacent to ephemeral drainages in places. The only perennial surface water in the immediate area is the Arkansas River. The Arkansas River in this area is listed as being water quality impaired on the Colorado 303(d) list by Zinc and Cadmium.

Environmental Consequences/Mitigation:

Proposed Action: The Proposed Action would create a single, sustainably built trail into the Browns Canyon WSA where there are currently multiple user created trails. This would reduce trail densities and increase vegetative cover overall, resulting in less erosion from the uplands and less sediment delivery to the Arkansas River.

Recommended Mitigation Measures: Follow Best Management Practices for trail construction

No Action Alternative: The No Action Alternative would leave things as they currently are with multiple user created trails. In the long term this would have a more negative effect on water quality as more sediment would be delivered to the Arkansas.

Recommended Mitigation Measures: None

Cumulative Impacts of the Proposed Action: Geographic scope; Time Scope:

The Proposed Action would add a formal route into the Browns Canyon WSA rather than the current multitude of user created routes. This would decrease the number of routes in the watershed, but probably increase the amount of use.

Finding on the Public Land Health Standard for Water Quality: There are no surface waters that would be directly affected by the Proposed Action. The Arkansas River near the project is not meeting standards due to historic mining upstream and the proposal would not have an effect on this.

WILDERNESS, AREAS OF CRITICAL ENVIRONMENTAL CONCERN, WILD AND SCENIC RIVERS

Affected Environment: The Proposed Action would take place within Browns Canyon Wilderness Study (WSA) and Area of Critical Environmental Concern (ACEC).

Browns Canyon WSA (CO-050-002) – Located approximately 6 miles south of Buena Vista in Chaffee County, this unit contains 6,614 acres of public land just east of the Arkansas River. Rugged topography of hills, gulches, and canyons characterizes the area. Elevation varies from 7,500 feet near the Arkansas River to 8,400 feet near the eastern boundary that is contiguous with the San Isabel National Forest. Human imprints identified during the Intensive Inventory were considered minor (remnants of mine structures, fences, trails) and substantially unnoticeable; thereby meeting the criteria for naturalness set forth in Section 2 (c) of the Wilderness Act of 1964. Browns Canyon also provides opportunities for solitude and for primitive and unconfined recreation (hiking, horse riding, backpacking, hunting, wildlife viewing). Supplemental values identified during the Intensive Inventory include important cultural resources and wildlife habitat. The entire area was recommended by BLM as suitable for wilderness designation.

The primary trail access to Browns Canyon WSA is located along its north boundary near Ruby Mountain. Some visitors access the WSA from the Arkansas River; however, this usually requires crossing the railroad right-of-way and is not legal access. Hiking and horse riding in the area is slightly increasing as a result of population growth in the local area and region. Also, the Browns Canyon Wilderness Bill has increased interest in the area. Unauthorized motorized use is an on-going management concern.

BLM is required to review all proposals for uses and/or facilities within WSAs to determine whether or not the proposal meets the non-impairment criteria. Briefly, these criteria are: 1) the use, facility, or activity must be temporary, and 2) the use and/or facility must not significantly degrade wilderness values. There are five specific exceptions to these criteria; one exception is applicable to this analysis and discussed in detail in the Proposed Action section below.

Browns Canyon ACEC (11,697 acres) – This ACEC is managed to protect and enhance scenic values and peregrine falcon and bighorn sheep habitat. The ACEC also encompasses the entire Wilderness Study Area. Current uses and management concerns of the WSA portion of the

ACEC are discussed above. The ACEC (outside of the WSA) includes all of the public lands along the Arkansas River through Browns Canyon just south of Ruby Mountain Recreation site to just east of Stone Bridge Recreation Site. This is the busiest stretch of the Arkansas River for whitewater boating. Visitor use at Hecla Junction Recreation Site was estimated at 45,000 for fiscal year 2006. Three other recreation sites are located in the ACEC (Ruby Mountain Recreation Site, Ruby Mountain Trailhead, and Bald Mountain Trailhead). Motorized access in the ACEC is limited to two county roads. A hiking trail follows an abandoned road that starts at Hecla Junction and runs south for approximately one mile along the west side of the river. Common recreation activities are whitewater boating, fishing, camping, picnicking, and wildlife observation.

Environmental Consequences/Mitigation:

Proposed Action: The primary long term impact of the construction of the new trail segment would be soil and vegetation disturbance along the new route. This disturbance would be confined to a very limited area within the WSA. It would be visible only to visitors in the immediate area because the rugged terrain and vegetation provides extensive screening of the trail. It would be substantially unnoticeable. It would not affect the naturalness of the WSA. The closure and reclamation of user created routes would enhance naturalness within this area of the WSA by stabilizing erosive soils and promoting re-vegetation.

During the trail construction period, the opportunities for solitude would be impacted in the project area because of the presence of the trail crew. This impact would be of very short duration (3 to 4 days). The improved access provided by the trail may increase use within the WSA – particularly day use. This could impact solitude in this portion of the WSA; however, rugged terrain, hot temperatures and lack of water in the interior of the WSA would continue to deter overuse – particularly during the peak period of visitor use in the Arkansas Valley (Memorial Day to Labor Day).

The quality of existing opportunities for primitive and unconfined types of recreation would be somewhat enhanced by the trail re-route. The proposed re-route would improve access into the WSA for hiking, horse riding, backpacking, hunting, and wildlife viewing.

The *Interim Management Policy for Lands Under Wilderness Review* (IMP) states the following guidance for recreational trails and structures: “No new, permanent recreational ways, trails, structures, or installations will be permitted, except those that are the minimum necessary for public health and safety in the use and enjoyment of the public lands’ wilderness values, and that are necessary to protect wilderness resource values.” The existing trails in this part of the WSA are user created, in poor condition, unsafe for equestrian use, and encroach on adjacent private land. This project would result in: 1) construction of sustainable trail entirely on public land that provides for the enjoyment of wilderness values and 2) closure and rehabilitation of user created trails that impact wilderness values. Based on this, the Proposed Action falls within the permitted exception (4) to the non-impairment criteria. The IMP provides this exception for “Uses and facilities that clearly protect the land’s wilderness values or that are the minimum necessary for public health and safety in the use and enjoyment of the wilderness values.”

For impacts to ACEC values (scenic values and peregrine falcon and bighorn sheep habitat), refer to the Migratory Birds; Threatened, Endangered and Sensitive Species; Wildlife; and Visual Resources sections of this document.

Recommended Mitigation Measures: 1) Install trail counters to monitor the number of visitors entering the WSA via this trail, 2) Inform the public through the local media of the trail project dates to reduce conflicts with people who may want to visit the area during that period, and 3) Monitor closure and rehabilitation of user created routes for 3 to 5 years or until public use of these routes is not longer a management concern.

No Action Alternative: Under this alternative, the trail would not be re-routed and the new trail segment would not be constructed. This would not enhance the enjoyment of wilderness values by the public. Closure and rehabilitation of user created trails that impact naturalness would not occur. As population continues to increase coupled with increasing interest in this area, additional user created routes are likely to develop as the public attempts to gain access to the interior of the WSA. This would adversely affect naturalness in this area of the WSA. The main user created route would continue to encourage trespass on private property. Visitor use of the area would likely increase with or without this project.

Recommended Mitigation Measures: 1) Place additional signs to indicate the boundary between public and private land, 2) Close and rehabilitate some of the user created trails to enhance naturalness, and 3) Continue to explore the option for an easement(s) for public access with adjacent landowners.

Cumulative Impacts of the Proposed Action: Geographic scope; Time Scope: The Proposed Action would result in increased use in this portion of the WSA although this increase would be tempered by rugged terrain, seasonal weather conditions and lack of water in the interior of the WSA. It is not anticipated that this increase would adversely affect wilderness values.

NON-CRITICAL ELEMENTS

The following elements **must** be addressed due to the involvement of Standards for Public Land Health:

SOILS (includes a finding on Standard 1)

Affected Environment: The Chaffee County soil survey classifies all of the soils adjacent to and along the proposed new trail construction route as Rock Outcrop. These are steep and very steep land types that occurs throughout the survey area. Bare bed rock makes up 90 percent or more of the mapping unit of Chaffee County, including where the trail is located. Most of the geological material in this land type is Pike's Peak granite with gneiss and schist, Sliver Plume granite with gneiss and schist, traychyte, perlite, and dibase. These are very low sediment producing materials. Plant cover is generally sparse with a few pinyon pines and other conifers growing in the crevices and cracks where fan materials and moisture accumulate. Rock

outcrop is primarily used for wildlife habitat, recreation, and watershed. Where private lands are held, roads and home sites have been constructed in these Rock Outcrop type lands.

The proposal description identifies user created trails on private lands. These user trails are west of the BLM surface area, and down slope of the BLM surface and proposed trail route, but are not identified on the map.

Environmental Consequences/Mitigation:

Proposed Action:

The proposed action is to construct a recreation foot trail. Since much of the area of the proposed trail is on rock outcrop, it will consist in many areas of simply clearing debris and opening a walking path. In some areas, where the trail might pass through sediment catchment areas, the thin soils composed of the gneiss and schist materials will be subject to higher erosion, as foot travel will keep materials loose, and devoid of even the sparse vegetation establishment. In general, these soils will be washed down to the a lower natural sediment catchment areas down slope of the proposed trail. Erosion events are associated with precipitation events, and amount of additional erosion will be dependent upon severity of the storm / precipitation event.

The existing user created trails located off BLM that were identified by the EA preparer as “highly erodible” will not be subject to any BLM action or authority. Since the trails are located on private land, the BLM has no authority nor plans to remove, close, or reclaim them. What becomes of these areas / trails with already disturbed soils will be up to the surface owner. It is likely that by building the BLM trail, that much of the current use of these user created trails will cease. However, if they are highly erodible as stated by the preparer, and erosion cuts already exist along the trail route, it is likely without reclamation efforts or placement of water diversion ditches, these user trails or portions of them will become new gullies over time dependent upon precipitation events. Over a period of 5 - 25 years, a new sediment - water shed stability will naturally occur, assuming no other soil disturbing activities occur.

This area is covered by a planning document which addressed some cumulative impacts. There are no current plans for additional trails within the immediate area, but within the watershed of the Upper Arkansas River, all new trails, roads, and hardened areas each have a cumulative impact to the natural water drainage channels, over all soil water absorption capabilities, and potential for down slope erosion / sediment increases down to and in the Arkansas River.

Recommended Mitigation Measures:

The proposed alternative includes construction standards which would incorporate water diversion structures, which will help minimize additional erosion along and on the trail. The more often the water is diverted to the trail, the less likely smaller storm events will impact the trail with erosion cutting in areas that have soils materials. Where ever possible, the trail route should be kept on the surface bed rock areas, and not in the natural sediment collected soils areas.

The proposal makes no reference to maintenance schedule for replacing water diversion structures. It is recommended that a yearly maintenance schedule be included if the proposed action is selected, to reestablish water diversion that may be damaged by hiker use or storm events. The maintenance schedule should also include adding additional water diversion structures, where storm events show the potential to flow along the trail instead of off the trail.

No Action Alternative:

The no action alternative simply results in the no BLM trail construction as currently given in the proposed action. Some other alternative trail might be proposed later, but for the interim, the current use and existing situation would continue. This would decrease sediment / erosion potential on and along the proposed alternative route that would result by the placement of the trail.

The no action alternative impact to the private surface user created trails are not quantifiable, since BLM has no authority to control or stop use. It is possible that by not constructing the BLM trail, more user trails could be created which would not be constructed to BLM standards with water diversion structures, and therefore might result in additional erosion potential where such trails were created.

Recommended Mitigation Measures:

Other Alternative:

Recommended Mitigation Measures:

Cumulative Impacts of the Proposed Action: Geographic scope; Time Scope:

Finding on the Public Land Health Standard for Upland Soils: The soils of this area within the Brown's Canyon Wilderness Study area would in general be found to meeting the health of lands standard, because of its roadless in accessible nature. Therefore little man made disturbance exist, and what erosion that is occurring is at natural erosion rates. The proposed action could have slight negative impact to this standard, but with the proper proposed construction techniques, the change in soils standard would probably not be measurable.

VEGETATION (includes a finding on Standard 3)

Affected Environment: The climate of the analysis area averages 11 to 16 inches of precipitation annually, while July and August produce the highest amount of rainfall. May and June produce the least amount of rainfall in the area. The mean annual temperature for the area is 40 degrees F. with a frost free period of 60 to 100 days. The optimal growing season for native plants in the area is May 1 through August 15 (NRCS, 1995).

The re-route area is predominantly associated with a Pinyon-Juniper woodland range site. The site is an association of species including pinyon pine as the dominant woodland type and juniper as a secondary woodland type occurring intermittently due to the upper elevation limits. The mid and under-story levels consists of shrubs, forbs and grasses. Forbs and shrubs that may occur in the area include mountain mahogany, wax current, fringed sagebrush, rabbit brush, and yucca. Primary grasses include blue grama, mountain muhly, and Indian rice grass.

Environmental Consequences/Mitigation:

Proposed Action: The action creates a single sustainable trail that will meet upland vegetation health standards in the long term. Closing and reclaiming the user created trails will also help meet vegetation health standards. Vegetation will naturally re-inhibit the user created trails once use ceases and surface erosion is stabilized.

Recommended Mitigation Measures: None.

No Action Alternative: Under this scenario unstable user-created trails will continue to erode and public health standards may not be meeting.

Recommended Mitigation Measures:

Other Alternative:

Recommended Mitigation Measures:

Cumulative Impacts of the Proposed Action: Geographic scope; Time Scope: The area has been influenced by historic mining, grazing, and railroading over the past years. Currently, development of the surrounding private land and recreation of the public land is increasing exponentially. The changes in the proposed action would be an improvement to vegetation standards in relation to current management. In this case, the cumulative impacts will be positive.

Finding on the Public Land Health Standard for Plant and Animal Communities (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial): Under current management, Public Land Health Standard for Plant and Animal Communities would not be meeting Standards.

WILDLIFE, AQUATIC (includes a finding on Standard 3)

Affected Environment: The project area elevation is about 7800 feet with an annual precipitation of 10-12 inches. The dominant vegetation is pinyon-juniper and mountain mahogany with upland grasses and forbs. The proposed trail crosses or is adjacent to some dry, ephemeral drainages and terminates in an upland meadow.

Environmental Consequences/Mitigation:

Proposed Action: Since the project area is a dry upland site, aquatic wildlife resources are not present. There would be minimal short term disturbance in these small dry channels. With adequate erosion control structures and trail design, any disturbance to upland resources would be short term and aquatic wildlife species or their habitat would not be directly or indirectly affected.

Recommended Mitigation Measures: Apply appropriate BMP's for proper trail design.

No Action Alternative: Under this alternative the existing, unstable user-created trails will continue to erode and public access into this area will remain difficult.

Recommended Mitigation Measures: Construct erosion control structures where possible.

Cumulative Impacts of the Proposed Action: Geographic scope; Time Scope: Construction of a new, user-friendly trail in this area would probably result in increased public use. This could result in some impact to aquatic wildlife resources from increased use in areas that are accessed by the trail, especially along the Arkansas River and around springs. Current use of the area is low and, even with increased use because of the new trail, it is likely that recreational use would remain low and any impacts would be minimal. These minor impacts would continue for many years into the future.

WILDLIFE, TERRESTRIAL (includes a finding on Standard 3)

Affected Environment: The habitat on the slopes in the area is primarily pinyon pine and juniper. Open areas of mountain grassland are interspersed throughout the area and mountain shrubs such as currant and mountain mahogany are abundant, especially on south slopes. A small amount of ponderosa pine exists on north slopes. The area provides good winter habitat for deer and elk that move down slope from summer range to the east. The area stays free of snow during winter months and browse and forage are abundant.

Environmental Consequences/Mitigation:

Proposed Action: The proposed action will concentrate use on one trail for access into Browns Canyon as opposed to the current situation where multiple user created routes are being used. In the long term wildlife habitat will benefit by less disturbance on one trail. However, improvements to the trail will likely result in additional use and more people pressures. Winter use by deer and elk should not be impacted due to the lack of use by the public during these months.

Recommended Mitigation Measures: None

No Action Alternative: There would be no impacts to terrestrial species under the no action alternative.

Recommended Mitigation Measures: None

Other Alternative: NA

Recommended Mitigation Measures: None

Cumulative Impacts of the Proposed Action: Geographic scope; Time Scope: Not anticipated.

Finding on the Public Land Health Standard for Plant and Animal Communities

(partial, see also Vegetation and Wildlife, Aquatic): The proposed action will have no affect on the public land health standards for plant and animal communities.

OTHER NON-CRITICAL ELEMENTS: For the following elements, those brought forward for analysis will be formatted as shown above.

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Cadastral Survey		X	
Fire		X	
Forest Management		X	
Geology and Minerals		X	
Hydrology/Water Rights		X	
Law Enforcement		X	
Paleontology	X		
Noise	X		
Range Management		X	
Realty Authorizations		X	
Recreation			X
Socio-Economics	X		
Transportation & Access		X	
Visual Resources			X

RECREATION

Affected Environment: Recreation activities in the Browns Canyon Wilderness Study Area (WSA) include horseback riding, hunting, fishing, wildlife viewing, and dispersed camping. Because of its status as a WSA, motorized and mechanized recreation use is prohibited. The Ruby Mountain trailhead and trail provides the easiest access to Browns Canyon WSA from its northern end. Based on agency observations, more visitors come into the WSA here than any other WSA access point (more than from Turret, FR1434, Aspen Ridge or by crossing the Arkansas River). Use is concentrated along the Arkansas River. The estimated use in 2008 was approximately 3200 visits to the WSA originating from the Ruby Mountain trailhead. Increasing use is the trend in the WSA.

The Recreation Opportunity Spectrum (ROS) class for the Beaver Creek WSA is a combination of Primitive (P) and Semi-Primitive Non-Motorized (SPNM). The Primitive ROS class area is the core area of the WSA; the SPNM area is along the WSA perimeter. Primitive areas are characterized by an essentially unmodified natural environment of fairly large size. Interaction among users is very low and evidence of other users is minimal. The area is managed to be essentially free from evidence of human-induced restrictions and controls. SPNM areas are characterized by a predominately natural environment of moderate to large size. Concentration of users is low, but there is evidence of other users. The area provides opportunities for isolation from the sights and sounds of people and a high degree of interaction with the natural

environment. Under this class, this area is managed to minimize on-site controls and restrictions; when on-site controls are present, they are subtle.

Traveling in the WSA is a challenging experience due to the lack of trails, seasonal weather conditions (extreme heat in summer), and lack of water. Day hikers and fishermen headed for the Arkansas River are the primary users of the Ruby Mountain Trail. Equestrians use is limited in this area due to the hazardous trail conditions.

Environmental Consequences/Mitigation:

Proposed Action: The Proposed Action maintains the recreation settings while enhancing the ability to provide the targeted recreation experiences (opportunities for primitive and unconfined types of recreation). The proposed re-route would provide improved access into the WSA for hiking, horse riding, backpacking, hunting, and wildlife viewing.

During the trail construction period, the recreation settings would be impacted in the project area because of the presence of the large trail crew. This impact would be of very short duration (3 to 4 days). Over the long term, the improved access provided by the trail may increase use within the WSA – particularly day use. This could impact the recreation experiences, particularly solitude; however, rugged terrain, hot temperatures and lack of water in the interior of the WSA would continue to deter to overuse – particularly during the peak period of visitor use in the Arkansas Valley (Memorial Day to Labor Day).

Recommended Mitigation Measures: Same as under “Wilderness” section above.

No Action Alternative: Under the No Action Alternative, the trail would continue to erode and maintenance would become more difficult. With increasing use in the WSA, the trail conditions would continue to deteriorate and proliferation of user created trails would continue. This would negatively impact the recreation experience and setting.

Recommended Mitigation Measures: Same as under “Wilderness” section above.

Cumulative Impacts of the Proposed Action: Geographic scope; Time Scope: The Proposed Action would result in increased use although this increase would be tempered by rugged terrain, seasonal weather conditions and lack of water. It is not anticipated that this increase would adversely affect recreation settings or targeted recreation experiences.

VISUAL RESOURCES

Affected Environment: The existing Visual Resource Management (VRM) inventory identifies the project area with Class II Visual Inventory ratings. Actions taken in this area should conform to the standards prescribed by this VRM class. VRM is a tool used to ensure the scenic qualities of an area are considered prior to implementation of a project.

VRM Class II: Change is visible but does not attract attention. The objective for VRM Class II is to retain the existing character of the landscape. The level of change to the characteristic

landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape. In addition to meeting the VRM Class II objectives, actions within the Browns Canyon WSA should be substantially unnoticeable in order to meet the specific policy guidelines in *BLM Interim Management Policy for Lands Under Wilderness Review (IMP)*. The IMP states, “Substantially unnoticeable means that an action must be so insignificant as to be only a very minor feature or is not distinctively recognizable by the average visitor as being human made or human-caused because of age, weathering or biological change.”

Environmental Consequences/Mitigation:

Proposed Action: The Proposed Action would meet VRM Class II objectives. The construction of less than one mile of new trail would result in minimal change to the characteristic landscape. Trail route, design and construction incorporated into the Proposed Action would help to minimize the visual impact of this new trail segment. The closure and rehabilitation of multiple user created routes would also help to reduce cumulative impacts to visual resources in this area of the WSA.

While the new trail construction would be human made, it is a minor feature (less than one mile) and therefore would meet the definition of substantially unnoticeable under the IMP.

Recommended Mitigation Measures: None.

No Action Alternative: The continued erosion of the trails and the continued use and development of user created routes may have an impact on visual resources over the long term.

Recommended Mitigation Measures: Close and rehabilitate some of the user created trails.

Cumulative Impacts of the Proposed Action: Geographic scope; Time Scope: The limited amount of new trail construction (less than one mile) and the closure and rehabilitation of user created routes would not result in an increase in cumulative impacts to visual resources as a result of the Proposed Action.

CUMULATIVE IMPACTS SUMMARY: The proposed action will create positive impacts by rerouting the Browns Canyon WSA trail originating at the Ruby Mountain Trailhead off of private property and constructing a more environmentally sustainable trail.

PERSONS / AGENCIES CONSULTED: Tom Sobal, Quiet Use Coalition; Alan Robinson, Friends of Fourmile; Buffalo Peaks Back Country Horsemen; Volunteers for Outdoor Colorado.

INTERDISCIPLINARY REVIEW:

<u>Name</u>	<u>Title</u>	<u>Area of Responsibility</u>
Debbie Bellew	Land Law Examiner	Realty

Keith Berger	Range Management Spec.	Range, Vegetation
Erik Brekke	Wildlife Biologist	Wildlife, T&E, Migratory Birds
Natalee Czarnota	Realty Specialist (SCEP)	Realty
Mike Gaylord	Fire Mit./Educ. Spec.	Air, Hazardous Materials
Dave Gilbert	Fisheries Biologist	Aquatic Wildlife, Riparian/Wetlands
Ernie Gillingham	Surface Reclamation Spec.	Soils
Dan Grenard	Geologist	Minerals, Paleontology
Tom Grette	Range Management Spec.	Range, Vegetation, Farmland, Weeds
Jack Hagan	Law Enforcement Ranger	Law Enforcement
Tony Mule'	Cadastral Surveyor	Cadastral Survey
John Nahomenuk	River Manager	Recreation, Wilderness, Visual, ACEC
Leah Quesenberry	Outdoor Recreation Planner	Recreation, Wilderness, Visual, ACEC
Ken Reed	Forester	Forestry
Ed Skerjanec	Fire Management Officer	Fire
John Smeins	Hydrologist	Hydrology, Water Quality/Rights
Melissa Smeins	Geologist	Minerals, Paleontology
Dave Toelle	Fire Ecologist	Air, Vegetation
Monica Weimer	Archaeologist	Cultural, Native American
Jeff Williams	Range Management Spec.	Range, Vegetation

Browns Canyon Trail Re-route

