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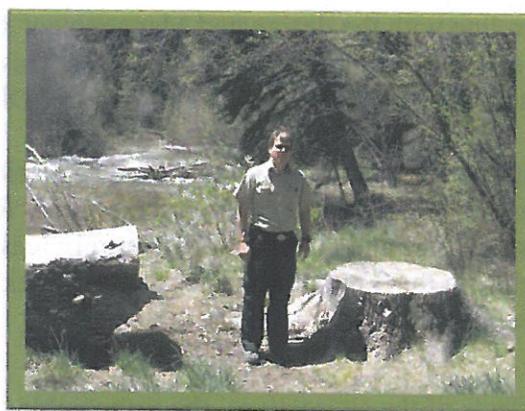
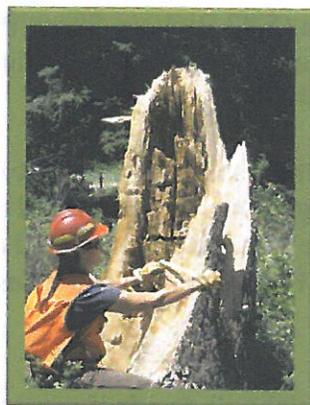
Forest
Service
June 2014



Avalanche Campground Healthy Forest Campsite Relocation Environmental Assessment

White River National Forest, Aspen-Sopris Ranger District
Pitkin County, Colorado

Township 9S Range 88 W section 34
39 14' 07 N
107 12 ' 09" W
UTM NAD83 309759E 4346558N



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PURPOSE AND NEED

BACKGROUND

The White River National Forest proposes to decommission and relocate the campground loop at Avalanche Campground. The proposed relocation is immediately north from current sites 11-13 and parallel to FDR 310 and onto a flat area comprised primarily of Gamble's oak and grass habitat. Relocating the main campground loop will help ensure visitor safety by distancing it from hazard trees and will allow for rehabilitation of the valuable riparian zone along Avalanche Creek in which the current loop was constructed. The project area is located within the Crystal River Valley, approximately 13 miles south of the town of Carbondale and is within the Sopris Ranger District of the White River National Forest, Colorado. This action is needed to ensure visitor safety from hazard trees and to provide better management of riparian habitat and forest health. Other objectives include providing a high quality recreational experience and maintaining a high level of scenic integrity in this area.

The proposed action may have an effect on forest vegetation and recreation.

In addition to the proposed action, the Forest Service also evaluated the no action alternative:

- **No action:** Formally close the campground loop to overnight use. The hazardous trees create a liability for overnight campers if they fall. Many trees have been identified and removed over time resulting in a thinner tree stand which is now more vulnerable to wind throw where even healthy trees have a high potential for falling and becoming hazards. Due to the valuable riparian habitat and high scenic integrity where the camp loop currently is located, further tree removal, to the point that would ensure visitor safety, is not in line with the designated Management Area (5.42 Bighorn Sheep Habitat) or Goals and Objectives as stated in the Forest Plan (2-6, 2-37). This alternative would leave three campsites open, 11-13, located alongside and immediately south of FDR 310.

A no action alternative would most likely require placing the remaining 3 sites at Avalanche Campground under management of the Aspen-Sopris Ranger District as opposed to a concessionaire, due to the lack of economic viability. It is entirely feasible that this action would necessitate permanently closing the 3 remaining sites due to a lack of Forest Service resources to manage these over-night sites to standard.

Based upon the effects of the alternatives, the responsible official will decide if construction of a new campground loop is feasible or the campground should be closed, limiting recreation opportunities for the public.

PURPOSE AND NEED FOR ACTION

The purpose of this initiative is to ensure visitor safety and maintain forest health within Avalanche Campground and trailhead parking area for Avalanche trail #1969. This action is needed to provide a permanent solution to mitigate the hazards located in Avalanche Campground. Visitor safety is the top priority and the only way to adequately protect visitors within the campground loop from the potential for injury would be to clear cut the trees from the sites. In alignment with managing a healthy forest and promoting ecosystem health, this is not a viable solution.

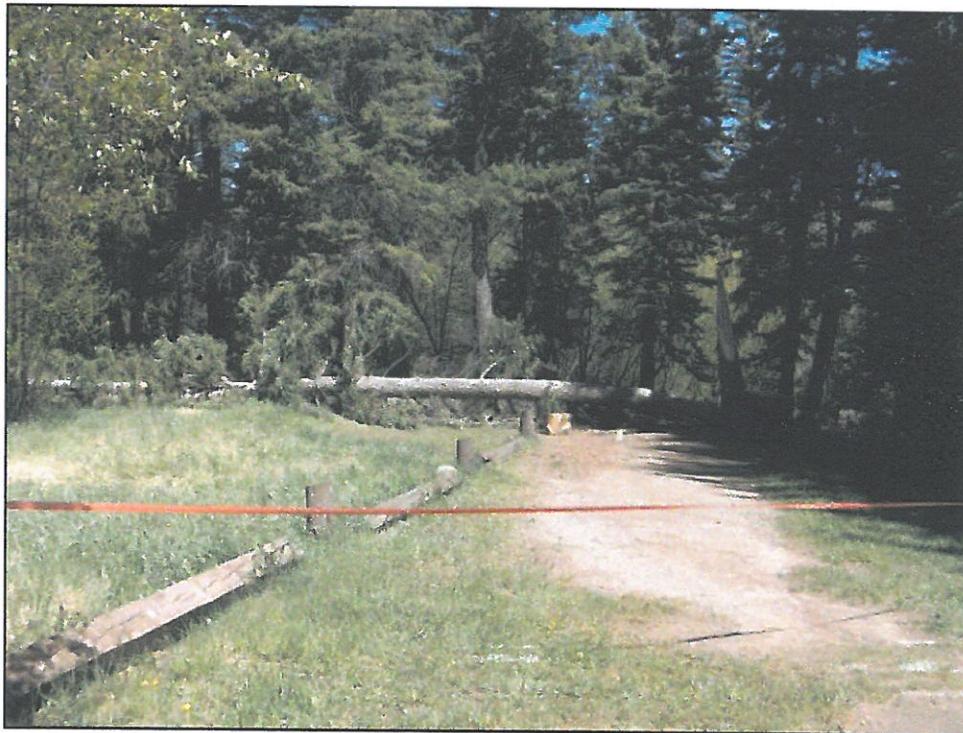
Avalanche Campground serves as a high use portal for various recreational activities including; hiking, horseback riding, hunting, and fishing. The campground is valued for its low development level, contributing to the spectrum of developed campgrounds within the Crystal River Valley. A final decision

on the fate of Avalanche Campground will be determined with this environmental analysis in order for the recreating public to understand the expectations for camping at this site. Other objectives include providing a high quality recreational roaded natural experience as well as maintaining a high level of scenic integrity in this area. The campground is valued for its low development level, contributing to the spectrum of Campgrounds within the Crystal River Valley, averaging over 2,000 campers in a season. FDR 310 to access Avalanche CG is a rough, high clearance road and trailers are not recommended.

A decision on the fate of Avalanche Campground is determined in this environmental analysis so that public can be clear in their expectations for camping at this site. Other objectives include providing a high quality recreational experience and maintaining a high level of scenic integrity in this area.

On May 27, 2011 during the Memorial Weekend a tree snapped during a particularly strong wind event, and hit a camper's tent. Fortunately the camper was not in this tent and no one injured. Following this incident, the district re-evaluated the campground for further hazards and closed eight out of the thirteen sites for overnight camping, to ensure safety. Without the ability for offering a full capacity campground and lowered economic viability of operating only 3 sites the District took back management from the concessionaire.

The purpose and need for action at Avalanche Campground is to ensure visitor safety, maintain forest health within this developed site, continuing to offer a developed camping experience for the public and maintaining a high level of scenic integrity in this area. Presently all camping within the Crystal River valley is restricted only to developed campgrounds in the Crystal River Valley. The Aspen-Sopris Ranger District is recommending a new course of action to permanently relocate the ten designated sites in the Avalanche Campground road loop.



Tree Failure in site #2 May 2011. Tent was struck by falling tree.

Decision Framework

For this project, the responsible official is the District Ranger; Karen Schroyer. Given the purpose and need, the responsible official will review the environmental consequences of the proposed action and the other alternatives and any public comments in order to make the following decisions:

- Decide on the alternative for action.
- Approve conceptual site plan and design narrative.
- Ensure adequate resources are available to execute the plan.

Given the purpose and need, the deciding official reviews the Proposed Action and the No Action Alternatives in order to make the following determinations:

- The proposed recreation development/management projects comply with applicable standards and guidelines found in the *Forest Plan* and all laws governing Forest Service actions.
- Sufficient site-specific environmental analysis has been completed.
- The proposed projects benefit the public overall.

With these assurances, the deciding official must decide:

- Whether or not to accept the Proposed Action or the No Action Alternative.
- What, if any, additional actions should be required to better manage natural resources and recreational opportunities in the project area.

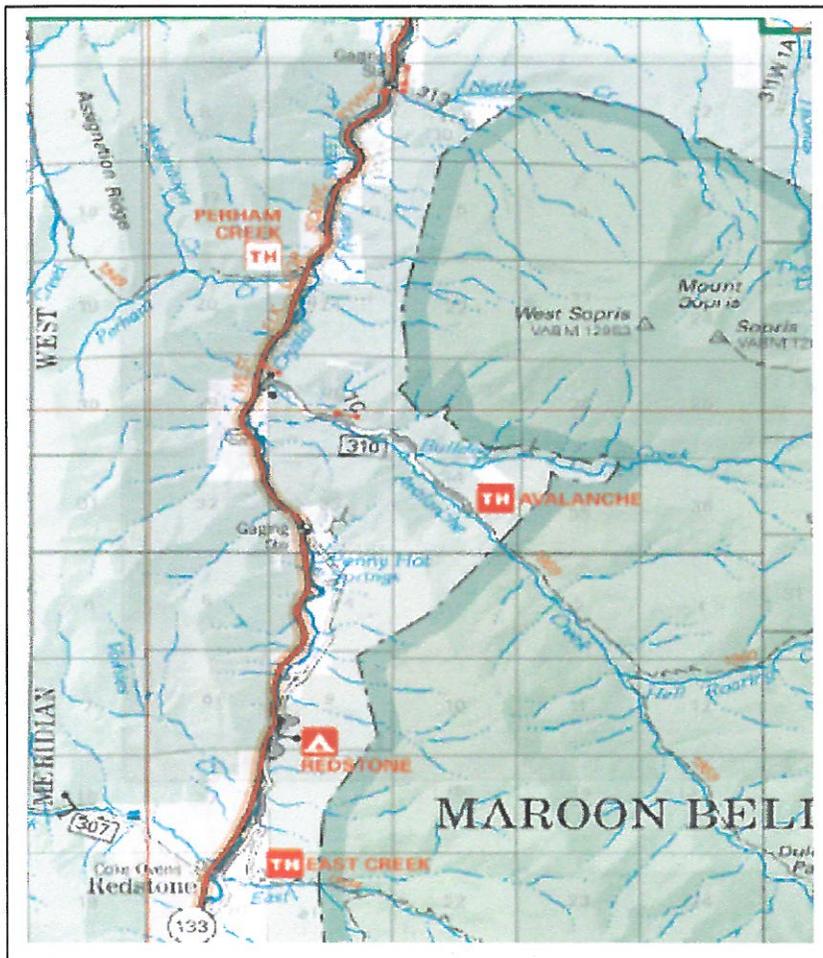


Figure 1
Location of Avalanche CG
off CO Hwy 133
12.5 miles from Carbondale

DESCRIPTION OF ALTERNATIVES

This section describes and compares the alternatives considered for the Avalanche Campground Healthy Forest Campsite Relocation project. This section also presents the alternatives in comparative form, sharply defining the differences between the proposed action and the no action alternative and providing a clear basis for choice among options by the decision maker and the public.

Alternatives Considered

No Action Alternative 1

The existing campsites which were closed May 2011 under an emergency action along Avalanche Campground will continue to stay closed. The Forest Service will continue to assess and remove hazard trees in this developed site area. We will continue to minimizing the risks however the FS would not continue cutting the large decadent trees left in the riparian area. The one lane gravel road with the six sites would not be re- opened to the public again and opportunities for camping overnight and day use activities such as nature watching and angling will continue to remain within this zone.

Public safety is imperative and the priorities have been to remove hazard trees to protect life and property. The recent tree failures in this area make it essential to keep closed for overnight camping.

The effects of the no action alternative are analyzed in this EA as required by the CEQ regulations. Under No Action, no changes would be made to the design of the current campground design. With no action undertaken, the eight sites that have been closed to overnight use would remain closed, to ensure visitor safety. The Aspen-Sopris Ranger District is responsible for management of the campground with visitors occupying the remaining sites on a donation basis, or all the sites would be completely closed to any overnight camping. Consideration of the no action alternative is documented by contrasting the impacts of the proposed action with the current condition and expected future condition if the proposed action were not implemented (36 CFR 220.7(b)(2)(ii)).

This alternative was considered but not carried forward and eliminated from detail study forward due to the paramount needs for public safety

Alternative 2

Proposed Action

The action proposed by the Forest Service, is to permanently relocate the campground loop immediately adjacent to the current site boundaries of Avalanche Campground, north of, and across the road, from sites 11-13 (Figure 1 conceptual design plan). The proposed site location will extend up to 100 feet outside of the current site boundaries for the campground. The proposed campground relocation area is located within an open meadow with oak brush cover at an elevation of 7,350. (See proposed campground and road design).

This proposal includes construction of ten new campsites to replace the existing sites proposed for formal decommission. The proposed access location for this campground site plan is approximately 50 feet north of the Horse Trailer Trailhead Parking loop and will extend northwest approximately 1,000 feet. Ten campsites will be constructed. The new developed sites will be constructed as a level 3 development scale, to stay consistent with its current level of development and retain scenic integrity.

Presently this is an open meadow habitat area with oak brush cover sitting at approximately a 4% grade. Existing open spaces within the oak brush will be utilized to the extent practical to reduce the amount of vegetation lost and to provide a natural barrier between sites. The physical recreation opportunity spectrum (ROS) for this management area will remain roaded natural (May- November) and semi-primitive non-

motorized (November- April) during the seasonal road closure time. Construction of a new one lane road loop will be necessary to access to the sites and would connect to the current road (FDR 310), reducing the amount of new road construction. The entirety of the loop would be located east of the Horse Trailer Parking loop, separating uses.

Construction of a new campground loop and rehabilitation of the existing loop would serve the purpose and need of ensuring visitor safety while managing for riparian health. In addition, a highly valued campground with contemporary/rustic design of improvements will retain its character, ensuring a positive recreation experience on the White River National Forest. Avalanche Campground is a development scale 3 campground with site modification moderate and facilities about equal for protection of natural site and comfort of users. In contrast to this lower development level, Redstone Campground the nearest campground from Avalanche CG is at the development scale 5 with high facilities mostly designed strictly for comfort and conveniences and includes amenities such as electricity and showers. Redstone Campground sites are considered expensive for many campers who prefer a less-developed camping experience.

Formal decommissioning will be initiated after this environmental analysis and an alternative selected. Restoration and rehabilitation to the riparian zone will also occur with this project. Campground amenities such as picnic tables and fire rings will need to be removed and site spurs closed off for motorized access. Rehabilitation will be focused on return of the original landscape condition including road obliteration, grading, and re-vegetation. The district suggests creating this for day use only to facilitate river access, nature watching, and angling. Rehabilitation work will include; planting native seeds and trees, woody debris placed in the creek, and monitoring to ensure sustainability. This work may be completed with assistance from partner organizations and volunteers.

Additional campground improvements will be provided as funding and staffing allow. Construction of two horse camp sites with corrals are proposed along with sufficient parking for horse trailers for day use as a phased-in project. This will allow for sustained multi-use recreation while maintaining adequate space for day use and equestrian users. This includes, construction of two new day use parking lots, relocating a CXT vault toilet, and rerouting a section of trail to connect with a new trailhead location. These tasks will be secondary to the main purpose and need and will be phased in as the District can accommodate.

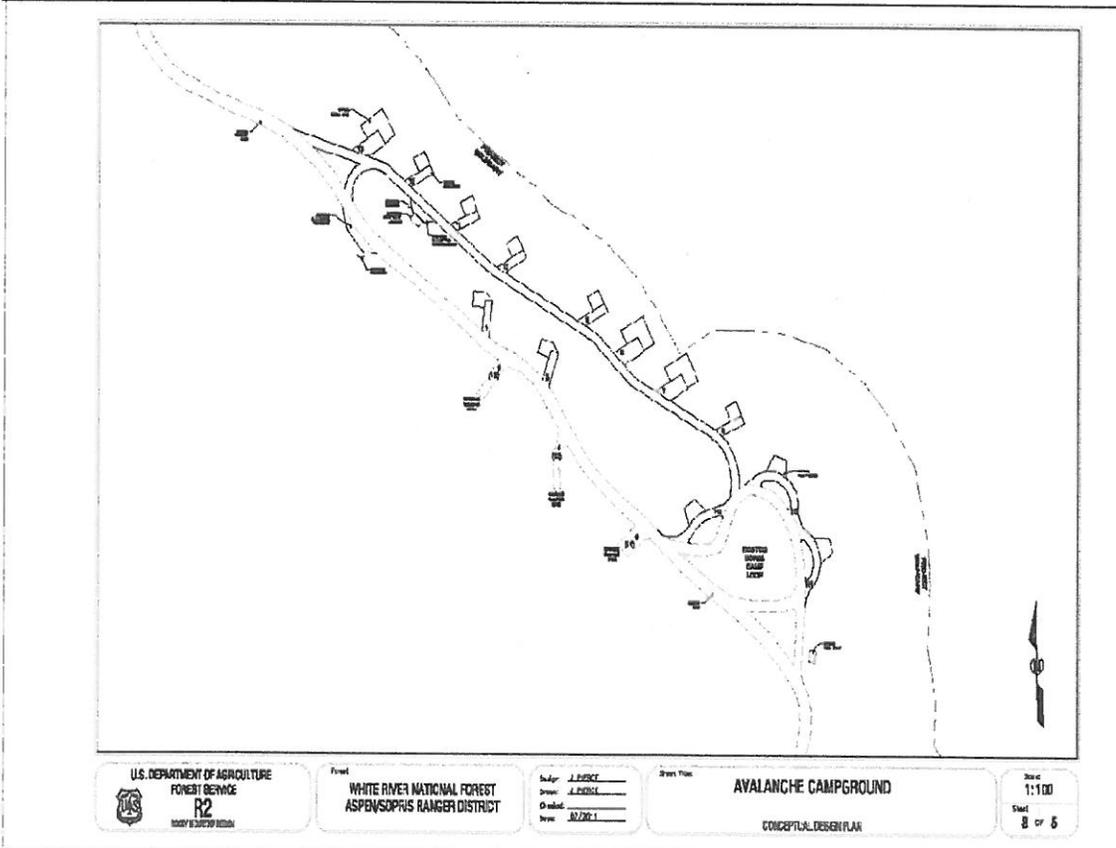
Access for the trailhead NFST #1969 will be moved to the northwest with two parking areas and will continue to be accessed from FDR 310. Construction of a new day use parking area for six vehicles at the west end of the proposed campground would assist in separating uses, providing overflow and further our objective of rehabilitating the existing campground loop. This would allow for a closure of motorized vehicles beyond the existing western CXT toilet located adjacent to the present horse trailer parking area. The Avalanche Creek Trailhead would then be relocated to the new proposed day use parking lot with approximately .25 mile of trail being constructed to connect to the trail. The day use parking lot will serve approximately 16 cars. The double vault toilet located at the present trailhead parking lot will be moved to the new parking lot to serve campers, day use and trail use visitors. The existing well and hand pump will be tested and monitored for water quality the summer of 2014 for future operations.

The formal closure process to close and decommission sites 1-10 along the loop in Avalanche Campground has been initiated, to ensure visitor safety. This proposal will implement a permanent solution to replace the camping opportunities Avalanche Campground has historically provided. Funding and weather dependent, the new designated sites can begin construction as early as Fall 2014.

In summary, the following items are the proposed actions for relocating the Avalanche Campground. These items will be prioritized and implemented as funding becomes available. The project could take several years to complete:

- Relocate existing campground opposite of the 3 existing overflow sites, construct a new loop road for approximately 13 new campsites to replace the ones closed, and harden sites for sustainability
- Decommission the old trailhead parking lot, campsites, and convert the old campground road into a trail to across the trailhead into the Maroon Bells Wilderness Area.
- Cross rip the road and campsites to remove compaction, amending soil, and re-vegetate the area.
- Relocate a CXT toilet to near the campsites.
- Improve in stream habitat using large unanchored wood. Dead trees may be hauled in from off site and/or if live trees are used they will come from outside the Watershed Influence Area (WIZ) and will be surveyed for wildlife habitat prior to removal.
- Reconfigure the existing horse trailer parking area into a circular area with 2 or 3 horse camping sites, hitching post, and trailer parking to accommodate this use and for overnight parking for horse trailers traveling into the wilderness.
- Maintain the current well and hand pump for water (fire and/or potable) if this water system passes CO State Standards.

Figure 2. Avalanche CG Conceptual Design Plan.



2002 White River NF Management Direction

The proposed action aligns with the following; Goal 1-Ecosystem Health, Goal 2-Multiple Benefits to People, and Goal 4-Effective Public Service from the 2002 White River National Forest Land and Resource Management Plan (Forest Plan);

Goal 1, Objective 1d Increase the amount of forest and rangelands restored to or maintained in a healthy condition with reduced risk and damage from fires, insects, disease, and invasive species (p.1-8).

Goal 2, Objective 2a Improve the capability of the national forests and grasslands to provide diverse, high quality outdoor recreation opportunities (p. 1-10).

Goal 4, Objective 4a Improve the safety and economy of Forest Service roads, trails, facilities, and operations and provide greater security for the public and employees (p. 1-14).

The National Forest Management Act requires plans, permits, contracts, and other instruments issued for the use and occupancy of NFS lands to be consistent with forest plans; consistency is based on whether a project follows both forest-wide and management area standards (p. P-4).

The project area is located within the following management area:

5.42 Bighorn Sheep Habitat; the proposed action would be required to follow all applicable forest-wide and management area standards and guidelines (p.3-60).

LAWS

Endangered Species Act of 1973, as amended (ESA)

Requires federal agencies to ensure that actions authorized, funded, or carried out by them are not likely to jeopardize the continued existence of Proposed, Threatened, or Endangered (PTE) species, or result in the destruction or adverse modification of their critical habitat.

National Historic Preservation Act of 1966, as amended (NHPA)

This law established policy regarding historic preservation and provided for the establishment of the National Register of Historic Places.

Public Involvement

The proposal was provided to the public and other agencies for comment during scoping July 2011-December 2011. In addition, as part of the public involvement process, the agency collaborated with the Aspen Times to submit articles on; the tree that fell on a tent over Memorial Day weekend 2011, the closure of eight out of the ten sites, and the proposal for rebuilding campsites. A legal ad in the Aspen Times was published on 11/24/2011 stating this project proposal.

A scoping letter and conceptual design plan was sent to interested parties including the USFS White River west zone mailing list, homeowners, outfitter guides, community members, and partner organizations. A public open house was held at the Sopris Ranger Station on November 30th, 2011 to receive community input and answer questions. Quarterly updates of the project were provided in the Schedule of Proposed Actions beginning July 2011. Articles were published in the *Aspen Times* on July 8 and November 22, 2011.

Response to the scoping revealed a general tone that Avalanche Campground is highly valued campground and the public would like to retain this opportunity for camping. In the design and operations, many would like to see the campground retain its low level of development and rustic qualities, continuing to operate as a non-reservation campground.

Based on these comments and analysis, the Forest Service intends to maintain the current development level and recognize the priority to operate Avalanche Campground at full capacity. The interdisciplinary team also developed a list of issues to address, as discussed in the next section.

In the process of analyzing this project, the regulations for this project at Avalanche Campground EA changed with the Consolidated Appropriations Act of 2012. It includes a provision (Section 428) directing the Secretary to establish a pre-decisional objection process for projects and activities implementing land management plans in lieu of the post-decisional appeal process used by the agency since 1993. More specifically, Section 428 directs that the pre-decisional objection process provided by the Healthy Forests Restoration Act (HFRA) be applied in lieu of the Appeal Reform Act (ARA) requirements covering Right to Appeal, Disposition of an Appeal, and Stay. It is now subject to the objection process pursuant to 36 CFR 218, subparts A and B. Objections will only be accepted from those who have previously submitted specific written comments regarding the proposed project during scoping or other designated opportunity for public comment in accordance with §218.5(a). Issue raised in objections must be based on previously submitted, timely and specific written comments regarding the proposed project unless based on new information arising after the designated comment opportunities. This proposed project is an activity implementing a land management plan and subject to the objection process described in 36 CFR 218 Subparts A and B. The Forest Service is combining scoping with the legal notice and opportunity to comment, as described in 36 CFR 218.24.

On March 27, 2013, new regulations defining the public objection process were released by the U.S. Forest Service. The Pre-decisional Objection Process (36 CFR 218 Subparts A and B) replaces the previous Administrative Appeal Process (36 CFR 215). The White River National Forest will utilize the new objection process in this project as the collaborative nature of the objection process is more consistent with the goals and values of the overall Avalanche Campground EA process.

Filing an Objection: Objections will only be accepted from those who have previously submitted specific written comments regarding the proposed project during scoping or other designated opportunity for public comment in accordance with §218.5(a). Issues raised in objections must be based on previously submitted, timely and specific written comments regarding the proposed project unless based on new information arising after the designated comment opportunities. The Forest Service specifically contacted the parties who responded to the original scoping on scoping July 2011-December 2011 to allow them the opportunity to object to this decision.

COMMENT SUMMARY

Nine letters and emails were received during initial scoping. Open House participation at Sopris Ranger Station on November 30 2011 included 2 public and 4 Forest Service staff. Comments were reviewed and categorized into three areas: 1) issues to be addressed in the EA analysis, 2) comments beyond the scope of the project and 3) issues eliminated from detailed study because of known minimal or no effects, or effective mitigation. The Forest Service also consulted with other agencies and companies.

Table 1. Consultation Needed With Other Agencies

Consultation	Agency/Company
SHPO Clearance on Heritage Resources	Colorado State Historical Preservation Office
Consultation on Threatened and Endangered Species with USFWS	US Fish and Wildlife Service
Past and Future management of Avalanche CG	California Land Management dba White River Recreation Company

Issues

The following are the issues identified during the public and internal scoping efforts and during the first 30-day comment period applicable to this proposed planning project. Not all comments received during the scoping efforts were relevant to the analysis. For example, comments expressing general support or lack thereof for a component of the project did not result in an issue. The issues have been separated into two groups: *Key issues* and *Issues Dismissed from Detailed Analysis*.

1. **Key Issues.** Key issues are used to develop and analyze the alternatives. They involve potential effects to resources that might not be addressed by existing laws, *Forest Plan* standards and guidelines, policies, or mitigation measures.
2. **Issues Dismissed from Detailed Analysis.** These issues are not given detailed analysis because the potential effects do not vary between alternatives and/or the effects are not expected to be significant, can be mitigated, or are not within the scope of this document.

The Forest Service identified the following key issues based on public scoping, public comments, the open house, and internal comments from the USFS Interdisciplinary Team.

Key Issues

Public Safety: Due to a variety of insect and disease agents and age of trees, many trees have been identified and removed as hazards over time. In 2011, strong winds toppled a spruce tree onto an unoccupied tent, prompting the district to close and vacate Avalanche Campground sites 1-10 for public safety.

Recreation Opportunities: Providing a spectrum of different level of development of camping opportunities in area. Closing Avalanche CG is the 2nd Campground in the Avalanche Corridor (Janeway 1980's) and nearest Campground Redstone is a high development level 5 CG. The public expressed a desire for low development camping experiences.

Resource Protection (soil, water, biological) - Visitors are camping in the riparian which adversely impacts vegetation, soils, wetlands and water quality. There are concerns about continuing to cut hazard trees in the Avalanche Campground, especially in the riparian zone. How can camping impacts be minimized to protect wildlife/plants? Would closing the campsites and moving away from the riparian zone protect natural resources?

Issues Dismissed from Detailed Analysis

Financial capability of management of Avalanche CG: Fees, Permits and Concessionaire: Comments concerning the fees collected at Avalanche Campground are not part of the scope of this project and will be reviewed under a separate evaluation by the Forest Service.

Gate Closure: Comments concerning the timing of the closure of the gate at the entrance to Avalanche Road are not part of the scope of this analysis. This issue has been evaluated and addressed by the Forest Service as part of ongoing implementation of the White River National Forest Travel Management Plan. The Forest Service will continue to provide information regarding seasonal gate openings and closings at the Avalanche Forest Service Road 310 entrance, the Forest Service office in Carbondale, and with postings on-site at the existing Kiosk.

Wildfire and Debris Flow Hazard Occurrence: A concern was raised about the need to take management actions to minimize potential wildfire and debris flow hazards. These potential hazards are outside the scope of this project.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

INTRODUCTION

CEQ regulations direct agencies to succinctly describe the environment that may be affected by the alternatives under consideration. (40 cfr 1502.15) As such, this section describes the existing physical, biological and social components of the project area which have potential to be affected by implementing any of the alternatives (i.e., the Affected Environment). Each Affected Environment description is followed by an Environmental Consequences discussion that provides an analysis of the potential effects of implementation of each of the alternatives.

SCOPE OF ANALYSIS

The scope of analysis briefly describes the geographic area(s) potentially affected by the alternatives for each issue. The scope of analysis varies according to resource area and may be different for direct, indirect, and cumulative effects.

AFFECTED ENVIRONMENT

The Affected Environment section provides a description of the environment potentially affected, based on current uses and management activities and decisions.

DIRECT AND INDIRECT ENVIRONMENTAL CONSEQUENCES

This section provides an analysis of direct and indirect environmental effects of implementing each of the alternatives, according to the issues or resources requiring additional analysis and indicators identified in the previous section.

Direct effects are caused by the action and occur at the same time and place. Indirect effects are caused by the action and occur later in time or are farther removed in distance, but are still reasonably foreseeable (i.e., likely to occur within the duration of the project)

CUMULATIVE EFFECTS

Cumulative effects are the result of the incremental direct and indirect effects of any action when added to other past, present, and reasonably foreseeable future actions, and can result from individually minor but collectively major actions taking place over a period of time.

RESOURCES/ISSUES DISMISSED FROM DETAILED ANALYSIS

Social and Economic Resources

These resources were dismissed from further analysis because no measurable effects to social and economic resources are anticipated due to the No Action or Action Alternatives. None of the proposed projects contain components that would have measurable impacts to social and economic indicators such as employment, income or population.

NOISE: This resource was dismissed from further analysis because noise related effects would be negligible. The implementation of projects could involve the use of noise-producing mechanical machinery and tools, but the extent of this noise would be temporally and spatially limited.

ENVIRONMENTAL EFFECTS

A. RECREATION

Scope of Analysis

The Avalanche Campground area is a recreation destination for residents and visitors of the Roaring Fork valley. This area is especially popular with the town of Carbondale residents for camping, hiking, hunting, fishing, relaxing and other activities.

The 2002 White River Forest Plan identifies the NFS lands in the study area as falling within Management Area 5.42 Big Horn Sheep Habitat Management Area. This management area is compatible with this lower level recreation development and attuned with the Recreation Opportunity Spectrum.

The management area description states: Visitors can find dispersed recreation opportunities including both motorized and non-motorized, although they may also find that access restricted at times, through the use of seasonal or yearlong road closures. Human use is often high during fall hunting seasons.

The Recreation Opportunity Spectrum (ROS) is a Forest Service developed recreational planning guide that provides a framework for stratifying and defining classes of outdoor recreation environments, activities and experience opportunities. Recognizing that recreation on our National Forests is more than just camping, fishing and hiking, research has shown that people choose a specific setting for each of their outdoor recreation activities in order to realize a desired set of experiences.

Forest Service recreation managers use ROS to help describe the levels of development, social interaction and management controls that are appropriate for different areas of the forest, or in this case, Avalanche Campground area and analysis. This concept acknowledges that visitors participate in different recreational activities in different settings in order to realize certain experiences. For example, some visitors backpack into the wilderness to experience solitude, challenge and self-reliance. Other visitors camp in campgrounds to have more comfort, security and social interaction.

The physical, social and managerial settings, activities and opportunities for obtaining quality outdoor recreation experiences have been classified and arranged along a continuum or spectrum, divided into six classes from lowest to highest development. They are:

1. Primitive (P)
2. Semi-primitive non-motorized (SPNM)
3. Semi-primitive motorized (SPM)
4. Roded Natural (RN)
5. Rural (R)
6. Urban (U)

Maintaining a broad spectrum of these classes and their differing opportunities across a National Forest or Grassland unit is very important to provide people with choices. ROS is also flexible, in that it can be further subdivided into subclasses as the need arises. "ROS is a macro not a micro system" (1986 ROS Book, USDA Forest Service, page II-1).

Direct, Indirect and Cumulative Effects of the Proposed Action

Alternative 1 NO Action

No Action Alternative - The No Action Alternative is a true no action alternative, however scheduled and regular maintenance and patrol regimes would be made as already approved and scheduled. Otherwise, none of the improvements proposed in this project assessment would be implemented. If it were decided not to proceed with this closure and no additional camping sites, this will impact local recreation operations and ROS opportunities. The status quo would continue to impact the recreational and physical resource by having campers at this site without stewardship and with minimal management presence.

The result of this would be a disorganized area of disturbance that would not meet the need of most visitors and would do nothing to improve upon the perceived failing quality and overcrowding of campsites along Avalanche Creek.

The cumulative effects of the No Action Alternative consist of the continued unauthorized/unplanned development of the campgrounds along the Avalanche Creek. This type of development would occur in such a way that it is unlikely that adequate facilities would be provided to accommodate the number of uses present at times throughout the usage season. The overall effect would be the diminished quality of the recreational experience and lower use by visitors.

Further decreases in user satisfaction would result from the lack of suitable facilities needed in order to adequately service this camping area desired by the public. The loss of lower development ROS camping experiences may be a cumulative effect over time.

In this alternative, facilities would not be improved to meet the requirements of the Architectural Barriers Act (ABA).

Alternative 2 – Proposed Action Direct, Indirect, and Cumulative effects

Maintaining a broad spectrum of developed recreation and providing differing opportunities across a National Forest is important to provide visitors with choices. This alternative meets the need for lower developed camping in the Crystal Valley.

The direct effects of implementation of this Proposed Action Alternative would be an increase in the quality and quantity of camping facilities available to users. This alternative would create 12 family campsites that would replace the campsites that were closed in the riparian zone and hazard tree area.

While the reorganization of the campsites would potentially lower the quality of experience for those individuals that are seeking more shade the proposed areas would offer secluded camping environments and it would serve to minimize the effects of crowding. This would also aid in achieving compliance with the ABA for facilities offered at Avalanche Campground.

The proposed improvements to the campgrounds would also allow campsites currently present within the (Water Influence Zone - WIZ) to receive less frequent use and less consistent disturbance regimes, thus allowing the vegetation on those sites to recover and begin functioning as the WIZ is intended. This would, over time and cumulatively, improve the water quality along Avalanche Creek during rain events and during snow melt. Positive effects would likely be realized by users participating in river back fishing at summertime high water levels due to the less frequent disturbances and absence of campers in the WIZs along the river bank. The USFS estimates that approximately 3 acres would be disturbed in order to construct the proposed camping area.

B. AQUATIC SPECIES AND WATER RESOURCE

Direct and Indirect Effects of the Proposed Action

The **No Action** will keep the existing 3 camp sites open. Day use will remain the same in the closed section of the campground. Fisherpersons and walkers will continue to trail along the stream. The existing roads and parking area will remain the same. The camp site parking portals for the closed sites will continue to naturally re-vegetate over time and the trees that have been planted will continue to grow and restore the large wood component in the riparian area and floodplain adjacent to the stream. Indirect effects from fisherpersons and hikers will continue to trail along the stream and trample the bank. This activity contributes unmeasurable amounts of sediment into the stream.

The **Proposed Action** will actively rehabilitate camp sites, decommission road prisms, parking portals other compacted areas, convert portions of the road to a multiple user non-using equipment, apply soil amendments, seed, plant rooted stock forbs, plant trees, and rehab trail areas in the old camp ground located on the floodplain and riparian area. **Direct effects** from live or dead trees naturally falling in the floodplain or stream will act as nurse logs in the floodplain or provide instream fish habitat cover. **Indirect effects** from restoring these areas will save unmeasurable amounts of sediment from going into the stream. Work will implement Best Management Practices (BMP) and follow the Watershed Conservation Handbook.

The **Proposed Action** will also construct a loop road, construct approximately 10 camp sites along the loop with parking, construct 2 to 3 horse equestrian sites, and construct a new parking area for 10 to 15 vehicles. There will be **no direct effects** to aquatic habitats from this activity. **Indirect effects** will be exposing more soil to erosion with the potential to transport sediment to the stream. This is highly unlikely to occur due to the distance to the stream, implementing appropriate BMP, and following the Watershed Conservation Practices Handbook.

Cumulative effects of the Proposed Action

The **Cumulative Effects** for either the **No Action** or **Proposed Action Alternatives** will be the continued use of this area for recreation including fishing, hunting, wildlife viewing, hiking, and camping. Weed treatments will continue and the water well will be tested annually. Mud flows will continue to occur on the ingress egress road which will periodically trap individuals. Mining is authorized at the White Banks mine. Wildlife and Urban Interface activities for vegetation management will continue using both mechanical and fire as the prescription. No additional activities are anticipated to occur in this area.

There will be “**No Effect**” to the four big river Federally listed fish (**Colorado Pikeminnow** (*Ptychocheilus lucius*), **Humpback Chub** (*Physaria obcordata*), **Bonytail** (*Gila elegans*), and **Razorback Sucker** (*Xyrauchen texanus*) because there are no water depletions associated with the proposed project. There will be “**No Effect**” on **Greenback cutthroat trout** (*Salmo clarki stomias*), because there are no populations in the middle Crystal or Avalanche Creek.

The determination for all seven aquatic R2 sensitive species including **Colorado River cutthroat trout, flannelmouth sucker, roundtail chub, mountain sucker, bluehead sucker, leopard frog, and boreal toad** is “**No Impact.**” Watershed Conservation Practices, and BMP’s will be incorporated in the project as design criteria. There will be minimal impacts to aquatic species and habitats from rehabilitating and/or construction activities with this project. The project will have beneficial effects for a wide array of avian, terrestrial, and aquatic species and their habitats.

C. WILDLIFE

The project area is located in Pitkin County, Colorado, T.9S. R.88W. Section 34. The proposed campground relocation area is located within an open meadow with oak brush cover on a relatively flat slope at an elevation of 7,350. The area to be decommissioned and rehabilitated is immediately adjacent to Avalanche Creek in a mature spruce/cottonwood riparian zone. The recreation opportunity spectrum (ROS) for this management area will remain semi-primitive motorized (May- November) and semi-primitive non-motorized (November- April). The project area is located within a 5.42 Bighorn Sheep Habitat Management Area.

The vegetation types in the four-acre area of construction provide potential habitat for the bighorn sheep, and the vegetation in the two-acre rehabilitation area provide potential habitat for the hoary bat and Lewis' woodpecker. There is also habitat for native nesting birds, including cavity nesters and nest builders that inhabit live and dead trees in these vegetation types. The area provides habitat for black bears and bears are known to visit the campground

Direct and Indirect Effects of Proposed Action

Effects of the Proposed Action on Species Evaluated and Determinations Federally Listed Species

Under the proposed action, campground construction activities would have no impact on lynx habitat because suitable habitat for the species does not exist at the site of construction.

Rehabilitation activities in the two-acre site adjacent to Avalanche creek would have no measurable impact to lynx since the habitat is marginal and degraded due to the site and amount of human use over the years. The site is outside landscape linkages. The marginal vegetation could be incrementally improved by restoring the conifer understory, but the site is low in elevation for the species and its prey, and the creek doesn't provide a likely connectivity to suitable habitat. Thus, although the project site may provide movement habitat, there would be no measurable impacts to lynx habitat from rehabilitation activities or meaningful improvements once vegetation conditions improve.

For these reasons, project activities under the proposed action would have no impact on the Canada lynx. The no action alternative would have no impact on the Canada lynx since no vegetation clearing in lynx habitat would occur.

Cumulative effects of the Proposed Action

Cumulative Effects to the Canada lynx

The project area is entirely within White River National Forest and is surrounded by National Forest Service Land. No additional State or private activities and/or effects to the Canada lynx are foreseeable in the project vicinity during the period of implementation. The limited scope and scale of the alternatives restricts potential effects such that other ongoing federal activities which may affect lynx do not contribute to those of the proposed action. This project would contribute negligible cumulative effects to lynx across the planning area.

Forest Service Sensitive Species

Bighorn sheep occupy the southwest facing slopes of the valley during winter and uses the montane slopes near tree line during summer and fall for rearing young and foraging. The closest mapped habitat is winter range 0.3mi north of the construction site. The area of construction and slopes above the construction site are comprised of dense oakbrush with no cliffs or rock outcrops that provide escape terrain. Bighorn sheep

avoid areas greater than about 200 yards from escape terrain and tend to avoid densely vegetated areas because they are unable to run from predators. The rehabilitation zone is non-habitat for the species.

Elimination of four acres of oak brush and understory grass vegetation for the construction of new campground facilities would have no impact on bighorn sheep. Since the species is unlikely to range too far from escape terrain, this area is not effective habitat and the proposed action would not impact its habitat. The intent of the 5.42 guideline for maintaining species' habitat conditions would be met.

Since a design measure limits ground disturbance or vegetation clearing for new campground facilities from December 1 to April 14, there would be no disturbance from vehicle traffic traveling through winter range during this period to access the site. Activities outside the winter period would have no influence on the species since bighorn sheep are at higher elevations during summer and early fall. The intent of the 5.42 standard for over-snow vehicle restriction would be met.

Any Lewis' woodpeckers or hoary bats that inhabit the riparian cottonwoods in the rehabilitation area would need to be considered when planning these activities. The alternatives do not call for further felling of hazardous trees, but it's possible that more trees may become hazards during rehabilitation or construction periods. Or it's possible that trees at the site could be used for in-stream wood replacement. Implementing rehabilitation under either alternative with the design criteria of vegetation clearing outside May 15 to June 21 allows for some bat roosting, bird nesting, and fledging. Further, delaying any felling of cottonwood trees occupied by the species until they leave would ensure individuals are not crushed or killed.

Any loss of cottonwood trees and snags in such a small area would be immeasurable over the area of a home range used by individuals. Understory vegetation will be restored, helping to improve prey cover and foraging potential. Since most vegetation within the rehabilitation area will remain, there will be no measurable impacts to evaluated species' prey base, potential foraging habitat, or availability of roosts, perches, and nests.

Cumulative Impacts to Forest Service Sensitive Species

The scope of cumulative effects are addressed over the life of the 2002 Forest Plan (Forest Service 2002a) and are limited to the landscape surrounding the project site for the Lewis' woodpecker, bighorn sheep, and hoary bat. Under the proposed action, a small amount of upland oak brush and meadow will be permanently lost that does not provide effective bighorn sheep habitat and under the no action alternative, no upland vegetation would be lost. Recently, 120 acres of oak brush in Avalanche Creek Valley was masticated to improve winter habitat conditions for bighorn sheep. Some 400 acres of additional habitat improvements for sheep in the area are planned in the foreseeable future. Thus, at minimum, campground development doesn't contribute cumulative impacts towards these species and for bighorn sheep; Forest Service actions are underway to improve habitat conditions surrounding the project site.

Rehabilitation of the old campground would improve an incremental amount of spruce/cottonwood riparian habitat over the long term. No private land is present and there are no foreseeable federal actions that impact riparian habitat in the area of influence. Any additional future development of bottomland cottonwood vegetation on private land along the Crystal River would be far enough away to be outside the area of influence for evaluated species.

Canada lynx

Since the proposed action would not contribute to habitat loss or degradation, there would be no measurable direct or indirect effects to the Canada lynx. The proposed action would contribute no cumulative effects to

on-going activities in the planning area. Therefore, the proposed action would have **NO EFFECT** on the Canada lynx. The project is consistent with objectives, standards, and guidelines for lynx under the SRLA.

Forest Service Sensitive Species

Determinations and their rationale are summarized in Table 4 and detailed below.

Table 2. Summary of determination of impact and rationale for Forest Service sensitive species under the proposed management action.		
Species	Impact Determination	Rationale
BIRDS		
Lewis' woodpecker	<i>NI</i>	Habitat not affected, no individuals would be displaced
MAMMALS		
Bighorn sheep	<i>NI</i>	Habitat not affected, no individuals would be displaced
No Impact - (NI) May Impact – (MI) May Impact Individuals, but is not likely to cause a trend towards Federal listing or result in loss of viability in the planning area Beneficial Impact – (BI) Likely Impact – (LI) Likely to result in a trend towards federal listing or loss of viability in the planning area.		

D. SOILS AND GEOLOGIC RESOURCES

Current Condition

The project area lies within the Crystal River Valley and is comprised of a complex mix of igneous, metamorphic, and sedimentary rock outcrops that have weathered to produce soils reflective of the myriad geologic parent materials of the watershed (Tweto, 1983). Figures detailing soil and geologic mapping of the project area can be found in the Appendix to the Soils Specialist Report. Soils of the existing campground and trailhead area are a heterogeneous mix of alluvial (river), colluvial (hillside), and mixed (alluvial/colluvial) deposits. These have developed dark, organic-rich horizons comprised of plant litter in various stages of decomposition (Oi, Oe, and Oa horizons, in soil horizon nomenclature). Conversely, the area of the new proposed campground is underlain by deep, relatively rock-free soils that formed primarily from medium-sediment sized (silts and clays) derived from outcrops of the Permian/Pennsylvanian-aged Maroon Formation and Eagle Valley Evaporite.

No Action Alternative

DIRECT/INDIRECT EFFECTS

Under the no-action alternative, three campsites would remain open under management of the USFS rather than a concessionaire-based operation. While hazard tree removal within the riparian zone would likely continue, so too would the non-managed use of already impacted riparian zones that would not be closed off for restoration. Relocation of remaining campsites to a more suitable upland site (from both a safety and watershed impacts standpoint) would not occur, and less overall protection to soil resources would be in place.

Proposed Action

DIRECT/INDIRECT EFFECTS

This analysis largely focuses on the construction of new campsites in an adjacent upland meadow and the concurrent decrease in use along this section of Avalanche Creek. Soil excavations were completed in the summer of 2011 within the proposed campground area for the purposes of another project (Aspen-Sopris Wildlife Habitat Improvement Project); soil pits in the vicinity of the proposed campsite revealed several properties favorable for campground development. These soils were deep, well-drained, and with a thin topsoil (A) horizon. No evidence of soil/geologic collapse or instability features were noted in the proposed new campground area; no signs of gypsum or carbonate collapse (sinkhole, karst) nor geologic instability (tension cracks, geologic faults, steep slopes). Campsites in this vicinity would be less prone to flooding and/or ponding of water following seasonal hydrologic events (i.e. spring snowmelt, summer monsoons). The medium-textured soils of the upland camp sites are likely to resist compaction from the expected moderate amounts of foot traffic that would be associated with the new walk-in campsites. Construction of these campsites and the ingress/egress to them could be accomplished with minimal earthwork and grading disturbances, all of which would be more than offset if rehabilitation (soil enhancements, tree planting, native seeding) of the former campground were to occur.

Design plans for the proposed action call for the following:

Campground Construction

- 1) Avoid ground disturbing activities during periods of excess soil moisture to avoid rutting/displacement of soil.
- 2) Stockpile any graded topsoil from new tent/campsite construction or associated access routes to reuse for former campsite rehabilitation.
- 3) Do not site campsites on/near locations within the upland meadow that show signs of current run-in moisture, erosion, or landscape instability (tension cracks, potential collapse).

Former Campground Rehabilitation

- 1) Soil and soil amendments shall be free of weed seed and may be subjected to weed viability testing, as deemed necessary by project resource specialists. Weed monitoring and treatment will occur subsequent to project implementation.
- 2) Weed treatment, contracted or otherwise, may be necessary pending vegetation monitoring of rehabilitated riparian areas.
- 3) Soil and soil amendments shall pass relevant vector attraction and pathogen reduction standards set forth in the United State Environmental Protection Agency's 503 Biosolids regulations and may be subjected to laboratory analyses for these parameters.

Cumulative effects

The development of a campground within this riparian corridor of Avalanche Creek has resulted in some loss of soil organic matter and sediment from concentrated human use of the area. Soil is a very slowly renewable resource as estimations for rates of soil formation range from .0056 cm to .00078 cm a year (Alexander, 2006). Globally, rates of soil formation are not keeping pace with erosion, leading to widespread soil loss that is due in part to past mining activities (Wakatsuki and Rasyidin, 1992). In this sense, erosion and loss of soil organic matter in campground and recreation areas is an irreversible and irretrievable commitment of resources.

Forest Plan Consistency

No-Action Alternative

Selection of the No-Action Alternative would be less likely to meet soils-based protections detailed in the proceeding section of this report as loss of soil organic matter and stream health impacts would be more likely to continue. As the No Action alternative largely maintains the status quo of current management, but with even less of a presence of personnel to monitor recreation use. Riparian restoration would be harder to conduct with continued camping and recreation focused in the riparian rather than upland campsites that are proposed under the Preferred Alternative.

Proposed Action/Preferred Alternative

Soil Resources

Soil resource projections are found in the 2002 White River National Forest Land Resource Management Plan (LRMP; amended in 2005), which in large part draws from Forest Service Handbook 2509.25, the Watershed Conservation Practices Handbook (WCPH). The following section details how the Proposed Action alternative would meet resource protections afforded by the LRMP and WCPH.

WCPH Management Measures 1 and 2: Manage land treatments to conserve site moisture and to protect long-term stream health from damage by increased runoff and Manage land treatments to maintain enough organic ground cover in each activity area to prevent harmful increased runoff.

The proposed action would meet the spirit of these measures by increasing the amount of soil and vegetative cover relative to the bare ground/rock cover that is currently on site. Soil, particularly when augmented with carbon and organic rich amendments such as compost and biochar, can hold significantly more site moisture than the compacted mineral soil that is currently found at the exiting campground.

WCPH Management Measures 6 and 14: Maintain long-term ground cover, soil structure, water budgets, and flow patterns of wetlands to sustain their ecological function and Maintain or improve long-term levels of organic matter and nutrients on all lands.

Additions of carbonaceous soil amendments to this material would meet the objectives covered in WCPH management measures 6 and 14. The rehabilitation of a campground sited along a riparian corridor and its subsequent relocation to an upland meadow would serve to improve long-term ground cover, soil structure, and levels of soil organic matter/nutrients within the project area boundary.

E. HERITAGE

Direct and Indirect Effects of the Proposed Action

Environmental Consequences-Direct, Indirect, and Cumulative Effects

Environmental Consequences

Ground-disturbing activities involved in the relocation of campsites and road work can directly bury, damage, or obliterate a cultural site. The following are the direct and indirect effects of implementing the alternatives as described in the Environmental Analysis on cultural resources within the Avalanche Campground analysis area. Significant direct, indirect, or cumulative effects to cultural resources are not anticipated by the implementation of either of the Alternatives.

Alternative 1 – No Action

Alternative 1, the No Action alternative, would potentially have a lower impact on cultural resources because there would be less potential for disturbance to these resources that might exist in the area.

Alternative 2 – Proposed Action – Relocating Avalanche Campground Sites

Alternative 2 proposes the relocation of the campground sites and creation of a new access road. This alternative would potentially have greater effect on cultural resources than Alternative 1. Ground-disturbing activities such as the creation of new camp sites and road construction can directly bury, damage, or obliterate a cultural site. While no NRHP eligible cultural resources were identified in the project area, there is always the potential to damage undocumented or undiscovered sites. Surveys have been completed in the areas of potential effect, including access routes. The potential for undiscovered cultural resources is low. However, if a site is discovered during the project, the Forest Service will stop work in the area of the discovery until a Forest Service archaeologist can evaluate the site, and, if necessary, implement protective measures. In the unlikely event that cultural resources are uncovered during implementation, these can be protected by such measures as re-routing roads or campsite locations, covering potentially affected portions of sites with layers of protective material, and avoidance. However, avoidance and protection may reduce, but not eliminate impacts. Increased access and use may continue to erode, damage, or destroy sites.

F. RANGE and NOXIOUS WEEDS

Range Resource

The project area is not within an active grazing allotment. The area is closed during the winter to public access and therefore should have no impact on the Rangeland Resource.

Noxious Weed Risk Assessment

Weed infestations occur along the road right of way from Highway 133 all the way to the existing campground and parking lot sites. Infestation of noxious weeds in these areas include **Diffuse knapweed** *Centaurea diffusa*, **Spotted knapweed** *Centaurea maculosa*, **Absinth wormwood** *Artemisia absinthium*, **Houndstongue** *Cynoglossum officinale*, **Oxeye daisy** *Chrysanthemum leucanthemum*, **Musk thistle** *Carduus nutans*, **Canada thistle** *Cirsium arvense*, **Whitetop** *Cardaria draba*, **Common tansy** *Tanacetum vulgare* and **Common mullein** *Verbascum thapsus*. The primary concerns are the populations of Diffuse knapweed and Spotted knapweed that occur mainly in the area of the new campsite and right of way locations. While populations have continued to decrease over the past 5 years, due to intensive treatment efforts, work to prevent infestations will continue into the foreseeable future and I don't expect this to be an issue moving forward with the Avalanche campground relocation if design criteria are met.

Design Criteria

Pre-Treatment

Weeds in the project area shall be treated with the use of herbicides prior to work activities involving the use of heavy machinery or those that involve the disruption of soils.

Equipment Cleaning

Prior to moving on to National Forest Lands, all off-road equipment shall be free of soil, seeds, vegetative matter, or other debris that could contain or hold noxious weed seeds. "Off-road equipment" includes all construction machinery or off highway vehicles, except for trucks, service vehicles, water trucks, pickup trucks, cars, and similar vehicles. The project administrator will inspect the equipment prior to entrance onto the Forest to see that it is free of debris.

Construction Materials

All road base and gravel materials used in the construction of roadways, walking paths, parking areas or campsites shall be certified as weed free.

Re-vegetation

All disturbed ground will be re-vegetated with desirable plant species. Utilize seed mix approved by the Forest Botanist and certified to be free of weed species. Seed mixes that incorporate native plant species similar to those within the project area are desirable. Any mulch used in re-vegetation efforts must be certified to be free of weed species. It is desirable and encouraged to use a weed-free compost/biochar application to those areas that have been depleted of organic matter to improve restoration results. Examples for those types of applications areas include decommissioned roadways, campsites and parking lots.

Post-Treatment

Post treatment will involve the use of herbicides as well as the mechanical pulling of plant species that have already gone to seed. This will help to ensure that as few seeds as possible are transferred to bare soil sites.

Monitoring

Monitor project area for 3 years after completion for presence of invasive plants and successful establishment of desirable vegetation. Re-treat invasive plants as needed.

Management for Noxious Weeds: Construction activities may introduce new or spread existing noxious weeds. Re-vegetate existing campground with only native plants. Design criteria: clean equipment standards, re-vegetation plan, pre and post treatment of existing populations, weed free gravel. Details will be included in the restoration plan for this project.

G. SCENERY

SCOPE OF ANALYSIS

This analysis encompasses the geographic area of the Avalanche Campground and the surrounding viewshed including the surrounding area that would be visually impacted by the proposed facility modifications, upgrades and additions to the existing Avalanche Campground facility. Avalanche Campground is located in a highly scenic corridor in the Avalanche Creek drainage at the end of the Avalanche Creek Road (FDR 310). The trailhead for the Avalanche Creek Trail (FDT 1969) is also currently located near the campground. The main travel route to the project area is Highway 133 (West Elk Scenic Byway) to Avalanche Creek Road (FDR 310). These roads are Concern Level 1 travel routes. West Elk Scenic Byway (Highway 133) and the Crystal River (Wild and Scenic Outstanding Remarkable Values) are located at the intersection with the Avalanche Creek Road. The Maroon Bells-Snowmass Wilderness Area is located within the view shed. This is a heavily used recreation corridor for dispersed and developed recreation and for motorized and non-motorized recreation activities. Analysis of each alternative will be

based on impacts to Scenery Resources and whether each alternative meets the Forest Plan Scenic Integrity Objectives for the project area.

AFFECTED ENVIRONMENT

The Avalanche Campground is located within the Lower Roaring Fork Valley (M331Hj) Ecological Subsection as described in the Landscape Character Descriptions of the White River National Forest contained in Appendix P of the April 2002 Forest Plan Final EIS (Pages P1-44). The project analysis area exists within the Lower Roaring Fork Valley Ecological Subsection listed above. This subsection is located in the central portion of the White River National Forest. The subsection is adjacent and surrounded by some of the most spectacular scenery of the Rocky Mountains. The terrain is composed of an alluvial valley flanked with terraces and structural benches along the Roaring Fork and Crystal Rivers. Alluvial plains and fans are common landform features influenced by glacial processes, further altered by active stream cutting. Elevation of the subsection ranges from 5,900 to 6,500 feet with precipitation ranging from 15 to 18+ inches annually. A complex of montane uplands and riparian zones support cottonwood, Colorado blue spruce, and tall willows along main river courses. Uplands composed of Douglas fir, Pinyon pine, juniper, Gambel oak, serviceberry, and sagebrush. Distinctive landforms include Mount Sopris, West Elk Scenic Byway, McClure Pass, Avalanche Creek Drainage, and Crystal River Valley. The Maroon Bells-Snowmass Wilderness Area comprises a large area just east of this subsection. Water features include the Crystal River and Avalanche Creek. The Crystal River has a few hot springs that influence recreational use of the area, as well as the fish habitat of the stream. Changes to the landscape have occurred from historic coal and marble mining operations. Ranching and livestock grazing have also altered the landscape character. The lifestyle of the area ranges from rural ranching to urban. The economy is driven by service industries, primarily tourism and recreation services. Man-made elements range from residential in rural and suburban settings to dense rural development. The communities of Carbondale and Redstone are located within 20 miles of the project area. The main travel route to the project area is Highway 133 (West Elk Scenic Byway) to Avalanche Creek Road (FDR 310). These roads are Concern Level 1 travel routes.

Most views to the site will be from the Foreground perspective (areas viewed within ½ mile from the viewer) due to the limited visibility of the campground from any long distant views, unless viewed from above the valley floor where the campground is located.

Avalanche Campground is located in *MA 5.42 Bighorn Sheep Habitat (page 3-60)* – These areas are managed to provide habitat for established bighorn sheep herds on the forest. *Scenery is managed to provide a range of scenic integrity objectives from moderate to high.* Summer ROS is Roaded Natural and Winter ROS SPNM. The Scenic Integrity Objective for this area is High.

DIRECT AND INDIRECT ENVIRONMENTAL CONSEQUENCES

Alternative 1 – No Action

Under this alternative, the eight sites that have been closed to overnight use would remain closed. The large decadent trees would not be removed to maintain the High Scenic Integrity of the site. The one lane gravel road in the campground loop would remain closed to the public and opportunities for camping overnight would not continue. There would be no rehabilitation of closed campsites. The trailhead would remain open for day use and hiking access. The three campsites outside the tree hazard area would remain open and in their current condition and only provide limited camping opportunities unless determined not feasible with limited FS resources. These three campsites would not be improved and would continue to not meet accessibility requirements.

Current management activities in the surrounding area and the interaction between natural processes, wildlife, and human impacts would continue under a no action alternative. Human impacts and wildlife would continue to affect the area by continued recreation use and minor air pollution. General human uses

in the area such as motorized activities, dispersed and developed recreation, wildlife viewing, and scenic viewing would continue. Scenic quality in the surrounding area would remain in its current condition and scenic character would change, declining in the long-term from natural processes, wildlife, and human impacts and without the existing campground decommissioning and rehabilitation being completed.

Alternative 2 – Proposed Action

This alternative would provide a relocated campground loop outside the Hazard Tree area, but adjacent to the current site boundaries of the existing closed campground loop. It would be located within an open meadow with oakbrush utilizing existing openings for the campsites to provide a natural barrier for vegetative screening of the sites. Ten new Level 3 campsites would be constructed to replace the existing sites proposed for decommissioning. Construction of a new one lane road would be necessary to access the sites and would provide a loop connection to FDR 310. Additionally, construction of two horse camping sites with corrals and sufficient parking for horse trailers for day use would be phased in. Additional facilities would include two new day use parking areas (a 6 vehicle and a 16 vehicle), relocation of the existing CXT vault toilet (to serve campers, dayuse, and trail users) currently located by the existing trailhead and reroute of a 0.25 mile section of trail to connect with the new trailhead location. The proposed facilities would be constructed for sustainability and accessibility and to minimize grading and removal of existing vegetation. The Scenic Integrity will be maintained by construction of new facilities which blend sensitively with the site.

The riparian zone of the existing campground will be restored and rehabilitated. Campground amenities such as picnic tables and fire rings will be removed and site spur roads closed off for motorized access. Rehabilitation will be focused on returning the original landscape condition including road obliteration, grading and revegetation, planting and seeding with native seeds and trees. Woody debris will be added into the creek. The decommissioning of the existing closed campground facilities would improve the long-term Scenic Integrity.

CUMULATIVE EFFECTS

Past Actions: The Avalanche Campground Project Area has been managed for wildlife and a variety of recreational activities. Evidence of recreational activities includes two closed developed campgrounds, trails and a trailhead. Previous recreation and wildlife habitat improvement activities are factors, which affect the Existing Scenic Integrity. Other management activities which have occurred within the viewing distance, both inside and outside the project area include road construction, alabaster mine activity, and debris flows. The number of manmade disturbances in this area may have an impact on the visitor experience for the users who visit this area. Evidence of human presence occurs throughout the project area. **Concurrent Actions:** Management activities, which are taking place at the present time, are a continuation of existing use including a variety of year-around recreational activities, wildlife management and mining activity, and debris flows. There are also residential activities occurring throughout the area near the Crystal River on adjacent private lands. **Anticipated Actions:** Wildlife habitat improvement projects, mining operation improvements, year-around recreational and wildlife activities and debris flows would continue. Additionally, residential activities are anticipated to continue throughout the area on adjacent private lands near the Crystal River corridor. Based on the past, concurrent, and anticipated actions discussed above, related to the project area and the alternatives analyzed in detail, the cumulative effects of the activities in the area would not significantly raise the impact to forest scenery if recommended design criteria are implemented.

Table 3. Summary of Environmental Effects by Alternative

	Alternative 1 No Action	Alternative 2 Proposed Action
Botany	No effect	Construction may introduce noxious weeds
Wildlife	The no action alternative would have no impact on the Canada lynx since no vegetation clearing in lynx habitat would occur. The no action alternative would have no impact on Sensitive Species.	Project activities under the proposed action would have no impact on the Canada lynx or Forest Service Sensitive Species.
Scenery	Scenic quality would remain in its current condition and scenic character would change declining in the long-term from natural processes and without the existing campground rehabilitation being completed	Scenic integrity not changed but enhanced by not cutting trees. Improved by decommissioning of existing facilities.
Aquatics	Indirect effects from fisherpersons and hikers will continue to trail along the stream and trample the bank. This activity contributes unmeasurable amounts of sediment into the stream.	There will be no direct effects to aquatic habitats from this activity. Indirect effects will be exposing more soil to erosion with the potential to transport sediment to the stream. This is highly unlikely to occur due to the distance to the stream, implementing appropriate BMP, and following the Watershed Conservation Practices Handbook.
Heritage	Lower impact on cultural resources because there would be less potential for disturbance to these resources that might exist in the area	The potential for undiscovered cultural resources is low. Avoidance and protection may reduce, but not eliminate impacts. Increased access and use may continue to erode, damage, or destroy sites.
Recreation	Campers not satisfied with closure but need to eliminate the dangers for camping. Dispersed camping likely in area if other sites are full. Challenge for safety and security with closure and no CG host presence	Provide opportunities for camping versus displacement of camping

<p>Soils</p>	<p>Selection of the No-Action Alternative would be less likely to meet soils-based protections detailed in the proceeding section of this report as loss of soil organic matter and stream health impacts would be more likely to continue. As the No Action alternative largely maintains the status quo of current management, but with even less of a presence of personnel to monitor recreation use. Riparian restoration would be harder to conduct with continued camping and recreation focused in the riparian rather than upland campsites that are proposed under the Preferred Alternative.</p>	<p>Manage land treatments to conserve site moisture and to protect long-term stream health from damage by increased runoff <u>and</u> Manage land treatments to maintain enough organic ground cover in each activity area to prevent harmful increased runoff. The proposed action would meet the spirit of these measures by increasing the amount of soil and vegetative cover relative to the bare ground/rock cover that is currently on site. Soil, particularly when augmented with carbon and organic rich amendments such as compost and biochar, can hold significantly more site moisture than the compacted mineral soil that is currently found at the exiting campground.</p> <p>Maintain long-term ground cover, soil structure, water budgets, and flow patterns of wetlands to sustain their ecological function <u>and</u> Maintain or improve long-term levels of organic matter and nutrients on all lands. Additions of carbonaceous soil amendments to this material would meet the objectives covered in WCPH management measures 6 and 14. The rehabilitation of a campground sited along a riparian corridor and its subsequent relocation to an upland meadow would serve to improve long-term ground cover, soil structure, and levels of soil organic matter/nutrients within the project area boundary.</p>
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Design Features

MITIGATION MEASURES AND PROJECT DESIGN FEATURES CRITERIA

The following mitigation measures and project design criteria and features have been developed during the planning process for the Avalanche Campground Environmental Assessment and would be applied to Alternative 2, if selected. These elements are necessary to ensure that implementation of the selected alternative complies with laws, policies and the *Forest Plan* standards and guidelines. Their intent is to reduce or minimize environmental impacts related to project implementation.

Mitigation measures and project design criteria pertinent to Alternative 2 are listed below. Mitigation measures address potential impacts by avoiding adverse impacts, minimizing adverse impacts by limiting activities, or rectifying adverse impacts through rehabilitation. Design criteria are specific project design features that would be required. Both mitigation and design criteria are part of Alternative 2- Proposed Action.

These design features are developed to ease some of the potential impacts caused by the proposed action or alternatives. In addition to following applicable standards and guidelines from the Forest Plan as well as management measures and recommendations from Forest Service directives (handbooks, manuals) the following specific design features have been identified by the interdisciplinary team as necessary to minimize environmental impacts that could be caused by the Avalanche Campground Healthy Forest Campsite Relocation Project. The design features would be applied in the preferred alternative.

Table 5. Design Features and Requirements

Avalanche Campground Healthy Forest Campsite Relocation Design Features and Requirements
<p>Clean Equipment Standards Pre and Post treatment of existing weeds Prior to moving on to National Forest Lands, all off-road equipment shall be free of soil, seeds, vegetative matter, or other debris that could contain or hold noxious weed seeds. "Off-road equipment" includes all construction machinery or off highway vehicles, except for trucks, service vehicles, water trucks, pickup trucks, cars, and similar vehicles. The project administrator will inspect the equipment prior to entrance onto the job site.</p>
<p>Pre and Post treatment of existing weeds Weeds in the project area shall be treated with the use of herbicides prior to work activities involving the use of heavy machinery or those that involve the disruption of soils.</p>
<p>All road base and gravel materials used in the construction of roadways, walking paths, parking areas or campsites shall be certified as weed free.</p>
<p>Post treatment will involve the use of herbicides as well as the mechanical pulling of plant species that have already gone to seed. This will help to ensure that as few seeds as possible are transferred to bare soil sites.</p>
<p>All disturbed ground will be re-vegetated with desirable plant species. Utilize seed mix approved by the Forest Botanist and certified to be free of weed species. Seed mixes that incorporate native plant species similar to those within the project area are desirable. Any mulch used in re-vegetation efforts must be certified to be free of weed species. It is desirable and encouraged to use a weed-free compost/biochar application to those areas that have been depleted of organic matter to improve restoration results. Examples for those types of applications areas include decommissioned roadways, campsites and parking lots.</p>
<p>Monitor project area for 3 years after completion for presence of invasive plants and successful</p>

**Avalanche Campground Healthy Forest Campsite Relocation
Design Features and Requirements**

establishment of desirable vegetation. Re-treat invasive plants as needed.
Install bear-resistant food storage containers and bear-resistant trash receptacles. 4) Install bear-proof food storage containers and bear-proof dumpsters in numbers adequate for the campground capacity.
Avoid planting shrubs and other vegetation that produce berries or other bear food.
No ground disturbance or vegetation clearing for new campground facilities from December 1 to April 14, then May 15 to June 21 to protect wintering wildlife and nesting migratory birds.
If individual trees or snags in the restoration area are to be felled, inspect them for occupied nests, cavities, and dens in coordination with a Forest Service Biologist prior to felling. Felling operations may need to be delayed until these structures are no longer occupied to avoid crushing or killing individuals.
Size the entrance kiosk to accommodate bear awareness information.
Design proposed campground loop and spurs to maintain as much existing healthy vegetation as possible, utilizing existing openings and minimizing site grading. Cut and fill slopes on the proposed road and campsites should be flat enough to get full revegetation of slopes: 2 to 1 is minimum slope for good revegetation, 3 to 1 slope is preferred and recommended. Blend disturbance into existing topography to achieve a natural appearance.
Design and manage developed recreation sites according to the ROS class and scenic integrity objectives as mapped.
Follow FS sign direction, minimizing signs where possible and utilize natural-appearing materials where ever possible.
Facilities, structures, and towers with exteriors consisting of galvanized metal or other reflective surfaces will be treated or painted dark non-reflective colors that blend with the forest background to meet an average neutral value of 4.5 or less as measured on the Munsell neutral scale. All structures should comply with the Architectural Guidelines for the Rocky Mountain Province of the BEIG.
All new camping units must meet Accessibility Guidelines http://www.fs.fed.us/recreation/programs/accessibility/
Maintain Avalanche campground as a Recreation facility Development level 3 in the ROS spectrum.
Public outreach and notification would occur prior to construction project activities to raise public awareness. Local agency cooperators and permittees would be notified about the duration of construction and given alternatives for conducting ongoing business operations.
Warning signs and on-site announcements would be used to notify recreation enthusiasts of impending project activities. Vehicular traffic through Avalanche Campground would require operations warning signs, speed limit signs and may include traffic control during the high-use season.
New archaeological sites found or located as a result of project implementation shall require that the activity cease within the area until the Forest Archaeologist evaluates the site and proposes mitigation.

**Avalanche Campground Healthy Forest Campsite Relocation
Design Features and Requirements****Soils and Water**

Watershed conservation practices and *Forest Plan* standards and guidelines prescribe measures to protect or minimize impacts to soil and watershed resources. Practices that address hydrologic function, riparian areas, sediment control, soil productivity and water purity are directly applicable to this project.

Avoid clearing riparian vegetation including; willows, cottonwoods, and conifer vegetation within 100 ft of Avalanche Creek.

DECISION NOTICE and FINDING OF NO SIGNIFICANT IMPACT

1. Context and Intensity

This project is located at a popular and scenic developed recreation area with use within the land and resource capabilities. Visitors, largely, are from the local and regional area. This project is designed to improve visitors' recreation experience, provide quality in a lower level recreation development opportunity and minimize any impacts to the dramatic scenery of the area. No significant effects on local regional or national resources were identified in the EA.

Project design and mitigation measures will keep project impacts below the level of significance. Forest Service representatives will regularly inspect project operations to assure conformance with the terms of the EA, the Forest Plan and appropriate State and Federal laws. Specialists who participated in analysis of this proposal will be involved with design and on-site layout in the campgrounds, picnic areas, trails, and other facilities to assure that design criteria/mitigation requirements described in the EA and included in my decision are met. In addition, the projects are within the scale and with the context of current development and recreation management activities within the Avalanche Campground.

Impacts associated with the project are discussed in the EA and the project record. The impacts are within the range of those identified in the *2002 White River Revised Forest Plan*. Alternative 2 will not have significant impacts on resources identified in the EA. After careful consideration of the EA, the project record, and in documented consultation with resource specialists, it is my finding that the effects of these projects are not significant. My finding that the impacts are not significant is not biased by the beneficial impacts described in the analysis.

2. Public Health and Safety

Proposed activities will not significantly affect public health and safety due to the mitigations/project design included with this decision. One goal of the project is to provide a quality and safe recreation experience for visitors.

3. Unique Characteristics of the Area

The projects for the selected alternative are located within Avalanche Corridor which is adjacent to the Maroon Bells Snowmass Wilderness Area. NRHP eligible cultural resources were identified in the project area. The project will not adversely affect these unique characteristics of this area or ecologically critical areas (wetlands, wildlife habitat, domestic water reservoirs). My determination is based on the discussion of effects found in the EA, and Issues Dismissed from Detailed Analysis (EA pg. 2-16). There are no parklands, prime lands (forest, farm or range), or wild and scenic rivers associated with the project area. By adhering to the project's construction standards and design criteria/mitigations, impacts to watersheds, wetlands, environmentally sensitive or critical areas, cultural resources, and wilderness and roadless areas will not be significant.

4. Controversy

The activities described in my decision do not involve effects on the human environment that are likely to be highly controversial (40 CFR 1508.27). Public comment during scoping and the comment period regarding this project focused primarily on the recreation experience, improving visitor safety, protecting

the visual quality, and protecting wildlife and other natural resources. These concerns were addressed in alternative development and through project design criteria/mitigation. I find the effects on the human environment are not highly uncertain, are unlikely to involve unique or unknown risks and are not likely to be highly controversial and are, therefore, not significant.

5. Uncertainty

The activities described in my decision will not involve effects that are highly uncertain or involve unique or unknown risks (40 CFR 1580.27). Pertinent scientific literature has been reviewed and incorporated into the analysis process and the technical analyses conducted for determinations on the impacts to the resources are supportable with use of accepted techniques, reliable data and professional judgment. Impacts are within limits that are considered thresholds of concern. Issues of public concern and possible environmental effects of the selected alternative have been adequately addressed in the analysis of this decision. Therefore, I conclude that there are no highly uncertain, unique or unknown risks.

6. Precedent

My decision to implement the activities included in Alternative 2 does not establish a precedent for future actions with significant effects or represent a decision in principle about a future consideration. I have made this decision based on the overall consistency of the proposed activities with Forest Plan standards, guidelines and management practices, and the capabilities of the land.

7. Cumulative Impacts

The EA includes all connected, cumulative and similar actions in the scope of the analysis. The cumulative effects of past, present and reasonably foreseeable actions are considered and disclosed in the EA, and there are no significant cumulative effects.

8. Properties On or Eligible for the National Register of Historic Places

There are no archaeological sites, which have been determined to be eligible for the national Register of Historic Places (e.g., historic irrigation ditch and incinerator). Heritage resource specialists based this determination on a literature review of the proposed project and a Class III cultural resources inventory in the project area. Forest Service archaeologists documented a determination of *no historic properties affected* for this project. The State Historic Preservation Officer (SHPO) has concurred on this finding. The clearance letter from SHPO and the cultural resource specialist report are included in the project file. Should an unknown cultural resource site be discovered during project implementation, it will be protected under the requirements of Federal law.

9. Endangered or Threatened Species or Their Critical Habitat

The action will not adversely affect any endangered or threatened species or their critical habitat (Endangered Species Act of 1973). The project area was field checked by the Forest Botanist, Fish Biologist and District Wildlife Biologist. Biological Evaluations for threatened and endangered plants, wildlife, and fish were conducted. Habitat occurs in the area for one threatened wildlife species, Canada lynx, and it was concluded that implementation of Alternative 2 “may affect, but is not likely to adversely affect” the Canada Lynx (EA, pg. 5). There are no endangered or threatened plant species. The Biological Evaluations have been summarized in the EA and the full reports are located in the project file.

10. Legal Requirements for Environmental Protection

The action will not violate Federal, or applicable State and local laws or requirements for the protection of the environment. Applicable laws and regulations were considered in the EA, the Issues Dismissed from Detailed Analysis section and Specifically Required Disclosures section of the EA. The action is consistent with the 1997 Revised Forest Plan as required by the National Forest Management Act.

Implementation Date

The Forest Service plans to embark this project in the fall of 2014 and continue re-construction in the summer of 2015.

Finding of No Significant Impact

The following items are the proposed actions for relocating the Avalanche Campground. These items will be prioritized and implemented as funding becomes available. The project could take several years to complete:

- Relocate existing campground opposite of the 3 existing overflow sites, construct a new loop road for approximately 13 new campsites to replace the ones closed, and harden sites for sustainability
- Decommission the old trailhead parking lot, campsites, and convert the old campground road into a trail to across the trailhead into the Maroon Bells Wilderness Area.
- Cross rip the road and campsites to remove compaction, amending soil, and revegetate the area.
- Relocate a toilet to near the new campsites.
- Improve in stream habitat using large unanchored wood. Dead trees may be hauled in from off site and/or if live trees are used they will come from outside the Watershed Influence Area (WIZ) and will be surveyed for wildlife habitat prior to removal.
- Reconfigure the existing horse trailer parking area into a circular area with 2 or 3 horse camping sites, hitching post, and trailer parking to accommodate this use and for overnight parking for horse trailers traveling into the wilderness.
- Maintain the current well and hand pump for water (fire and/or potable) if this water system passes CO State Standards.

After considering the environmental effects described in the EA, I determined that these actions will not have a significant effect on the quality of the human environment considering the context and intensity of impacts (40 CFR 1508.27). Thus, an environmental impact statement will not be prepared.

I have made this decision after consideration of the environmental analysis of the effects of the two alternatives, Alternative 1 - No Action and Alternative 2 - Proposed Action. My decision meets the requirements of the National Environmental Policy Act (NEPA), responds to the purpose and need for this project described in the EA, and addresses the issues identified during the planning process and comments received from the public during scoping and the public comment period. I have made this decision based on the rationale described below.

I first considered whether the proposed activities would achieve and comply with the *Forest Plan* general direction and standards and guidelines and then looked at the desired conditions and specific standards and guidelines as stated on pp 5-6.

The purpose and need as stated for this project is valid (EA, pp 4-6). It was especially important to me to ensure that the project objectives were met (pp. 3 of this decision document). Therefore, I am not selecting the No Action Alternative (Alternative A), because does not fully meet the purpose and need of this analysis. Maintaining the status quo as Alternative 1 does not in keep with the mission of the Forest Service or in the best interest of the public which recreates and enjoys Avalanche Campground.

IMPLEMENTATION DATE

If no appeals are filed within the 45-day time period, implementation of the decision may occur on, but not before, five (5) business days from the close of the appeal filing period. When appeals are filed, implementation may occur on, but not before, the 15th business day following the date of the last appeal disposition.

CONTACT

For additional information concerning this decision or the Forest Service appeal process, contact: Martha Moran Recreation Staff , at (970) 963-2266.



KAREN SCHROYER
District Ranger

7/23/14

Date

AGENCIES AND PERSONS CONSULTED

FEDERAL, STATE, AND LOCAL AGENCIES

FOREST SERVICE INTERDISCIPLINARY TEAM

- Martha Moran- Recreation Staff
- Mark Lacy- Aquatics Biologist
- Phil Nyland- Wildlife Biologist
- Brittany Landreth- Archaeologist
- Jared Pierce and Donna Graham- Landscape Architect
- Bruce Moss- Forest Engineer Tech
- Terri Beard Forest Engineer Survey Specialist
- Wayne Ives and Ben Carlsen- Range
- John Proctor- Botanist
- Brian McMullen – Soils Scientist

FEDERAL, STATE, AND LOCAL AGENCIES

- Colorado Division of Parks and Wildlife
- Pitkin County Open Space Department
- West Elk Scenic Byway
- Town of Carbondale Colorado Trustees

TRIBES

- Southern Ute Indian Tribe
- Ute Mountain Ute Indian Tribe
- Ute Indian Tribe

OTHERS

- Katie Martinez- Recreation Planner Trainee

OTHERS

SHPO Clearance on Heritage Resources	Colorado State Historical Preservation Office
Consultation on Threatened and Endangered Species with USFWS	US Fish and Wildlife Service
Past and Future management of Avalanche CG	California Land Management dba White River Recreation Company

