

**United States Department of the Interior
Bureau of Land Management**

**Environmental Assessment
for the
Ruby-Horsethief Recreation Area Management Plan**

Grand Junction Field Office
McInnis Canyon National Conservation Area
2815 H Road
Grand Junction, Colorado 81506

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CHAPTER 1 - INTRODUCTION

1.1 IDENTIFYING INFORMATION

BACKGROUND: This EA has been prepared by the BLM to analyze the impacts of the implementation of a new Recreation Area Management Plan (RAMP) for the Ruby-Horsethief Recreation Area (RHRA).

The Colorado River runs for 21 miles through Horsethief and Ruby Canyons between Loma, Colorado, and the Colorado-Utah state line in Mesa County. Approximately 98% of the land adjacent to the river in this area is managed by the Bureau of Land Management's Grand Junction Field Office and McInnis Canyons National Conservation Area.

This segment of the river has long been valued for its scenic, recreational, cultural, paleontological, geologic, and wildlife resources and has been managed to preserve those resources for many years. These qualities were recognized by the 1987 Grand Junction Resource Area Resource Management Plan which identified the Colorado River through Horsethief and Ruby Canyons as an "Intensive Recreation Management Area" and instructed BLM to prepare a recreation management plan for the area.

The 1998 Ruby Canyon-Black Ridge Integrated Resource Management Plan (IRMP) designated the Colorado River through Ruby-Horsethief as a "Special Area", now called the Ruby-Horsethief Recreation Area (RHRA). This area is approximately 2,600 acres in size and includes the river and lands immediately adjacent to it. In 2000, Congress designated almost all of the land surrounding the river corridor as the Colorado Canyons National Conservation Area. CCNCA was renamed McInnis Canyons National Conservation Area (MCNCA) in 2005. MCNCA consists of 123,430 acres of public land that surround the Colorado River through Ruby-Horsethief. The act creating MCNCA specifically exempted the Colorado River from the NCA up to the 100 year high water mark but it also directed BLM to "develop a comprehensive management plan for the long-range protection and management" of MCNCA, the Black Ridge Canyons Wilderness. The Act instructed that the management plan should "include all public lands between the boundary of the Conservation Area and the edge of the Colorado River and, on such lands, the Secretary [of the Interior] shall allow only such recreation or other uses as are consistent with this Act" (Section 6(h)2(e)).

This plan focuses on recreational use of the Ruby-Horsethief Special Area identified in the 1998 Ruby-Canyon Black Ridge IRMP and included in the 2004 McInnis Canyons NCA RMP. The RHRA begins 1.2 miles west of the Loma boat launch and continues to the Colorado-Utah state line and includes the Colorado River and lands below the 100 year high water mark. It is an extremely popular recreation destination with more than 20,000 user days in 2009 and more than 18,000 nights of camping.

PROJECT NAME: Ruby-Horsethief Recreation Area Management Plan

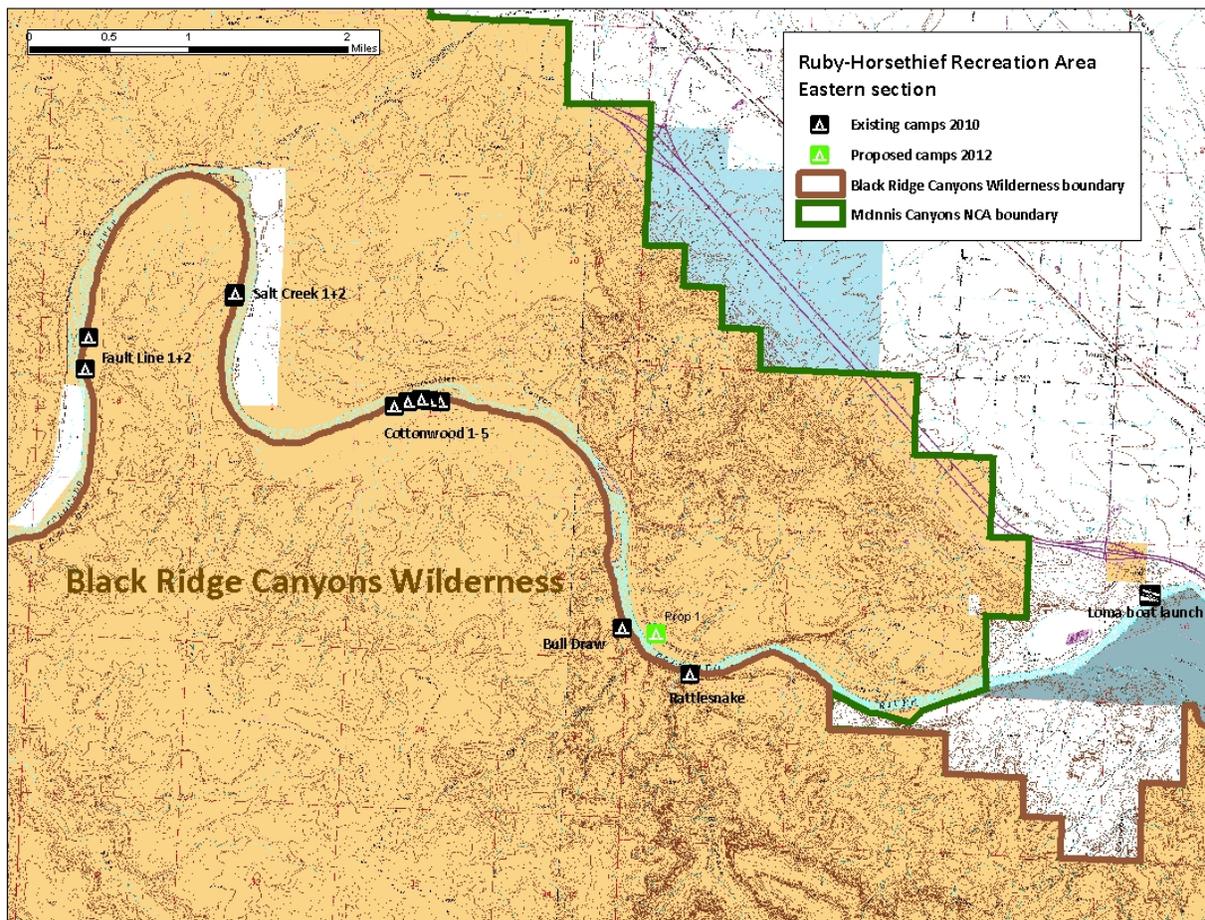
1.2 PROJECT LOCATION AND LEGAL DESCRIPTION

LEGAL DESCRIPTION:

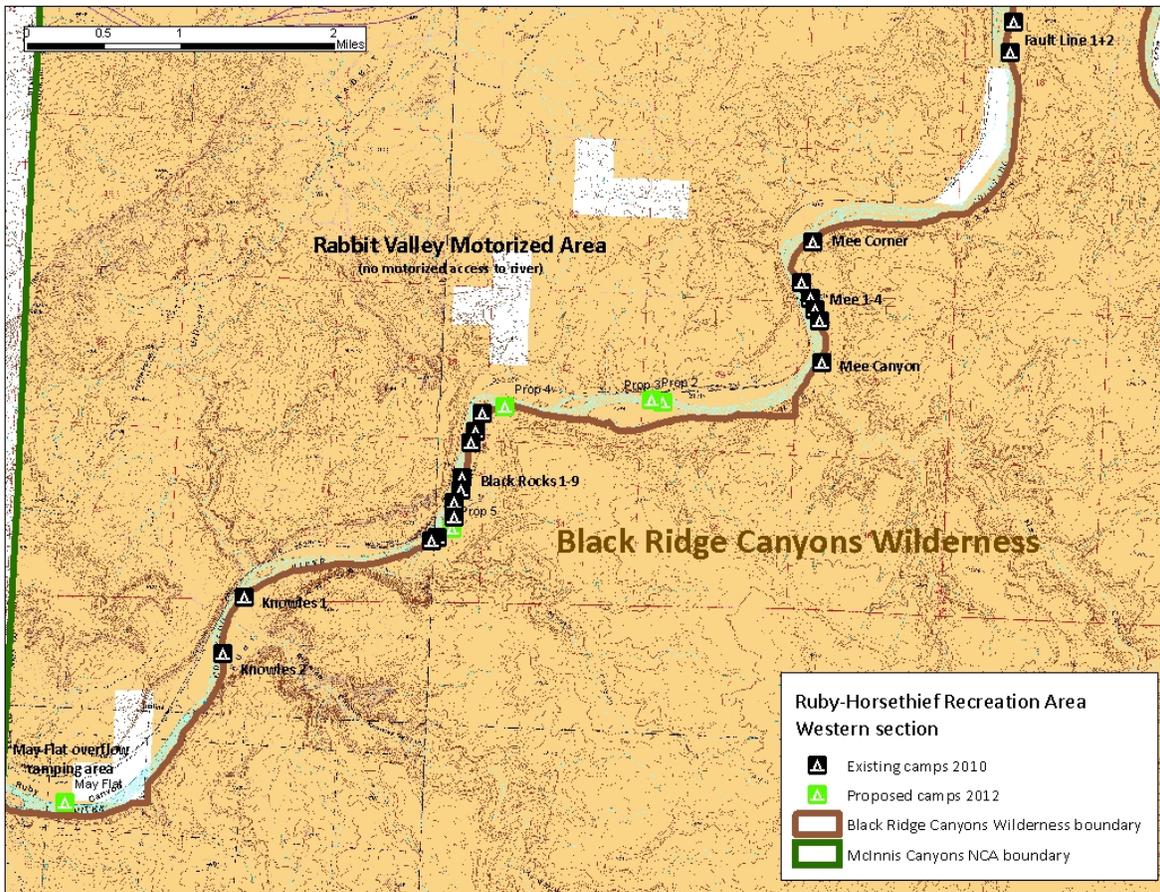
The Ruby-Horsethief Recreation Area runs for 21 miles from just west of Loma, Colorado to the Utah-Colorado state line and is generally within the 100 year floodplain of the Colorado River.

There are 28 established campsites within the river corridor and BLM proposes to designate these existing campsites and eight new campsites. The existing campsites and six of the proposed campsites are shown on the accompanying project maps (the location of the remaining two campsites is yet to be determined):

Ruby-Horsethief Recreation Area – eastern section



Ruby-Horsethief Recreation Area – western section



1.3 PURPOSE AND NEED

The purpose of the Ruby-Horsethief Recreation Area Management Plan is to provide for comprehensive management of river recreation with opportunities for quality recreation experiences and beneficial outcomes while continuing to protect the natural, cultural, geologic, and recreational resources of the river corridor. Past planning efforts have identified broad management goals for the area and call for BLM to manage the RHRA to “provide opportunities for visitors to engage in overnight flat-water boating for social group and family affiliation in a naturally appearing red-walled river canyon”. While recreation is the primary component of this plan, BLM manages the RHRA not only for its recreational values but also because of its outstanding scenic, geologic, wildlife, fisheries, and cultural resources.

Action is needed based on significant growth in recreational use of Ruby-Horsethief and associated physical and social impacts. These social and physical impacts include.....In 2009, the area supported more than 20,000 user days in the RHRA. The 1998 plan established Ruby-Horsethief as a “special area” and raised the possibility of a permit and fee system for the river corridor. Both the 1998 and 2004 management plans encouraged BLM to delay implementation of a permit and fee system for as long as practical in order to preserve the open, unrestricted nature of the canyons. As use has continued to grow over the past 15 years, both physical and

social impacts have also increased and now prompt BLM to reevaluate recreation management of the river corridor.

1.4 PLAN CONFORMANCE REVIEW

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: Grand Junction Field Office Resource Management Plan

Date Approved: January, 1987

Name of Plan: Colorado (McInnis) Canyons National Conservation Area Resource Management Plan

Date Approved: September 2004

This proposed action is also consistent with the Ruby-Horsethief Integrated Resource Management Plan (1998), an activity-level plan that provided supplemental direction for this area following completion of the Grand Junction RMP. See section 3.5.2 for a description of goals and objectives from this planning effort.

In January 1997, the Colorado State Office of the BLM approved the Standards for Public Land Health and amended all RMPs in the State. Standards describe the conditions needed to sustain public land health and apply to all uses of public lands.

Standard 1: Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate, land form, and geologic processes.

Standard 2: Riparian systems associated with both running and standing water function properly and have the ability to recover from major disturbance such as fire, severe grazing, or 100-year floods.

Standard 3: Healthy, productive plant and animal communities of native and other desirable species are maintained at viable population levels commensurate with the species and habitat's potential.

Standard 4: Special status, threatened and endangered species (federal and state), and other plants and animals officially designated by the BLM, and their habitats are maintained or enhanced by sustaining healthy, native plant and animal communities.

Standard 5: The water quality of all water bodies, including ground water where applicable, located on or influenced by BLM lands will achieve or exceed the Water Quality Standards established by the State of Colorado.

Because standards exist for each of these five categories, a finding must be made for each of them in an environmental analysis. These findings are located in Chapter 3 of this document.

1.5 PUBLIC PARTICIPATION

1.5.1 Scoping: NEPA regulations (40 CFR §1500-1508) require that the BLM use a scoping process to identify potential significant issues in preparation for impact analysis. The principal goals of scoping are to allow public participation to identify issues, concerns, and potential impacts that require detailed analysis.

Persons/Public/Agencies Consulted:

BLM began the initial outreach effort for this planning process in 2008 with a presentation to the MCNCA Advisory Council, a group of 10 citizen-stakeholders representing a wide variety of users of the area. The Advisory Council was called for by the act creating the National Conservation Area, and these representatives were appointed by the Secretary of the Interior to assist BLM with the development of the MCNCA RMP. In 2009, the MCNCA Advisory Council became a subgroup of the Northwest Colorado Resource Advisory Council and continues to offer advice to BLM on management of the area including involvement with this management plan. BLM has met with this group six times to discuss river management issues and the development of the proposed plan, including meetings on January 22, 2009, May 7, 2009, July 16, 2009, March 4, 2010, August 16, 2010, and November 22, 2010.

Formal planning for this project began in 2009. BLM hired an additional river ranger for the summer season. This ranger was stationed primarily at the Loma boat launch and served as a primary contact for thousands of boaters entering the RHRA. BLM also established a planning website where all planning documents and presentations were made available to the public. In addition to the planning webpage, BLM created a dedicated email address to receive comments from the public at the very beginning of the planning process.

The planning process was formally begun with a letter to private boaters, all commercial outfitters and other known stakeholders including the Colorado Division of Wildlife, Colorado River Outfitters Association, and the Western Slope No-Fee Coalition discussing the need for this planning process as well as BLM's goals for it. This letter also announced the date of BLM's first public meeting on the issue. This meeting was held on July 16th, 2009 and started with a presentation to the MCNCA Advisory Council at which BLM staff discussed why BLM was beginning this process and the goals for the process. More than 55 people attended this presentation, including both private and commercial boaters.

The draft RHRA Management Plan was released in March, 2010 and an open house was held on May 1st, 2010 to answer questions about the draft plan. Following this meeting, a 60 day comment period began during which time BLM received more than 60 comments. BLM utilized information from these comments, public meetings, and meetings with the Northwest Resource Advisory Council's McInnis Canyons NCA subgroup to select an alternative from the draft plan. This alternative, most closely representing Alternative C from the draft plan, was then modified into the proposed Ruby-Horsethief Recreation Area Management Plan.

In addition to these formal efforts, information has been posted in the NCA at the Loma Boat Launch since May, 2010 and river rangers have had numerous discussions with individual Ruby-Horsethief visitors while on weekly river patrols. MCNCA staff and managers have also conducted outreach through briefings and presentations to Rotary Clubs, the Riverfront Commission (which also focused on the issue during its 2010 float trip), Mesa County Commissioner Briefings, Club 20, the Colorado River Outfitters Association (CROA), and radio programs on KAFM.

Summary of comments received

63 written comments were received during the planning process. 27 comments were received during the initial outreach effort, and 36 comments were received after the release of the draft RHRA management plan.

Seven comments were received from commercial outfitters; three comments were received from private boater organizations.

Of the 63 comments, 50 identified a 'yes' or 'no' choice in reference to the implementation of a permit system for Ruby-Horsethief. 38 comments were in favor of some sort of permit system while 12 were opposed. Of the 36 comments received after the draft plan was released, 20 were in favor of a permit system while eight were opposed.

Of the comments that identified a preference for a specific alternative, two comments supported no change, three comments supported requiring registration for campsites but not requiring permits, 14 comments supported requiring office-issued permits for Friday and Saturday nights, and two comments supported office-issued permits for every night of the week.

Themes

The most common themes across comments were related to fees and commercial allocations. Most comments were supportive of fees but not supportive of \$7/person/night. All commercial outfitters commented on the need for more specificity about how their allocation would be determined and how permits would be distributed.

- Almost all comments acknowledged a need to do something more to manage use in Ruby-Horsethief, with many of the "no to permits" comments supporting some action but not approving of any of the alternatives exactly as written. For example, one comment said they would support C if there was greater detail (particularly about commercial use) but absent of that they could not support a permit system at this time
- Most private boaters supported alternative C. It was generally recognized as a compromise that would manage the overuse and conflict common on weekends but still maintain the flexibility for spur-of-the-moment trips during the week

- Several comments approved of alternative C and thought that it was a good start and that it would not be difficult to move to alternative D in the future, if necessary
- Several comments were concerned with the effect restrictions on Ruby-Horsethief would have on the Gunnison River
- Many comments (both private and commercial) were concerned with Ruby-Horsethief and Westwater coordination
- Most comments support a fee but were generally not supportive of \$7 per person, per night. Several comments were in favor of a launch-based fee system (as well as a launch-based permit system); while a few comments thought a fee should be required of all users (not just campers). One commenter indicated a fee should be required for all use of McInnis Canyons NCA and that boaters were being unfairly singled out.
- All comments from commercial outfitters said that the group size should be 25 plus guides.
- Several comments from commercial outfitters wanted more detail about how commercial permits would be allocated and were also concerned with Ruby-Westwater connectivity. One commercial comment suggest reserving 3 of the 7 commercial permits for trips that will continue through Westwater
- Several comments from commercial outfitters objected to limiting commercial used based on their historical averages and believed there was a bias against outfitters
- One comment suggested that CROA and UGO boards be given time to review the RHRA management plan over the winter.
- One comment suggested that camping should be limited to designated sites only above Knowles Canyon but that undesignated beach camping be permitted below Knowles Canyon
- One comment suggested that a carrying capacity should be determined for both seasonal use (impacts to resources) and daily use (social experiences)
- Several comments suggested designating more camps for smaller groups, particularly in more remote stretches of the river

Issues Identified

As a result of those comments and ongoing work with the Northwest Colorado Resource Advisory Council's McInnis Canyons NCA subgroup, several changes were made to Alternative C from the draft plan before it was selected as the proposed action. A brief summary of changes made between the draft and proposed plan are listed below.

Camping fees: In the draft plan, a proposed \$7 per person, per night camping fee was common to all alternatives. The majority of public comments received indicated that they believed this

fee was too high and BLM began to evaluate reducing the fee to \$5 per person per night. During discussions with the NWRAC McInnis Canyons NCA subgroup, it was suggested that a fee be charged based on the use of campsite rather than the individual size of the group. As a result of these discussions, the proposed action includes a fee based on group size rather than the number of people in a group. This change will provide more flexibility to overnight visitors while making administration of the fee system easier and more efficient by allowing groups to add or subtract people (within the range of their permitted group size) without having to contact BLM and without BLM having to get involved with a permit that has already been issued.

In the draft plan, private permits could be cancelled and refunded minus a \$20 fee. This option was eliminated in the proposed plan meaning that permits would be non-refundable. This change was made after discussions with boaters and the NWRAC subgroup, the latter believing it would reduce the amount of administration BLM had to perform to operate the permit system. Permits would be able to be transferred to another trip leader or cancelled, but refunds would not be given.

Group size limits: The 2004 MCNCA RMP established a group size limit of 25 people for both private and commercial groups, and this limit was carried over in the draft plan. All comments received from commercial outfitters objected to this requirement and the proposed plan maintains a group size limit of 25 for private groups but changes the group size limit for commercial groups to 25 plus guides.

Private-commercial allocations (Friday and Saturday nights): The draft plan proposed a private-commercial split of 80%-20%. This percentage was based on the number of people camping, and was found to be confusing when the change was made to basing the entire campsite permit system on the number of groups rather than the number of people in the group. The proposed plan now relies wholly upon the number of groups and the private-commercial allocation in the proposed plan is now 83%-17%. This more accurately reflects historic use patterns while allowing commercial operators the room to increase their use to historic levels (no new commercial permits have been issued since 1998 while private use has not been limited at all.)

1.6 DECISION TO BE MADE

The BLM will decide whether to implement the proposed Ruby-Horsethief Recreation Area Management Plan based on the analysis contained in this Environmental Assessment (EA). This EA will analyze the potential impacts of a limited use permit and fee system and the establishment of a series of designated campsites. The BLM may choose to: a) implement the plan as proposed, b) implement the plan with modifications/mitigation, c) implement an alternative to the plan, or d) not implement a plan at this time.

CHAPTER 2 - PROPOSED ACTION AND ALTERNATIVES

2.1 INTRODUCTION

The purpose of this chapter is to provide information on the Proposed Action and Alternatives. Alternatives considered but not analyzed in detail are also discussed. Current river rules require all groups to carry and use a portable human waste containment system and firepan. These rules will continue to be in place under any alternative.

2.2 ALTERNATIVES ANALYZED IN DETAIL

2.2.1 Proposed Action

The proposed action is to implement the Ruby-Horsethief Recreation Area Management Plan (attachment 1), which includes the following actions:

Establishment of an overnight capacity

- 35 campsites (28 existing, 8 new) would be designated within RHRA and would be available via a permit system
- Six new campsites are listed in Appendix A; two additional campsite locations will be determined in Summer 2011
- Camping would be limited to designated sites only
- Groups would be required to camp within a certain distance of the 5"x5" post that marks the campsite. These distances would vary by campsite, would be posted on the camp post, and would generally be 150' or less
- An additional camping area would be designated at May Flat that would only be available for use by permitted groups that miss their assigned campsite upriver
- Permits would be issued through the Grand Junction Field Office (GJFO) for Friday and Saturday night use
- Permits for Sunday through Thursday night would be self-issued at the Loma boat launch unless it became necessary (because of high use, abuse of the system, or other reasons) to also issue them through the GJFO. Specific triggers for this change could include:
 - More than 25 groups camping on a weeknight more than five times in a season
 - Black Rocks and Mee campsites fully occupied on a weeknight more than ten times in a season
 - Groups attempting to sign up for a weeknight campsite before the day of their trip

Private camping permits from May 1st to September 30th (Friday and Saturday nights)

- 83% of overnight permits (29) would be allocated to private groups
- Permits would be issued on a first call, first served basis beginning on Monday six weeks before the weekend of use

- Friday and Saturday permits would be available Monday through Friday from 8am until 12pm by phone or in person at the Grand Junction Field office
- Fee would be due at the time the permit is issued
- Permits would be issued to a trip leader and an alternate trip leader
- Fees would not be refunded after the permit is issued
- A permit availability calendar would be posted to the Grand Junction Field Office website each afternoon, Monday through Friday

Private camping permits from May 1st to September 30th (Sunday through Thursday nights)

- Overnight camping permits would be available on a first come, first served basis at the Loma boat launch
- Overnight camping permits would be self-issued and a campsite selected when the permit is filled out
- Only 35 groups would be permitted to camp in RHRA each night
- There would be no private/commercial allocation on Sunday through Thursday nights
- Groups would not be able to sign up for a permit before the day their trip begins. Unique, sequential permit numbers would prevent groups from signing up in advance

Commercial camping permits from May 1st to September 30th (Friday and Saturday nights)

- 17% of overnight camping permits (6) would be allocated to commercial groups: each permit would accommodate a group of up to 25, plus guides
- Permits would be allocated based on the historic percentage of overnight use of each commercial permittee
- Permits would be issued for the upcoming season (May 1st to September 30th) by January

Commercial camping permits from May 1st to September 30th (Sunday through Thursday nights)

- Overnight camping permits would be available on a first come, first served basis at the Loma boat launch
- Overnight camping permits would be self-issued and a campsite selected when the permit is filled out
- Only 35 groups would be permitted to camp in RHRA each night
- There would be no private/commercial allocation on Sunday through Thursday nights
- Groups would not be able to sign up for a permit before the day their trip begins. Unique, sequential permit numbers would prevent groups from signing up in advance

Alternate camping for groups that miss their assigned campsite

- A new camping area would be designated at May Flat (two miles upriver from the Colorado-Utah border)

Camping fees

- A group occupying a small campsite (1-5 people) would be charged \$20 per campsite, per night
- A group occupying a medium campsite (6-14 people) would be charged \$50 per campsite, per night
- A group occupying a large campsite (15-25 people) would be charged \$100 per campsite, per night

Group size limits

- Private groups would be limited to 25 people
- Commercial groups would be limited to 25 people plus guides

Camping stay limits

- Camping at Black Rocks would be limited to one night per group on Friday and Saturday nights

Day use

- Day use would not be limited unless monitoring indicates unacceptable physical or social impacts from this use
- Day users would be required to obtain a free, non-limited, self-issued permit at the Loma boat launch; the purpose of this permit would be to provide accurate visitor use data

Motorized boating

- Motorized boating would not be limited unless monitoring indicates unacceptable physical or social impacts from this use

Dogs

- Dogs would be limited to two per camp group
- Dogs would count as part of the group size for campsite size and fee purposes
- The Loma boat launch, Mee campsites, Black Rocks campsites, and the Westwater take out would be designated as 'high-use' areas and dogs would be required to be on a leash at all times while in these areas
- All groups would be required to pack out all solid dog waste
- All dogs would be prohibited from the RHRA if human-dog conflicts and dog waste issues continue to occur

2.2.2 No Action Alternative

Under the no action alternative, the Ruby-Horsethief Recreation Area Management Plan would not be implemented. No overnight capacity would be established, no additional campsites would be designated nor would camping be limited to designated sites, and the existing voluntary registration system would be continued.

2.3 ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL

BLM released a draft Ruby-Horsethief Recreation Area Management Plan for public comment in March, 2010. This plan featured four alternatives, the No Action (as described above) plus three additional alternatives:

Alternative B – First come, first served camping

Under this alternative, the voluntary campsite registration system would be eliminated and visitors would occupy a campsite on a first-come, first served basis. No overnight capacity would be established. Visitors would be required to obtain a self-issued permit for use of RHRA and a \$7 per person, per night camping fee would be charged for overnight use. The existing group size limit of 25 would be maintained.

Under this alternative, no new commercial permittees would be authorized. Commercial use by existing permittees would not be limited and permitted outfitters would also obtain campsites on a first-come, first-served basis.

Alternative C – Camping permits (partially office-issued)

Under this alternative, camping permits would be required for overnight use within RHRA. Permits for Sunday through Thursday nights between May 1st and September 30th would be self-issued at the Loma boat launch. Permits for Friday and Saturday nights between May 1st and September 30th would be issued by the Grand Junction Field Office up to six weeks before the trip with campsites assigned at that time. Permits for all camping between October 1st and April 30th would be self-issued at the Loma boat launch. A camping fee of \$7 per person, per night would be charged for all overnight use within RHRA. Free, self-issued permits would be required for day use within RHRA.

Alternative D – Camping permits (fully office-issued)

Under this alternative, camping permits would be required for overnight use within RHRA. Permits for camping between May 1st and September 30th would be issued by the Grand Junction Field Office up to six weeks before the trip with campsites assigned at that time. Permits for all camping between October 1st and April 30th would be self-issued at the Loma boat launch. A camping fee of \$7 per person, per night would be charged for all overnight use within RHRA. Free, self-issued permits would be required for day use within RHRA.

Based upon public comments received after the release of the draft management plan, minor changes were made to Alternative C and it was selected as the preferred alternative.

Alternative B was not analyzed because it would not reduce any of the physical or social impacts occurring within the RHRA (does not meet the purpose and need for action), and Alternative D was combined with alternative C because they are substantially similar and can be analyzed simultaneously.

CHAPTER 3 - AFFECTED ENVIRONMENT AND EFFECTS

3.1 INTRODUCTION

This section provides a description of the human and natural environmental resources that could be affected by the Proposed Action and presents comparative analyses of the direct, indirect and cumulative effects on the affected environment stemming from the implementation of the actions under the Proposed Action and other alternatives analyzed.

3.1.1 Elements Not Affected

The following elements, identified as not being present or not affected, will not be brought forward for additional analysis: Geology, Minerals, Paleontology, Social

3.1.1 Past, Present, Reasonably Foreseeable Actions

NEPA requires federal agencies to consider the cumulative effects of proposals under their review. Cumulative effects are defined in the Council on Environmental Quality (CEQ) regulations 40 CFR §1508.7 as "...the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable actions regardless of what agency...or person undertakes such other actions." The CEQ states that the "cumulative effects analyses should be conducted on the scale of human communities, landscapes, watersheds, or airsheds" using the concept of "project impact zone" or more simply put, the area that might be affected by the proposed action. To assess past, present and reasonably foreseeable actions that may occur within the affected area a review of GJFO NEPA log and our field office GIS data was completed. The following list includes all past, present and reasonably foreseeable actions known to the BLM, that may occur within the affected area:

Past Actions:

Numerous dams, unauthorized trespasses (e.g., road building, streambank manipulation), recreational activities, natural gas developments, irrigation, livestock grazing activities, and introductions of non-native plant and fish or other aquatic species have been installed, conducted, or occurred along the Ruby-Horsethief Corridor within the past fifty years.

Fires within the past 10 years have included:

- Mee Canyon Fire (58 acres)(2005) and subsequent rehab and revegetation
- Knowles Canyon Fire (91 acres)(2007) and subsequent rehab and revegetation
- Gibson fire (7 acres) (2011)

Several popular recreational rivers in the region require permits to float:

- Colorado River (Westwater Canyon) – permit required year round; \$7 per person launch fee
- Gunnison River (Gunnison Gorge) – permit required year round; \$3 fee for day use, \$10 for one night, \$15 for two nights
- San Juan River (Sand Island to Mexican Hat; Mexican Hat to Clay Hills) – permit is required year round; \$6, \$12, or \$24 fee (depending on length of float) required from March 1st to October 31st
- Green and Yampa Rivers (Dinosaur National Monument) - \$15 application fee, \$20 for one day trips; \$185 for multi-day trips

Present Actions

As described in section 3.3.1, the Ruby-Horsethief stretch of the Colorado River has been the focus of intensive weed management since 2000, when the NCA was designated and the Field Office launched a full-time integrated weed management program.

In 2005 the BLM, in conjunction with USDA-APHIS and the Palisade Insectary, released the leaf beetle on tamarisk at two sites within RHRA—Horsethief Bottom below Rustlers Loop, and at Knowles Canyon. Since 2005, the populations of these two releases have significantly increased and have mixed with beetles released in Utah. Beetles are now fully established in RHRA and are defoliating large acreages of tamarisk each season.

The BLM is also intensively treating noxious weeds:

- All known infestations of perennial pepperweed, Russian olive, and purple loosestrife are treated annually.
- Tamarisk: 1.5 miles of river treated (2005), 5 acres (2006), 10 acres (2007), 3 acres (2008) 10.6 acres at Black Rocks (2009), 11 acres of resprouts retreated and 7 acres cut, piled and burned (2010)
- Russian knapweed: 30 acres (2005), 4 acres (2006), 5 acres (2009), 8 acres (2008), 49 acres (2010)
- Purple loosestrife: 2009 marked 10 years of cooperatively controlling Purple Loosestrife on the Colorado River with Mesa County Weed and Pest.

As of 2010, 200 native Fremont cottonwoods have been planted and 260 have been protected with mesh barriers.

Reasonable Foreseeable Actions

Over time, recreation is anticipated to continue to increase in the western Colorado region. This area currently draws more than 1 million visitors per year, and would be anticipated to continue to increase into the future.

The BLM is currently working on a Resource Management Plan for the Dominguez-Escalante NCA, which includes the Gunnison River (a river with similar characteristics to this portion of the Colorado which contributes to the regional supply of rivers offering Class I and II boating).

This RMP is anticipated to be completed in 2013, and will include additional management prescriptions for that river.

This list of past, present and reasonably foreseeable actions was considered when analyzing cumulative effects in sections 3.2, 3.3, 3.4, and 3.5 below.

3.2 PHYSICAL RESOURCES

3.2.1 Air Quality and Climate

Current Conditions:

Air quality in the project area is typical of undeveloped regions in the western United States. The closest Class I Airshed is the West Elk Wilderness Area located approximately 80 air miles to the southeast.

The primary sources of air pollutants in the region are fugitive dust from the desert to the west of the planning area, unpaved roads and streets, seasonal sanding for winter travel, motor vehicles, and wood-burning stove emissions. Seasonal wildfires throughout the western U. S. may also contribute to air pollutants and regional haze. The ambient pollutant levels are usually near or below measurable limits, except for high short-term increases in PM₁₀ levels (primarily wind-blown dust), ozone, and carbon monoxide. Within the Rocky Mountain region, occasional peak ozone levels are relatively high, but are of unknown origin. Elevated concentrations may be the result of long-range transport from urban areas, subsidence of stratospheric ozone or photochemical reactions with natural hydrocarbons. Occasional peak concentrations of CO and SO₂ may be found in the immediate vicinity of combustion equipment. Locations vulnerable to decreasing air quality include the immediate areas around mining and farm tilling, local population centers, and distant areas affected by long-range transportation of pollutants. Representative monitoring of air quality in the general area indicates that the existing air quality is well within acceptable standards.

The EPA General Conformity regulations require that an analysis (as well as a possible formal conformity determination) be performed for federally sponsored or funded actions in non-attainment areas and in designated maintenance areas when the total direct and indirect net air pollutant emissions (or their precursors) exceed specified levels. Since the GJFO is not within a non-attainment or a maintenance area, the Clean Air Act conformity regulations do not apply.

No Action

Direct and Indirect Effects: Direct impacts to air quality from the no action alternative are not anticipated to occur. Indirectly, increased recreational use and dispersed camping within the RHRA could increase potential for riparian

wildfire. Riparian wildfire may contribute to air pollutants and regional haze lasting through suppression efforts.

Cumulative Effects: Cumulative effects to air quality could occur if increased visitation and dispersed camping regularly resulted in riparian wildfire. Re-occurring riparian wildfire over the landscape could collectively deteriorate air quality for extended periods of time.

Proposed Action

Direct and Indirect Effects: No direct impacts to air quality are anticipated with implementation of the proposed action. Indirectly, the proposed action will restrict camping to within designated areas, require users to utilize fire pans and pack out ash and debris from fires. These efforts are anticipated to reduce potential riparian wildfire which would help protect existing air quality.

Cumulative Effects: Collectively, mitigation measures built into the proposed action will help reduce potential for riparian wildfire. Reduced riparian wildfire potential should help protect air quality.

3.2.4 Soils (includes a finding on Standard 1)

Current Conditions:

Soils within the project area have been mapped by the Natural Resource Conservation Service (NRCS) in an Order III soils survey; Mesa County Soil Survey. Soil data can be viewed on line through the NRCS Soil Data Mart (NRCS 2011).

The semi-arid climate within the project area is a primary influence on soil development. Low annual precipitation, hot summer temperatures, and high evaporation rates slow the chemical and biological processes needed for soil development and limits potential production of vegetation. Predominately shale and sandstone parent materials coupled with very active geologic erosion are also inhibiting soil potential. Adjacent to the Colorado River, soils are developing in sandy and cobbly alluvium from various parent materials, and are subject to seasonal flooding. Two principle soil types are located within the flood-prone area of the Colorado River in the project area. Important soil characteristics for these soil types are outlined in the following table.

Name	slope range	Parent material	Salinity	Drainage Class	Run-off Class
Moffat-Sheppard-Pennell complex (#76)	0-3 percent	Alluvium derived from sandstone and/or colluvium derived from sandstone; Eolian sands over residuum weathered from sandstone; rock outcrop	non-saline	well drained	very low-very high
San Mateo-Escavada, dry complex (#91)	3-25 percent	Alluvium derived from sandstone and shale.	non-saline	moderately well drained to excessively well drained	low

Table data from NRCS 2011

No Action

Direct and Indirect Effects: Direct impacts to soil resources associated with the no-action alternative include soil compaction, reduced soil stabilization, and increased soil erosion potential. All of these direct impacts would be associated with increased recreational use within the project area and subsequent expansion of existing camp sites (increased surface disturbance). Indirectly, under the no-action alternative camp site expansion and pioneering of new sites would continue as the demand for increased recreational opportunities follows current trends. With increased visitation comes increased potential for riparian wildfire. Riparian wildfire can consume essential soil stabilizing agents (e.g. vegetation, woody debris, and biologic soil crusts) elevating erosive potential.

Cumulative Effects: Continued expansion of existing camp sites will continue with the increased demand for recreational opportunities in the project area under the no-action alternative. Compaction and erosion associated with increased visitation and over use of the area will degrade soil resources to a point where land health standards are no longer being met. Increased recreational use of non-designated camping areas will also result in increased potential for riparian wildfire which could further contribute to soil degradation.

Proposed Action

Direct and Indirect Effects: With implementation of the proposed action, overnight camping within the project area will be limited to designated areas. As a result, it is anticipated that future surface disturbance associated with pioneered campsites will be eliminated. Thus, soil compaction and removal of soil stabilizing agents (e.g. vegetation, woody debris, etc...) will be reduced. As a result, erosion potential will also be reduced under this alternative. Indirectly, by permitting overnight camping only in designated areas, requiring the use of fire pans and removal of ash/debris from camp and cook fires, the proposed

action will reduce potential for riparian wildfire and resultant impacts to soil resources.

Cumulative Effects: Cumulative impacts to soil resources from implementation of the proposed action are anticipated to benefit soil resources. With the foreseeable increased demand for recreational use, limiting camping to designated areas combined with mitigation built into the proposed action (e.g. requiring fire pans, etc...) will prevent over use within the RHRA.

Finding on Public Land health Standard 1: Soils within the proposed project area currently are meeting land health standards. Implementation of the proposed action is not anticipated to alter this finding. Implementation of the no-action alternative could impair the function of soil stabilizing agents' potential y leading to deteriorated soil health.

3.2.5 Water Quality (surface and groundwater) (includes a finding on Standard 5)

Current conditions:

The proposed project area is located within water quality stream segment 3 of the Lower Colorado River Basin. Stream segment 3 of the Lower Colorado River Basin is defined as the main stem of the Colorado River from immediately above the confluence of the Gunnison River to the Colorado-Utah state line.

Table 1 identifies stream classifications and water quality standards for Lower Colorado Basin stream segment 3 as outlined in CDPHE, Regulation No. 37.

Table 1:		Numeric Standards					
Stream Segment	Classifications	Physical and Biological	Inorganic (mg/l)		Metals (µg/l)		
COLCLC03	Aq Life Warm 1 Recreation E Water Supply Agriculture	T=TVS(WS-II) -C D.O.=5.0 mg/l pH=6.5-9.0 E.Coli=126/100ml	NH ₃ (ac/ch)=TVS Cl ₂ (ac)=0.019 Cl ₂ (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO ₂ =0.05 NO ₃ =100	As(ac)=340 As(ch)=7.6(Trec) Cd(ac/ch)=TVS CrIII(ac)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000 (Trec) Pb(ac/ch)=TVS Mn(ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(tot)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS

CDPHE 2010a

The CDPHE —Integrated Water Quality Monitoring and Assessment Report-2010 update to the 2008 305(b) Report was reviewed to determine the current status of assessment and determination of water quality within the project area. The Colorado Integrated Reporting Category (IR) value assigned to the assessment unit in the —Status of Water Quality in Colorado – 2010 document was IR=5. In Colorado, the majority of the assessed surface water bodies fall into IR Categories 1, 2, and 3. Colorado has elected to place segments where not all uses have been assessed in IR Category 2. In some cases, a complete assessment of all uses cannot be completed do to the lack of data, but the data that is available indicates that at least some of the uses that were assessed are fully supporting. IR Category 5 indicates that available data and/or information indicate that at least one classified use is not being supported or is threatened, and a TMDL is needed. Segments must be placed in Category 5 when, based on existing and readily available data and/or information, technology-based effluent limitations required by the Clean Water Act (CWA), more stringent effluent limitations, and other pollution control requirements are not sufficient to implement an applicable water quality standard and a TMDL is needed. This category constitutes the Section 303(d) list of waters impaired by a pollutant. (CDPHE. 20010c).

The 2010 CDPHE-WQCC Regulation No. 93 Section 303d List of Impaired Waters and Monitoring and Evaluation List, was reviewed to determine if Lower Colorado River stream segment 3 was listed. The entire portion of stream segment 3 was listed on the 303(d) list for selenium (Se) impairments (CDPHE. 2010b).

Much of the upland watershed north of the Colorado River is situated on soils derived from Mancos shale. Mancos shale soils have naturally high concentrations of selenium and salts. Excessive erosion and irrigation of Mancos shale soils has been documented to be a major contributor to water quality degradation in other parts of the field office. Most recently (5-28-2010) BLM collected water quality samples in Salt Creek downstream of I-70. Results indicate Se levels to be 5.8 µg/L which is above chronic levels (4.6 µg/L). Studies conducted by the United States Geological Survey (USGS) and the National Irrigation Water Quality Program (NIWQP) indicated primary source areas for selenium in the Colorado River near the Colorado/Utah State line to be the eastern side of the Uncompahgre Valley, and the western one-half of the Grand Valley, where extensive irrigation is located on Mancos Shales (Gunnison Basin Selenium Task Force, 2009). These findings support the notion that upstream irrigation near the project area would also result in increased Se concentrations to surface water in Salt Creek and eventually the Colorado River.

Of additional concern within the project area are contributions of sediment and salinity to the Colorado River system resulting from accelerated soil erosion in upland watersheds. The Colorado River Basin Salinity Control Act (Public Law 93-320) was enacted in June 1974. The Act was amended in 1984 by Public Law 98-569. Public Law 98-569 includes directing the BLM to develop a comprehensive program for minimizing salt contributions from lands under its management. Colorado's Grand Valley is

recognized as the largest non-point source of salinity in the Upper Colorado River Basin. Soils within the project area are identified as “non-saline” in the NRCS soil survey of Mesa County, CO (NRCS 2011).

Hydrology/Floodplains:

The project area is situated entirely within the 100-year floodplain of the Colorado River. Although the extent of the 100-year floodplain is not mapped, onsite observation of all camp sites in October 2010 confirmed placement in the 100-year floodplain. As such, many of the campsites are subject to flooding during high flow events. Thus, not all campsites will be available during these brief periods. Peak flow conditions represent dangerous environmental hazards to all who utilize the river corridor. Table 2 identifies maximum flow values table 3 identifies median flow values (50 percentile flows) at USGS gage 0916350 (Colorado River at Colorado/Utah state line) for the months of May-September during the period of record (1951-2010).

Table 2: Peak Stream Flow USGS Gage 0916350 (1951-2010)

Peak Stream Discharge: USGS Gage 0916350 Colorado River Near Colorado-Utah State Line (1951-2010)					
Water Year	Date	Stream Discharge (cfs)	Water Year	Date	Stream Discharge (cfs)
1951	Jun. 23, 1951	302,005	1981	June 9 1981	121,005
1952	Jun. 09, 1952	520,005	1982	Jun. 20, 1982	193,005
1953	Jun. 15, 1953	373,005	1983	Jun. 27, 1983	621,005
1954	May 23, 1954	116,005	1984	May 27, 1984	698,005
1955	Jun. 10, 1955	171,005	1985	May 5, 1985	393,005
1956	Jun. 04, 1956	289,005	1986	Jun. 08, 1986	338,005
1957	Jun. 09, 1957	568,005	1987	May 18, 1987	225,005
1958	May 31, 1958	450,005	1988	May 19, 1988	154,005
1959	Jun. 11, 1959	232,005	1989	May 31, 1989	99,705
1960	Jun. 05, 1960	247,005	1990	Jun. 12, 1990	126,005
1961	May 31, 1961	193,005	1991	Jun. 16, 1991	198,005
1962	May 14, 1962	405,005	1992	May 28, 1992	165,005
1963	May 20, 1963	113,005	1993	May 28, 1993	443,005
1964	May 27, 1964	273,005	1994	May 19, 1994	136,005
1965	Jun. 20, 1965	364,005	1995	Jun. 19, 1995	493,005
1966	May 11, 1966	144,005	1996	May 20, 1996	291,005
1967	May 27, 1967	194,005	1997	Jun. 10, 1997	375,005
1968	Jun. 07, 1968	266,005	1998	May 22, 1998	261,005
1969	Jun. 26, 1969	204,005	1999	Jun. 01, 1999	179,005
1970	May 24, 1970	330,005	2000	May 31, 2000	179,005
1971	Jun. 19, 1971	222,005	2001	May 18, 2001	132,005
1972	Jun. 09, 1972	184,005	2002	Sep. 12, 2002	55,205
1973	Jun. 16, 1973	350,005	2003	Jun. 03, 2003	261,005
1974	May 11, 1974	228,005	2004	May 12, 2004	94,505
1975	Jun. 09, 1975	263,005	2005	May 25, 2005	310,005
1976	Jun. 07, 1976	144,005	2006	May 24, 2006	217,005
1977	Jun. 10, 1977	50,805	2007	May 23, 2007	147,005
1978	Jun. 17, 1978	278,005	2008	Jun. 04, 2008	396,005
1979	May 30, 1979	360,005	2009	May 26, 2009	290,005
1980	May 24, 1980	321,005	2010	Jun. 09, 2010	303,005
1981	Jun. 09, 1981	121,005			

Table 3: Median Flows at USGS Gage 098321 (1951-2010).

Median of the daily mean discharge (1951-2010) USGS Gage #0916350				
May	June	July	August	September
13,700 cfs	17,100 cfs	6,710 cfs	3,700 cfs	3,795 cfs

An onsite level I geomorphic characterization was conducted on the Colorado River within the project area in October 2011. This characterization identified a channel slope less than 2 percent, well defined floodplains, established point bars and riffle pool sequences, and a sinuosity greater than 1.2. These characteristics are all indicative of a “C” type stream.

The “C” stream types are located in narrow to wide valleys, constructed from alluvial deposition. The “C” type channels have a well developed floodplain (slightly entrenched), are relatively sinuous with a channel slope of 2% or less and bedform morphology indicative of a riffle/pool configuration. The primary morphological features of the “C” stream type are the sinuous, low relieve channel, the well developed floodplains built by the river, and characteristic “point bars” with the active channel. The channel aggradation/degradation and lateral extension processes, notably active in “C” type streams, are inherently dependent on the natural stability of stream banks, the existing upstream watershed conditions and flow and sediment regime. Channels of the “C” stream type can be significantly altered and rapidly de-stabilized when the effects of imposed changes in bank stability, watershed condition, or flow regime are combined to cause an exceedance of a channel stability threshold (Rosgen 1996).

Groundwater quality:

A review of the USGS Groundwater Atlas of the Colorado indicates the proposed action will be situated adjacent to the boundaries of the Colorado River alluvial aquifer system. The primary source of groundwater near the project area is contained within shallow, localized, alluvial/colluvial deposits adjacent to the Colorado River and major tributaries (Topper et al., 2003).

The valley-fill deposits or alluvium in the Colorado River basin consist generally of unconsolidated boulders, cobbles, gravel, sand, silt, and clay. The thickness of the alluvium can be extremely variable depending on location. Alluvium is very limited or nonexistent in the canyon sections of the Colorado River, such as the Gore, Glenwood, DeBeque, **Ruby, and Horsethief Canyons** where bedrock is exposed (Topper et al., 2003). Water quality can be high in TDS and sulfate where irrigation return flows are prevalent (Salt Creek area).

No Action

Direct and Indirect Effects: Under the no-action alternative, permits would not be required to camp or recreate within the RHRA. As a result, increasing recreational use is anticipated to occur given recent trends within the area. With increased recreational use comes increased demand for camp sites, increased potential expansion of existing, and increased potential establishment of new (pioneered) camp sites/take-outs in the RHRA. Direct impacts associated with the no-action alternative will result from establishment of new camp sites/take-outs, expansion of existing campsites, and increased riparian wildfire potential, which would result in increased surface disturbance and alteration of functional floodplain features (e.g. riparian vegetation, large woody debris). Alteration of functional floodplain features leaves stream banks and floodplains vulnerable to erosion and geomorphic destabilization. Human and animal waste (dogs) may also have a direct negative impact on water quality when combined with increased visitation if existing rules and regulations regarding disposal are not closely followed and enforced. Indirectly, increased erosion and geomorphic destabilization can adversely impact water quality as sediment and mineral constituents of eroded geology can contaminate water sources.

Cumulative Effects: Increased recreational use is anticipated to result in further expansion of existing camp sites and pioneering of new sites in unsustainable/undesirable locations adversely impacting the function and condition of riparian communities, floodplains, and water quality. Potential for riparian wildfire will increase as expansion of existing sites and pioneering of new sites continue with increased demand for recreational opportunities.

Proposed Action

Direct and Indirect Effects: Under the proposed action, permits would be required for overnight camping within the RHRA from May through September. Camping would be permitted only at designated sites and a maximum of 35 groups would be permitted during this time period. As a result, overuse within the riparian corridor, expansion of existing recreation sites and pioneering of new sites would be stymied by implementation and enforcement of the permit system. Direct impacts associated with the proposed action alternative will be limited to surface disturbance resulting from establishment of new camp sites/take-outs. However, these disturbances are not anticipated to have any measurable impact to water quality or overall floodplain function. New camp sites are situated within tamarisk treatment (removal) areas where tamarisk removal has reduced fuel loading and wildfire potential. With enforcement of rules and regulations outlined under the proposed action, overall surface disturbance and riparian wildfire potential will be reduced. As such, floodplain function will be preserved and water quality will be better protected under the proposed action. With enforcement of rules and regulations outlined under the proposed action, indirect impacts detrimental to floodplain function and water quality are not anticipated to occur.

Cumulative Effects: The proposed action is anticipated to reduce impacts associated with potential increases in use within the RHRA. Potential for riparian wildfire would be reduced as would potential to degrade water quality and floodplain function.

Finding on Standard 5: Stream segment 3 of the Lower Colorado River Basin currently does not meet state standards for selenium impairments. However, the source of contamination is from extensive irrigation of Mancos shale on private lands upstream of Ruby-Horsethief Canyon which is outside the control of BLM management. As such, implementation of the proposed action or no-action alternative will not alter the current finding. Stream segment 3 will continue to be impaired for selenium.

3.3 BIOLOGICAL RESOURCES

3.3.1 Invasive, Non-native Species

Current Conditions:

Ruby-Horsethief Canyon has been the focus of intensive weed management since 2000 when the NCA was designated and the Field Office launched a full-time integrated weed management program. The river corridor is host to a number of noxious weeds, which is typical for the riverine systems of western Colorado in the lower elevations. The primary species of concern, and the focus of weed efforts, have been on tamarisk, Russian-Olive, Russian knapweed, whitetop, perennial pepperweed, purple loosestrife, and musk thistle. Tamarisk has been under management from a physical treatment (chainsaws) and biological (tamarisk leaf beetle) perspective. In 2005 the BLM, in conjunction with USDA-APHIS and the Palisade Insectary, released the leaf beetle on tamarisk at two sites within RHRA—Horsethief Bottom below Rustlers Loop, and at Knowles Canyon. Since 2005, the populations of these two releases have significantly increased and have mixed with beetles released in Utah. Beetles are now fully established in RHRA and are defoliating large acreages of tamarisk each season. The advent of the beetle has changed the approach to tamarisk management by allowing a combination of biological and other methods of control. Previous to the beetle projects were isolated (mostly campsites) and conducted with manual methods and herbicide follow-up. The combination of control methods has allowed an expansion of tamarisk projects. Russian knapweed is widespread in RHRA, and early efforts for the control were located at campsites in efforts to push the weed away from these high use areas. The accumulation of control efforts over time have allowed the weed program to expand project areas outside of the campsites. Purple loosestrife is a rare Colorado A List weed (eradication the statewide goal) and in 2000 there were

numerous infestations in RHRA, as well as upstream in the Grand Junction area. Combined efforts every year since 2000 with BLM and Mesa County have reduced this weed to isolated plants only in RHRA. Whitetop, or hoary cress, is found all along the river in isolated locations. BLM has targeted this weed on numerous projects, and the populations are under maintenance, but susceptible to increase given the nature of this weed to expand rapidly. Another Colorado A list species that occurs in RHRA is perennial pepperweed, and RHRA is the only place this weed is found in Mesa County. In 2009, the BLM weed crew inventoried the infestations in RHRA, and identified about 200 sites where the weed occurred. In 2010, the weed crew launched an extensive control program and were able to treat all infestations. Similar to its cousin whitetop, this weed is somewhat stable, but susceptible to expansion if it is not treated on a regular basis. Musk thistle can be found from one end of RHRA to the other, but this plant is isolated small populations, mostly in the wetter areas of backwater sloughs. The largest population is at Knowles Canyon in the area of the 2006 fire.

No Action

Direct Effects: The weed program will continue extensive weed management in RHRA regardless of the outcome of this plan. However, in the absence of this plan, additional disturbance will occur as a result of non-designated camping, and weed infestations are expected to rise. Short-term effects are not as dramatic as the long-term or indirect effects.

Indirect Effects: Over the long term, without confining recreation use to designated areas, the RHRA can expect to see a steady but slow rise in weed infestations due to disturbance, and the transport of weed seeds to new areas along the river.

Cumulative Effects: Recreation is expected to rise in Mesa County over time, and use is expected to rise in RHRA as well. Recreationists are a vector of weed spread by inadvertent seed spread, as well as a cause of disturbance. The no-action alternative is expected to contribute to a rise in weed infestations along the river.

Proposed Action

Direct and Indirect Effects: The proposal to confine camping to designated sites is similar to other efforts by the recreation program in the Field Office. By doing so, this allows the weed program to concentrate efforts at specific sites on a rotational basis. This is easier to manage than searching numerous sites that accumulate over time. Short-term, there is not much noticeable change, but long term (see below) it is a positive change.

Cumulative Effects: Over the long-term this will positively benefit the weed management efforts for the reasons listed in the direct effects section. Not only

will it allow the maintenance of existing sites, but it will also allow the program to expand to other areas when the campsites are stable.

3.3.2 Sensitive Species

Current Conditions:

BLM Sensitive Terrestrial and Aquatic Wildlife and Plant Species:

Habitat for BLM-sensitive plant species does not occur in the RHRA, thus there are no known occurrences of sensitive plant species along the Colorado River corridor in Ruby and Horsethief Canyons. However, there are several BLM-sensitive wildlife species that could occur in the action area.

Habitat along the Colorado River provides winter and summer range and active nesting and roosting sites for bald eagles. There is one active bald eagle nest on the southwestern end of some private property (Gibson property) on the north bank of the River, approximately 1 mile downstream of the existing Fault Line 1 and 2 campsites. There is one more known active bald eagle nest located in Utah, downstream of the May Flats overflow campsite and before the Whitewater boat ramp. In recent years, a bald eagle nest located approximately 0.5 mile downstream of the Cottonwood 5 campsite on the south side of the River, fell.

The sandstone cliffs along the river provide nesting habitat for peregrine falcon. There are several records of peregrine falcon nests on both sides of the canyon from Mee Corner to the state line. Long-billed curlew and white-faced ibis also have the potential to pass through the area. Cottonwood galleries with an understory shrub component required by the western yellow-billed cuckoo are not adequate and the species is not likely to occur in the RHRA, nor has it been documented in the GJFO.

Desert bighorn sheep are present and frequently travel into the RHRA through many of the side canyons to the south of the RHRA, such as Knowles Canyon, Mee Canyon, and Devils Canyon. These canyons provide important terrain, shelter, travel corridors, and water for the desert bighorn sheep herd in the Black Ridge Canyons Wilderness. Other BLM-sensitive mammals that have the potential to occur include Townsend's big-eared bat, fringed myotis, big free-tailed bat, and spotted bat.

Ephemeral drainages and other seasonal water sources in the canyons adjacent to the RHRA and fringe wetlands along the Colorado River are likely to contain breeding populations of amphibians including Great Basin spadefoot, canyon treefrog, and northern leopard frog. BLM-sensitive reptile species that have the potential to occur include, midget-faded rattlesnake and milk snake. The three BLM-sensitive fish species, bluehead sucker, roundtail chub, and flannelmouth sucker, all occur within the Colorado River and the RHRA.

Migratory Birds:

The Project Area provides a variety of riparian and upland habitat and has the potential to host a wide variety of migratory bird species. Birds of Conservation Concern (BCC) identified by the U.S. Fish and Wildlife Service include the species in Bird Conservation Region (BCR) 16 that have the potential to occur within the RHRA (USFWS, 2008). Based on the habitat present within the Project Area, BCC that may be present include bald eagle, golden eagle, peregrine falcon, long-billed curlew, gray vireo, pinyon jay, juniper titmouse, Brewer's sparrow, and Cassin's finch. Other migratory bird species that may forage or nest within and near the parcels, include, but are not limited to greater sandhill crane, ash-throated flycatcher, Lewis' woodpecker, cliff swallow, rock wren, canyon wren, blue-gray gnatcatcher, spotted towhee, and song sparrow.

No Action

Direct and Indirect Effects: Direct impacts to sensitive species related to the No Action Alternative would not occur. Indirect impacts to sensitive species would continue at the current level and would continue to increase and spread out as recreational pressures continue to grow in the RHRA. Indirect effects would take place as impacts to soil, riparian vegetation, and instream habitat. Impacts to soil, vegetation, and instream habitat would primarily affect the three BLM-sensitive fish species and the Great Basin spadefoot, canyon tree frog, and northern leopard frog. Soil compaction caused by camping and boat landing could result in reduced infiltration and increased runoff, sedimentation, and loss of bank stability. The BLM-sensitive fish species are well adapted to periodic fluxes of high sediment loads and variable runoff in the stream and are not likely to be negatively affected by sedimentation and changes in runoff.

Human presence at the mouth of Mee Canyon and other canyons used by desert bighorn sheep has and would continue to affect their activity within the RHRA. This may also be true of nesting raptor species, such as peregrine falcons and bald and golden eagles in the RHRA.

Cumulative Effects: Various human activities on federal, state, and private lands, such as dams, recreational activities, natural gas development, irrigation, livestock grazing activities, and introductions of non-native plant and fish or other aquatic species, have all contributed, and will continue to contribute to cumulative impacts to BLM-sensitive fish species in the Colorado River. Within the RHRA, the primary cumulative impacts would be associated with current recreation activities and the future increase in recreational pressure that is expected to occur.

Proposed Action

Direct and Indirect Effects: The Proposed Action, would limit the number of campsites being to only designated sites and would confine camping into smaller, more focused areas, especially during peak use periods. Management of backcountry camping use would result in an overall reduced potential for impacts to sensitive species when compared to the No Action alternative. Annual use would be monitored and improvised based on any management issues that arise. No new or additional impacts would be expected to occur under the Proposed Action. There is also a potential that conditions could improve over time, which would benefit sensitive species. The benefits derived from the change to designated campsites would be long-term and would last for the duration of the life of the RHRA RAMP.

Cumulative Effects: The Proposed Action would most likely improve conditions in the RHRA and would not contribute to the existing cumulative impacts to sensitive species and their habitat along the Colorado River.

3.3.3 Threatened or Endangered Species (includes a finding on Standard 4)

Current conditions:

Critical habitat for the endangered bonytail, humpback chub, Colorado pikeminnow, and razorback sucker is present in the Ruby-Horsethief stretch of the Colorado River and includes the 100-year floodplain of the River. Many of these species are experiencing critically low population numbers and poor reproductive potential due to a large number of long-term impacts to the Colorado River Basin system. Mainstem dams, water diversions, degraded water quality, habitat modification, competition from non-native fish species, and disease have all played a role in impacting populations of the Colorado River Basin Endangered fish. Bonytail are extremely rare; however one was captured in the Black Rocks area of the Ruby-Horsethief Recreation Area (RHRA) in the 1980s. Populations of humpback chub are distributed throughout Black Rocks and Westwater Canyon (several miles downstream of the RHRA). Populations of the Colorado pikeminnow are dispersed from Palisade through the RHRA, but are exceedingly small. The largest populations of razorback suckers found in the Colorado River occur in the Grand Valley area near Grand Junction, Colorado and are increasingly rare. Populations of razorback sucker are currently being augmented by stocking in both the Colorado and Gunnison Rivers. There are no other federally-listed plant or animal species present in the action area.

Standard 4 of the BLM Standards for Public Land Health require the BLM to manage threatened and endangered species and their habitat by sustaining healthy, native plant and animal communities. Public land health standards have been evaluated in this area and have been determined to be meeting or meeting with problems for overall land health standards.

No Action

Direct and Indirect Effects: Under the No Action alternative, recreationists would continue to camp in dispersed locations which would continue to result in indirect effects to the 4 endangered fish through impacts to soil, riparian vegetation, and instream microhabitat that would continue to expand and spread out as recreational pressures increase in the RHRA. Camping and boat landing has and will continue to result in soil compaction and reduced water infiltration and increased runoff. These activities may also result in sedimentation and the loss of bank stability which could result in some sediment transport; however, all 4 of the endangered fish species are well adapted to periodic sediment influxes which create and maintain important microhabitats and backwaters that are important to multiple life stages for these species.

Indirect impacts, such as the loss of native riparian vegetation due to trampling and soil impacts would continue to occur under the No Action alternative. The continued loss of vegetation would result in reduced bank armoring and stability, a loss of the ability to buffer river flow velocities, and a reduction in stream and bank shading from reduced cover in vegetation.

Other indirect impacts include disturbances to instream microhabitats by campers, which include backwaters, side channels, eddies, and small ponds which are important to fish for reproduction, resting, and foraging. People camping along the river have the tendency to spend time in the water and may stack rocks, dam side channels, or move rocks and large wood out of the water that slow the velocity of flow and create important habitat for fish. Also, recurrent human activity around pools created by instream large wood and rocks, and in side channels, backwaters, and eddies are likely to cause fish to move from these areas of suitable habitat.

As a result of the continuation of non-designated, non-permitted camping, indirect impacts to streamside vegetation and instream habitat used by the 4 endangered fish would continue at the current level and would potentially increase over time. Direct impacts are not anticipated under the No Action alternative, but could occur if recreationists catch and kill fish or if boaters spend time in water where breeding is occurring.

Under the No Action alternative, Public Land Health Standard 4 may not be met if recreational pressures continue to grow with limited management, because impacts to riparian and instream habitat would continue to reduce the quality and amount of habitat available to the Colorado pikeminnow, razorback sucker, bonytail, and humpback chub.

Cumulative Effects: Although cumulative impacts are limited within the RHRA, there are many activities upstream that contribute to the cumulative impacts that affect endangered Colorado River fish downstream. Declines in the

abundance or range of the 4 endangered fish of the Colorado River Basin have been attributed to various human activities on federal, state, and private lands, such as construction and operation of dams along major rivers; water retention and diversion practices; recreational activities; natural gas development; expansion of agricultural, irrigation, and livestock grazing activities, including alteration or fragmentation of native habitats; and introductions of non-native plant and fish or other aquatic species, which can alter native habitats or out-compete or prey upon native species. Many of these activities are expected to continue on federal, state and private lands upstream of the RHRA and could contribute to cumulative effects to the species within the RHRA.

Proposed Action

Direct and Indirect Effects: As a result of implementation of the Proposed Action, the number of campsites being used especially during peak use periods would be contained within the designated campsites and future growth would be limited and managed, which would result in overall reduced potential for impacts to the endangered bonytail, humpback chub, Colorado pikeminnow, and razorback sucker compared to the No Action alternative. Under the RHRA RAMP, BLM staff would monitor and assess campsite use annually to determine if the maximum capacity and stay limits of campsites and the overall camping capacity of the RHRA need to be adjusted. No new or additional direct impacts to endangered Colorado River fish are expected to occur under the Proposed Action.

Impacts to soil, riparian vegetation, and instream microhabitat for fish and aquatic insects would be the primary indirect impacts that could occur as a result of the Proposed Action. These indirect impacts are limited in scope and would not exceed the impacts that exist under the current condition and No Action alternative. It is more likely that the effects of the Proposed Action would be beneficial, because camping should be concentrated in a smaller area at the designated campsite and soils around the perimeter of the campsite would be expected to improve over time. The peak season for recreational activities in the RHRA would overlap somewhat with the tail end of high flows during the spring runoff, but would not change much from the current use.

Although use could increase over time, the number of visitors should stay nearly the same given the permit system and use would be limited and monitored. Issuing permits to campers would help to better communicate camping regulations such as using a tray for campfires, packing out waste, and camping only in designated sites. Implementation of the Proposed Action would allow the BLM to better manage the recreational use along the Colorado River in the RHRA which should help maintain or improve the current habitat available for the endangered Colorado pikeminnow, bonytail, humpback chub, and razorback sucker.

The benefits derived from implementation of the Proposed Action's change to designated campsites would be long-term and would last for the duration of the life of the RHRA RAMP. Consultation with the USFWS took place and a letter of concurrence with the BLM's finding of "may affect, not likely to adversely affect" was received on March 23rd, 2011. Under the Proposed Action, Standard 4 of the Public Land Health Standards would be met because critical habitat for the 4 endangered Colorado River fish would be protected by better managing and monitoring impacts related to visitor use.

Cumulative Effects: The Proposed Action would reduce the likelihood for increasing recreational pressures in the RHRA over time which would positively benefit critical habitat for endangered fish over the long-term. Cumulative impacts would not be anticipated under the Proposed Action.

3.3.4 Vegetation (grasslands, forest management) (includes a finding on Standard 3)

Current conditions:

Besides the riparian vegetation zone adjacent to the river the primary vegetation type associated with the proposed action is the salt desert shrub community. A transition community between the riparian zone and salt desert shrub would consist of rubber rabbitbrush, greasewood, four wing saltbush, sand dropseed and saltgrass. The salt desert shrub community consists of shadscale, galleta grass, Indian rice grass, sand dropseed and scarlet globemallow. A land health assessment completed in 1997 showed these plant communities were meeting or meeting with problems in relation to Standard 3 of the Colorado Land Health Standards. The presence of cheatgrass was the primary reason for the meeting with problems designation.

Standard 3 of the BLM Standards for Public Land Health require the BLM to manage for healthy, productive plant and animal communities of native and other desirable species at viable population levels. Public land health standards have been evaluated in this area and have been determined to be meeting or meeting with problems.

No Action

Direct and Indirect Effects: Under the No Action alternative, recreationists would continue to camp in dispersed locations which would continue to result in direct effects to the vegetative communities. The continuation of dispersed camping leads to a broader scale of disturbance to the vegetation and soils along the river. This would include the riparian zone as well as the salt desert shrub community. Dispersed camping generally involves less intensive impact to vegetation until camp sites become popular enough they become established camp sites. Impacts include the trampling and removal of vegetation as well as compaction of soils which reduces plant vigor and/or decreases the cover of perennial vegetation. Many times these impacts lead to an increase in the presence of invasive annuals especially cheatgrass. Once cheatgrass reaches a

higher density the threat of wild fires from escaped campfires becomes greater. In several locations along this stretch of the Colorado River cottonwood galleries have been damaged due to fires carried by cheatgrass. Another impact related to dispersed camping is the removal of woody vegetation for firewood.

Under the No Action alternative, Public Land Health Standard 3 may not be met if recreational pressures continue to grow with limited management. Limited management would lead to a greater extent (more area) of disturbance to vegetation in and around potential camping areas.

Cumulative Effects: Recreation activities within the RHRA is expected to increase overtime in conjunction with the increase in recreation in western Colorado. Any increase in recreation activity along the Colorado River is going to increase the impacts to the associated vegetative communities. The less these activities are controlled the greater the potential for impact. Although dispersed camping in general has less impact to the vegetation there is a threshold where the cumulative effects become greater than having designated camp sites. Dispersed camping opportunities within the RHRA is limited due to the topography and narrow river system.

Proposed Action

Direct and Indirect Effects:

As a result of implementation of the Proposed Action, the number of campsites being used especially during peak use periods would be contained within the designated campsites and future growth would be limited and managed, which would result in overall reduced potential for impacts to the vegetative communities along the river. Impacts to vegetation at designated camp sites is greater at the specific designated site location compared to dispersed camping but overall impacts to the vegetative communities is less along the entire river system. Direct impacts at designated sites includes the removal of vegetation in the actual camp site area and trampling of vegetation in the area surrounding the site. Removal or perennial vegetation can lead to an increase of invasive annuals such as cheatgrass but reducing the area impacted by camping will reduce the potential for invasives. The collection of vegetation for camp fires is also more intensive around the designated camp sites.

Under the Proposed Action, Standard 3 of the Public Land Health Standards would be met because the impact to vegetation would be minimized by limiting the location of campsites. Although there will be impact to vegetation surrounding the campsites limiting the number of campsites will minimize the amount of area disturbed. Monitoring of campsites should include impacts to vegetation in the surrounding area.

Cumulative Effects: The proposed action while creating some impact to the vegetative communities along the Colorado River would reduce the potential impact that could occur from increased recreational activity within the RHRA.

3.3.5 Wetlands & Riparian Zones (includes a finding on Standard 2)

Current conditions:

The condition of the riparian areas located in the RHRA along the Colorado River were assessed in 1993 and found to be in Proper Functioning Condition (PFC). The riparian community along the Colorado River supports native obligate and facultative species such as cottonwoods, willows, rushes, sedge, wood's rose, and box-elder. Even though all of the Colorado River within the RHRA was found to be in PFC many areas have not reached their potential. Some portions of the riparian area along the Colorado River within the RHRA have been degraded by invasive species and prior recreation uses. Invasive species such as tamarisk and Russian knapweed occur in the areas surrounding the proposed designated campsites. There have been tamarisk treatments in and around some of the existing and proposed campsites. Removal of the tamarisk has created space for native species such as willows to move back into these locations. Some of the proposed designated camping sites have also historically been used by the boating community. Vegetation trampling and soil compaction have already occurred in some areas due to historic use.

Standard 2 for Public Land Health in Riparian systems requires riparian systems with both standing and running water to function properly. Properly functioning riparian systems have the ability to recover from major disturbances such as those associated with fire, grazing, and flooding. An assessment of the Public Land Health Standards was completed in the RHRA and the project area was found to be meeting or meeting with problems.

No Action

Direct and Indirect Effects:

The condition of the riparian areas located in the RHRA along the Colorado River were assessed in 1993 and found to be in Proper Functioning Condition (PFC). The riparian community along the Colorado River supports native obligate and facultative species such as cottonwoods, willows, rushes, sedge, wood's rose, and box-elder. Even though all of the Colorado River within the RHRA was found to be in PFC many areas have not reached their potential. Some portions of the riparian area along the Colorado River within the RHRA have been degraded by invasive species and prior recreation uses. Invasive species such as tamarisk and Russian knapweed occur in the areas surrounding the proposed designated campsites. There have been tamarisk treatments in and around some of the existing and proposed campsites. Some of the proposed designated camping sites have also historically been used by the boating community.

Seven of the proposed new designated campsites would be located in areas that have been determined to be meeting Public Land Health Standards with problems. Under the No Action Alternative the Public Land Health Standard 2 would continue to be met in the short-term, but the long-term accomplishment of this standard is not certain.

Cumulative Effects:

Over time increased group size, frequency of use, and new user developed camping sites could have cumulative impacts on the health of the riparian zones within the RHRA. Decreases in the density, diversity, and vigor of native riparian vegetation could all result from uncontrolled increases in use, which would decrease the health and function of the riparian zones.

Proposed Action

Direct and Indirect Effects:

The proposed action would continue to contribute to impacts to riparian habitat along the Colorado River and tributaries from recreation use, but it would help limit the direct and indirect impacts at or below their current levels. Establishing designated camp sites and with limits placed on the group size per campsite would eliminate widespread camping throughout the RHRA and the intensity of the impacts from recreation use. Direct impacts such as vegetation trampling or removal from ongoing use and soil compaction would continue to exist at the campsites. Recreation users would also continue to help spread weeds within the riparian area. Restrictions on the number of campers per group would reduce the number of campsites necessary at each campsite. Restrictions on the size of each campsite would also help to focus the impacts and reduce widespread impacts.

Indirect impacts resulting from the proposed action would include a small overall reduction in healthy riparian habitat. This reduction would result from the continued use of the campsite boat landing locations area at each campsite as well as from camping in the floodplain. The boat landing location area at each campsite would likely remain devoid of vegetation. Compaction and shearing of the river bank at these locations would make it difficult for vegetation to establish in these areas. The reduction of riparian vegetation along the banks and within the floodplain would impact soil stability and sedimentation into the river. The overall indirect impacts would not be great enough to reduce the recruitment, vigor, and health of riparian obligate and facultative species within the RHRA.

Under the Proposed Action Alternative the Public Land Health Standard 2 would continue to be met in both the short-term and the long-term. Monitoring these systems for changes and adjusting allowable uses would help to ensure that these systems remain healthy and continue to meet the standard.

Cumulative Effects:

Limiting impacts from recreation use at or below their current level would help to ensure that the riparian areas along the Colorado River and adjacent tributaries are healthy and functioning properly. The proposed restrictions reduce the potential for more widespread and serious long-term impacts that could result from increased recreation use in the future. Cumulative impacts from the proposed action would be limited and should not exceed current impacts. Increased demand for recreation use upstream and downstream of the RHRA will likely increase overtime and put increased pressure on riparian areas that may result in degradation at these locations. Limiting allowable use and monitoring for decreases in riparian and land health would help to ensure that unacceptable changes do not occur, which would have a positive effect on riparian areas outside of the RHRA.

3.3.6 Wildlife (includes fish, aquatic and terrestrial) (includes a finding on Standard 3)

Current conditions:

Habitat in the Project Area is primarily composed of streamside riparian communities consisting of willow, cottonwood, a variety of obligate riparian herbaceous vegetation, including sedges and rushes. Invasive species such as tamarisk and Russian olive are also present along some sections of the River in the RHRA. Areas above the 100-year floodplain consist of rocky, sparsely vegetated juniper or saltbush habitat. Given the habitat available in the Project Area, numerous terrestrial wildlife species have the potential to be present, including river otter, mule deer, mountain lion, bobcat, red fox, coyote, raccoon, wild turkey, a number of small mammals and migratory and resident birds. A wide variety of aquatic species are likely to be present in the RHRA as well, including native fish species such as mottled sculpin and several non-native fish species, including bluegill, black bullhead, black crappie, channel catfish, common carp, green sunfish, largemouth bass, small mouth bass, white sucker and several species of minnows. Ephemeral drainages and other seasonal water sources in the canyons adjacent to the RHRA and fringe wetlands along the Colorado River are likely to contain breeding populations of amphibians including tiger salamander, red spotted toad and woodhouse toad. A wide variety of reptiles, such as bullsnake, garter snake and a range of lizard species are also likely to occur in the area.

Standard 3 of the BLM Standards for Public Land Health require the BLM to manage for healthy, productive plant and animal communities of native and other desirable species at viable population levels. Public land health standards have been evaluated in this area and have been determined to be meeting or meeting with problems due to livestock grazing and recreational activities.

No Action

Direct and Indirect Effects: No direct effects would occur as a result of the No Action alternative. Indirect effects to wildlife species would occur due to the compaction and loss of soil, impacts to riparian vegetation, and sedimentation, pollution, or alteration of instream habitat. Impacts would be expected to continue at the current levels taking place and could potentially increase over time as recreation continues to grow in the RHRA.

Under the No Action alternative, Public Land Health Standard 3 may not be met if recreational pressures continue to grow with limited management, because impacts to riparian and instream habitat would continue to reduce the quality and amount of habitat available to terrestrial and aquatic species.

Cumulative Effects: All of the existing past, present, and foreseeable actions that currently are taking place along the Colorado River as well as the current impacts related to recreation activity in the RHRA, all contribute to the cumulative impacts of the No Action alternative on wildlife species in the action area. The future increase in recreational activity that can be anticipated in future years would add to the current cumulative impacts that are already present in the RHRA.

Proposed Action

Direct and Indirect Effects: Limiting camping use in the RHRA to designated sites would help to manage and limit the impacts associated with recreational use along the River. Management of backcountry camping use would be likely to result in an overall reduction of impacts to wildlife species in the action area. No new or additional impacts would be expected to occur from the current level and would be more closely monitored and managed, which should help to improve habitat conditions for both terrestrial and aquatic wildlife over time. The benefits derived from the change to designated campsites would be long-term and would last for the duration of the life of the RHRA RAMP.

Under the Proposed Action, Standard 3 of the Public Land Health Standards would be met because terrestrial and aquatic habitat would be protected by better managing and monitoring impacts related to visitor use.

Cumulative Effects: The Proposed Action would most likely improve conditions in the RHRA and would not contribute to the existing cumulative impacts to wildlife habitat along the Colorado River.

3.4 HERITAGE RESOURCES AND HUMAN ENVIRONMENT

3.4.1 Cultural Resources

Current Conditions:

The Area of Potential Effect (APE), as defined in the National Historic Preservation Act (NHPA), defines the area where the proposed action has the potential to affect cultural resources. For the purpose of this evaluation, direct impacts result when recreation campsites and their associated activities are on top of or immediately adjacent to them. Indirect impacts to cultural resources can occur within one-quarter mile of a recreation campsite.

The BLM archaeologist completed a file search in both the BLM files and the Office of Archaeology and Historic Preservation to identify the surveys completed and evaluate the type of site expected to be present in the project area and conduct additional inventory (incorporated by reference: BLM GJFO CRIR 1011-07). The following briefly summarizes conditions of the existing cultural environment and cultural resources in the APE.

In 1976, the BLM contracted the Historical Museum and Institute (HMI) of Western Colorado affiliated with the Museum of Western Colorado, a river corridor cultural and paleontological inventory from Loma, Colorado to the Dewey Bridge in Utah. The "Antiquities Inventory for the Wild and Scenic River Designation of the Colorado River" (BLM GJFO CRIR 4476-19) reports the results. These early surveys were exploring the new field of cultural resource management that resulted from the regulations implementing the National Historic Preservation Act. Because the report failed to describe transecting methodology, had a bias to recording prehistoric resources over historic cultural resources, and did not record low density lithic scatters and isolated finds, the results are "not to current standard". No State Historic Preservation Officer (SHPO) consultation occurred and an official determination of eligibility for nomination to the National Register of Historic Places (NRHP) was never completed. The survey did however contribute significantly to our understanding the type of cultural resources that are along the river and its tributary canyons. In summary historic cultural resources include sites associated with the construction and operation of the railroad, mining and associated features, ranch cabins and homesteads, and trails and associated features. Prehistoric sites represent open and sheltered temporary and seasonal camps and resource processing sites, trails, and rock art. The recording of these sites also set a baseline for site condition for future monitoring, demonstrated that even in the 1970's sites were being impacted by vandalism, and recorded historic sites that have since been destroyed by wildfire.

Twenty-two surveys have been completed within the one-mile radius centered on the river; the majority of the pedestrian cultural surveys are associated with recreation roads and trails on benches above the river canyon. Those surveys recorded 89 cultural resources, 74 sites and 15 isolated finds. To date the 1976 work by the HMI is the only survey of that magnitude conducted along the river canyons in the western half of the MCNCA.

Analysis of the 35 proposed recreation campsites uses the results of previous Class III cultural inventory and site assessments. BLM archaeologists completed a Class III intensive pedestrian survey where direct impacts occur in 2010 (CRIR 1011-07); the results from CRIR 4476-19, 15807-01, and 1179-28 assess the indirect impacts. The project inventory and evaluation comply with the NHPA, the Colorado State Protocol Agreement, and other federal law, regulation, policy, and guidelines regarding cultural resources.

No Action

Direct and Indirect Effects:

Direct effects result when recreation campsites and their associated activities are on top of or immediately adjacent to cultural resources. The compaction of the soils damages site stratigraphy, this can occur from trailing or concentrated recreation activity. They can also be damaged by surface disturbance by both humans and dog activity, for example the mixing that occurs from foot traffic and digging trenches, holes, fire pits or dragging heavy items (like canoes, logs, or branches) into or around camps. People contaminate archaeological deposits by burying or scattering charcoal and ash, dumping grease, and burying trash and human waste. All of these activities have likely occurred historically at the recreation campsites but these are illegal under the current regulations.

Indirect effects result from trailing through a cultural site, unauthorized removal of artifacts, digging in features, or damaging or defacing a site. With the exception of trailing, an inadvertent impact, these indirect impacts result from illegal activity.

Under the No Action alternative, there are no changes to the recreation management of the Ruby-Horsethief Recreation Area. Camping would not be limited to BLM designated sites and though most camping occurs in established sites, environmental impacts at new campsites would occur without further environmental analysis. Groups could continue to camp at both designated and non-designated locations. There would be no limit to the number of groups camping in the RHRA. There would be no limit to the number of people in private or commercial groups and there would be no limit to the number of dogs with groups.

Cumulative Effects: Under the No Action alternative, impacts to unrecorded cultural resources as well as direct and indirect impacts to recorded cultural resources would continue. Both direct and indirect impacts to cultural resources will increase due to uncontrolled recreation use of the area. More people would be using the canyon and more pressure would affect areas where people currently do not camp. Funding to mitigate the direct impacts that are occurring to the cultural sites identified may not be a budget priority. Further research at

these cultural resources could be pursued through assistance agreements with organizations that can apply for grants from the Colorado Historic Fund.

Proposed Action

Direct and Indirect Effects:

Effects are the same as the No Action alternative except these direct and indirect effects will be restricted to the designated locations. Under the Proposed Action alternative, overnight use would be limited to 35 designated campsites and groups would be required to camp in their assigned sites. This would reduce the direct and indirect impacts to cultural resources from the current management of uncontrolled dispersed camping.

Two initially proposed campsite locations had the potential for indirect impacts to ten cultural resources. These were removed from the proposed action in order to avoid creating new impacts to cultural resources. The sites are still accessible to recreation use and should be monitored. Under the proposed action the MCNCA recreation staff will identify two new designated camp locations and if additional Class III inventory indicate no cultural resource concerns they will be designated with no further work required.

Under the proposed action alternative, groups would be required to camp in their assigned campsite. Thirteen designated camps and one new proposed camp will have indirect impacts to cultural resources. These are identified in the Protective/Mitigation Measures table below. Nine sites recorded by the 1976 survey are potentially eligible for nomination to the NRHP, identified as Field Need Data (FND). They will require a reevaluation, a new recording of sites that do not have a final determination of eligibility through consultation, to document their current condition and the impacts that may be occurring from recreation use at the nearby campsites. Depending on their current condition and determination of NRHP eligibility, management options are monitoring or no further work. Three sites, 5ME202, 5ME888, and 5ME6481, are Eligible (determined by SHPO in 2007) and recommended for additional testing that may result in the need for additional data recovery excavation. Excavation is an impact to the resource but the retrieval of scientific information mitigates the adverse effect under the NHPA. Additional consultation with the SHPO and Native American Tribes will be required.

Cumulative Effects: Under the proposed action alternative, camping permits will control the number of people as recreational use of RHRA continues to increase. This would stabilize the number of people camping and control the location of those campsites. As recreation use in the RHRA increases, the direct impacts will be focused on the designated sites. Funding to mitigate the direct impacts that

are occurring to the cultural sites identified may not be a budget priority. Further research at these cultural resources could be pursued through assistance agreements with organizations that can apply for grants from the Colorado Historic Fund. If monitoring indicates cultural resources are impacted and there is no funding allocated to mitigate the effects of increased recreational use, damage will occur and information will be lost.

Protective/Mitigation Measures:

SITE ID	Camp APE	Date Recorded	Recommendation	NRHP Elig.
5ME.6481	Black Rocks	1991/ 2007	Test , depending on results monitor or data recovery	OE
5ME.888	Black Rocks	1978/ 2007	Test , depending on results monitor or data recovery	OE
5ME.485	Cottonwood	1976/ 1999	Monitor	Officially Need Data (OND)
5ME.90	Cottonwood	1976	Monitor	FND
5ME.11739	Cottonwood	1999	Monitor	OND
5ME.492	Fault Line	1976	Finalize determination of NE through SHPO consult. 1011-07	Field Not Eligible (FNE)
5ME.497	Knowles	1976	Reevaluate , (burned in 2007 Knowles fire), determination of eligibility needed, may be NE	FND
5ME.1326	Knowles	1976	Reevaluate , (DE&M)	FND
5ME.1327	Knowles	1976	Reevaluate , (DE&M)	FND
5ME.531	Knowles	1976	Reevaluate , (DE&M)	FND
5ME.4384	May Flat (new)	1982	Reevaluate , (DE&M)	FND
5ME.534	May Flat (new)	1976	Reevaluate , (DE&M)	FNE
5ME.202	Mee	1976/ 2007	Test , depending on results monitor or data recovery	OE
5ME.203	Mee	1976	Reevaluate , (DE&M)	FND
5ME.523	Mee	1976	Reevaluate , (DE&M)	FND
5ME.524	Mee	1976	Reevaluate , (DE&M)	FND

Protective/Mitigation Measures: Standard stipulations of inadvertent discovery apply to the BLM’s development and maintenance activity (CFR 800.13). In the case of new discovery, the BLM may relocate a camp to avoid the expense of mitigation and delays associated with this process, as long as a Class III inventory in the new area completed, there are no other resource concerns, and the exposed materials are recorded and can be stabilized. Otherwise, the BLM shall be responsible for mitigation costs. The BLM authorized officer will provide technical and procedural guidelines for relocation and/or to conduct mitigation. Upon verification from the BLM authorized officer that the required mitigation has been completed, permits may be issued to use the affected camp.

Antiquities, historic ruins, prehistoric ruins, and other cultural or paleontological objects of scientific interest that are outside the Area of Potential Effect but potentially affected, either directly or indirectly, by the proposed action shall also be included in this evaluation or mitigation. Impacts that occur to such resources as a result of the authorized activities shall be mitigated at the BLM's cost, including the cost of consultation with Native American groups.

A better-informed public could reduce both inadvertent as well as intentional damage to heritage resources. To protect cultural resources visitors to the MCNCA and RHRA need the following information. Each issued recreation permit as well as information kiosks and websites should include the following information:

To protect archaeological and historical resources all persons associated with this permit understand and agree to their legal and stewardship responsibility. You may not injure, destroy, excavate, appropriate or remove any historic or prehistoric ruin, artifact, object of antiquity, Native American remains, Native American cultural item, or archaeological resources.

The National Historic Preservation Act protects newly discovered historic or archaeological materials. If you identify a cultural resource that is threatened by natural or human disturbance during activity at your campsite or during your exploration of the canyon, help us protect the resource. Your activity must not further impact the discovery and the BLM must be notified immediately (or as soon as access to a phone is made).

The Native American Graves Protection and Repatriation Act requires that if inadvertent discovery of Native American Human Remains or Objects of Cultural Patrimony occurs, any activity must cease in the area of discovery, a reasonable effort made to protect the item(s) discovered, and immediate notice be made to the BLM Authorized Officer.

3.4.3 Tribal and Native American Religious Concerns

Current Conditions:

Attributing historic or prehistoric RHRA occupation to the Ute requires additional evaluation of sites identified in the Cultural Resources Table above. There is no information that Native Americans use the canyon for traditional or religious purposes. The project would alter or limit any access if there were traditional uses that are not known to the agency. No Native American Indian consultation was conducted for the proposed undertaking.

No Action

Direct and Indirect Effects: Direct impacts may occur to cultural resources and plants that may be important for Ute traditional use as additional dispersed camps are created by recreation users in previously undisturbed areas and secondary impacts, mostly in the form of collection of artifacts or vandalism would continue to occur to cultural resources as a result of unauthorized use. Ute access to the canyon would be unrestricted so if traditional or religious uses of the RHRA occur, the agency would be uninformed.

Cumulative Effects: Under the No Action alternative, impacts to unrecorded cultural resources as well as direct and indirect impacts to recorded cultural resources would continue. Both direct and indirect impacts to cultural resources will increase due to uncontrolled recreation use of the area and sites that may be of concern to the Ute could be damaged without ever being documented or brought to their attention. More people would be using the canyon and more pressure would affect areas where people currently do not camp.

Proposed Action

Direct and Indirect Effects: The Ute have a generalized concept of spiritual significance that is not easily transferred to Western models or definitions. As such the BLM recognizes that the Ute have identified sites that are of concern because of their association with Ute occupation of the area as part of their traditional lands. Through information gathered through previous consultation at sites in the GJFO and MCNCA none of the sites that are in the APE of the proposed action are of a type that have been identified to be of concern. No other cultural resources were located during the field inventory that suggests that the project area holds special significance for Native Americans for traditional or religious purposes. No traditional cultural properties, unique natural resources, or properties of a type previously identified as being of interest to local tribes, were identified during the file search or the cultural resources inventory of the proposed action project area. No additional Native American Indian consultation was conducted for the proposed project.

Cumulative Effects: The Proposed Action alternative reduces impacts to unrecorded cultural resources as well as direct and indirect impacts to recorded cultural resources and sites that are of concern to the Ute would be protected. As recreation use increases in the canyon sites that may be of concern to the Ute could be damaged without ever being documented or brought to their attention. In consultation with the Ute Tribes, Traditional Leaders have emphasized that all people need to respect archaeological and historical sites, that we are all stewards of this cultural heritage. As such, a better-informed public could reduce both inadvertent as well as intentional damage to heritage resources

3.4.4 Visual Resources

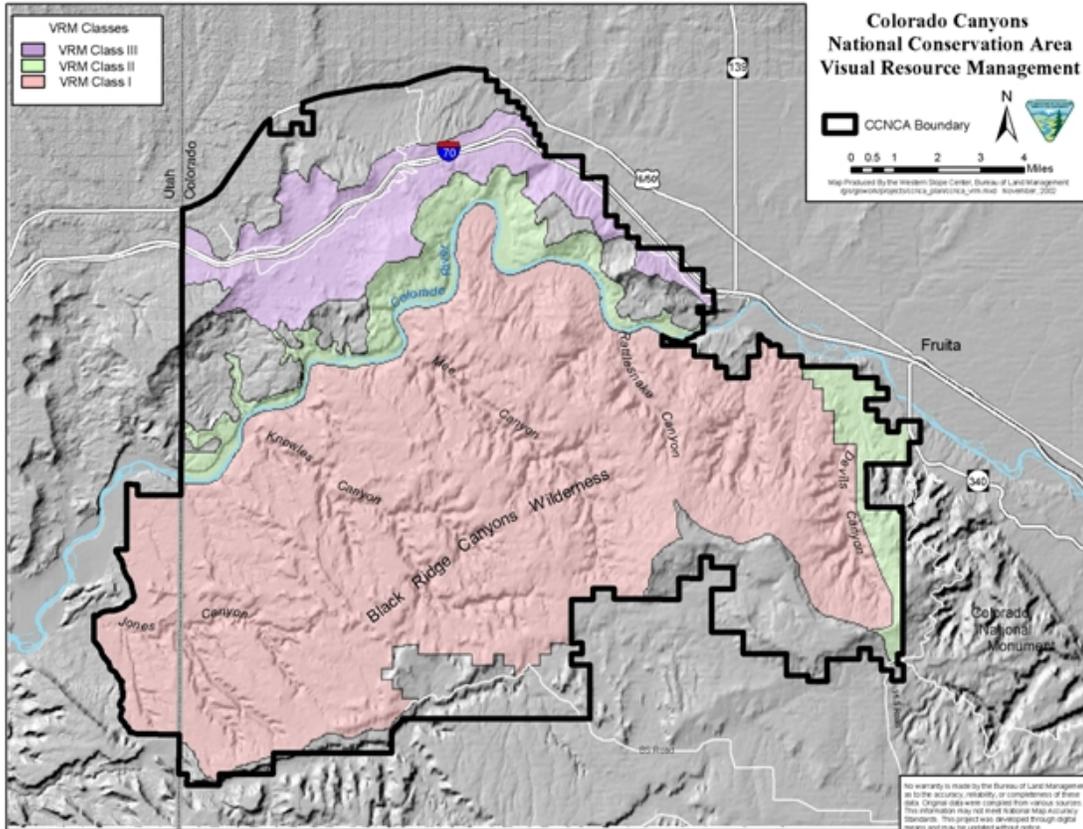
Current Conditions:

The visual resources of McInnis Canyons NCA were evaluated during the 2004 RMP process. The area north of the river is VRM Class II while the area south of the river is Class I. The Class II objective is “to retain the existing character of the landscape. The level of change to the characteristic landscape should be low.” The Class I objective is “to preserve the existing character of the landscape. The level of change to the characteristic landscape should be very low and must not attract attention.”

The area north of Horsethief Canyon consists of the Kokopelli Loops mountain biking area. Boaters on the Colorado River are below the canyon rim and cannot see any modification to the landscape, though they may frequently see a mountain biker riding above the canyon rim.

Horsethief Canyon and Ruby Canyon are separated by the mouth of Salt Creek. At this point an active railroad enters the canyon on the north side of the river and runs the length of Ruby Canyon. Boaters will frequently observe moving or stationary trains and associated administrative equipment such as signs and an occasional light.

All land on the south side of the river corridor is located in either the Black Ridge Wilderness Study Area of the Black Ridge Canyons Wilderness. There are currently 28 existing campsites on the south side of the river, each is marked by a 5 x 5” wooden post with a small plastic sign identifying the name of the campsite. Boat landings for most of the campsites are clearly visible.



No Action

Direct and Indirect Effects: Under the no action alternative, there would be no impact to visual resources.

Cumulative Effects: None.

Proposed Action

Direct and Indirect Effects: Under the proposed action, there would be no significant impact to visual resources within Horsethief or Ruby Canyons. The only development that would occur under the proposed action would be the designation of seven additional campsites. This would include installation of seven additional 5" x 5" wooden posts to mark the landing of the new sites.

Cumulative Effects: None.

3.4.6 Economic

Current Conditions:

The Ruby-Horsethief Recreation Area is an economic asset for Mesa County and Western Colorado, attracting more than 8,000 visitors each of the past three years. In 2009, 32% of visitors were from Mesa County, 61% were from outside Mesa County but within Colorado, and 9% were from out of state. According to a

2003 USGS visitor survey, 68% of visitors to Ruby-Horsethief were non-local and travelled an average of 165 miles to visit the area. 87% of visitors reported having an excellent or good experience (compare to 95% for other areas of McInnis Canyons NCA) and 94% intended to return to the area.

There are currently 22 commercial outfitters permitted to operate within the Ruby-Horsethief Recreation Area. 13 of these outfitters are permitted through the Grand Junction Field Office while 9 are permitted through the Moab Field Office. In 2010, commercial use represented 8% of total groups within RHRA, the second lowest total in 19 years. In 1992, commercial use accounted for 21% of all groups within RHRA, and many commercial outfitters have commented both formally and informally that they have been less inclined to operate within RHRA due the deterioration of the social environment over the past 10 years.

No Action

Direct and Indirect Effects: Under the no action alternative, there would be little or no impact to the overall economic impact of the RHRA from private use. Recreational use would continue as it has been in the past.

Cumulative Effects: Recreation use would be expected to continue to increase in the short term, leading to short term increases in economic impacts. As the physical and social resources of the river continue to deteriorate, however, visitation would be expected to level off and potentially decline, leading to a smaller economic impact. Due to the need for greater certainty while planning a trip in advance, commercial use would be expected to continue to decrease as it steadily has since 1992, potentially leading to a loss of jobs and much smaller positive economic impact from Ruby-Horsethief as identified in the 2004 RMP.

Proposed Action

Direct and Indirect Effects: Under the proposed action, the economic impact of the RHRA is expected to grow slightly before stabilizing at a consistent, predictable level. Any slight decrease in the number of groups camping will be compensated for by improved conditions within the river corridor and greatly improved recreational experiences.

Cumulative Effects: Under the proposed action, local businesses that rely on boating traffic will be able to predict somewhat consistent traffic patterns based on the overnight capacity established by this plan. As recreational experiences continue to improve, visitor use is expected to increase during off-peak periods leading to increased visitation and economic impact from the river corridor.

Implementation of an advanced-issued permit system will provide commercial guides and outfitters with greater certainty that will allow them to offer more opportunities to boaters in Ruby-Horsethief. As recreational experiences

continue to improve, commercial outfitters will have the opportunity to increase their share of use to historic levels, leading to greater economic impact and stability in the local and regional area.

3.4.7 Environmental Justice

Current Conditions:

The requirements for environmental justice review were established by Executive Order 12898 (February 11, 1994). That order declared that each federal agency is to identify “disproportionately high and adverse human health or environment effects of its programs, policies, and activities on minority populations and low income populations.”

The 2010 census data has not been released yet. According to Census 2000, the only minority population of note in the impact area is the Hispanic community of Mesa County. Persons describing themselves as Hispanic or Latino represented 10.0 percent of the population, considerably less than the Colorado state figure for the same group (17.1 percent). Blacks, American Indians, Asians and Pacific Islanders each accounted for less than one percent of the population, below the comparable state figure in all cases. The census counted 7.0 percent of the Mesa County population as living in families with incomes below the poverty line, compared to 6.2 percent for the entire state.

No Action

Direct and Indirect Effects: There would be no impacts under the no action alternative.

Cumulative Effects: None.

Proposed Action

Direct and Indirect Effects: No adverse effects to humans are expected as a result of this action and both minority and low income populations are dispersed throughout the county. Therefore, no minority or low-income populations would suffer disproportionately high and adverse effects as a result of any of the alternatives.

Cumulative Effects: None.

3.4.8 Wastes, Hazardous or Solid

Current Conditions:

Hazardous wastes are not a part of the existing environment and are not expected to be introduced into the environment by recreational use of the river. Solid wastes, introduced by recreational users of the river corridor is expected to be an ongoing issue but is one that is monitored and remedied by regular BLM river ranger patrols.

No Action

Direct and Indirect Effects: The current level of recreational use of the river corridor would be expected to continue with the current level of solid waste (trash) left behind.

Cumulative Effects: With regular patrol of the river corridor, regular removal of trash left behind would ensure there would be no cumulative impacts. It should be noted most river corridor users remove their own solid waste.

Proposed Action

Direct and Indirect Effects: Implementation of the proposed action would allow for more overnight use of the river corridor which could mean the potential for more solid waste to be left behind by the river users. It is expected the regular patrol of the river corridor by BLM river rangers would remedy this increased potential.

Cumulative Effects: With regular patrol of the river corridor, no long-term cumulative impacts would be expected.

Protective/Mitigation Measures: River use stipulations requiring containment and removal of users solid wastes, and regular BLM patrol of the river corridor provides satisfactory mitigation of this problem.

3.5 LAND RESOURCES

3.5.2 Recreation

Current Conditions:

The Ruby-Horsethief float is a highly valued river recreation experience that is enjoyed primarily by Colorado residents but is becoming increasingly popular with out-of-state visitors. There were more than 20,000 visitor days in Ruby-Horsethief in 2010. Floaters through Ruby-Horsethief enjoy outstanding scenery, geology, and natural resources as well as a relatively easy Class I-II whitewater float that helps less experienced boaters improve their skills.

As a relatively easy float, this is a unique resource in Colorado (per <http://americanwhitewater.org/content/River/state-summary/state/CO/>). Only two or three rivers segments in Colorado are comparable to it on a flow, seasonality, and difficulty basis within a five hour drive of the Denver metropolitan area; these are segments of the Dolores, Gunnison and Arkansas. However, none of these rival the 20 mile float length and overnight camping opportunities through Ruby-Horsethief.

Both 1998 RC-BR IRMP and the 2004 NCA RMP direct BLM to manage the physical and social setting of the river corridor to provide a specific recreation opportunity for visitors and to provide them with the opportunity to achieve specific beneficial outcomes from their recreation activity. As use of the river has increased over the past ten years, achievement of some of these benefits has grown more difficult. Due to the crowding of campsites and the voluntary registration system, many people consider their float trip a race to their requested campsite to make sure they get there before anyone else. Other visitors are disregarding the request to sign up for campsites the day of launch and are signing up for preferred campsites well ahead of time. Others simply ignore the voluntary registration system and take whatever open campsite they can find. This leads to conflict between visitors due to a perception that some aren't following the rules, or because one person is occupying a campsite that they didn't sign up for and leads to increased stress and decreased attainment of targeted benefits identified in the 1998 and 2004 Resource Management Plans. This crowding is also leading to an increase in the overall size of campsites and a proliferation of satellite campsites around existing sites.

As of 2010, there were 28 signed campsites in the Ruby-Horsethief corridor. In 2008, nine of these sites were converted to 'double sites' to accommodate more camping groups. This was done by signing each of these double sites as "site A" and "site B", and changing the campsite register to show that two groups could share a site to increase capacity. This process was successful in increasing the number of groups (counting shared sites there were 37 campsites) that could camp in Ruby-Horsethief, but it also led to an increase in the size of disturbed areas of these sites, and did little to reduce visitor conflict for campsites. Many visitors have also complained that they did not like sharing sites, and river rangers frequently observed small groups sign up for both of the shared sites at a single location so they did not have to share, greatly reducing the efficiency and usefulness of the system.

Overnight use in Ruby-Horsethief has never been limited. As use has increased over the past ten years, overcrowding of certain campsites and camp areas has become more of a problem. This overuse has led to significant visitor conflict and serious resource impacts in some areas.

Management guidance from BLM Land Use Plans

Ruby Canyon-Black Ridge Integrated Resource Management Plan (1998)

The 1998 Ruby Canyon-Black Ridge IRMP established the Ruby-Horsethief Recreation Area and identified the Colorado River as one of its three primary planning zones and established the Ruby-Horsethief Recreation Management

Zone. The RC-BR IRMP instructed BLM to “*manage this zone to provide opportunities for visitors to engage in boating (raft, canoe, kayak), day hiking into the lower ends of major canyons, viewing wildlife and waterfowl hunting activities*”. This plan also lists ‘*psychological experiences*’, ‘*individual benefits*’, ‘*household and community benefits*’, ‘*economic benefits*’, and ‘*environmental benefits*’ that visitors should have the opportunity to achieve while recreating in this area. BLM’s recreation management policy is to manage the area to maintain the physical, social, and administrative setting of an area so that visitors have the opportunity to achieve these targeted outcomes.

The beneficial outcomes identified for RHRA in the 1998 RMP (p. 5-29):

Psychological Experiences (on-site only)

- Meeting desired challenges
- Enjoy risk taking canyon adventures
- Enjoying the closeness of family and friends
- Enjoying learning outdoor recreation and outdoor social skills
- Savoring canyon country aesthetics
- Enjoying reflecting on personal and family values
- Enjoying mental and physical rest

Individual Benefits – psychological and physiological (most significant)

- Restored mind from unwanted stress
- Greater self-assurance
- Greater outdoor knowledge, skills, and self-confidence
- Greater cultivation of outdoor oriented lifestyle
- Increased quality of life
- Greater aesthetic appreciation
- Well informed and more responsible visitors

Household and Community Benefits (most significant)

- Improved functioning of individuals in family and community
- Heightened sense of community pride and satisfaction
- Reduced numbers of at-risk youth
- Maintained and enhanced group cohesion and family bonding
- Greater nurturance of others

Economic Benefits (most significant)

- Well equipped customers
- Increased value added to local-regional economy

Environmental Benefits (most significant)

- Greater environmental stewardship

The RC-BR IRMP also listed specific management actions for BLM to take within the Ruby-Horsethief Recreation Area. Actions relevant to the current planning process include (p. 5-30):

Resources and Facilities – Physical Setting

- In cooperation with Colorado State Parks, help design facilities to be built at the Fruita Recreation Site to overcome the physical limitations of the Loma launch site
- Remove tamarisk at key sites along the river to create new undeveloped camping sites and lunch sites

Human Use and Occupancy – Social Setting (p. 5-31)

- Manage the zone, including the lower one and one-half miles of Knowles, Mee, and Rattlesnake Canyons, for an optimum group size not to exceed 25 people to promote the realization of the targeted benefits, to protect the riparian environment and side canyons from overuse by large groups (inside the Black Ridge Canyons Wilderness)
- Visitors may camp at undeveloped campsites on public lands throughout the corridor unless LAC monitoring indicates a need for directing use and hardening specific sites that were historically used to reduce visitor camping impacts
- Manage the lower 1.5 miles of Knowles, Mee, and Rattlesnake Canyons under the social setting prescription for the Ruby Canyon zone, all remaining portions of Black Ridge West will be managed according to the Black Ridge West social setting prescriptions

Service Delivery System – Administrative Setting

- Designate the Colorado River corridor between Loma and Westwater as a “Special Area”, and compile a business plan and conduct a study on the feasibility of charging all users a fee for the use of the area
- Continue to evaluate other additional access sites to the river
- Direct allocation of river use will only be undertaken after all indirect measures (e.g. including education, information, facility construction to ease pressure off of high-use areas and high-use periods,

increasing access to and developing opportunities on the Gunnison River, etc.) are exhausted

- To promote achievement of targeted benefits, both commercial jet boat and personalized watercraft operations will be discouraged
- BLM will increase on-site presence at the put-in locations
- To promote the achievement of targeted benefits, limit the number of commercial float outfitters to current levels (34), and do not issue additional permits if existing outfitters relinquish their permit

McInnis (Colorado) Canyons National Conservation Area Resource Management Plan (2004)

The McInnis Canyons National Conservation Area was designated by Congress in 2000 and encompasses almost all of the land in the Ruby Canyon-Black Ridge IRMP planning area except for the river corridor up to the 100 year high water mark. The Colorado Canyons National Conservation Area and Black Ridge Canyons Wilderness Act of 2000 (Public Law 106-353) specifically mentioned BLM's continuing authority to manage recreational use of the river corridor and adjacent lands the 2004 NCA RMP designated the river corridor as the Colorado River Corridor Recreation Management Zone and identified a management objective and targeted beneficial outcomes for the area.

The management objective identified for the Colorado River Corridor in the 2004 CCNCA RMP is for BLM to *"manage this zone to provide opportunities for visitors to engage in overnight flat-water boating for social group and family affiliation in a naturally appearing red-walled river canyon"*. The primary activities identified for this zone are *"overnight rafting, canoeing, and kayaking"* as well as *"associated camping and wilderness hiking."*

This plan also identified targeted beneficial outcomes for this area, many of which are taken from the 1998 RC-BR IRMP:

Personal Benefits

- Restored mind from unwanted stress
- Greater cultivation of outdoor-oriented lifestyle
- Greater environmental awareness and sensitivity
- Renewed human spirit
- Greater outdoor knowledge, skills, and self-confidence
- Greater aesthetic appreciation
- More well-informed and responsible visitors

Household and Community Benefits

- Heightened sense of community pride and satisfaction
- Maintained and enhanced group cohesion and family bonding
- Improved functioning of individuals in family and community

Economic Benefits

- Maintenance of gateway community's distinctive recreation-tourism market niche or character
- Positive contributions to local-regional economic stability
- Increased local tourism revenue
- Increased work productivity

Environmental Benefits

- Increased stewardship and protection of River Corridor

The CCNCA RMP also made physical, social, and administrative setting prescriptions for BLM to maintain in order to provide visitors with the opportunities to obtain the identified beneficial outcomes.

Physical

- North of the river is *middle country* and south of the river is *back country*. The corridor is natural in appearance, although there is a railroad track within the corridor on the north side of the river. The corridor is presently unimproved w/ potential for low key improvements

Social

- Group size up to 25
- Expect 15-29 encounters per day and eventually in the 30+ range during the peak use times
- There is some evidence of camping along the banks

Administrative

- Brochures are available and information is posted at the launch site. Nothing is available beyond the launch site
- Agency presence and enforcement is randomly present
- Motorized use allowed in concurrence with state regulations

Recreation Use Statistics and Trends

Data collection methods

BLM has maintained a voluntary visitor register sheet at the Loma boat launch for more than 15 years. Over that time, an average of 7,336 people annually have signed in before floating Ruby-Horsethief. 8,409 people registered in 2009, the second highest total since 1995. In 2010, this number increased to 9,511. This represents the highest visitor use ever for the RHRA. For the past 5 years, BLM has also maintained a second voluntary campsite registration sheet. This sheet gives a more accurate measure of total use of Ruby-Horsethief because it records the actual number of people that are camping each night. However there are a few factors that lead to undercounting via these registers. Since both sheets are voluntary, some visitors choose not to sign up at all, while having two registers can confuse some visitors, leading them to only use one of them.

In 2008, BLM installed a second vehicle counter at the Loma boat launch. Vehicle counters are the traditional method for counting visitor use; but boat launches present a unique situation in which vehicles may be overcounted due to the number of vehicles being used to run shuttles, and because vehicle counters don't count visitors in the vehicles. To supplement this data, in 2009, BLM hired an additional river ranger who was stationed primarily at the Loma boat launch. Through his efforts, most visitors used the campsite registration system (some still refused, citing its voluntary nature) and more accurate counts were made from data collected by vehicle traffic counters by using ranger counts to verify traffic counter figures.

Annual visitor use

8,409 visitors signed in at the Loma boat launch visitor register in 2009, while more than 17,000 camping nights were recorded on the voluntary campsite register. Both of these numbers indicated the highest visitor use counts since 2001 until being eclipsed in 2010. Between 2001 and 2009, annual visitor registrations averaged 7,528. Actual use is likely at least 10% higher than these figures due to the number of visitors who either refuse to register or float by Loma without knowing about the voluntary campsite registration system. Because almost all physical and social impacts in the river corridor are due to the number of camp nights spent, this plan focuses more on overnight use, and when and where that use is occurring.

In 2010, 9,511 visitors signed in at the Loma boat launch visitor register and more than 20,000 camping nights were recorded on the voluntary campsite register. Both of these figures represent the highest visitor use ever within the Ruby-Horsethief Recreation Area.

Overnight use

17,028 camp nights were recorded on the voluntary campsite register in 2009.

Month	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Total
Camp nights	334	836	2,039	3,073	3,945	3,294	2,427	1,072	17,020

Overnight use by night of week

58% of all camp nights were on Friday and Saturday.

Night of week	Camp nights	% of total use
Monday	1,247	7%
Tuesday	1,263	7%
Wednesday	1,188	7%
Thursday	1,538	9%
Friday	4,318	25%
Saturday	5,645	33%
Sunday	1,829	11%
Total	17,020	100%

The busiest 26 nights were either Friday or Saturday nights. High use nights like these begin in early May and run until late September.

rank	day	date	Camp nights
1	Fri	7/24	352
2	Sat	7/25	344
3	Fri	6/5	314
4	Sat	6/6	266
5	Sat	7/11	265
6	Sat	8/8	264
7	Sat	8/15	256
8	Sat	9/5	252

9	Fri	6/19	244
10	Sat	7/4	239
11	Fri	8/14	229
12	Sat	6/27	227
13	Sat	8/1	222
14	Sat	6/20	214
15	Fri	7/3	214
16	Sat	5/9	208
17	Sat	6/13	204
18	Fri	8/7	195
19	Sat	8/22	195
20	Sat	9/26	188
21	Fri	5/1	182
22	Sat	8/29	180
23	Fri	9/4	178
24	Sat	9/19	176
25	Fri	7/31	174

Average overnight use by night of the week

Overnight use is highest on Friday and Saturday nights with almost 50% of all camping occurring on weekends.

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
May	17	11	16	29	123	173	52
Jun	51	49	40	76	215	228	75
Jul	75	77	68	107	238	262	86
Aug	89	110	93	69	179	284	98
Sep	43	46	44	47	146	191	51

Overnight use by camping area

Overnight use is not evenly distributed across campsites. The Black Rocks area is most popular, followed by the Mee and Cottonwood sites as well as Knowles 1. By comparison, Fault Line, Salt Creek, and Knowles 2 (recovering from a human-caused fire in 2007) are less popular due to their location in the river corridor.

Camping area	Camp nights	% of total use
Black Rocks	8,167	49%

Mee	3,705	22%
Cottonwood	2,660	16%
Rattlesnake/Bull	1,036	5%
Knowles	891	5%
Fault Line/ Salt Creek	569	3%

Group size

The overall average size for camping groups in Ruby-Horsethief in 2009 was 7.8 people per group but there is significant variation by night of the week as well as between private and commercial groups.

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
May	6.1	4.7	4.2	4.4	7.0	8.1	7.2	6.0
Jun	7.1	8.9	6.4	7.6	9.3	9.4	7.1	8.0
Jul	7.6	7.9	6.8	9.5	10.1	9.2	7.6	8.4
Aug	7.6	7.9	6.8	9.5	10.1	9.2	7.6	8.4
Sep	8.8	9.7	8.5	7.1	8.4	8.6	7.0	8.3
Total	7.4	7.8	6.5	7.6	9.0	8.9	7.3	7.8

Groups are largest on weekends and smallest midweek. Commercial groups are generally significantly larger than private groups. While some commercial outfitters cater to smaller groups, several of the larger outfitters in Ruby-Horsethief frequently guide groups of more than 20 people. BLM estimates that the average private group size is 7 people while the average commercial group is 16 people.

About Ruby-Horsethief visitors

Of the more than 8,400 registered river users in 2009, 32% were from Mesa County, 61% were from within Colorado but outside Mesa County and 7% were from out of state. 10% of users reported that this was their first time in Ruby-

Horsethief, and 13% continued on through Westwater Canyon. 34% of visitors responded that they floated Ruby-Horsethief once a year, while 42% of visitors responded that they came to Ruby-Horsethief a few times a year. 13% of visitors said they floated Ruby-Horsethief at least four times a year.

No Action

Direct and Indirect Effects: Under the no action alternative, no changes would be made to the recreation management of the Ruby-Horsethief Recreation Area. No changes would be made to the physical, social, or administrative setting character of the area, and no new regulations would be implemented. The regulations requiring all groups to use a fire pan and a portable human waste containment system would continue.

Cumulative Effects: Under the no action alternative, no management actions would be taken to mitigate physical and social impacts. Both would be expected to increase. Overnight use would not be regulated, and campsite conflict would continue to occur and increase with increases in use. Attainment of targeted beneficial outcomes from the Ruby Canyon-Black Ridge IRMP and the McInnis Canyons NCA RMP would be less likely.

Camping would not be limited to designated sites. Though most camping occurs in established sites, new campsites would be established over time without any analysis of environmental impacts.

Proposed Action

Direct and Indirect Effects: Under the proposed action, the Ruby-Horsethief Recreation Area Management Plan would be approved and a permit system would be implemented for all recreational use of the river corridor. Overnight use would be limited to 35 designated campsites and groups would be required to camp in their assigned sites.

Under the proposed action, recreational opportunities would improve within the RHRA. Visitor conflict over campsites should be greatly reduced due to the requirement for groups to camp in their assigned campsite. Few groups will be shut out from camping due to the overnight capacity because of the additional of seven new campsites, but as demand increases it is expected that camping permits could become harder to obtain. Other regulations (such as those related to campfires, human waste, and dogs) should improve the physical and social conditions of the river corridor although they might negatively impact a small percentage of users.

Several comments were received during the planning process about the importance of being able to connect a Ruby-Horsethief trip with a Westwater

Canyon trip. Approximately 13 percent of Ruby-Horsethief boaters continue through Westwater Canyon. Permits for Westwater Canyon are available sixty days before the trip. Permits for Ruby-Horsethief will be available six weeks before a trip; therefore, Westwater permit holders will know their dates and will be able to contact the GJFO as early as possible to secure a Ruby-Horsethief permit. There were only five nights in 2010 in which all Ruby-Horsethief campsites were occupied. Westwater permit holders should be able to obtain an overnight permit for Ruby-Horsethief, but it may not be for the most popular sites.

Limiting overnight use within RHRA could lead to increased overnight use of the Lower Gunnison River (Delta to Redlands segment). The 1998 RCBR-IRMP instructed BLM to direct Ruby-Horsethief use to the Lower Gunnison in order to avoid the need for a permit system, and use of the Lower Gunnison has increased over the past ten years. Permits are not required to float the Lower Gunnison and use could increase if the proposed action is selected and implemented. This has the potential to lead to increased physical and social impacts in that area.

Cumulative Effects: Under the proposed action, camping permits for preferred dates would become harder to obtain if recreational use of RHRA continues to increase. This would lead to more groups being unable to obtain a camping permit for the particular weekend they prefer but it would improve the physical and social character of the area.

3.5.3 Special Designations (ACECs, SMAs etc)

Current Conditions:

Horsethief and Ruby Canyons were recognized by the 1987 Grand Junction Resource Area Resource Management Plan as an “Intensive Recreation Management Area”, and the RMP instructed BLM to prepare a recreation management plan for the IRMA.

The 1998 Ruby Canyon-Black Ridge Integrated Resource Management Plan (IRMP) designated the Colorado River through Ruby-Horsethief as a “Special Area”, now called the Ruby-Horsethief Recreation Area (RHRA)(see section 3.5.2 for a full description of the decisions from this plan). This area is approximately 2,600 acres in size and includes the river and lands immediately adjacent to it. In 2000, Congress designated almost all of the land surrounding the river corridor as the Colorado Canyons National Conservation Area. CCNCA was renamed McInnis Canyons National Conservation Area (MCNCA) in 2005. MCNCA consists of 123,430 acres of public land that surround the Colorado River through Ruby-Horsethief. The act creating MCNCA specifically exempted the Colorado River from the NCA up to the 100 year high water mark but it also directed BLM to “develop a comprehensive management plan for the long-range protection and management” of MCNCA and the Black Ridge Canyons Wilderness. The Act

instructed that the management plan should “include all public lands between the boundary of the Conservation Area and the edge of the Colorado River and, on such lands, the Secretary [of the Interior] shall allow only such recreation or other uses as are consistent with this Act” (Section 6(h)2(e)).

No Action

Direct and Indirect Effects: Under the no action alternative, there would be no impacts to the special designation status of any of the lands within the project area.

Cumulative Effects: None.

Proposed Action

Direct and Indirect Effects: Under the proposed action, there would be no impacts to the special designation status of any of the lands within the project area. The Ruby-Horsethief Recreation Area would continue to encompass the area, and McInnis Canyons NCA would continue to surround the river at the 100 year high water mark.

Cumulative Effects: None.

3.5.4 Wild and Scenic Rivers

Current Conditions:

In 1979, the National Park Service conducted a study to determine if the Colorado River through the RHRA was eligible for Wild and Scenic River (WSR) status. This study identified a 27.7 mile segment of the Colorado River from Loma to Westwater Canyon to be eligible and suitable for WSR status. The 1979 study tentatively identified this segment as “scenic” due to the presence of outstandingly remarkable values related to scenery, recreation, geology, fish, wildlife, and archaeology.

The segment of the Colorado River from the Loma boat launch to the Colorado-Utah state line was found to be eligible for scenic status during the Grand Junction Field Office’s Wild and Scenic River Eligibility Report evaluation in 2009. The determination of whether or not the river is suitable for designation will be made during the ongoing Grand Junction Field Office RMP revision and should be complete by 2013.

The outstandingly remarkable values identified during the eligibility evaluation include scenic, recreational, fish, wildlife, geological, and historical resources.

No Action

Direct and Indirect Effects: Under the no action alternative, there would be no impact to the eligibility status of the Colorado River from the Loma boat launch

to the Colorado-Utah state line. Visitor conflict would be expected to increase, but would not likely impact the outstandingly remarkable nature of the recreation on that segment.

Cumulative Effects: None.

Proposed Action

Direct and Indirect Effects: Under the proposed action, there would be no significant impact to the attributes of this segment of the Colorado River that makes it eligible for scenic status. The Wild and Scenic Rivers (WSR) Act of 1968 requires a scenic river to be free of impoundment and largely primitive and undeveloped. The proposed action would not affect either of these attributes. The WSR Act also says that scenic rivers will be accessible in places by road and that the existence of longer stretches of inconspicuous railroads is acceptable. The proposed action does not include any changes in access and would not affect this attribute.

The proposed action would not negatively impact any of the outstandingly remarkable values for which the river segment was found eligible for WSR status.

Cumulative Effects: None.

3.5.5 Wilderness and Wilderness Characteristics

Current Conditions:

The Ruby-Horsethief Recreation Area encompasses lands designated as wilderness and wilderness study areas.

BLM-Colorado completed its intensive inventory of lands with wilderness character in 1980 and established two wilderness study areas in the proposed project area: the 18,150 acre Black Ridge Canyons WSA and the 54,290 acre Black Ridge Canyons West/Wrigley Mesa/Jones Canyon WSA. The northern boundaries of these two WSAs are formed by south bank of the river except in areas where there were or are private parcels. In 2000, Congress combined the two WSAs and designated them as the 75,500 acre Black Ridge Canyons Wilderness. Therefore, the land between the south bank of the river and the 100 year high water mark is wilderness study area while the land south of the 100 year high water mark is Congressionally-designated wilderness.

Many of the existing campsites are located within the wilderness study area, including Rattlesnake Canyon, Bull Draw, the Mee Canyon campsites, the Black Rocks campsites, and the Knowles campsites. The Salt Creek campsites are not in a WSA because they are located on land located between the two WSAs that was bisected by two routes. None of the Cottonwood campsites or the Fault Line

campsites is within a WSA because they are located on land that was under private ownership at the time of the intensive inventory.

Recreational use of the area is high and increasing. There were more than 20,000 visitor nights in 2010, the highest use since BLM began accurate recording in 1992. Roughly 75% of the camping occurs within the two WSAs, and thousands of people hike up the main canyons and into the Black Ridge Canyons Wilderness. Most of the hiking takes place in the washes and canyon bottoms and has little or no impact on wilderness character.

Both the Wilderness and WSA maintain their natural character and are significantly untrammled and undeveloped. Outstanding opportunities for solitude exist though decrease on weekends in high use areas such as Mee Canyon and Black Rocks.

No Action

Direct and Indirect Effects: Under the no action alternative, there would be no significant impact to wilderness character. No new campsites would be designated, and no new structures would be constructed.

Camping would not be limited to designated sites and would not be limited to 35 groups per night. Physical impacts to the WSA would likely increase due to overcrowding and multiple groups attempting to occupy the same site. Crowding and conflict would not be mitigated and would decrease the opportunity for solitude. The opportunity for a primitive and unconfined type of recreation would continue to exist in its current form and would not be affected.

Cumulative Effects: None.

Proposed Action

Direct and Indirect Effects: Under the proposed action, there would be no significant impact to wilderness character in either the designated wilderness or the WSAs. Seven new campsites would be designated, two of which would be located within a WSA in the Black Rocks area. These sites would not be improved and the only permanent structure at each site would be a 5" x 5" wooden post and campsite location sign. These structures would be the minimum necessary for public health and safety in the use and enjoyment of the area, and therefore are permitted under BLM's Interim Management Policy for Lands Under Wilderness Review. Ground disturbance at new sites will be relatively minor and are acceptable impacts under the IMP.

The wilderness character of the Black Ridge Canyons Wilderness would not be negatively impacted. By limiting the number of overnight groups to 35, recreational use of the area will be managed to prevent unreasonably crowded

conditions at campsites and will therefore lead to less crowding within the wilderness.

Cumulative Effects: None.

CHAPTER 4 - CONSULTATION AND COORDINATION

4.1 LIST OF PREPARERS AND PARTICIPANTS

INTERDISCIPLINARY REVIEW

NAME	TITLE	AREA OF RESPONSIBILITY
Christina Stark	Natural Resource Specialist	Riparian, Floodplains
Julia Christiansen	Natural Resource Specialist	Oil and Gas
Aline LaForge	Archaeologist	Cultural Resources, Native American Religious Concerns
Matt McGrath	Outdoor Recreation Planner	Recreation and social, Wilderness, Wild & Scenic Rivers, Special Designations, VRM, Economics
Jim Dollerschell	Range Management Specialist	Range, Wild Horse & Burro Act
Scott Gerwe	Geologist	Geology, Paleontology
Alan Kraus	Hazard Materials Specialist	Hazardous and solid wastes
Robin Lacy	Realty Specialist	Land Status/Reality Authorizations
Kristen Meyer	Wildlife Biologist/Ecologist	Migratory Bird Treaty Act, T&E Species, Terrestrial & Aquatic Wildlife,
Heidi Plank	Wildlife Biologist	Migratory Bird Treaty Act, T&E Species, Terrestrial & Aquatic Wildlife
Anna Lincoln	Ecologist	Range, Land Health Assessment, T&E Plant Species
Scott Clarke	Range Management Specialist	Range
Colin Ewing	Environmental Coordinator	Environmental Justice, Prime & Unique Farmlands, Environmental Coordinator
Nate Dieterich	Hydrologist	Air Quality Water Quality, Hydrology, Water Rights
Jacob Martin	Range Management Specialist	Range, Forestry
Mark Taber	Range Management Specialist	Invasive, Non-Native Species (Weeds)
Jeff Phillips	Fire Ecologist Natural Resource Specialist	Fire Ecology, Fuels Management

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