West Elk Loop Scenic & Historic Byway Crested Butte to Carbondale Trail Feasibility Study

Final Report

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Newland Project Resources, Inc.

RECREATION PLANNING ✓DEVELOPMENT APPROVALS ✓TRANSPORTATION PLANNING
PROJECT MANAGEMENT ✓ENVIRONMENTAL ANALYSIS ✓ GRANT WRITING

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1. Introduction

The Colorado Scenic and Historic Byway Commission established the West Elk Loop Scenic and Historic Byway (hereinafter the "byway") on July 26, 1991. A volunteer Byway Committee (a steering committee) works with and under the Colorado Scenic and Historic Byway Commission and administers the byway. The Byway Board has recommending authority to the local, state and federal jurisdictions involved. The purpose of the Colorado Scenic and Historic Byway Program is to provide recreational, educational and economic benefits to Coloradans and visitors through designation, interpretation, protection, promotion and infrastructure development of a system of outstanding touring routes in Colorado. Strategies used to perpetuate this purpose include:

- To serve as a resource in the development of both infrastructure and byway management plans;
- To help coordinate the budgeting process and allocation of federal, state and private funds for the purpose of byway improvements;
- To periodically review designated byways with emphasis on the implementation of measures to insure maintenance and enhancement of their scenic, historical, cultural, wildlife, recreational, educational, geological and natural features. Failure to maintain and enhance a byway may result in termination of designation.

The byway is located in the west-central portion of Colorado, and consists of a 204-mile loop comprising some or all of the following travel routes: State Highway 133; Gunnison County Road #12 (Kebler Pass Road); State Highway 135; U.S. Route 50; and State Highway 92. This trail feasibility study focuses on a 70-mile portion of the byway from Crested Butte (elev. 8,909 ft.) to Carbondale. The study corridor crosses through two counties (Pitkin and Gunnison Counties), two National Forests (the Gunnison and the White River), and skirts the boundaries of three designated Wilderness areas (Maroon Bells-Snowmass, Raggeds and West Elk). The study corridor begins at Crested Butte and follows Gunnison County Road #12 west over Kebler Pass for 30 miles to State Highway 133. At Highway 133, the study corridor travels north along the Muddy Creek valley for 18 miles to McClure Pass (elevation 8,763). From McClure Pass, the corridor travels down Highway 133 into the Crystal River valley and north to the convergence with the Roaring Fork River at Carbondale (22 miles).

The environmental conditions along the Byway create several different microclimates, each having its distinct variety of plants and wildlife. The primary driver for this bio-diversification is topography, which ranges from a height of 9,980-feet at Kebler Pass to a low point of 6,170 feet at the Town of Carbondale. An example of the effects of the varying topography can be seen by the degree of precipitation experienced within the study area. Annual precipitation ranges from less than 12-inches in the western, low-lying areas to over 40-inches at high altitude. This translates to over 350-inches of snow per year in the areas around Crested Butte and Kebler Pass.

The corridor provides stunning views of and access to several mountain ranges and predominant peaks, including but not limited to Mount Emmons; the Ruby Range; the Anthracite Range; East and West Beckwith Mountains; Marcellina Mountain; The Raggeds; and the western Elk Mountains, including Mount Sopris. One of

the largest known stands of aspen trees blankets the area surrounding the Raggeds and Gunnison County Road #12, making for spectacular fall colors. Wildlife, including large populations of macro-fauna such as mule deer and elk, is abundant throughout the study area.

An initial report, entitled the West Elk Loop Scenic Byway Crested Butte to Carbondale Trail Feasibility Study, Existing Conditions Report (see Appendix "C"), describes in detail the existing environmental, socioeconomic, and travel infrastructure conditions of the corridor. The information in this existing conditions report was used as a baseline for the development of feasible trail alternatives that are described in Chapter 5.

A trail along the byway corridor was originally proposed by the West Elk Loop Scenic and Historic Byway Corridor Management Plan (CMP) completed in 2000. This document was approved by the Byway Steering Committee after public meetings and review by the counties, communities, and agencies along the Byway through their representation on the Byway Steering Committee. The CMP was produced under contract by EDAW, and using the guidelines recommended by the national byway program. The information below is excerpted from the CMP:

> *Goal: Coordinate design and construction of a non-motorized recreation and transportation trail to accompany the Byway (where the ROW does not accommodate a trail, an off-road trail may be appropriate).*
>
> > *Objective: Investigate the potential to work with outside trail interests and agencies in the region in development of the trail.*

The primary objective of the CMP with respect to Trails is exploration of locational options and documentation of issues for a non-motorized trail to accompany the Byway. Additional objectives have to do with documentation of major considerations in trails planning, and identification of potential resources for its development.

In addition to the CMP, several entities have previously recognized the desirability of a trail along Highway 133. See, e.g. The Crystal River Valley Bicycle Trail Feasibility Study, 1994, Pitkin County Open Space and Trails; The Missing Links, 1996, Club 20 (Crystal Trail important missing link in western Colorado Trail system);

In addition, the Crystal River Master Plan was adopted in 2003 after very extensive public input, including some 72 public meetings in the Crystal River Corridor. The Master Plan contains the following goals:

Transportation

- *Objective: 7.2. Work with the Colorado Department of Transportation to create a paved bike path within the Highway 133 right-of-way and to provide paved shoulders on the Highway.*
- *Objective: 7.3. Support the consideration of new non-motorized trails that provide connections between existing trails both within and outside the Crystal River Valley Planning Area.*
- *Objective 7.4. Work with Pitkin County and Colorado Department of Transportation to pursue, where appropriate, an off road bicycle/pedestrian path paralleling Highway 133.*

Copies of the sections of the CMP and Crystal River Master Plan, including a resident survey of the Crystal River valley, are attached to this study within Exhibit B.

For the last ten years, the Town of Carbondale has been building sections of a bike trail parallel to Highway 133. The sections completed to date are Snowmass Blvd to Weant Blvd (1996-7); Weant Blvd to Main St (1998); Main St to Cowen Dr. (2000); and River Valley Ranch to Hendricks (2004). The Gunnison County Trails Commission has also begun work on a section of the trail from near Crested Butte to the Kebler summit.

The purpose of this study is to explore and determine the feasible options for the design and construction of a non-motorized recreation and transportation trail to accompany the Byway.

The term "feasibility" means an alignment that is physically capable of being put into effect or accomplished and is capable of being successfully utilized. A feasible alignment appears to have no fatal flaws that would prohibit its use based on the preliminary environmental information obtained in the field, through existing or known assessments or studies, and through discussions with authorities or experts knowledgeable of the area. Just because an alignment is feasible does not mean that it will be the preferred alignment. None of the various alignments described in the plan are preferred or favored over another. Alignments shown as crossing private lands rely on the willingness of the landowners as a requisite to be considered.

The ultimate alignment will be determined through careful consideration of the information determined through formal environmental review and public input processes that will occur as a part of a final trail design and approval. Where the trail crosses federal lands a formal environmental analysis process will be conducted. This process will likely be conducted on a section-by-section basis as phases of the trail are implemented (see Chapter 7).

This study represents only the very beginning of a comprehensive design, review and construction process. The next step will be to develop preliminary and final designs for the trail, in coordination with development review and approval by affected local, state and federal agencies. Of course, funding for construction and management of the trail will also need to be secured before any construction can begin. More details regarding the management, construction and funding of the trail can be reviewed in Chapters 8 through 10 of this document.

The Byway trail is seen as one of the critical spokes in the wheel of regional trails that are currently being operated, constructed or planned for in Colorado. When completed, the Byway trail will provide seamless connections with other regional trails on the Western Slope, including the Rio Grande Trail in the Roaring Fork valley; the Glenwood Canyon Trail, the Vail/Eagle County Trail system, the Vail Pass/Summit County Trails system to the east along the I-70 corridor; and the LoVa trail being planned for the west I-70 corridor from Glenwood Springs to Grand Junction. The Missing Links, a special report issued by Club 20 in 1996, cited the segments of the Byway trail as critical missing links to a state-wide trail system in the US 50 Region and the I-70 Region. Included as Appendix "D" is a regional map showing the planned and existing trails in the region that can be connected with the Byway trail upon completion.

Regional trails are seen as important community amenities that can provide significant economic benefits to the communities they pass through. In addition, trail easement can also provide the following benefits to adjacent landowners:

- Private landowners become immune from liability for trail use.
- Many realtors believe that proximity to regional trails has a positive impact on the value and salability of residential property (Alexander, Leslee T. (1995) *The effects of greenways on property values and public safety*, Colorado State Trails Program; The Value of Trails, American Hiking Society, www.americanhiking.org
- Regional Trails offer a clean stimulus to the local economy. A 1994 Study by the National Park Service concluded that the users of regional bicycle trails spend an average of $10 per day in the communities they pass through. (*The Impacts of Rail-Trails, a Study of Users and Nearby Property Owners from Three Trails*, National Park Service, 1992. www.nps.gov/rtca See also: The Economic Impacts and Uses of Long-Distance Trails: A Case Study of the Overmountain Victory National Historic Trail Roger Moore, PHD, National Park

Service 1998; The Value of Trails, American Hiking Society, www.americanhiking.org)

- The donation of a qualifying conservation easement, which may include a public trail, is eligible for significant federal and state tax benefits. For more information, contact your local land trust or open space program (Aspen Valley Land Trust, Gunnison Ranch Land Legacy, Black Canyon Regional Land Trust, Crested Butte Land Trust).

2. Character of Corridor

The study area is made up of four separate river/creek drainages: the Coal Creek drainage, covering the area from Crested Butte to Kebler Pass; the Anthracite Creek drainage from Kebler Pass to Paonia Reservoir; the Muddy Creek drainage, covering the areas from Paonia Reservoir to McClure Pass; and the Crystal River drainage from McClure Pass to Carbondale. All of these drainages contain land uses that can be characterized as rural and/or remote, with a majority of the lands being made up of large or low-density private holdings or federal lands held by the United States Forest Service or the Bureau of Land Management.

Exploration of the area by people of European origin first began in the 1700's by Spanish missionaries. This exploration was continued in the "mountain man" era of the 1820s and 1830s, with fur traders traveling throughout western Colorado in search of beavers and other animals. With the advent of the gold and silver rush, the 1870s brought the mining boom into the lands within the White River and Gunnison National Forests evidenced by the establishment of Aspen in 1879 and Crested Butte in 1880. Many other mining camps were also built in the valleys and drainages near Aspen and Crested Butte, including Redstone and Marble in the Crystal River valley and Irwin near Kebler Pass. Miners from Crested Butte also discovered the coalmines of Somerset and Bowie in the Muddy Creek drainage. The mining era brought a steady stream of farmers and ranchers, who by the mid-1880s forced the government to relocate the native Indian tribes from their homeland and from the forest. During the settlement period that followed, ranchers introduced thousands of head of cattle and sheep into the rangelands. Hunting of deer and elk for their market value also led to the near-extirpation of these species from the forest by around 1910.

Depletion of the wildlife, timber and range resources prompted the designation of the National Forest Reserves in the early 1900s. Livestock grazing continued as the main use of the forests for several decades, but severe overgrazing in the 1930s led federal managers to significantly reduce permitted livestock numbers. This period also saw the introduction of protection strategies for deer and elk to restore their numbers. The U.S. Army's construction of its Camp Hale facilities along the nearby Eagle River, where 16,000 10th Mountain Division troops were trained during World War II, played a major role in the area's future. After the war, some of the veterans returned to establish downhill ski areas that today are a significant source of the forest's recreation use. The Aspen ski areas were first established in the 1940s and 1950s and Crested Butte Ski Area opened in 1961. In 1964, the Wilderness Act led to designation of large portions of the National Forests surrounding the study area as wilderness, making them popular destinations for hikers

and campers. In 1933, a 12-mile stretch of the Black Canyon of the Gunnison was designated a National Monument (re-designated as a National Park in 1999).

The communities of Aspen and Crested Butte, along with the private lands influenced by them, have experienced some of Colorado's highest growth rates in recent years. In the 1990s, these ski area communities evolved into "four-season" resorts that began to attract visitors throughout the year. This change has greatly boosted employment in tourism and commercial sectors of local economies and has led to population growth. This urbanization has posed new problems for the area and the surrounding federal lands. Development of private lands and the increased number of visitors have led to the following:

- Reducing the traditional points of access to federal lands;
- Reduced or restricted wildlife habitat;
- Increased risk to human safety (wildfire);
- Increased demand that visitors place on national forest resources and in particular, trail and other recreation sites.

For an excellent source of further historic information, as well as a detailed guide to the Byway, please refer to the book, Elk Mountains Odyssey, written by Paul Anderson and Ken Johnson, funded in part by the Colorado Historical Society.

Project Coordination

Project coordination was conducted primarily through the Gunnison County Director of Public Works and the Pitkin County Trails and Open Space Director. In addition there were several chances to review project progress with the West Elk Loop Scenic Byway Trails subcommittee. The feasibility study process also included close coordination with existing land use, recreation and trail plans, and with local governments, state and federal government departments (such as the White River National Forest, Gunnison National Forest, and the Colorado Division of Wildlife), trail, open space and recreation groups. Collaboration with Gunnison and Pitkin County Geographic Information System (GIS) staff produced the base maps and feasible trail alignment maps included within this plan.

After showing the feasible trail options to citizen groups, elected officials, adjacent landowners and staff from federal agencies, it became apparent that there are three spheres of influence at work within the trail corridor:

Crystal River Sphere of Influence: The Crystal River valley, which is located within Pitkin and Gunnison Counties, appreciates the trail primarily for the recreational and safety values it will provide. The trail's potential positive effect on the local tourist economy is also recognized. Because of the narrow, winding nature of the valley's arterial roadway, State Highway 133, the consensus is that a paved, separate trail is most desired between Carbondale and Redstone. The Pitkin County Open Space and Trails Program has the financial ability to construct and maintain the paved trail through its dedicated property tax mil levy which in 2004 will generate $900,000 per year for trails construction and $330,000 per year for trail and open space maintenance.

Issues of concern in the Crystal River Sphere of Influence include the following:

- The potential impacts of the trail to critical wildlife habitat, especially mountain sheep and elk;
- The potential impacts to adjacent private lands, including the working ranch lands of the lower (northern) end of the valley near Carbondale;
- The desire to maximize the experience of the trail user by keeping the trail away from the highway when possible, providing access to the river, and providing access to and between the valley's population centers and tourist attractions;
- Potential impacts to other environmental attributes, such as the river fringe and the viewsheds, must also be carefully considered.
- The White River National Forest does not have the capacity or resources to maintain, administer or operate the

Byway trail. Therefore, funding for management of the trail must come entirely from sources outside the Forest Service.

Muddy Creek Sphere of Influence: The Muddy Creek Valley is defined as that area between McClure Pass and Kebler Pass and generally contains the area within the boundaries of the Paonia Ranger District of the Gunnison National Forest. Although the potential attributes of the corridor trail are understood by those who live, work and recreate within this area, there are currently several existing trails and access points to national forest lands that provide recreational opportunities for forest users. In addition, ranching is an integral part of the area, with large tracts of private ranch lands abutting and permitted to utilize adjacent public lands for open range and grazing of livestock. Motorized use, primarily in the form of off–road vehicles such as All Terrain Vehicles (ATVs), dirt motorbikes, and jeeps is also abundant and recognized as an approved but regulated use in the forest. This motorized use is particularly heavy during hunting season, which brings in many forest users, both local and non-local, during the fall and early winter months. In the winter, snowmobile use on the Kebler Pass Road (Gunnison County Road #12) is very popular, as the county does not plow the road.

Issues of concern in the Muddy Creek sphere of influence include the following:

- The cost of constructing the trail. Unlike the Crystal River valley, no local funding mechanism for trail construction currently exists;
- The impact of the trail on ranching operations and the impact of ranching operations on the trail. The fear is that these uses can become incompatible with each other.
- Possible negative impacts to accommodating a dispersed recreational experience in the Paonia Ranger District of the Gunnison National Forest.
- The Gunnison National Forest, where a majority of the trail alignments are proposed, does not have the capacity or resources to maintain, administer or operate such a trail. Therefore, funding and management of the trail must come entirely from sources outside the Forest Service. Permitting such a use of Forest lands would also need to be negotiated and fully understood before the trail is constructed.
- Motorized/Non-motorized trail use will be a potential conflict, and the challenge will be to either keep motorized traffic off of the trail or to provide for shared use in a safe manner.
- The potential impacts of the trail to wildlife habitat where the trail alignment does not parallel the road.
- Potential impacts to the environmental attributes of the area must be considered and mitigated, likely through an environmental analysis. A critical aspect of this process will be the acknowledgement of the purpose and need for the trail, especially over other competing trail proposals such as the American Discovery Trail, a national trail system that runs from San Francisco to Washington D.C. This trail utilizes another passage through the Gunnison National Forest via Schofield Pass (see Appendix B).
- The geology of the Muddy Creek valley is very dynamic and potential impacts on the placement and cost of a trail in this area must be carefully assessed and mitigated.
- Oil and gas extraction is becoming an increasing part of the economic and visual landscape and must be accounted for when determining appropriate trail alignments.

Crested Butte Sphere of Influence: Crested Butte is located on the southeast end of the corridor and is fast becoming a 4-season tourist resort, primarily due to its position as a gateway community to the Kebler Pass area and the Gunnison National Forest. The community strongly supports the development of low-impact recreational activities, including mountain biking, wilderness hiking, cross-country and backcountry skiing. In addition, motorized recreational activities such as motorcycle, ATV, jeep and snowmobile use access the Forest from Crested Butte. Although not

well funded like their counterparts in the Crystal River valley, the Gunnison County Trails Commission has initiated construction on the east end of the trail near Crested Butte.

Issues of concern in the Crested Butte sphere of influence include the following:

- The placement of a trail that is removed from County Road #12 is an important safety and quality of experience issue. The roughly 2-miles between the west end of Crested Butte and the existing trail on the old wagon road present a formidable challenge to this goal.
- Environmental issues, including geological constraints and wildlife habitat, must be carefully analyzed and mitigated.
- Potential conflict between uses, in particular snowmobile/cross-country ski use in the winter, and equestrian/ mountain bike use in the summer, is an issue that may need to be resolved.
- Although a strong local volunteer ethic and solid support by Gunnison County exists for further construction of the trail, funding is a missing link that will need to be addressed.
- There are some environmentally sensitive and potentially historically significant areas along the byway corridor that need special consideration when determining appropriate trail alignments, including the bogs west of the Keystone Mine and the Kebler Pass Cemetery.

3. Trail Feasibility Plan Development

Trails Programming & Design Principles

A project program defines the individual components of the overall system. A program may be described in a variety of formats ranging from a simple list of components to a more generalized, broad set of guidelines, goals or principles that are utilized in the decision-making process to shape and steer project implementation. Design goals establish parameters for the physical design of the trail components.

Programming for the Crested Butte-to-Carbondale trail was developed in the planning process in conjunction with the trails sub-committee and the Byway Corridor Management Plan. Program elements include information, ideas and input from the existing studies within the corridor and include local, regional and national sources and standards. Specific to the Byway corridor, program goals, principles and design elements have been summarized from the Byway Corridor Management Plan, start-up meeting, review workshops, other public meetings, project research and field investigations.

The main components of this plan involve recreation, preservation, interpretation and environmental education. Recreation objectives include the alignment and design of a multiple-use, non-motorized trail and ancillary facilities for both hard-surface and soft-surface activities including biking, hiking, equestrian and other trail uses. The recreation component also includes access to the river/creek and to public lands. The preservation element seeks to maintain the natural resource to the fullest extent possible for wildlife, residents, visitors, and for the overall health and value of the natural system. Knowledgeable trail design and management of the trail is key to resource protection. The interpretive/educational components will provide experiences designed to help give meaning to the landscape and to contribute to the trail users' understanding of the cultural and natural elements of the environment over which the trail travels.

The Crested Butte to Carbondale trail will function on several levels. On the corridor-wide level the trail will provide a continuous connection from Crested Butte to Carbondale (a distance of 72-miles) and all areas in between, including trailheads and locations such as Horse Ranch Park, Lost Lake, Erickson Springs, Paonia Reservoir, McClure Pass, Placita, Redstone, and Avalanche Creek. The main trail will also provide access to spur trails and points of interest such as river access or scenic overlooks. Individual trail segments will also serve as discrete segments connecting local

destinations, and as a part of the larger trail system. Trail users can spend several hours or several days enjoying different parts and features of the scenic and historic byway corridor via the trail. The program elements categorized below include principles, goals, objectives and specific recommendations for trail planning, future design and implementation of the trail system:

General

- Improve the quality of life for residents and the quality of experience for visitors through development of the corridor that meets expressed community transportation and recreation needs.
- Plan for a continuous trail throughout this section of the scenic and historic byway corridor.
- The feasible trail alignments determined (both paved-surface and soft-surface) shall be restricted to the scenic byway corridor.
- Recreation, education and interpretation opportunities will be maximized.
- A chief goal is to develop a trail system that provides a quality experience for both local and visiting users, and results in economic benefits to the corridor.
- Impact to adjacent landowners must be minimized to the greatest extent possible without compromising the trail user experience.
- Take advantage of existing corridor resources including access points, road grades, trail connections and river/creek access.
- Plan for the future or ultimate development of appropriate support facilities such as trailheads, water stations, restrooms, picnic shelters, etc.
- Consider implementation costs.

Trail Design

- The trail design will provide an accessible (or at least barrier-free) experience for the physically challenged whenever possible.
- The trail surface shall be soft (i.e. crusher-fines) and narrow between Crested Butte and Redstone. The trail surface shall be hard (asphalt) and wide from Redstone to Carbondale.
- The trail shall be managed as a "three-season" facility – that is to say, the trail will be open for use between spring thaw and winter freeze.
- Identify areas appropriate for equestrian use (i.e. the paved section and/or sections adjacent to roads may not be appropriate for equestrian use).
- Maximize, to the greatest extent possible, separation between the trail and the roads it follows. Use alternative grades, vegetation, and ditches for separation and to improve user experience.
- Provide access to soft-surface trails (existing or new) to access natural areas, the river, and public lands where appropriate.
- Utilize a common theme in the design of all trail amenities and structures. Design and materials should complement the natural environment.
- Incorporate natural, salvaged and recycled materials as available and appropriate in the design of the trail improvements.
- Low maintenance and vandal resistance shall be design considerations.

Trail Use

- Provide for a wide variety of high-quality, non-motorized, passive and active recreational experiences and opportunities. To this end, trail design shall accommodate hiking, running, biking, rollerblading (on hard surface), equestrian and disabled users. Other potential uses on some or all of the trail segments include picnicking, wildlife viewing, Nordic skiing where winter use is appropriate, photography, river, environmental education/interpretation, and public land access. Local areas along the trail may decide independently with respect to rollerbladers, equestrians and other uses within developed, remote or other areas.
- The plan shall accommodate specific design requirements and constraints of programmed uses.
- Any guided, outfitted and/or commercial use of the trail required permitting and approval through

appropriate local and/or federal procedures.

Linkage

- Provide for convenient, direct access and use by visitors and residents. Identify trail access points considering proximity to residential and educational centers. The trail will provide connections to and between communities and towns and to other resources throughout the byway corridor.
- Identify connections to existing and proposed trails, recreation areas, population and activity centers, roads, the river/creek and public lands.
- The trail shall emphasize a regional recreational concept and experience.

Environmental

- Protect natural qualities including habitat values and the river corridor.
- Minimize environmental impacts from construction of the trail.
- Minimize user impacts to the resource through design, management and education.
- Identify sensitive natural areas and recommend design and management mitigation measures.
- Evaluate alternative trail alignments that provide adequate buffer zones or avoid sensitive habitat.
- Consider mandatory or voluntary seasonal trail closure ('management' areas) during critical seasons. Provide detour route during closures if possible. Use seasonal closures and other management activities as environmental education opportunities.

Safety

- Develop safe and secure trails for users and adjacent property owners.
- Provide sufficient trail surface width to minimize user conflict.
- Provide adequate shoulder width and sight distance to enhance trail user safety.
- Locate trail access points and support functions considering safety, visibility and emergency access.
- Consider providing barrier fencing at areas in close proximity to water or steep drop-offs.
- Provide perimeter fencing where needed to protect private property, privacy or livestock.
- Utilize discrete or unobtrusive barriers to direct trail users away from hazards and sensitive natural areas.
- Pursue grade-separated major roadway trail crossings or avoid them altogether.

Interpretation

- Develop opportunities for environmental and historical education and interpretation.
- Directly and indirectly expose trail users to natural processes and cultural resources. Minimize impact to historic, cultural and archeological resources and use existing infrastructure for interpretation.
- Coordinate educational interpretation with wildlife observation opportunities at "Wildlife Watchpoints".
- Interpretative efforts should be focused on identified "interpreted nodes" along the byway corridor. These nodes should be understated to avoid concerns for "cluttering" the landscape.

Implementation

- Coordinate with local governments. Federal agencies, commercial and public interest groups during design development to ensure compliance with community and county planning objectives, and state and federal requirements.
- Detailed designs for other proposed uses within and adjacent to the trail should be prepared collaboratively.
- Foster public support for corridor-wide recreation, environmental education and interpretation opportunities and the concept of regional land planning and stewardship.
- Utilize the resource of local interest groups and trail advocates willing to provide volunteer services and disseminate information.

4. Byway Trail System Elements

Any trail or recreational facility is actually a group of improvements or elements that are arranged into a comprehensive system. The Crested Butte to Carbondale trail system will be an organized assembly of several discrete components including trail segments, pavements, trailheads, signage, site furniture and other related elements. These components are organized in such a fashion as to meet the project's physical and aesthetic goals. In addition to the apparent features of pavement type, width and alignment, support facilities are vital to the success of any trail system. These elements can maximize the recreational potential of the resources and enhance the user experience. For example, trailheads (which also function as trail rest areas), interpretive stations and signage help to guide and inform, protecting both the user and the resource. A trailhead can serve as a multi-purpose parking area for trail access, public land access, and/or a highway wayside.

Trail infrastructure elements will also contribute to the overall character and landscape of the Scenic Byway corridor. Prominent trail features, such as trailheads, interpretive stations, and bridges, will become a visual reminder of this regional amenity. These elements must be designed and integrated into the fabric of the natural and built environment to support the character of the Byway, complement the interpretive themes, and enhance the quality of the trail and therefore the user experience.

Trail Characteristics

The character of the trail design is critical to its compatibility with the surroundings. The specifications used for the Crested Butte to Carbondale trail must have the intent of having a sturdy, grounded feel, that is, to have the feel that it is an integral part of the site and the natural environment. Simple lines, heavy timbers, practical unembellished design, and the use of natural materials such as native stone, wood, crushed stone, and linseed oil treated wood will evoke a solid western feel that is unpretentious and rustic. The desired feeling is a simple elegance resulting from the blending of effective design, solid practicality, native materials, and careful yet frugal craftsmanship. Natural materials are preferred over high-tech or manmade materials, but the latest in technology (such as clear-span bridge river crossings) should be employed wherever practical. Site preservation, reclamation and revegetation efforts must be designed to integrate the trail appropriately with its surroundings.

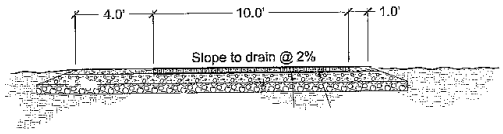
In many areas, the trail alignment will be limited by physical and manmade constraints. Physical constraints, such as the river/creek corridors and steep slopes, will challenge the design of the trail to be cost efficient and environmentally sensitive. In other areas, the width of the highway right-of-way will dictate the placement of the trail alignment. A design goal of providing a minimum 10' buffer from the edge of highway pavement is recommended for trail user safety and comfort. The trail alignment will attempt to stay on one side of the highway and will not cross the highway at-grade. The plan also suggests a curving trail alignment where feasible to maximize design flexibility and landform integration. A winding trail can help improve the user experience by directing views and avoiding monotonous long, straight sections.

Avoiding mature vegetation and reduced grading requirements brought about by a curving alignment minimizes environmental and habitat impacts. In areas of the highway alignment where the river constricts the available land area for trail placement, the trail width can be reduced to minimize environmental impacts and costs. In these short areas (less than 1700-feet) appropriate signage and pull-off areas need to be placed to improve user safety and convenience. Off-highway alignments in the Crystal River valley, if pursued, may require seasonal closures to mitigate potential impacts to critical sheep habitat.

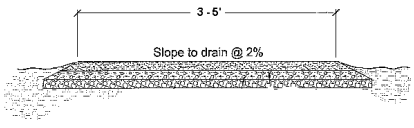
Several pavement materials are commonly used for both hard- and soft-surfaced trails and selection will significantly affect construction cost, maintenance, aesthetics and trail use. Conventional hard-surface

pavement options are limited to asphalt or concrete. Asphalt is recommended for the Byway Corridor trail primarily for cost effectiveness and ease of placement. The recommended soft-surface treatment is a material known as "crusher-fines" (crushed stone). Compacted crusher-fine surfaces can accommodate a moderate number of users and a variety of uses that can be easily blended into the landscape, are physically stable and relatively easy to maintain.

It is further recommended that the hard-surface pavement have a width of 8-10 feet with a graded, soft-surface extension of up to 4-feet for joggers and equestrian use. The soft-surface trail platform should be 3-5 feet in width with adequate side slope to promote rapid drainage and clear areas of 1-2 feet on either side of the pavement surface to allow for adequate pull-off space for passing. The structural design and width of the hard-surface trail pavement and structures (retaining walls, bridges, and cross culverts) should be adequate to provide access by trail maintenance and emergency vehicles. Proper trail surface finishing must provide a smooth, uninterrupted pavement (i.e. over unpaved driveways) for comfortable use by wheeled apparatus including wheelchairs, strollers, blades and bicycles. Final trail design coordination must allow the ability for the management entity to access the trail for inspection and maintenance purposes. A reference for trail standards and specifications is the 1993 Trail Design and Management Handbook, as may be amended, adopted by the Pitkin County Open Space and Trails Program.



Hard Surface Trail Cross-section



Soft Surface Trail Cross Section

Funding realities or public sentiment may not permit hard-surface pavement installation during the initial phase of trail implementation. In this case, it is recommended that construction of the full-width platform for the ultimate trail cross-section is accomplished to facilitate future paving operations, maintenance and emergency access.

Separate soft surface trails removed from the hard-surface trail platform will be difficult if not impossible to place in within the Crystal River portion of the corridor because of challenging physical constraints and the added impacts such a path could present to the natural environment. As such, the implementation of a separate soft-surface running/equestrian path is best accomplished as a shoulder extension of the primary trail alignment. This arrangement meets program objectives, avoids unnecessary resource impacts, and provides the most economical solution. As mentioned above, a 4-foot wide crusher-fines surface is recommended. This path may be discontinued for short sections if needed to avoid physical constraints, such as a narrow proximity to the river or to reduce impacts to mature native vegetation.

The provision of facilities for equestrian use must be closely examined on a section-by-section basis prior to implementation. Horses can startle easily, particularly from fast moving, quiet objects such as bikers, and may kick out posing a serious safety hazard. Another option would be to consider a separate bridal path to the main trail if conditions permit. This soft-surface path can consist of a more native surface and have less stringent design parameters for gradient, curve radii and drainage crossings. Bridal trail implementation and maintenance should include shrub and boulder removal, mowing, and tree trimming to provide an 8-foot horizontal and 10-foot vertical clearance, and trail markers to delineate the path. At points where the bridal path rejoins the main trail, such as topographic choke points or road crossings, all trail users should be aware of these shared-use zones. Shared equestrian use of

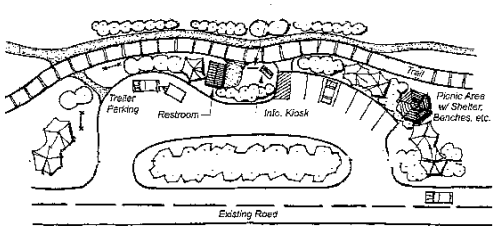
bridges should be avoided, with separate, safe ford locations provided as an alternate route.

Trail and Road Crossings

Crossings of private drives, and in some cases, public roads, are required throughout the Crested Butte to Carbondale trail corridor. Because of the high vehicle speeds and traffic counts, grade-separated crossings of Highway 133 are highly recommended. The plan calls for a crossing at Redstone using the existing Coal Creek bridge to facilitate bringing the trail from the east side of the valley over to the west. For at-grade crossings (one contemplated on County Road #12) and driveway crossings, trail design should emphasize safety. Basic safety elements include right angle intersections, adequate sight distances, and warning signs for both trail and road users as mandated within the Manual for Uniform Traffic Control Devices (MUTCD) standards. Measures should also be included to restrict trail access by unauthorized vehicles and to restrict trail user access to private lands. It is also recommended that additional design treatments for public road crossings are implemented to further enhance recognition, identification and trail safety. Such site improvements can include landscaping, trail signage and rustic fencing to enhance these trail crossings.

Trailheads

In addition to the terminus connections to the trail at Crested Butte and Carbondale, eight possible trailheads are proposed along the Crested Butte to Carbondale trail corridor. Trailheads provide parking and access to the trail system for residents, visitors, or groups choosing to drive their equipment or animals to the trail corridor. Trailheads are a place to park, meet, prepare equipment, obtain trail information, use a restroom, relax or picnic before, during or after recreating. The simplest trailhead facilities include parking for 5-10 vehicles (including one ADA accessible parking space), a pull-off area for horse trailers and vans or small buses, and trail information signage. Basic services such as restrooms (vault or portable types), fencing, potable water, picnic table with or without shelter, trash collection, interpretation, and equestrian facilities are recommended to enhance the utility of the facility, improve safety and protect private property and natural resources. Gates or removable bollards should be placed on either trail entrances to restrict access to the trail by unauthorized vehicles such as ATVs and motorcycles. Depending on local sentiment, power supply and security objectives, trailhead areas may or may not be lighted during evening hours.



This plan recommends trailheads at several locations in response to the following criteria:

- Located directly adjacent to the trail within the boundaries of public property, such as state highway or county properties, road rights-of-way or federal lands;
- Easily accessible from existing roads;
- Existing social pull-offs or congregation areas can be utilized to reduce impact;
- Adequate size to support planned improvements.
- Distribution evenly throughout the corridor length.

Bridges

The proposed trail alignments include river, creek and gulch crossings at several locations that require bridge structures for trail continuity. Major crossings on the corridor include the Crystal River, Muddy Creek, Ruby-Anthracite Creek and Coal Creek. Bridge design should emphasize affordability but should also help the structure identify with the environment with materials, form and structure including supports, railing and decking. These highly visible trail elements should attempt to complement and enhance the landscape of the Byway corridor. Bridge engineering

should accommodate vehicle loading and width of trail maintenance and security vehicles including emergency vehicles, trail sweepers, and small pickups. Crossing design should occur at right angles to the drainage to minimize impacts to the riparian area.

Rest Areas
Located at regular intervals along the trail, rest areas provide opportunities to stop along the trail, rest and enjoy the outdoor experience and the natural beauty that is the West Elk Loop Scenic and Historic Byway. A thoughtfully placed bench or turnout on the trail provides reason for pause, reflection and observation. Rest area location and design should be coordinated to relate to interesting or unique natural features, processes, or views. To be successful, rest areas need to be integrated with other trail elements such as interpretive stations, scenic overlooks or accesses to public lands.

Support Elements
Miscellaneous structures, site furniture, amenities and other design features are integral components of the trail system and can make significant contributions to the user experience. The design of trail elements should utilize a common palette of materials, colors and forms to present a cohesive image. Construction materials and design form should reflect the cultural and natural history of the particular area and typify structures and elements found along the trail. Railroads, ranching and mining are suitable local themes for design inspiration.

Material used to fabricate support elements should be sustainable, require minimal maintenance and have low susceptibility to vandalism. Use of salvaged or recycled materials should be encouraged. For example, during trail clearing and grading, native materials can be salvaged and used for the design of trail infrastructure and amenities. Boulders can be used for retaining walls, informal seating, vehicle barriers or culvert headwalls. Salvaged timbers and logs can provide materials for rustic benches, tables, fencing and structural elements.

Signage and Interpretive Elements
Providing accurate information is important to both the use and management of the trail corridor. Signs are needed to convey information, directions and regulations but should be kept to a minimum to avoid clutter in the natural setting that is the Scenic and Historic Byway. Signs must meet local and federal code and reflect local sentiment. Appropriate subject matter for signs includes user safety, resource protection and respect for private property.

Signage should exhibit a consistent design theme throughout the trail alignment. Designs may include a graphic logo, potentially with a scenic byway focus, that relates the past and present uses and natural beauty of the corridor. The overall signage system should complement other site elements in materials, colors and pedestrian scale. Other trail amenities (like benches, walls and fencing) can use similar materials for theme reinforcement.

All designs should consider the general context and particular setting in which the signs are to be placed. Placement of signs within scenic vistas and sight lines should be avoided. Lettering styles should draw their inspiration from historic precedent and avoid exotic or contemporary styles. Universal symbols should be utilized when appropriate. A unified sign mounting system should also be designed and utilized throughout the trail corridor that minimizes vandalism, maintenance and the intrusion of signs on the landscape.

Five different means of providing information via signage are recommended:

- Information Kiosk: Provide in a prominent location at trailheads an information kiosk that includes a system map, safety items, regulations, resource and wildlife protection information, distances, phone numbers, and other pertinent information. The Kiosks can also provide interpretive information to describe natural and cultural themes and locate interpretive stations along the route. A bin for West Elk Loop

information brochures should also be placed on the kiosk sign or posts. To reduce trailhead clutter the information center may dispense pet clean-up bags and trail guides. Bulletin space should be made available for temporary or seasonal postings, warnings and restrictions, and personal notes from one trail user to another. Trail user sign-in sheets can also be placed as a part of the kiosks.

- Interpretive Signs: Locate primary interpretive nodes at trailheads (see above). Along the trail interpretive messages can use existing elements or creative messages (i.e. text or animal tracks embedded into pavement or boulders) in lieu of stand alone signage to highlight a particular site, feature or natural process and educate the trail user. Interpretation should support an overall interpretive theme that should be explored and defined as a part of an overall interpretive plan for the scenic byway. Encourage use of symbols instead of text to convey information.

- Trailside Signs: Provide information to the trail user involving mileage, directions, distances and degree of trail difficulty at trailheads, mile-markers, and points of special interest. Mileage signs can be used in tourist areas to encourage travel to noted locations. (i.e. "Redstone Castle View – 1 mile"). A unified system of signs, posts, arrows or other symbols should be developed to indicate river access and access to public lands from the trail. On the riverbank and public lands access routes, limits of public access areas should be delineated to protect private property. A unified system of simple post markers or similar discrete elements may be used. Private property signs (i.e. "Respect Private Property – Stay on Trail") should be installed at points where trespass is likely.

- Identity Signs: To enhance trail recognition, use and security, a graphic logo should be developed along with a system of common elements that uniquely identify the trail from public road crossings, at trailheads, local accesses and along the length of the trail.

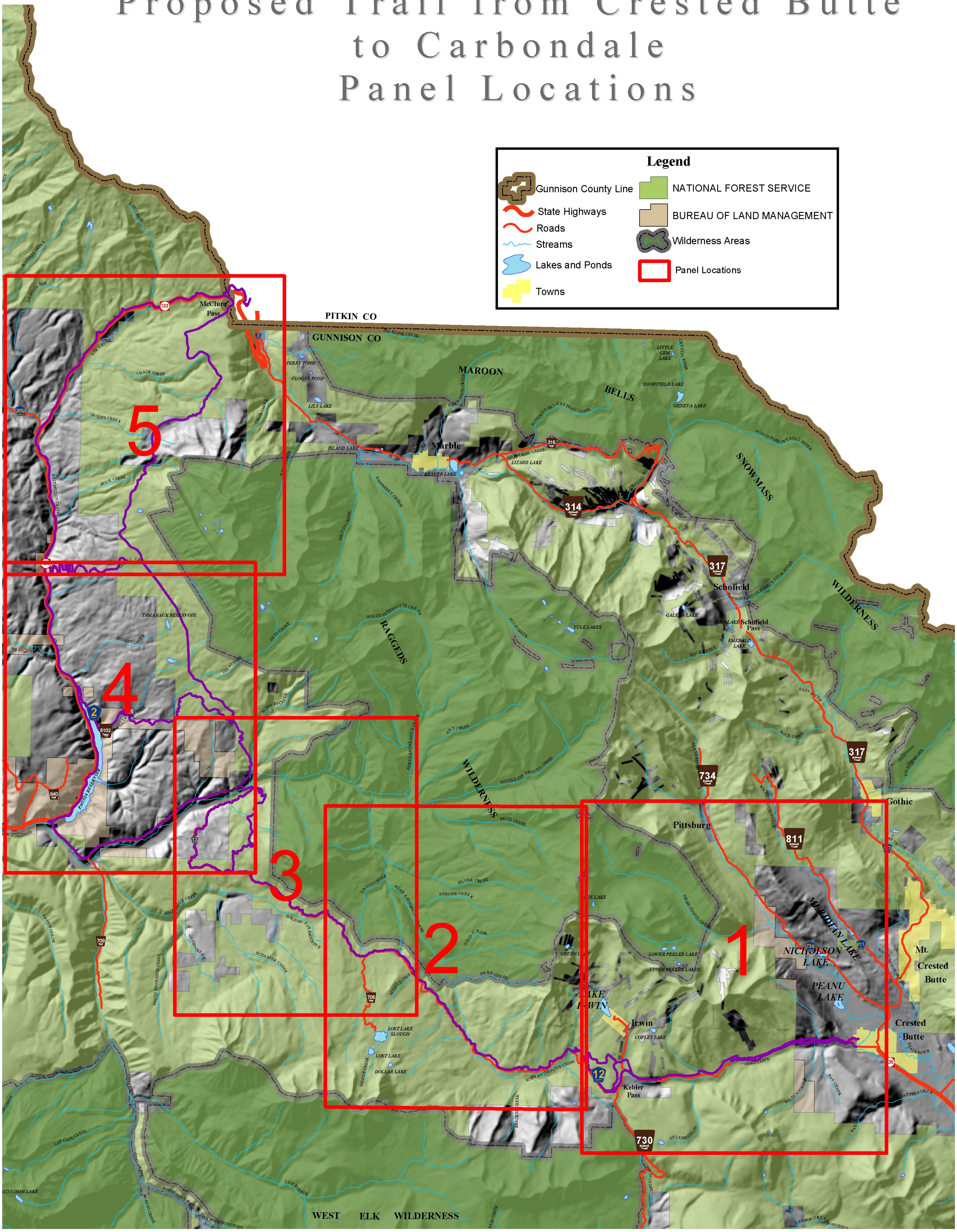
- Traffic Control: Regulatory signs and pavement markings required for safety, use priority (i.e. ped/equestrian/bike triangle) and liability concerns need to be part of the overall signage plan. Typical messages include "Stop", "Caution, Road Xing", "Yield", etc. Standard graphic symbols should be utilized wherever possible. Safety signs should conform to MUTCD standards for size, mounting location, message, color, etc.

5. Feasible Trail Alignment Descriptions

This section describes the feasible trail alignments discovered in the field and describes the alignment's opportunities and constraints. Certain features, design elements and recreational opportunities of the alignments are also noted. Some feasible alignments are shown that cross private lands. It must be stated here that any of these alignments must have the approval and permission of the underlying landowners if they are to be utilized as part of the ultimate trail alignment. In addition, the construction of the trail on these private lands will also require mitigation measures that are adequate and appropriate to mitigate any potential impacts to the private property owners. These mitigation measures include fencing, signage notifying trail users of the surrounding private property, and landscaping and other visual shields where needed.

The description of the feasible trail alignments begins at the Town of Crested Butte and continues to Carbondale. Mapping of these feasible alignments are included in this chapter. The mapping consists of 13 panels that are sequentially described below:

Proposed Trail from Crested Butte to Carbondale
Panel Locations



3 1.5 0 3 Miles

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970 641-7620

December 2, 2003
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Gunnison County
COLORADO

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Crystal River Trail Panel Overview Map

Crystal River Trail Panel 13

Crystal River Trail Panel 12

Crystal River Trail Panel 11

Crystal River Trail Panel 10

Crystal River Trail Panel 9

Crystal River Trail Panel 8

Crystal River Trail Panel 7

Crystal River Trail Panel 6

Roaring Fork River

Crystal River

Thompson Creek

St. John Reservoir

Dinkle Lake

Thomas Lakes

Map Panel (6-13)
USFS
Open Space
Conservation Easements
Subdivision Boundaries
Parcel Boundaries
Structures
NORTH
Proposed Trail
ExistingTrail Connector
State Highway 133/82
CR3 (to Marble)
Roads
Lakes and Ponds
Rivers and Streams
1 inch equals 6,810 feet
0 0.4 0.8 1.6 Miles

PITKIN GIS COUNTY

Panel 1: Crested Butte to Kebler Pass.

This trail segment begins at the western town limits of Crested Butte and generally follows the County Road #12 corridor to Kebler Pass. Elevation gain/loss: 1100-feet.

Beginning at Crested Butte, two feasible alignments exist between Crested Butte and an existing wagon road cut that has been improved to trail standards (approximately 2.5 miles);

1) The first follows within the CR #12 right-of-way to the north of the existing road. There are places along this alignment that contain steep, unstable slopes so there are sections where the trail must merge with the existing road requiring a shared use experience. When the road right-of-way passes through the Keystone mine operations, the trail must cross to the south side of the road at the winter parking area to avoid a natural area designated by the Forest Plan to the north (Several rare plant species, including the ironfen, make this an area to avoid). The trail will then follow to the south of the road on moderately to gently sloping hillside between the road and Coal Creek. This condition exists for approximately 5000-feet until the hillside becomes too steep and crowded by the creek. At this point, the trail must again co-mingle with the road for approximately 1000-feet, after which the trail crosses over the road again to the north side, joining existing abandoned road cuts to connect to the old wagon road grade. About 2,500-feet after connecting to the old road grade, the wagon road has been improved to a trail for the next 2 miles. This alignment is immediately north of CR #12 and is has gentle grades and a dirt surface, bringing the trail to a terminus just east of the Irwin turn-off.

2) The second feasible alignment out of Crested Butte is along the floor of the Coal Creek drainage south of CR #12. This alignment, although feasible, would require several bridges over Coal Creek and in areas north of the creek would require retaining wall/fill construction techniques (see Chapter 6) to elevate the trail platform above the creek and riparian areas without disturbing the steep, unstable slopes that come off the road and down to the creek. In addition, this trail alignment would likely require seasonal closures (mid-May to mid-June) during spring run-off. For the most part, this alignment is on private land and follows a deeded trail easement granted as a part of the Trappers Crossing subdivision approval from Crested Butte to the winter parking area along CR #12. However, this deeded easement has been replaced through agreement and is no longer valid; property owners in Trappers Crossing would therefore need to approve a new easement for this alignment if it is pursued. Once at the winter parking area, this option would join with Option #1 above and connect to the wagon road grade.

The next 2.4 miles of the trail alignment is already in place and follows an old wagon road to the north of County Road #12. This trail segment ends just east of the Irwin townsite/campground road, where a large wetlands area is located. Three feasible alignments exist in this area:

1) The first option would extend the road platform on the north and west side to provide an additional 6-8-feet of roadway for the trail surface. Although

this is essentially a co-mingled motorized/non-motorized experience, it will allow for additional room on the road platform for non-vehicular use. This situation would exist for approximately 2000-feet at which point the wetlands area ends and the old wagon road grade (presently unimproved) begins. The trail would then follow the old wagon road grade to Kebler Pass.

2) The second option would leave the road at the end of the old wagon road trail and skirt around the wetlands area to the north for approximately 2000-feet. At this point the trail would turn west and cross Coal Creek at a relatively dry section and join the Irwin access road briefly. The trail would then follow westerly along social campsite access road and cross the road to the Irwin lake campground, travel through a short section of wetlands and then head south along a gentle hillside through a stand of dark timber. The trail would then continue south through the dark timber for approximately 3500-feet, passing by Kebler Pass and the Irwin Cemetery to the north, and then re-connect with the first option describe above.

3) The final option is a spur of option #2 above and is described on the next map panel discussion as option #2.

Proposed Trail from Crested Butte to Carbondale
Panel 1

Gunnison County COLORADO

Lake Irwin Campground

Irwin town site

Wetlands

Private residence close to trail

TRAPPERS CROSSING AT CRESTED BUTTE

Town of Crested Butte

This alternative possible with landowner permission

TRAPPERS CROSSING AT WILDCAT

This alternative possible with landowner permission

Wetland with endangered species (Mt. Emmons Iron Fen)

Continue on wagon road

Creek alignment prone to flooding - multiple stream crossings required

Winter parking area

Trail existing on old wagon road

Wetlands

Follow existing jeep road off of Irwin C. G. road

CR 12

Trail as extension to road

Private property on both sides of road

Archeological resource (Irwin Cemetery)

Kebler Pass

Coal Creek

Legend

- Proposed Trail
- Streams
- Lakes
- Open Spaces & Easements
- Subdivisions
- Private Property
- Public Property
- Wilderness Areas
- Campground
- Summer Trailhead
- Winter Trailhead
- Difficult Terrain
- Moderate Terrain
- Easy Terrain

0.5 0.25 0 0.5 1 Miles

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November 17,2003
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Panels 1 & 2: Kebler Pass to Lost Lake.

This trail segment begins at Kebler Pass and continues down the Ruby-Anthracite Creek valley to the Lost Lake turn-off, approximately 8 miles. Elevation gain/loss: 1100-feet.

Beginning at Kebler Pass, to feasible trail options exist:

1) The first alignment follows north of County Road #12 on a series of benches above the road cut to the switchbacks near the Ruby-Anthracite Creek crossing. The trail alignment is anywhere from 50-feet to 100-feet from the road, crossing though dark timer and some aspen stands. This option is approximately 5500-feet long.

2) The second option leaves the access road to the Lake Irwin campground on a primitive roadway that travels south and west toward County Road #12. The option goes through dark timber and open alpine meadows to a point where the road ends. A social trail continues westerly along than old road platform until it joins with County Road #12 near the switchbacks. This option is approximately 7000-feet long and does not actually cross over Kebler Pass.

The two alignment options join above Ruby Anthracite Creek and depart from the County Road #12 alignment to follow the old road alignment above and east of the road. This old roadbed winds through dark timber and crosses Ruby-Anthracite Creek just above a spectacular waterfall. The old roadbed then switchbacks down the hill and rejoins County Road #12 approximately 1000-feet west of the Ruby-Anthracite Creek Bridge. From here the feasible trail alignment continues to follow to the north of County Road #12 on a series of elevated benches and gentle to moderately sloped hillsides anywhere from 50-feet to 250-feet from the road. Ruby-Anthracite Creek follows closely to the road on the south side, making a south-side trail alignment infeasible in this area. The stands of dark timber seen above near Kebler Pass rapidly turn to large stands of aspen trees with small alpine meadows scattered throughout, making for an excellent trail experience.

As the trail alignment approaches Horse Ranch Park the topography flattens and becomes at-grade with the County road. A significant wetland area propagated by beavers is present immediately east of Horse Ranch Park. This area needs to be avoided by the trail alignment to the north. The Cliff Creek trailhead immediately south of Horse Ranch Park could be improved to provide a trailhead for bike and pedestrian use. To the west of Horse Ranch Park, the trail continues along the north of the County Road but the trail grade starts to go below the grade of the road into a very dense and tall stand of mature aspen trees. A progression of moderately sloped hillsides and flat benches below the road makes for an obvious path of least resistance for the trail alignment, meandering anywhere from 50-feet to 300-feet from the County Road. This condition continues all the way to the Lost Lake turnoff, which is also another area that would be suitable for a trailhead. The grade of the trail alignment gradually becomes equal to that of the County Road until they are at the same elevation at the Lost Lake turnoff.

Proposed Trail from Crested Butte to Carbondale
Panel 2

Gunnison County COLORADO

USFS Trail # 836

To Lost Lake

Lost Lake Campground

Lost Lake

CR 12

Ruby Anthracite Creek

Cliff Creek Trailhead

Horse Ranch Park

Horse Ranch Park Trailhead

Wetland

Wetland

Follow old road grade & avoid switchbacks

0.5 0.25 0 0.5 1 Miles

Legend

- Proposed Trail
- Streams
- Lakes
- Subdivisions
- Private Property
- Public Lands
- Wilderness Areas
- Campground
- Summer Trailhead
- Winter Trailhead
- Difficult Terrain
- Moderate Terrain
- Easy Terrain

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Panel 3: Lost Lake to Erickson Springs.

This segment stretches from the lost Lake turnoff to the Erickson Springs Campground, and is approximately 8 miles. Elevation gain/loss: 2100-feet.

This segment of the trail continues west along the north side of County Road #12 in the Ruby-Anthracite Creek drainage for approximately 1.5 miles to the Ruby-Anthracite Creek Trailhead (FS Trail #836). The trail meanders through a dense stand of aspen trees anywhere from 50-feet to 300-feet from the county road. The trail is generally at-grade with the road in this area but at times is below road grade. At the Ruby-Anthracite trailhead, the County Road and the trail turn westward and enter the Grouse Spring Creek drainage. Shortly after entering this new drainage, the aspen forest begins to erode into a mountain shrub ecosystem up against the flanks of Mount Marcellina. The trail follows through the mountain shrubs and dryland pastures on benches located above the grade of the county road, offering spectacular views of Mount Marcellina.

After approximately 2 miles, the trail alignment intersects with the Norris Ditch. Here, two feasible trail alignments exist that will bring the trail down to the Erickson Springs campground:

1) The first option continues to follow to the north of County Road #12 across Watson Flats. The trail continues to be located on the north side of the county road primarily on elevated benches but also on moderately sloping hillsides adjacent to the road. Mountain shrub and again some aspen stands are present along this route. At the National Forest boundary with private lands, the trail comes down to the county road right-of-way and follows close to the north edge of the road between the road surface and the fence line. This situation continues for approximately 1.3 miles until the hillsides become so steep that separation of the road and the trail are no longer feasible. From this point to the campground (+/- 1.4 miles) the county road and the trail must co-mingle. Unfortunately, this section of the road has very steep side slopes and limit sight distance, so co-mingling of traffic, although not desired, cannot be avoided.

2) The second option has the trail departing the road alignment and following the Norris Ditch into the National Forest. The trail continues to follow the ditch to a point near the Pretty Place Road, a road used to access private property near Watson Flats. The trail then departs the ditch northerly along an existing stock and game trail near the west flank of Mount Marcellina. This alignment begins in a mountain shrub environment but quickly enters a large stand of aspen trees for the rest of the route. After following the topography through the aspen stand, the trail joins an old but still evident road cut through the trees that accesses a spring and associated pipeline. The trail follows the pipeline cut for approximately 3000-feet until turning northwesterly to cross a very large rock scree field. After crossing the scree field, the trail again enters a dense aspen forest before reaching the top of a rather steep sloping drainage that leads down to the Erickson Springs campground. The trail negotiates this drainage through a series of switchbacks on the north side, which consists of exposed shale and mountain shrub.

Proposed Trail from Crested Butte to Carbondale
Panel 3

Gunnison County COLORADO

Munsey Creek Rd
Anthracite Creek Trailhead
Erickson Springs
Anthracite Creek Campground
Anthracite Creek
MARCELLINA ESTATES
GALLOB
MAGILL
NORRIS
MCCURDY
Too steep - trail must share road
Existing road cut to spring
Can stay on fenced ROW through private property
Follow road and trail north to pond
Snowshoe Creek Trailhead
Ruby Anthracite Creek
Snowshoe Creek
CR 12
USFS Trail #836
Follow north of road through Aspen stand 50 - 250 Ft from road
To Lost Lake
Lost Lake Campground

0.5 0.25 0 0.5 1 Miles

Legend

- Proposed Trail
- Streams
- Lakes
- Subdivisions
- Private Property
- Public Property
- Wilderness Areas
- Campground
- Summer Trailhead
- Winter Trailhead
- Difficult Terrain
- Moderate Terrain
- Easy Terrain

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Panel 4: Erickson Springs to Paonia Reservoir:

This segment stretches from the Erickson Springs Campground to County Road #2 at the north end of Paonia Reservoir. The length of this segment is approximately 8 miles. Elevation gain/loss: 300-feet.

This segment of the trail begins with three feasible options:

1) The first option would be to follow County Road #12 westerly to the base of Paonia Reservoir, known locally as Crystal Meadows, and then continue north on Highway 133 to the top of Paonia Reservoir. If this option is followed, the steep hillsides present on both sides of the roadway prohibit the placement of a separate trail and will require the trail to co-mingle with traffic on County Road #12 and Highway 133. This route offers close proximity to the Anthracite Creek floodplain and Paonia Reservoir, with sparse but impressive views of the nearby peaks. Vegetation along this route includes small groves of aspen, cottonwood/riparian species along the Anthracite Creek floodplain, and pinion-juniper forest to the north of County Road #12 and surrounding the Paonia Reservoir.

2) The second option would leave County Road #12 just west of Erickson Springs and travel north on the Munsey Creek Road for approximately 2-miles. The Munsey Creek Road alignment crosses juniper-pinion hillsides and open meadows to it's terminus at the Raggeds trailhead (USFS Trail #820). This option would then depart the road near the trailhead and travel westerly on an unmarked but well-defined trail that follows the Fillmore Ditch for approximately 1.2-miles to the west end of a reservoir near the ditch outtake on Deep Creek. From there, the trail follows southwest an old pack trail that runs parallel to Deep Creek for approximately 1.1-miles to an access road located on BLM land to the east of Paonia Reservoir. This section of the alignment passes through aspen stands and open alpine meadows, offering spectacular views of the Raggeds and Mount Marcellina. After reaching the primitive road (which is used to access private lands), the trail would follow the road westerly through juniper-pinion vegetation to its terminus at a horse camp on County Road #2. The trail then follows County Road #2 westerly to Paonia Reservoir and then northerly along the edge of the reservoir to Highway 133.

3) The final option, like option #2 follows the Munsey Creek Road to the Raggeds trailhead, then follows the Raggeds Trail in a northwesterly fashion past Williams Lake and Tomahawk Reservoir to Spring Creek. This trail option then follows a westerly trail that connects to Highway 133 over BLM land to the informal and poorly marked trailhead at Highway 133, located about 0.5-miles north of the confluence of Spring Creek and East Muddy Creek. This option provides a similar trail experience to that of Option #2 above, crossing through a dense and rather large stand of aspen at the base of the Raggeds and offering spectacular views of this prominent mountain range. After departing the Ragged Trail, vegetative cover changes to juniper-pinion forest intermingled with grazed meadows. Potential conflicts between motorized and non-motorized traffic are likely to arise if this route is used, as it is a popular route for ATV use, particularly during hunting season.

Proposed Trail from Crested Butte to Carbondale
Panel 4

Gunnison County COLORADO

GREWAL
Spring Creek
SH 133
VOLK
Follow Raggeds Trail
HOTCHKISS
Steep drop to river +/- 1,500 Ft
JACOBS
Muddy Creek
MCINTYRE
HOTCHKISS
Dugout Creek
MCINTYRE
KEREKES
Williams Creek
Steep between highway & river +/- 2,000 Ft
LEE
Spruce Campground
Hawsapple Campground
Follow existing pack trail
Follow Ditch Trail
SIMS
Some spots where bike path not possible -Must share road +/- 6,000 Ft
Follow County Road
Follow access road to private property (on Federal land)
Follow existing jeep road
Paonia Reservoir
Deep Creek
Too steep for seperate bike path - must share road +/- 9,000 Ft
BEACH
ANTHONY
L RANCH
SH 133
West Elk Loop Information Station
CRYSTAL MEADOWS RESORT
TENNISON
L RANCH
CRYSTAL
HILSON
Road alignment too steep on north & large floodplain on south - trail must share road (Reservoir to Erickson Springs C.G.)
STREAR
West Elk Loop Campground

Legend

- Proposed Trail
- Streams
- Lakes
- Subdivisions
- Private Property
- Public Lands
- Wilderness Areas
- Campground
- Summer Trailhead
- Winter Trailhead
- Difficult Terrain
- Moderate Terrain
- Easy terrain

0.5 0.25 0 0.5 1 Miles

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Gunnison County GIS
200 East Virginia Avenue
Gunnison, CO 81230
970-641-7620

November 17, 2003
N:ARCGIS_PROJ\TOM_NEWLAND\CB_TO_CARB_4.MXD

Panels 5: Paonia Reservoir to McClure Pass:

This segment travels from the entrance to the Paonia Reservoir Recreation Area at County Road #2 north along Highway 133 to McClure Pass. The length of this segment is approximately 13 miles. Elevation gain/loss: 2,300-feet.

This segment of the trail is located within the Highway 133 right-of-way. The trail would begin by following along the east side of the right-of-way between the highway and Muddy Creek. This alignment would continue for approximately 6-miles to the confluence of East Muddy Creek and Lee Creek, at which point the trail would cross under the highway at the creek bridge and then continue to travel north along the west side of the highway right-of-way. As the trail approaches McClure Pass it will need to deviate from the right-of-way onto Forest Service lands in order to follow the topography and reduce grades as much as possible. Most of these diversions are located within drainages or where topography requires a more gradual accent. Vegetation along this segment of the trail begins in the juniper-pinion forest, but transitions through mountain shrub to aspen forests as the trail approaches McClure Pass.

An alternative alignment is shown on the map that uses the Raggeds Trail (USFS #820) in its entirety from the Munsey Creek Road trail head to McClure Pass. This is shown as an alternate "black diamond" route that can be used as an option by more experienced trail users. The lower portion of this trail is motorized.

Proposed Trail from Crested Butte to Carbondale
Panel 5

Gunnison County COLORADO

Gain Elevation Steep hillshade

Avoid Rocks Cliffs

Wetlands/Beaver Ponds Stay close to road

Steep Hillshade Stay close to road

McClure Pass

PIERCE

Lee Creek

Follow old Road Grade

FALCON

USFS Trail #815

Chair Creek

SH 133

JACOBS

Grouse Creek

Chair Mountain Subdivision

JACOBS

Cross Under Road at Creek Crossing

SMITH

HANDVILLE

GRANGE

LAMBERT

Minimal Frontage b/t Road & Creek +/- 1,500 Ft

Buck Creek

Alternate route on USFS Trail 820

BORICH

HUGHES

RAGGED MOUNTAIN ESTATES

ATV access to Raggeds Trail (on Federal Land)

East Muddy Creek

JACOBS

Raggeds Trail

GREWAL

0.5 0.25 0 0.5 1 Miles

Legend

- Proposed Trail
- Streams
- Lakes
- Gunnison County Boundary
- Subdivisions
- Private Property
- Public Property
- Wilderness Areas
- Campground
- Summer Trailhead
- Winter Trailhead
- Difficult Terrain
- Moderate Terrain
- Easy Terrain

Gunnison County GIS
200 East Virginia Avenue
Gunnison, CO 81230
970-641-7620

November 14, 2003
N:\ARCGIS_PROJ\TOM_NEWLAND\CB_TO_CARB_5.MXD

Panel 6 and 7: McClure Pass to Redstone:

This segment travels from McClure Pass to Redstone and is approximately 6.5 miles. Elevation gain/loss: 1,600-feet.

Only one feasible option exists along this segment of the trail. Beginning at McClure Pass, the trail continues along the north side of the highway on National Forest land. The trail is located 150 – 300-feet from the road in this area in order to avoid two nearly vertical road cuts. The trail rejoins the highway right-of-way just east of the McClure Pass summit and then follows the old McClure Pass road cut through a series of switchbacks down to the floor of the Crystal River valley near the Placita townsite. A social shooting range is located at the base of the switchbacks that will need to be addressed when the trail is constructed. The existing Highway 133 grade down the east side of McClure Pass is not considered as a feasible alignment because of the narrowness of the road platform and the unstable nature of the uphill road cut in this area. In addition, the existing highway prism would carry the trail approximately 2-miles to the south in the opposite direction from the trail terminus at Carbondale. A spur trail to access the upper Crystal River valley within Gunnison County can be accomplished at the bottom of the switchbacks. This spur trail would cross Highway 133 at Placita and then turn south at the Crystal River connecting to the Marble Road.

From the Placita townsite the trail alignment follows immediately to the west of the highway within the state right-of-way until reaching another portion of the old McClure Pass Road, known locally as the Bear Creek trail. This old roadbed is followed by the trail for approximately 1.5-miles until it rejoins the highway right-of-way just south of Hayes Creek. From here the trail follows along the west side of the highway right-of-way to Redstone, passing through two curves with rock-cliff hillsides that will require the trail to be in very close proximity to the road surface for about 900-feet.

The trail alignment offers stunning views of Chair and Treasury Mountain from McClure Pass. As the trail moves into the bottom of the Crystal River valley, aspen trees give way to mature spruce against brilliant red hillsides and cliffs. The historic Redstone Castle is also very visible from the trail alignment as it approaches Redstone. A monument to the miners of Coal Basin and the remnants of the old coke ovens are adjacent to the trail alignment as it enters Redstone.

Crystal River Trail
Panel 6 Draft Map

USFS
Parcel Boundaries
Structures
Proposed Trail
Trails
State Highway 133
County Road 3 (to Marble)
Roads
Driveways
Lakes and Ponds
Rivers and Streams
Ditches
Contour Lines (100 ft)
0 625 1,250 Feet

NORTH

Trail Difficulty

Most Difficult | More Difficult | Easiest

Mid-Con USFS Land Trade

Heckert

Placita

Wolny

OLD MCCLURE PASS RD

SH 133

Crystal River

Social Shooting Range
(May be out of compliance with USFS Management Plan)

HWY 133

Old McClure Pass Road

Chair Mountain Ranch

Illeman

Pitkin County
Gunnison County

Crystal River

Map Series Identifier

Crystal River Trail Panel 7

Crystal River Trail Panel 6

PITKIN GIS COUNTY

Crystal River Trail Panel 7 Draft Map

USFS
Open Space
Conservation Easements
Parcel Boundaries
Subdivision Boundaries
Structures
Proposed Trail

NORTH

Trails
Ditches
State Highway 133
Roads
Driveways
Contour Lines (100 ft)
Lakes and Ponds
Rivers and Streams

0 800 1,600 Feet

Trail Difficulty

Most Difficult | More Difficult | Easiest

Eck
Jenson
Pierce
Bier
Tranquil Options
Moyer
Lafitte
Pit-Stone Properties
Wolny
Heckert

ROW tight against cliffs +/- 600 (Possible to squeeze trail in)

ROW Tight against cliffs to west +/- 300 ft (possible to squeeze trail in)

Crystal River Trail Panel 8
Crystal River Trail Panel 7
Crystal River Trail Panel 6

Map Series Identifier

Trail off highway on old road +/- 8,000 ft.

Sheep winter on cliffs (East side of Valley)

Mid-Con USFS Land Trade

Crystal River
Hoyes Creek
Hawk Creek
Big Kinic Creek

ELK MTN DR
REDSTONE CASTLE LN
REDSTONE CASTLE DR
RUBY MTN DR
BEAR CREEK LN
CRYSTAL PARK DR
ETASA DR
CHAIR MTN DR
SH 133
ELK LN
BEAVER DR
ANTELOPE DR
BISON LN
BIGHORN LN
FAWN LN
BOBCAT LN
OLD MCCLURE PASS RD

Panel 8 and 9: Redstone to Avalanche Creek:

This segment travels from the south side of Redstone to Avalanche Creek and is approximately 5 miles. Elevation gain/loss: 350-feet.

At Redstone, the cross-section of the trail changes from a soft-surface, 3- to 5-feet wide platform to a paved, 8- to 10-feet wide platform. At the south end of Redstone, the trail would cross under Highway 133 at the Coal Creek Bridge. From there, the trail follows over an existing pedestrian bridge across the Crystal River and then north along Redstone Boulevard through town. (This portion of the trail, which is approximately 0.5-mile long, would co-mingle with motorized traffic on the road.) At the north end of Redstone, the trail becomes separated from the County Road to the west between the road and the river. Upon approaching the north bridge of Redstone Boulevard, three feasible alignments begin:

1) The first option has the trail crossing the north bridge of Redstone Boulevard and following north along the east side of Highway 133. Shortly after joining the highway right-of-way, there is a very narrow section between the road and the river of about 500 linear feet. Another tight section between the road and the river is also present north of the Granite Hot Springs in an area known as the Crystal River Gorge.

2) The second option continues north at the bridge along the old grade of the Crystal River Railroad. This option follows the old railroad grade (also known as Dorais Way) through the Wild Rose Ranch subdivision and the Filoha Meadows open space parcel to the west of the Granite Hot Springs. North of the hot springs the railroad grade continues as a viable route through the Crystal River Gorge. At the north end of the gorge, the trail option diverges from the railroad grade and winds through the Avalanche Creek valley crossing the creek at the old campground. Although this alignment option would provide a high quality recreation experience for the user, the Filoha Meadows parcel is considered critical habitat for the resident heard of bighorn sheep. If this option were pursued, the trail would require closure from about November 15th to July 1st. Please see Appendix B for a more detailed description of the potential impacts to the sheep heard if the trail is placed on this alignment.

3) Another option for the trail in this area would be to place a paved trail on the highway alignment (option #1 above) and a soft-surface trail on the railroad grade alignment (option #2) that would be closed as recommended on a seasonal basis to mitigate potential wildlife impacts.

Crystal River Trail Panel 8 Draft Map

USFS
Open Space
Conservation Easements
Parcel Boundaries
Subdivision Boundaries
Structures
Proposed Trail

NORTH

Trails
Ditches
State Highway 133
Roads
Driveways
Contour Lines (100 ft)
Rivers and Streams
Lakes and Ponds

0 750 1,500 Feet

Trail Difficulty

Most Difficult | More Difficult | Easiest

Wild Rose Trail Easement

ROW narow on river side, too steep on West to widen: must share road +/- 500 ft

Follow old RR Grade to Redstone Boulavard

Green alignment crosses on road bridge.

Trail off Boulavard and on USFS land +/- 5,000 feet

New Sanitation Plant may require USFS land

Trail Crosses river on existing bridge and under SH 133 at Coal Creek Bridge.

Trail on Boulavard to park

Telinde
Baranek
Baranek
Baranek
Coke Ovens
Eck
Eck
Jenson
Pierce
Bier

Crystal River
Coal Creek
East Creek

SH 133
REDSTONE BLVD
REDSTONE BLVD
REDSTONE CASTLE DR
REDSTONE CASTLE LN
REDSTONE CASTLE DR
EAST CREEK RD
EAST CREEK RD
COAL CREEK RD
MACABY LN
FIRE HOUSE RD
ELK MTN DR

Crystal River Trail Panel 9
Crystal River Trail Panel 8
Crystal River Trail Panel 7

Map Series Identifier

Pitkin GIS County

Crystal River Trail Panel 9 Draft Map

USFS
Open Space
Conservation Easements
Parcel Boundaries
Subdivision Boundaries
Structures
Proposed Trail

NORTH

Trails
Ditches
State Highway 133
Roads
Driveways
Contour Lines (100 ft)
Rivers and Streams
Lakes and Ponds

0 800 1,600 Feet

Trail Difficulty

Most Difficult | More Difficult | Easiest

Boucher
Gibson
Ogilby
Ogilby
Forrest
Johnson
Larson
Boucher

AVALANCHE CREEK RD
SH 133
Crystal River
Avalanche Creek
Crystal River

Follow old Rail Road Grade to Redstone +/- 22,000 feet

Rams use RR grade in winter to migrate to fields 12/1-4/30 closure recommended

Extremely tight between road and river +/- 1000 feet

Bighorn Sheep: One of few places where critical habitat comes down to River. 11/15-6/30 Closure recommended

Pitkin County Open Space and Trails

ELK (Dogs, residences limit critical nature of this habitat)

Sheep on cliffs

Wild Rose Trail Easement

Crystal River Trail Panel 10
Crystal River Trail Panel 9
Crystal River Trail Panel 8

Map Series Identifier

Pitkin GIS County

Panel 10 and 11: Avalanche Creek to Thompson Creek:

This segment travels from the confluence of Avalanche Creek and the Crystal River to the Thompson Creek Bridge on Highway 133 and is approximately 6 miles. Elevation gain/loss: 410-feet.

This segment of the trail begins with two alignment options that continue from the previous section:

1) The first option follows north along the east side of the Highway 133 right-of-way throughout the entire length to Thompson Creek. There are four very tight sections of the right-of-way caused by topography and close proximity to the river. The first section is approximately 700-feet long and is located immediately south of the entrance to the Crystal River Country Estates Subdivision. The next section is located to the south of Nettle Creek and is approximately 1,700-feet in length. The next section is located to the north of the Crystal View Heights Subdivision and is about 500-feet long. The last section is approximately 1,500-feet long and is located immediately to the south of the entrance to the Lower Sewell Tracts Subdivision. Another short section of the right-of-way is impacted by a private pond located approximately 100-feet south of Thompson Creek. Passing by the pond with the trail will require vegetative screening and hillside stabilization techniques as the slope is steep as visible from the landowners' property.

2) The other option crosses Avalanche Creek approximately 0.5-miles from its confluence with the Crystal River. The trail would then travel north along an old access road to Avalanche Creek Road and follow the road west approximately 0.3-miles. At this point, the trail continues northerly off of the road and up a moderately steep hillside at a point where there is a saddle in the ridgeline of the hill. The trail then crosses the ridge at the saddle and continues down the north side of the hill to connect with the old railroad grade. The trail then follows along the old railroad grade through the Janeway townsite (currently a flat sage meadow with glades of pine trees) in a northerly direction. This option re-connects to the Highway 133 option either south or north of the Gesberg Tracts Subdivision.

After following the Highway 133 option for approximately 0.5-miles, this option again crosses over the river to the old railroad grade on federal and county lands. This option crosses back to the Highway 133 alignment after about 1,500-feet and would require two bridges over the Crystal River. Immediately north of the Crystal River Country Estates Subdivision, this option again crosses over the Crystal River to rejoin the old railroad grade as it travels over county and federal lands. This option then crosses back to the Highway 133 alignment after approximately 1 mile at the Nettle Creek Bridge.

Crystal River Trail Panel 10 Draft Map

USFS
Open Space
Conservation Easements
Parcel Boundaries
Subdivision Boundaries
Structures
Proposed Trail

NORTH

Trails
Ditches
State Highway 133
Roads
Driveways
Contour Lines (100 ft)
Lakes and Ponds
Rivers and Streams

0 875 1,750 Feet

Trail Difficulty

Most Difficult | More Difficult | Easiest

Tight ROW along river

Must widen road to west +/- 700 ft.

Must share existing road platform

Possible crossing to old Railroad grade +/- 1500 ft (Requires two bridges)

Cross to Railroad grade on USFS land

Swamp bed dug (runoff)

Sheep on hillside

Route may require winter closure due to elk (11/15-4/30)

Follow old RR grade through Jane Way Townsite

Sheep on hillside

Climb over saddle into Avalanche Creek Drainage United States Forest Service

Mining Area

"Bait Site" to capture and medicate sheep (lung worm)

Villafranco

Crystal River Country Estates

Andrews

Fishman

Meredith

Meredith

Nicholson

Gesberg Tract

Swiss Village Tracts

Boulher

Gibson

Crystal River

Perham Creek

Avalanche Creek

Assignation Creek

CRYSTAL COUNTRY CIR

CRYSTAL COUNTRY LN

SH 133

AVALANCHE CREEK RD

CHEROKEE LN

ARAPAHOE LN

APACHE TRL

UTE TRL

NAVAJO LN

SHOSHONE TRL

Map Series Identifier

Crystal River Trail Panel 11

Crystal River Trail Panel 10

Crystal River Trail Panel 9

Pitkin GIS County

Crystal River Trail Panel 11 Draft Map

USFS
Open Space
Conservation Easements
Parcel Boundaries
Subdivision Boundaries
Structures
Proposed Trail

NORTH

Trails
Ditches
State Highway 133
Roads
Driveways
Contour Lines (100 ft)
Lakes and Ponds
Rivers and Streams

0 750 1,500 Feet

Trail Difficulty

Most Difficult | More Difficult | Easiest

Tight ROW along river +/- 1500 ft path and road must share

Tight ROW along river +/- 500 ft. can move road west to make trail.

Tight ROW along river +/- 500 ft.

Tight ROW along river +/- 1700 ft, can move road west in areas,but some spots require road and trail sharing

Use existing bridge

Use old railroad grade

Red Wind Point critical sheep habitat on top- no wildlife impact on RR Grade

FREI Record soon to be updated

Crystal River Trail Panel 12

Crystal River Trail Panel 11

Crystal River Trail Panel 10

Map Series Identifier

Sewell

Goldyn

Sewell Family Pur

Lower Sewell Tracts

Sewell Family

Crystal View Hts.

Dodds

Kindall

Greybar

Villafranco

Crystal River Country Estates

Crystal River

Rotato Bill Creek

Nettle Creek

FOSTER CREEK DR

N BILL CREEK RD

SH 133

RIVERSIDE RD

SEVEN OAKS RD

S BILL CREEK RD

N RED DOG RD

S RED DOG RD

NETTLE CREEK RD

CRYSTAL COUNTRY CIR

CRYSTAL COUNTRY LN

PITKIN GIS COUNTY

Panel 12 and 13: Thompson Creek to Carbondale:

This segment travels from the Thompson Creek Bridge on Highway 133 to the intersection of Highway 133 and Snowmass Drive in Carbondale. It is approximately 4.2-mile long and has an elevation gain/loss of 180-feet.

Only one feasible alignment is located on this section of the trail. The trail continues to stay on the east side of the Highway 133 right-of-way for the entire length of this segment. The topography is very flat in this area and the agricultural fields surrounding the highway offer beautiful landscape vistas highlighting Mount Sopris. A Pitkin County Open Space parcel is located to the north of Thompson Creek between the highway and the Crystal River that provides an excellent opportunity for a future trailhead and possibly the placement of a nature trail out to the river. At the north end of this parcel, an area of wetlands exist that will require the trail to come close to the highway for about 500-feet. About 100-feet further north from this wetland area, a ditch is present along the highway right-of-way that would require culverting to place the trail. A cattle underpass is located at the Fales Ranch, located south of the Pitkin/Garfield County Line. This underpass will require special attention to insure that the presence of a trail will not impact the cattle's ability to comfortably utilize the underpass to access grazing fields located between the highway and the river.

Traveling north toward Carbondale from the county line, another area of wetlands located near the highway bridge over the Crystal River will also require the trail to come into close proximity with the highway. The trail will also require a separate pedestrian bridge immediately adjacent to and east of the existing highway bridge to cross the Crystal River. Between Prince Creek Road and the Carbondale town limits, the Rockford Ditch is located within the Highway 133 right-of-way along the east side. However, there is adequate room between the highway and the ditch for placement of the trail. Finally, a CDOT maintenance yard is located near the highway close to the terminus of the trail at Snowmass Drive. The fencing for the yard will require the trail to be placed adjacent to the highway for about 300-feet.

Crystal River Trail Panel 12 Draft Map

USFS
Open Space
Conservation Easements
Parcel Boundaries
Subdivision Boundaries
Structures
Proposed Trail

NORTH

Trails
Ditches
State Highway 133
Roads
Driveways
Contour Lines (100 ft)
Lakes and Ponds
Rivers and Streams

0 800 1,600 Feet

Trail Difficulty

Most Difficult | More Difficult | Easiest

Fales
Fales
Hicks
Gary Barr Trustee
Flying Dog Ranch
Cattle Underpass
Thomas Creek Ranch
Myers Residence Trust
Trail on culverted ditch
Jelinek
Wet Lowlands
Sustainable Settings
Meadowood Apt. LLP
Sewell Family
Proposed Nature Trail Head
Sewell Family
Sewell Family
Pond in ROW
Stainton
Murray
Sewell
Goldyn

Prince Creek
Thomas Creek
Crystal River
Thompson Creek
Thompson Creek
Thompson Creek
Camp Foster Creek

SH 133
THOMAS RD
N THOMAS RD
STARK MESA RD
FOSTER CREEK DR
N BILL CREEK RD

Map Series Identifier

Crystal River Trail Panel 13 Draft Map
Crystal River Trail Panel 12
Crystal River Trail Panel 11

PITKIN GIS COUNTY

Crystal River Trail Panel 13 Draft Map

USFS
Open Space
Conservation Easements
Parcel Boundaries
Subdivision Boundaries
Structures
Proposed Trail

NORTH

ExistingTrail Connector
Trails
Ditches
State Highway 133 & 82
Roads
Driveways
Contour Lines (100 ft)
Lakes and Ponds
Rivers and Streams

0 1,200 2,400 Feet

Trail Difficulty

Most Difficult | More Difficult | Easiest

Connect to existing trail

CDOT Yard restricts ROW

Ditch 30-45 ft from road

Low Wet Area

Map Series Identifier

Crystal River Trail Panel 13

Crystal River Trail Panel 12

Roaring Fork River

Crystal River

Smith Gulch

Fales

Hicks

Gary Barr Trustee

Flying Dog Ranch

Prince Creek

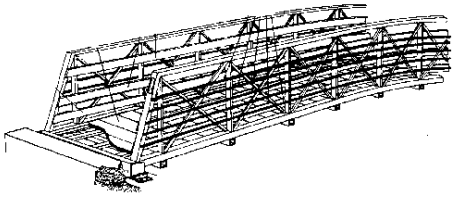
PITKIN GIS COUNTY

6. Trail Construction Issues and Concerns

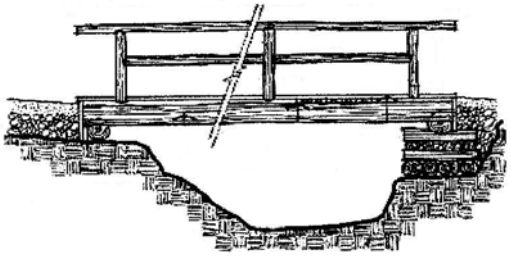
As described in the previous chapter, a trail is feasible in the byway corridor but will present certain design and construction challenges so as to not significantly impact environmental constraints. Described below are the mitigation measures proposed to address these various issues and concerns:

Bridges and Other Creek/River Crossings: Many portions of the feasible trail alignments require creek or river crossings. These areas include Option #2 west of Crested Butte (Panel #1) and Option #2 in the Crystal River (Panels #9, #10 and #11). Any bridge, regardless of size, should be a focal point and seen as an opportunity to give the trail user a more interesting experience. Bridges should be used to cross natural, wide drainages that have continual running water, such as Coal Creek (near Crested Butte) and the Crystal River. Culverts should be used to cross irrigation ditches (see below) and small drainages that have little or no riparian systems associated with them.

For the hard-surface, wide-platform section of the trail (Panels 9-11) it is recommended that the bridges be custom-made, factory-built steel truss structures with clear spans and wooden decks:



For the soft-surface, narrow-platform bridges (Panel #1), it is recommended that a standard wooden bridge of more modest construction be placed:



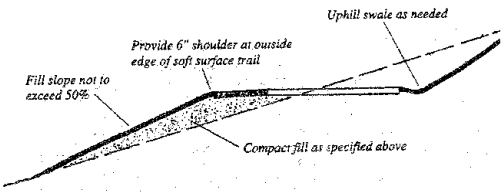
Beyond the standard designs, variety and creativity in design is encouraged. The natural setting as well as other social attributes such as historical significance, should play a role in developing bridge design. Bridge designs should meet the following criteria:

- The design must be structurally sound. If maintenance vehicles are to have the ability to utilize the trail, such as in the hard-surface section between Redstone and Carbondale, the bridge must be designed to carry these loads (generally 5 tons live load). If, on the other hand, the structure is only intended to carry foot, bike and horse traffic (such as west of Crested Butte), lesser design load limits may be employed. These smaller bridges can be removed before winter then stored and replaced after spring run-off. However, bridges on public lands should be managed for year-round use.
- All parts of the bridge (superstructure, decking, railing and abutments) should look and be solid, sturdy and grounded.
- The design should be aesthetically pleasing from all viewpoints.
- The design, materials and motif should fit within the context of the surrounding environment.

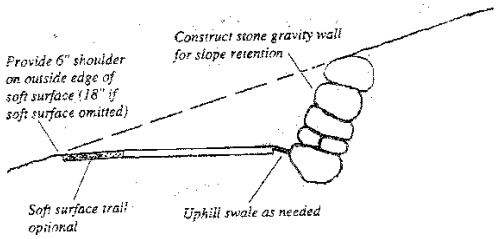
Trail Construction on Steep Hillsides: On steep hillside, three types of construction can be used depending on the nature and stability of the underlying soils:

- Cut/Fill Construction is used on cross slopes of up to 30% where soils are stable enough to use fill, the prospects for revegetation are good, and the

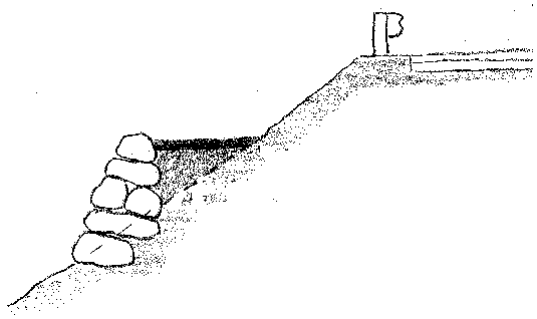
vegetation disturbed by the cut and fill are easily replaced.



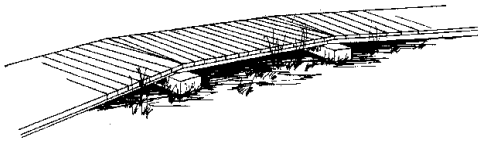
- Full Bench Construction is used cross slopes that exceed 30%, soils are stable enough to use fill, the prospects for revegetation are good, and the vegetation disturbed by the cut and fill are easily replaced.



- Some areas where trail placement is proposed are on hillsides that exceed 60%. These areas include the trail alignment proposed adjacent to Coal Creek on Panel #1. Other places in the Crystal River valley may also be appropriate for this type of construction. In these cases, Retaining Wall/Fill Construction is recommended. Here, a retaining wall is placed on the lower side of the trail and native material is used to fill up to the desired trail platform. No cutting of the hillsides occur with this approach:



Trail Crossings of Wetlands: Several short areas of the trail alignments and one large area near Kebler Pass, are required to cross wetlands. Boardwalks can be used to cross damp or occasionally flooded areas with minimal disturbance. Development in and across wetlands requires approval by the US Army Corps of Engineers under Section 404 of the Clean Water Act. However, the US Army Corp can issue a Nationwide General Permit for boardwalks, avoiding this lengthy permit process. The nature of wetland areas is characterized by soft, lush vegetation, slender plant and shrub stems, tufts of rounded earth and grass, rich moist smells and standing or moving water. The following design standards are meant to accentuate and contrast between the softness of wetlands and the grounded feeling of solid land:



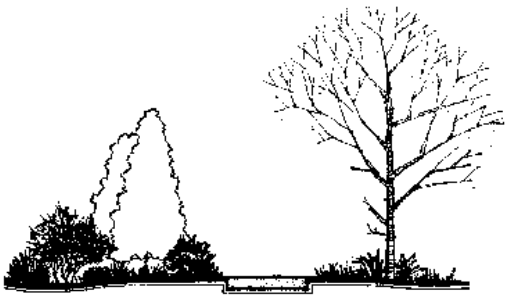
The structure is supported on piers and is raised above the ground or water level on zinc-plated screw anchor piers. Most parts of the deck have a raised wheel guard, but some areas that are significantly elevated may require railings. Standard deck widths are must be suitable for carrying cross traffic.

Mitigation of Impacts to Natural Areas and Areas of Archeological Importance: One designated Natural Area is located near the trail route approximately 3 miles from Crested Butte (Panel 1). This area is known

to contain endangered plant species including the ironfen. The only viable mitigation is to avoid this natural area, keeping the trail either on County Road #12 or to the south of the road.

The Irwin Cemetery on Kebler Pass might be considered an area of potential archeological importance. As such, two trail alignment options have been developed for the areas immediately surrounding the Cemetery, one of which keeps away from this potential historical resource. Another historic resource is the coke ovens located adjacent to Highway 133 at Redstone. Currently, only one trail option is present in this area, and it passes directly by the coke ovens adjacent to the Highway.

Placement of Trail in Heavily Forested Areas: Some portions of the trail alignment passes through dense stands of aspen trees (along County Road #12 from Kebler Pass to Watson Flats, Panels #2 and #3) and along Highway 133 in the area of McClure Pass (Panel #5), where no trail or path currently exists. In these areas, it will be necessary to selectively cut trees along the trail alignment to provide adequate space for recreational use. Every effort should be made to meander the trail alignment in these areas to avoid, to the greatest extent possible, the removal of trees. The width of the trail surface can also be reduced to 2-3 feet to facilitate the minimal loss of trees.



Trail

Co-Mingling of Trail and Road/Highway: Some feasible trail options require the co-mingling of motorized and non-motorized use. These areas occur near Crested Butte (Panel #1), from Watson Flats to Paonia Reservoir (Panels #3 and 4), and as an option in some short trail sections in the Crystal River valley (Panels #9, 10 & 11). In these areas, adequate signage must be placed to inform all road users that motorized and non-motorized traffic will be sharing the road, as well as when this sharing ends and the trail resumes.

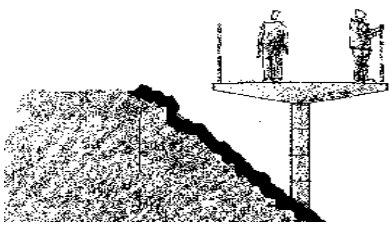
Sharing of the Trail by Motorized and Non-motorized Uses: Some trail options around Paonia Reservoir require shared use of trails by motorized and non-motorized users (Panels 4 and 5). Although these trails currently exist and currently accommodate both motorized and non-motorized uses, the introduction of additional non-motorized use from this plan may cause the potential for additional conflict between these users. Education, through informational posters and signage, is the best means of making trail users aware of this potential conflict.

Another section of the trail corridor, when created, may also be a potential source of conflict between motorized and non-motorized use. Although the intent of the trail is to provide a non-motorized travel way, the trail between Crested Butte and Watson Flats (Panels 1, 2 and 3) may be seen by motorized users as another travel option to the trails and roadways in the area. However, the trail platform in this area is to be designed specifically for non-motorized use, and motorized use would likely compromise the integrity of the trail construction and present a safety hazard to non-motorized trail users. Therefore, these sections of new trail must be adequately signed and instructions placed on trailheads that inform users of the motorized use restrictions and enforcement of these restrictions must be carried out (see Chapter 8).

Placement of the Trail in Close Proximity to the Crystal River: The trail corridor in the Crystal River has several short (500- to 1700-feet) segments that are in very close proximity to the Crystal River. These segments are located between Highway 133 and the river on relatively steep hillsides.

The trail in this area has a design platform that consists of an 8- to 10-feet wide asphalt surface. In these areas three design solutions exist to mitigate impacts to the river:

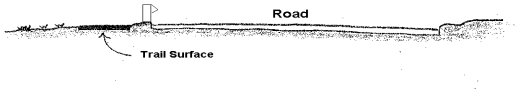
- Placement of the trail on elevated pylons as illustrated below:



- Placement of the trail as an extension of the highway road platform (see Trail Adjacent to Highway Pavement below);
- Reduction of the width of the trail surface to 4- to 6-feet with adequate pullouts and signage.

The first option is the most expensive (+/- $500/linear foot), but minimally impactive to the river and riverbanks. The second option is comparable in expense to the typical trail cross-section but compromises trail user experience and safety. The final option is used in Europe and elsewhere and is cost effective and minimally impactive to the river and riverbanks. Each area must be looked at during final design to assess which method is most appropriate give the conditions in the field and the budget for the project.

Trail Adjacent to Highway Pavement: Some short segments of the trail corridor alignments require the trail to be located immediately adjacent to Highway 133 (Panels 5, 6, 7, 9, 10 and 11). These segments are generally no longer than 500-feet. In these areas, the platform or prism of the highway would be extended 6-10 feet to accommodate the placement of a two-way, non-motorized shoulder that would be physically separated from the driving surface of the highway by a barrier and be adequately signed to inform road users of the approaching trail.



Trail/Irrigation Ditch Interface: Two segments of the trail alignment are in close proximity to significant irrigation ditches that are located within the State Highway 82 corridor (Panels 12 & 13). In these areas, the ditch could be placed in a culvert and the trail placed on top of the culvert. This would help the ditch owners by virtually eliminating maintenance of the ditch in these areas, provided that adequate manholes are placed in the trail to provide access to the ditch through the trail.

Trailheads: For the most part, trailheads are recommended at either existing recreational facilities or pull-offs along the corridor. These include:

1) Irwin Access Rd. or Kebler Pass (Panel 1)
2) Horse Ranch Park or Lost Lake Access Road (Panel 2)
3) Erickson Springs Day Use Area (Panel 3)
4) Paonia Reservoir State Park (Panel 4)
5) McClure Pass (Panel 5)

6) Placita (Panel 6)
7) Redstone Park (Panel 8)
8) Avalanche Creek or Janeway Townsite (Panel 9)
9) Thompson Creek (Panel 12)

These trailheads could provide modest improvements such as 5-7 parking spaces, toilets, etc. (see Chapter 4).

7. Phasing Recommendations

The implementation of the trail will require a multi-year funding and phasing plan that identifies both corridor-wide and localized priorities. The following strategy is recommended to establish the trail corridor, followed by subsequent improvements and amenities to further expand trail use and enrich the user experience:

- Implement the trail alignment in a progressive fashion, starting from the two ends of the corridor and working towards the middle:

Phase 1:
Crested Butte to Kebler Pass (6 miles, of which 2 miles are already complete)
Carbondale to Thompson Creek (4 miles)

Phase 2:
Kebler Pass to Lost Lake (9 miles)
Thompson Creek to Avalanche Creek (6 miles)

Phase 3:
Lost Lake to Erickson Springs (10 miles)
Avalanche Creek to Redstone (5 miles)

Phase 4:
Erickson Springs to Spring Creek (10 miles)
Redstone to McClure Pass (8 miles)

Phase 5:
Spring Creek to McClure Pass (12 miles)

- Establish or improve trailheads to encourage non-resident recreational use. Provide limited parking, rest areas, restrooms and information for resident and non-resident users.
- Install interpretive system sites and/or signage to inform and enrich the trail experience.
- Provide site amenities such as furniture, shelters, landscaping, special signage, etc. to enhance recreational appeal and user comfort.
- Conduct the appropriate environmental analysis for the trail phases in 5-year segments.

8. Management, Maintenance & Operations

For the successful operation and continuity of the Crested Butte to Carbondale trail an integrated, comprehensive maintenance and management program is essential. The trail plan should adopt minimum maintenance standards to insure trail quality and safety. A comprehensive program will ensure that required maintenance is performed and will minimize conflict between user groups. Trail operations and maintenance responsibilities may be united under one entity (i.e. "West Elk Loop Scenic and Historic Byway Program") or delegated to the local jurisdictions (i.e. Pitkin County Open Space and Trails Program, Gunnison County). Because consolidation of these efforts will result in a more uniform approach with a direct line of accountability, the one entity approach is recommended. The development of the program should include representation from all involved parties including the counties, towns, caucuses, state departments and federal agencies having jurisdiction along the corridor and adjacent public lands.

Similar to other open space and park facilities, trail management and maintenance operations utilize both full-time and seasonal staff. Staffing levels depend on the desired level of presence of enforcement and patrol, information/educational programs and in-house vs. contracted maintenance services. Volunteer "Adopt-a-Trail" and "trail host" programs are encouraged to reduce O&M costs and improve the sense of local ownership. The following basic scope of responsibilities lists

many of the services generally required for trail maintenance and management/operations:

Maintenance:
- Trash Collection, liter control
- Tree, shrub and ground cover maintenance (pruning, mowing, selective thinning)
- Infrastructure inspection, maintenance and repair (bridges, fencing, culvert, trailheads)
- Repair of site amenities (benches, signs, tables)
- Seasonal trail openings and closures
- Cleaning and maintaining of water and sanitary facilities
- System Safety: signs, pavement markings
- Trail surface inspection, maintenance and repair (sweeping, snow removal, surface degradation)
- Noxious weed control (weed species will travel along the corridor)
- Cosmetic repairs (graffiti removal, repainting)
- Riverbank cleanup programs
- Erosion control

Management/Operations:
- Emergency assistance including medical rescue
- Security patrol/enforcement of trail use regulations (vandalism control, trail closures)
- Educate and manage potential user conflicts (bike/equestrian, bike/jog, blade/hike, individual/commercial, motorized/non-motorized)
- Prevention of inappropriate motorized vehicle use
- Risk management, including the resolution of liability issues
- Ecological management (native plant restoration, wildlife management)
- Trail host/guide programs

In addition to the specific tasks required for maintenance and operation of the trail system, a comprehensive management plan includes activities outside of the trail corridor. The following principles, actions and design elements can help secure funding for trail construction and operations and facilitate the unified management of the trail system:

- Local governments will cooperate with the federal agencies (USFS/BLM) to determine management and operation responsibilities for the trail.
- On-going collaboration with local and county governments, agencies, interest groups and the West Elk Loop Scenic and Historic Byway Committee should be initiated to coordinate trail promotion, funding, implementation and management efforts to avoid duplication of services. Working together, the counties and communities in the corridor can promote good design, continuity of resource quality and economies of scale. A united front among the communities will help promote the project and greatly enhance funding probabilities.
- The Crested Butte to Carbondale trail should be seen as both a local and a regional endeavor. An effective operating relationship among the participants is essential for funding and implementation of trail improvements within a reasonable time frame.
- Publicize the benefits and opportunities of the trail to improve visibility, local involvement and pride. Locally funded trail phases or strategic pilot projects can help generate public interest and demonstrate dedication to the completion of the overall project. (An example of a pilot project would be a 5- or 10-kilometer run or biathlon charity event that utilizes a portion of the future trail alignment.)
- Vital involvement of key stakeholders is critical for project coordination and eventual development.
- Ongoing review of adjacent proposed development activities to ensure compatibility with Crested Butte to Carbondale trail access and recreational goals.
- Organize a management entity with overall responsibility for trail funding, implementation and perpetual management:

    - Create, or if already in existence, extend and maintain the

intergovernmental agreement authorizing the West Elk Loop Scenic and Historic Byway Committee as a basis for cooperative implementation and management of the regional trail system. Maintain a multi-jurisdictional trails steering committee to provide trails development and management cooperation, or:

- Form a non-profit corporation with tax-exempt status and a Board of Directors but no jurisdictional authority. All projects would be based on cooperative partnerships with public and private entities. This arrangement must include all participating communities with consensus on organizational structure, programming and representation. This corporation can apply for, accept and hold grant funding.

Management Elements

- Animal control and leash regulations should be plainly posted and the public well informed. Education and potential fines can be an effective deterrent and help to reduce the management costs of animal control enforcement.
- Improve the utility and aesthetics of the corridor by elimination of illegal activities such as dumping and motorized use. Again, education and potential serious fines may be effective management tools.
- Develop and maintain an effective weed control program that improves habitat through restoration of native species in disturbed areas of the corridor.
- At trailheads, emergency phones and in some selective cases, area lighting help to decrease vandalism, unwanted use (i.e. teen parties and camping) and improve emergency response.

9. Construction Cost Estimate

The act of constructing a trail in a relatively remote corridor with difficult or remote access conditions, river adjacency and narrow property limits elevate the construction costs relative to average site improvement costs for the region. Costs have been generated from local and regional trail, road and bridge construction projects.

For the generation of cost estimates for the West Elk Loop Byway Trail, several design parameters were assumed:

- No additional property acquisition required;
- A 3- to 5-feet wide crusher-fine trail surface is assumed for the section between Crested Butte and Redstone;
- A 10-feet wide asphalt trail with a 4-feet wide crusher-fine shoulder is assumed for the section between Redstone and Carbondale;
- The roughly 2-mile trail section between the Gunnison County cinder storage area and Irwin Road (Panel 1) is not included within the costs;
- No corridor fencing is included within the costs. If fencing is required, a general cost of between $7 and $10 per linear foot can be added.
- Costs are based on 2004 dollars and will inflate over time.

Depending upon which alignments are ultimately selected, a total estimated development cost for the 70-miles of trail for the Crested Butte to Carbondale trail is between $10,100,000 and $14,050,000.

Estimates are inclusive of several related design or construction elements:

- Site Preparation: clear & grub, erosion control, topsoil remove & replace, cut & fill, subgrade preparation, minor drainage (rip-rap, culverts, revegetation, surveying, time and materials (T&M) allowance of 5%.
- Surface: Asphalt surface of 3" mat, 10-feet wide; chrusher-fine surface of 4" mat, 3- to 5-feet in width.
- Trailhead: Site preparation, picnic shelter, bench, trash receptacle, port-o-let enclosure, trailhead information panel, signage, gravel parking, lighting, gates and fencing, landscaping, interpretive panel.

A Cost estimate spread sheet showing a breakdown for each phase is included as Appendix A.

Start-up Costs

The initial start-up costs for capital equipment provided below relate to the scenario of a newly formed trail management entity requiring the purchase of new equipment. Actual start-up costs may vary greatly dependent on final management strategy and the entity(s) selected for operation of the system. The use of existing staff, tools and machinery would substantially reduce the cost estimated below:

Vehicles and machinery	$ 150,000
Equipment	$ 15,000
Tools	$ 15,000
Communications	$ 10,000
Office/Shop, FF&E	$ 230,000
Total	$ 420,000

Operation & Maintenance Costs

An annual budget is required to insure the ability to operate and perform regular maintenance and operation tasks. Regular inspections, maintenance and patrol are required to maintain system safety and limit operation liability. Maintenance needs vary depending on surfacing type, level of use, weather, management policy and special circumstance (rockfall, etc.). Generally, well-constructed surfaces reduce maintenance and replacement requirements.

The preliminary estimated cost for annual O&M expenditures for the Crested Butte to Carbondale trail ranges from $125,000 - $150,000 per year for full time and seasonal staffs, maintenance and operation materials and services. Actual costs are dependent on adopted management policy, operating entity(s) and design implementation.

10. Funding

Implementation of the Crested Butte to Carbondale Trail will likely be accomplished through the combined efforts of public and private groups working in cooperation. Funding to support trail improvements, management and maintenance will come through the creative use of various sources of assistance. In all likelihood, the trail will be implemented through funding sources such as grants, special appropriations programs, Open Space programs, county general funds, recreation districts, private fundraising, gifts and donations. The design of the program for trail funding should attempt to:

- Organize and energize trail supporters with the goal of securing local sponsorship;
- Organize local fund raising activities (such as volunteer activities and fund raising), and solicit funding from corporations, foundations, local non-profit agencies, civic groups and other private sources;
- Work with local businesses to support the interpretive program, particularly those themes that examine the importance of human activities in the landscape;
- Pursue non-local funding sources;
- Build productive relationships with federal, state and local agencies and stakeholders. Federal and state agencies offer grants and technical assistance.

The following funding sources should be explored as system management responsibilities and implementation phasing are further defined. This listing is not intended to be complete, but rather an attempt to identify the most likely sources of assistance:

Trail Construction

- Local community and county funds
- Colorado State Parks Funds
- State Trails Grant Program
- GOCO (Great Outdoors Colorado) Grants such as Legacy Grants
- Private Sector: Corporate, Individual, Non-Profit
- CDOT Enhancements Funding
- Colorado Historic Society
- Colorado Department of Local Affairs Energy Impact Grants
- Volunteer Organizations including Roaring Fork Outdoor Volunteers (RFOV)

and Volunteers for Outdoor Colorado (VOC)
- Local school and college programs
- USDA Natural Resources Conservation Service – Resource Conservation and Development Program

Operations & Maintenance Costs
- Local community and county funds
- Concession contracts and special use permits
- Volunteer Programs (Adopt-a-trail, etc.)
- Trail User Fees

Appendix A
Construction Cost Estimates By Phase

Phase	Cost Estimate	Cost/foot
Phase 1:		
Crested Butte to Kebler Pass	$650,000 - $1,200,000	$30 - $55
Carbondale to Thompson Creek	$1,200,000	$55
Phase 2:		
Kebler Pass to Lost Lake	$1,200,000	$25
Thompson Creek to Avalanche Creek	$1,700,000 - $3,200,000	$55 - $100
Phase 3:		
Lost Lake to Erickson Springs	$800,000 - $1,000,000	$20 - $25
Avalanche Creek to Redstone	$1,100,000 - $2,500,000	$40 - $95
Phase 4:		
Erickson Springs to Spring Creek	$550,000 - $850,000	$30 - $35
Redstone to McClure Pass	$1,200,000	$20
Phase 5:		
Spring Creek to McClure Pass	$1,700,000	$25
Total:	**$10,100,000 - $14,050,000**	**$27 - $42**

Appendix B
Agency Comments, Newspaper Articles, Letters

Provided below is a listing of all correspondences, articles and web pages submitted to the West Elk Loop Scenic and Historic Byway Commission regarding this feasibility study. Complete copies of these documents are available by contacting the West Elk Loop Scenic and Historic Byway Committee, c/o Marlene Crosby, Gunnison County Public Works, 811 Rio Grande Drive, Gunnison, CO, 81230, or Dale Will, Executive Director, Pitkin County Open Space and Trails Program, 530 East Main Street, Aspen, CO 81611.

- Letter of Support from the Crested Butte/Mt. Crested Butte Chamber of Commerce, 4/27/04
- Letter of Support from the Pitkin County Commissioners, 5/6/04
- Letter of Support from the Western Colorado Interpretive Association, 4/20/04
- Letter of Support from the Carbondale Trails Committee, 5/4/04
- Letter of Appreciation, West Elk Loop Scenic & Historic Byway, 4/30/04
- E-Mail of Support from Robert Johnson, Mayor of Paonia, 5/2/04
- Letter of Support from Gunnison County Trails Commission, 4/24/04
- Letter of Support from The City of Aspen Open Space and Trails Board, 3/23/04
- Letter of Support from Chuck and Doris Downey, 3/30/04
- Letter of Endorsement from the Redstone Community Association
- Minutes of the West Elk Loop Scenic & Historic Byway, 9/12/03, 11/14/03, 2/6/2004
- Valley Journal Articles 12/11/02, 12/18/03
- West Elk Loop Scenic & Historic Byway Letter to the Crystal River Alliance, 3/12/04
- Letter to Pitkin County from Jan Edwards, 8/22/03
- The Economic Benefits of Trails, American Hiking Society Fact Sheet
- Carbondale Trails Group Minutes, 12/12/03 and 1/16/04
- Memorandum to Dale Will from Jonathan Lowsky, Pitkin County Wildlife Biologist, regarding Hot Springs Open Space, Filoha Meadows Open Space, Carbondale to Redstone Trail, and Wildlife, 12/14/03
- Agenda, Carbondale Board of Trustees, 1/13/04
- CDOT Intermountain 2030 Regional Transportation Plan, Project Description – West Elk Loop Scenic Byway Trail – Crystal River Valley Segment
- Highway 133 Bike Path/Trail Option, submitted by Ray Pojman, no date
- Agenda, Gunnison County Board of Commissioners, 10/7/03
- Crystal River Caucus Meeting Minutes, 7/17/03
- Letters from Dee Blackwell, 9/18/03, 3/16/04
- Draft Intergovernmental Agreement for Trail Within CDOT Right-of-way
- Aspen Times Article, 11/18/03
- Fax from Dorothy Morgan, Bureau of Land Management Glenwood Springs Office, 2/2/04
- American Discovery Trail Website Information
- Letter from Richard Lee of the Bear Ranch, Ragged Mountain, 3/17/04
- Excerpts from Impacts of Trails and Recreation lists on Wildlife, Prepared for the Environmental Protection Agency, 9/29/03

Appendix C

West Elk Loop Scenic Byway Crested Butte to Carbondale Trail Feasibility Study, Existing Conditions Report

(This document is available by contacting the West Elk Loop Scenic and Historic Byway Committee, c/o Marlene Crosby, Gunnison County Public Works, 811 Rio Grande Drive, Gunnison, CO, 81230, or Dale Will, Executive Director, Pitkin County Open Space and Trails Program, 530 East Main Street, Aspen, CO 81611)

Appendix D
Regional Trail Connections Map

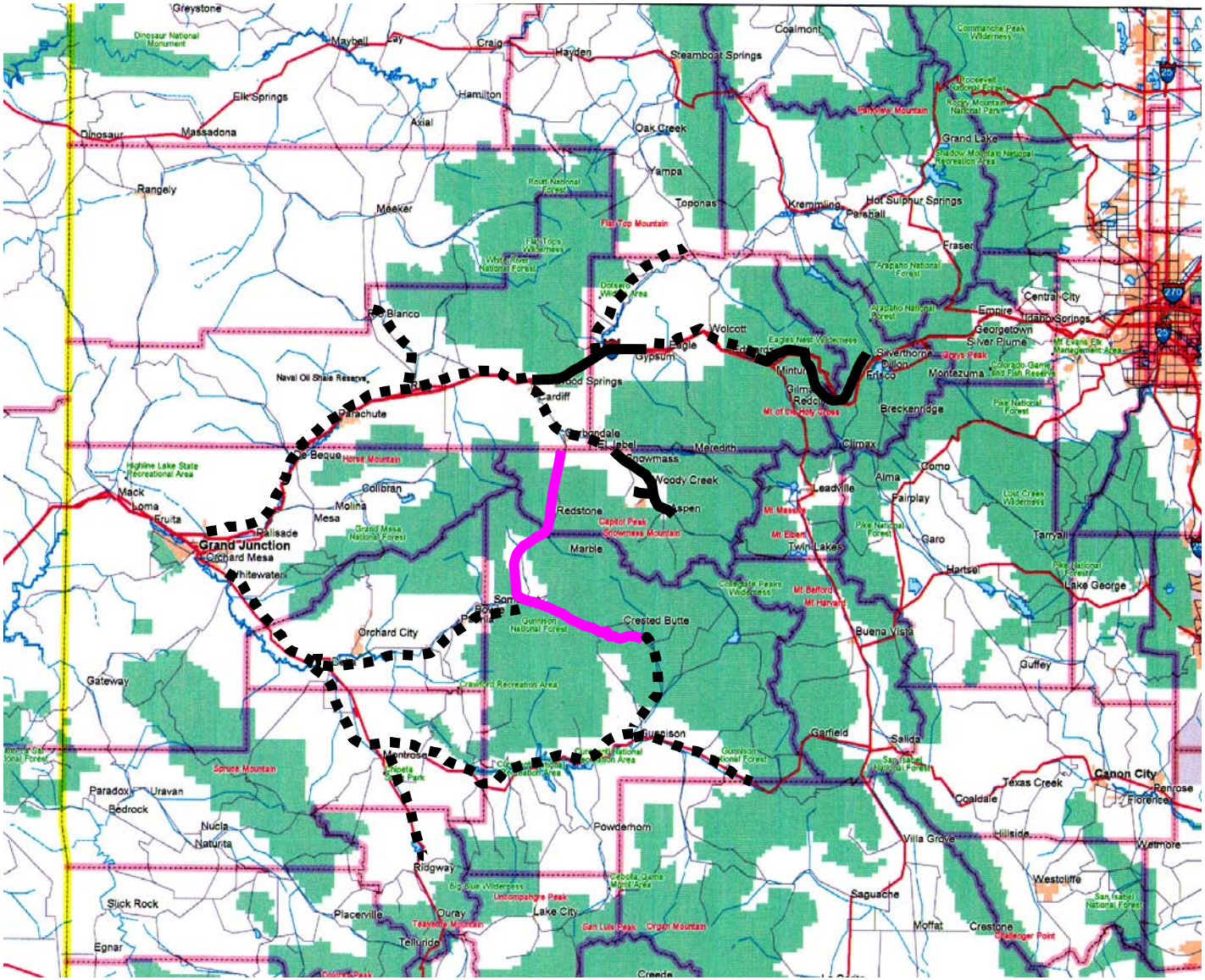


EXHIBIT D
REGIONAL TRAILS

Existing Trail

Proposed Trail

West Elk Loop Trail