

## *2. Layout and Alignment*





## Layout and Alignment

This chapter presents and locates the recommended corridor improvements. Please refer also to the map at the end of this chapter.

### Segment 1: The “Canyon” (Glenwood Springs to New Castle, Length--12 Miles)

#### Overview

The Trail corridor begins at Two Rivers Park in Glenwood Springs at Devereaux Road just west of the confluence with the Roaring Fork River. The existing Colorado River and Roaring Fork Trails terminate at this point. This segment extends 12 miles and terminates at the confluence with Elk Creek in New Castle.

**Interim Route** (Note: On-street portions not recommended for less skilled bicyclists.)

- From Two Rivers Park use Devereaux Road on street to West Glenwood Interchange (Interchange 114) at Mel Ray Road (walking opportunity along existing pedestrian walk adjacent to Devereaux Road). Construct 10'-wide multi-use trail from West Glenwood Interchange to South Canyon Road (Interchange 109). Use Highway 6 from South Canyon Road to New Castle (caution: higher traffic volumes).
- Consider a pedestrian span crossing the Colorado River west of the confluence with Canyon Creek to access CR 235 that would provide an alternative on-street route to New Castle.

#### On-Street Routes

- Existing Devereaux Road to West Glenwood Springs
- Scenic route south on South Canyon Road

- Scenic route north on Canyon Creek Road
- Scenic route along CR 245 to Harvey Gap, Rifle Gap and Rifle
- East/west route along CR 235 to New Castle

#### Access Points/Features

- Use existing access point at Two Rivers Park. Provide a gateway sign that depicts trail and paddle route, accessibility, degree of difficulty and other corridor information. Include a map showing LOVA master plan with contact and contribution information. (This sign should appear at all access points—hereinafter referred to as a “gateway” sign).
- Use existing eastbound I-70 rest stop in Glenwood Springs as access point. Add map/gateway signage.
- Maintain existing boater access point on Devereaux Road east of Mel Ray Road. Provide boater information gateway sign.



## KEY POINTS

No condemnation of property

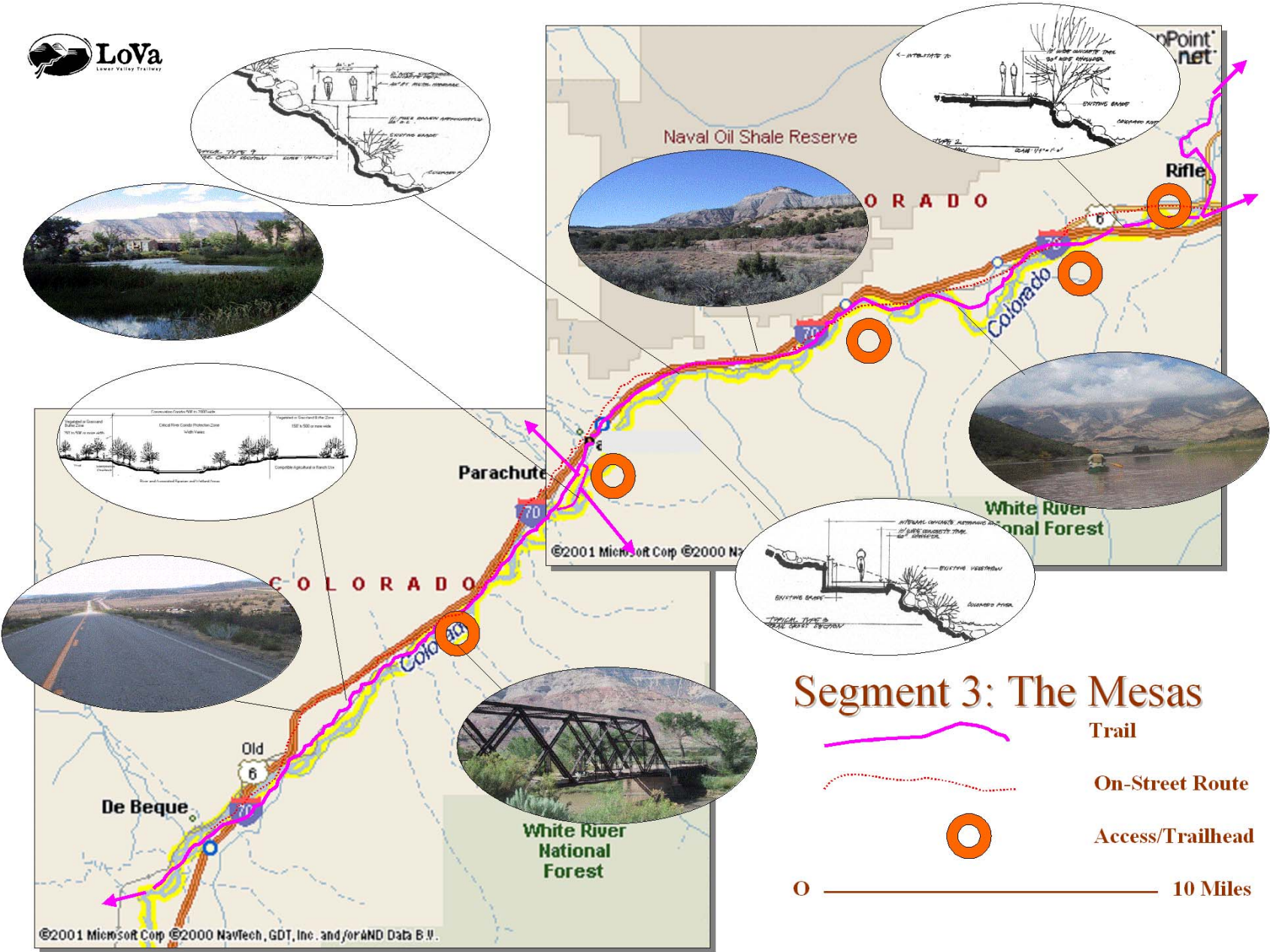
Ultimately, create a continuous trail along the river corridor from Glenwood Springs to the Garfield County line west of Parachute

Work with willing property owners, ranchers, hunters and miners to preserve and enhance river bottom lands




In the shorter term combine shorter trail segments and on-street connections to create a continuous corridor

Work with the towns and cities to create riverfront “commons” areas with trails, open spaces and other amenities



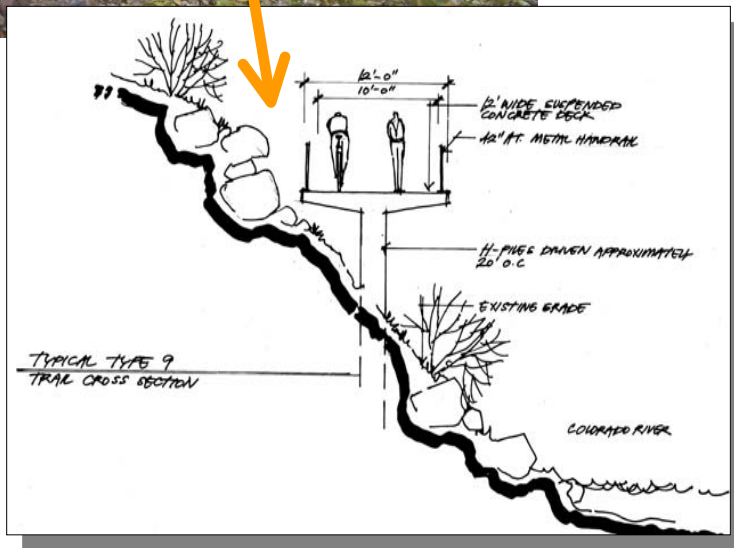
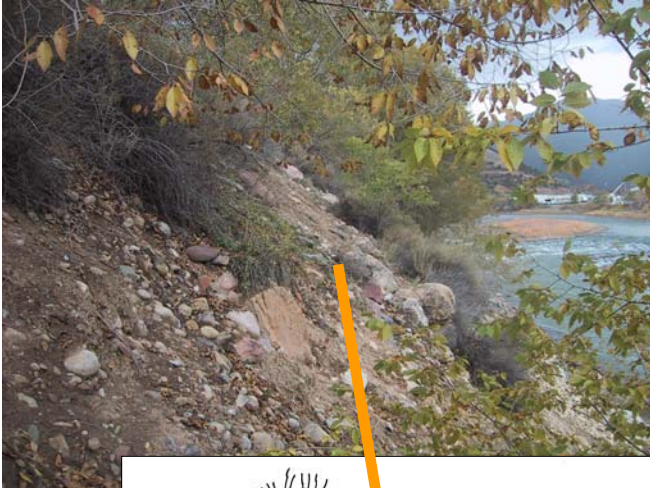


### Segment 3: The Mesas

-  Trail
-  On-Street Route
-  Access/Trailhead
-  10 Miles





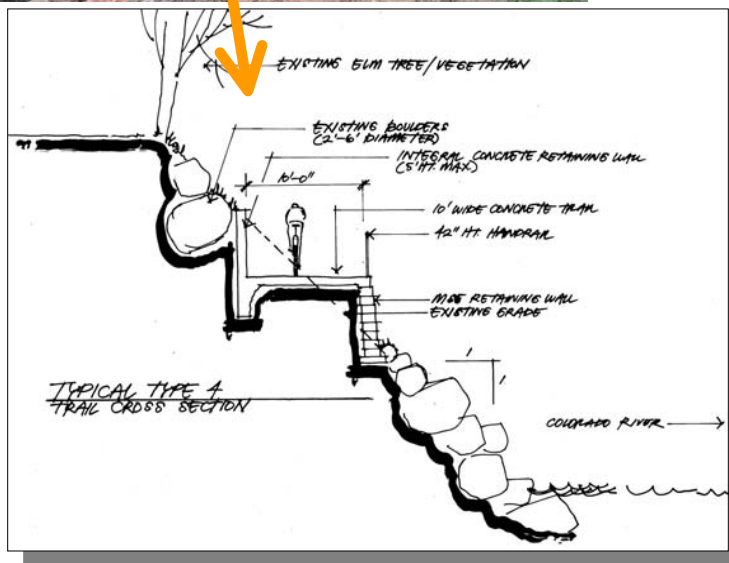


*Trail on Deck Concept Along I-70 in Glenwood Springs*

- Enhance existing BLM access point at South Canyon Creek with gateway sign and restore/improve hot springs area.
- Clean-up and improve access point at Canyon Creek including storm shelter, picnic tables, gateway sign, boat launch and protection/enhancement of the confluence fishing area including wheel chair access for disabled anglers.
- Provide trailhead access point on south bank of river just east of Interchange 105.
- Improve Coal Ridge Park as an access point with gateway sign.
- Develop new access point along Elk Creek on west bank just south of Highway 6. Provide directional signage in New Castle for on-street and sidewalk links to the trailhead at Elk Creek.

### Spine Trail

- Construct a paved 10'-wide multi-use trail benched in to the north bank of the Colorado River between I-70 and the river from Two Rivers Park to Mile Post 107 (junction with CR 240). Design trail for minimal adverse impact on river landscape.
- Provide a 250'-long pedestrian span over the river west of Canyon Creek linking to an on-street route via CR 235 near I-70 Mile Post 109.5.
- From Canyon Creek, the main trail follows the north bank for approximately 1 mile crossing the river on a 350' long pedestrian span near Mile Post 106.



*Trail on Bench with High Retaining Walls*

- The trail then follows the south bank of the river to Coal Ridge City Park and continues approximately ½ mile to the confluence with Elk Creek. At this point the trail crosses to the north bank of the Colorado River on a 350' pedestrian span and terminates at a new trailhead on the west bank of West Elk Creek at Highway 6.
- Create future trail/greenway along Elk Creek.
- Work with owners of Apple Tree subdivision to provide a spur trail accessing this residential area.

**Conservation/Restoration Projects (See also New Castle Park and Open Space Plan)**

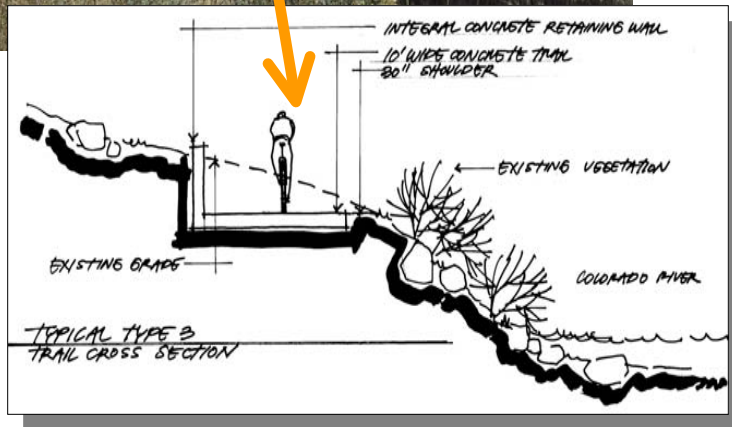
- Clean-up and restore eroded and blighted riverbanks including removing concrete rubble. Re-vegetate wherever feasible along both banks of the river.
- Where property owners agree, preserve open space areas of agricultural land between river and Highway 6 on north bank.
- Preserve approximately 25-acre tract on south bank east of Interchange 105 as access point conservation area.
- Preserve strips of river frontage on both banks from Interchange 105 to confluence with Elk Creek with 150'-wide setbacks of development where possible.

**Loop Trails**

- Provide a primitive/mountain bike trail on south bank of river between the mainline railroad bridge and Canyon Creek confluence.

### Boating and Fishing Improvements

- Provide boater information signage at Two Rivers Park, South Canyon, Canyon Creek and New Castle Access points.



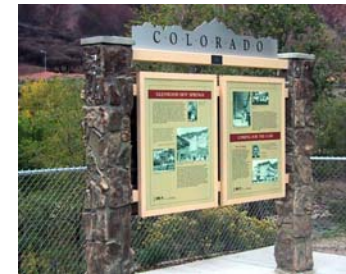
*Trail on Bench with Low Retaining Walls Concept*

- Provide boater/portage trail at South Canyon Creek.
- Maintain boater access at Coal Ridge City Park with gateway information signage.



### Interpretive Elements

- Install wayside display along trail near South Canyon Creek interpreting the geology of the canyon (Paleontology, Geology and Geography Theme).
- Install wayside display at Canyon Creek access point interpreting wildfires, the Storm King Mountain Tragedy, and the Coal Seam Fire. Include a map with directions and trail information for accessing the Storm King memorial (Weather, Wind, Water and Fire Theme).
- Encourage participation by Riverside Junior High School in the stewardship of the corridor and outdoor classroom activities.





## Segment 2: The “Valley” (New Castle to Rifle, Length—14 Miles)

### Overview

This portion of the corridor begins at the confluence with Elk Creek in New Castle. The trail follows the river corridor skirting the outer edges of the floodplain and riparian areas. These areas are also recommended (with owner approval) for conservation with agricultural, mining and wildlife habitat benefits. This segment terminates at the Rifle Information Center and the confluence with Rifle Creek where it joins the Rifle Creek Trail accessing Rifle.

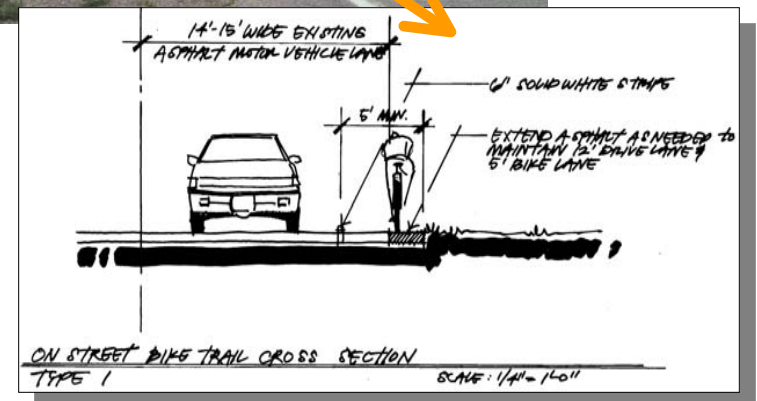
**Interim Route** (Note: Some on-street portions not recommended for less skilled bicyclists.)

- Leaving New Castle the trail follows the north bank of the river benched into the bank adjacent to I-70 for approximately 1-mile. The trail then connects with the existing service road running along the south side of I-70 (near Mile Post 103). The trail continues on street to a point opposite CR 231 in Silt. The trail then crosses the river and follows the I-70 Service Road (gravel road) corridor along the north side of the highway for approximately 4 miles toward Rifle.
- An off-street trail segment is constructed from the terminus of the service road approximately 1.5 miles to the Rifle Information Center. Alternatively, skilled bicyclists might follow Highway 6 from Silt to Rifle though shoulder widths are not adequate.



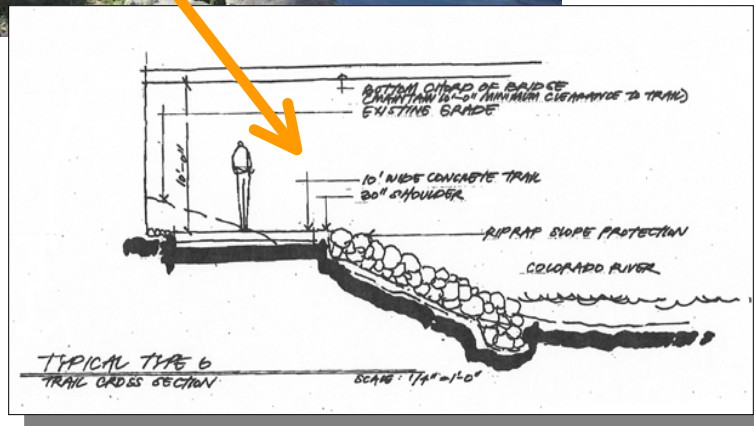
### On-Street Routes

- Widen shoulders along Hwy 6 to 6'-8' per CDOT standards from New Castle to Rifle.



Shoulder Improvement Concept along Highway 6/24

- Scenic route potential from Rifle to Rifle Gap to Harvey Gap and along Elk Creek to New Castle.
- Possible Scenic Routes along abandoned CR 346 toward Silt
- Scenic Route potential along CR 320 to Battlement Mesa (grades and gravel surfaces)



Bridge Underpass Concept

### Access Points/Features

- Enhance existing access point on island at Silt with gateway sign. Provide links to populated areas of Silt and Stillwater via existing tunnel under I-70 and/or with improvements to bridge over I-70 at Mile Post 97 and via future trail links to Stillwater at strategic locations including Divide Creek.
- Enhance existing access point at the Rifle Information Center with a gateway sign.
- Create trailhead access point in Downtown Rifle via Rifle Creek trail near 3<sup>rd</sup> Street.
- Provide on-street direction signage and bicycle/pedestrian routes in the populated areas.
- Enhance New Castle, Silt and Rifle Riverfront “Commons” areas with open space, loop trails, interpretive features, picnic facilities and toilet facilities.



### Spine Trail

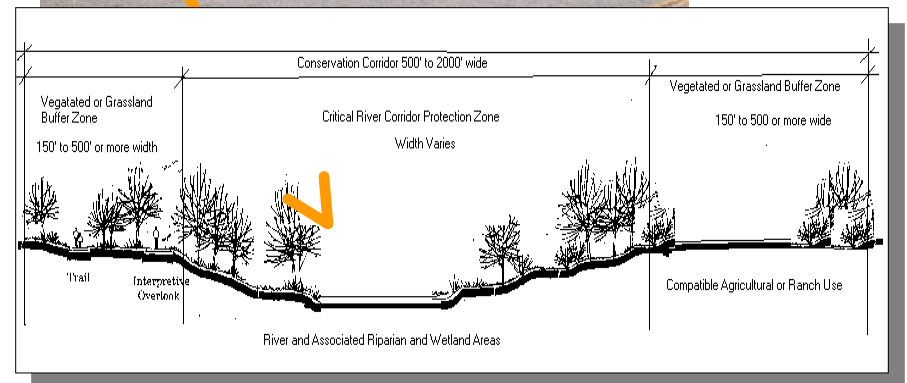
- Develop a dual trail system between New Castle and Silt. This includes building a paved multi-use trail running along the north side of Hwy 6 accessing Coal Ridge High School (by others) and a softer surface trail (crusher fines) meandering along northern edge of conserved river bottomlands south of I-70 from New Castle to Silt. This component includes building a multi-use trail benched into the north bank of the river adjacent to I-70 running west from New Castle (Mile Post 102 to Mile Post 103).

- Cross the river on a 350 foot pedestrian span to the south bank near I-70 Mile Post 96 and run along the edges of the riparian area through the southern edge of the floodplain. Integrate the trail with gravel mining activities (and future reclamation) with use of landscaping and safety signage and other improvements to avoid conflicts with gravel mining activities. Locate the trail far enough from I-70 to minimize adverse noise impacts on trail.
- Construct a multi-use trail along the southern edge of the floodplain proximate to I-70 for approximately 1.5 miles from the end of the gravel service road to the Rifle Information Center, with links to downtown Rifle and the Rifle Creek Trail via the re-use of the truss bridge.

**Conservation/Restoration Projects**

- Work with landowners and sportsmen to conserve riparian and flood plan lands between New Castle and Rifle—approximately 3000-4000 acres. These areas are kept in agricultural and river bottomland uses including waterfowl hunting and fishing. Work with gravel miners to restore and rehabilitate mined out areas as optimal waterfowl habitat. Access is limited to paddle craft, hunters and anglers, guided tours and school groups with landowner permission.
- Preserve riverfront park and open space areas as depicted in New Castle, Silt, Stillwater and Rifle plans (included in above acreage). These “Riverfront Commons” are areas proximate to the towns with loop trails, low-key riverfront access, picnic tables, and nature study/interpretive facilities. All improvements must be consistent with maintaining the riparian/wetland character of the river as a healthy natural resource.

- Clean-up and restore eroded and blighted riverbanks and replant with appropriate riparian species, eradicate invasive species including tamarisk.

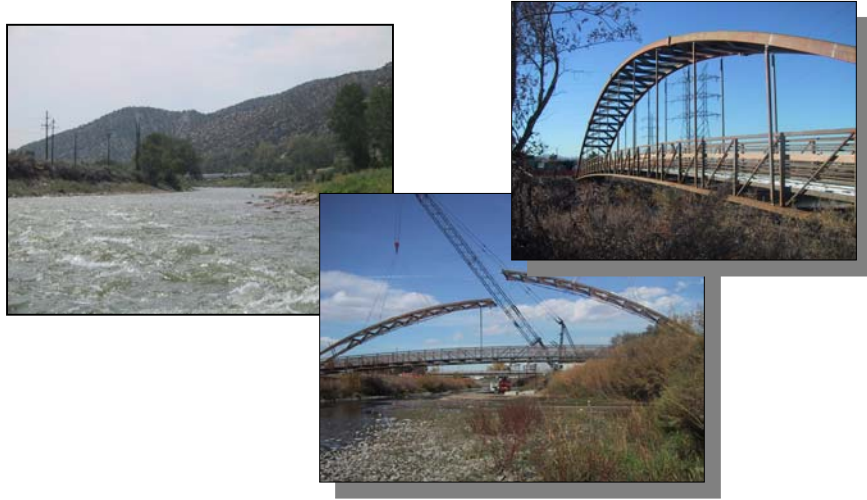


*Riparian and Floodplain Stewardship Concept*



### Loop Trails

- Develop hard and soft surface loop trails in the river bottom areas adjacent to the towns. The trails link to islands in the river and to nearby populated areas.



*Pedestrian Span Concept*

### Boating and Fishing Improvements

- Improve existing boater access point at Silt with boater information signage.
- Provide boater access point at Rifle with information signage.
- Explore provision of overnight camping for boaters and trail users, possibly as part of commercial camping facilities at Silt and Rifle.

- Explore provision of possible boater lunch stop and toilet facilities at appropriate locations with landowner permission.

### Interpretive Elements

- Install wayside exhibit that interprets riparian, geomorphology and waterfowl habitat character of the area (Weather, Wind, Water, and Fire Theme).
- Install wayside exhibit that interprets gravel-mining activities in area (Hands of Man Theme).
- Encourage participation by local school students in the stewardship of the corridor and outdoor classroom activities.



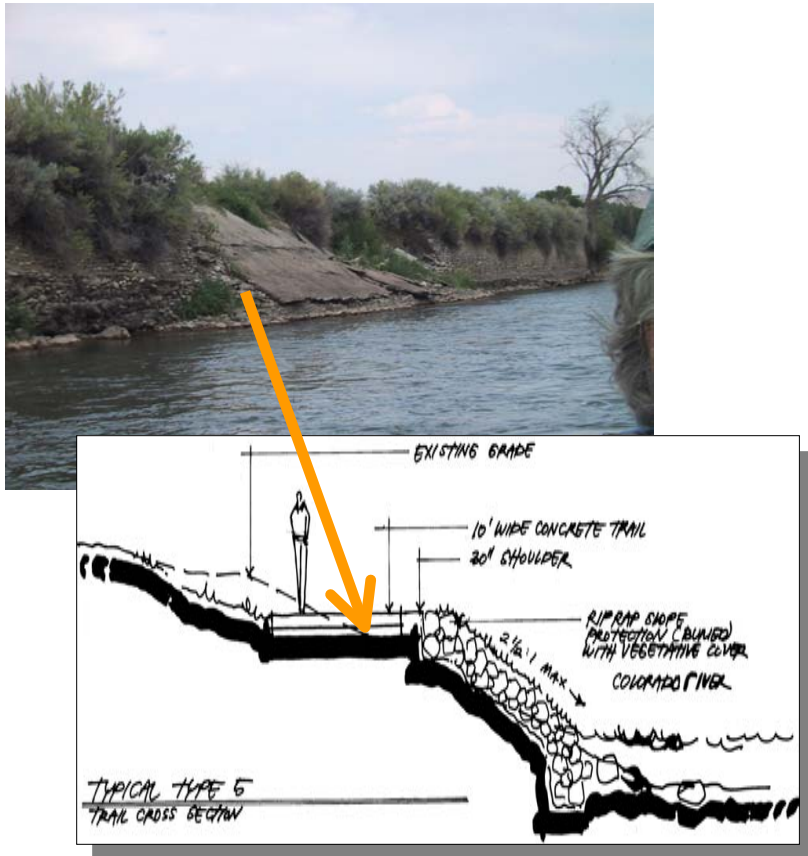
### Segment 3: The Mesas (Rifle to Garfield County Line, Length—24 miles)

#### Overview

This segment begins at the Rife Information Center and follows the river corridor to the Garfield County line near DeBeque. Conservation of the 100-year flood plain of the Colorado River is recommended with access points at appropriate locations. The trail runs along the north bank of the river skirting the northern edge of the floodplain from Rifle to the county line. Riverfront “Commons” areas with trails, open space parks, natural areas and access points are recommended at Rifle and Parachute.

**Interim Route** (Note: On-street portions not recommended for less skilled bicyclists.)

- Leaving Rifle, build a multi-use off-street trail following the river corridor for approximately 3 miles to I-70 Interchange 87. From here the corridor uses Hwy 6 (caution: traffic and narrow shoulders along this corridor) for approximately 12 miles to Parachute where it follows a multi-use trail along the Parachute riverfront for approximately 2.5 miles to the Hwy 6 crossing of I-70. From here the route continues on street along Hwy 6 to the county line (caution: road has narrow shoulders but lower traffic volumes).



*Bank Restoration Concept with Trail*



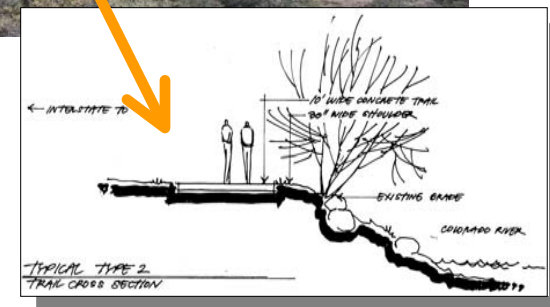
### Access Points/Features

- Enhance major access points at Rifle Information Center and Rifle Creek at 3<sup>rd</sup> Street with “gateway” signage.
- Provide access point at I-70 Interchange 87 with gravel parking area (10 cars), “gateway” signage, boat landing, picnic tables and toilet facilities.
- Provide access point at CR 323 (Rulison I-70 Int. 81) with gravel parking area (10 cars), “gateway” signage, boat landing, picnic tables and toilet facilities.
- Enhance access points in Parachute at Town Hall & Cottonwood Park including equestrian access and equestrian trails.
- Enhance Rifle and Parachute Riverfront “Commons” areas with open space, loop trails, interpretive features, picnic facilities and toilet facilities.
- Provide access point at CR 300 with gravel parking area (20 cars), “gateway” signage, boat landing, picnic tables and toilet.

### Spine Trail

- From the Rifle Information Center, the trail follows the south bank for approximately 2 miles crossing again to the north bank on a 200’ pedestrian bridge and then following the north bank of the river between the highway and the river to Interchange 87.
- From the proposed trailhead access point at I-70 Interchange 87, the paved multi-use trail follows the northern edge of the 100-year floodplain between the UPRR mainline and the river, meandering closer to the river bank where appropriate. This includes following an existing gravel road next to the river around Anvil Point and continuing on to Parachute.

- Through Parachute the trail runs proximate to the riverbank avoiding conflict of through traffic on the spine trail with local loop trails, park uses and features.
- West of Parachute the trail runs along the northern edge of the 100-year flood plain between the UPRR tracks and the river.



*Basic Trail on Grade Concept*



### **Conservation/Restoration Projects**

- Work with landowners and sportsmen to conserve riparian and flood plain lands between Rifle and the county line—10,000 to 15,000 acres. These areas are kept in agricultural and river bottomland uses including waterfowl hunting and fishing. Work with gravel miners to restore and rehabilitate mined out areas as optimal waterfowl habitat. Access is limited to paddle craft, hunters and anglers, guided tours and school group, with landowner permission.
- Preserve riverfront park and open space areas as depicted in Rifle and Parachute plans (included in above acreage). These are areas proximate to the towns with loop trails, low-key river front access, picnic tables, and nature study/interpretive facilities. All improvements are consistent with maintaining the riparian/wetland character of the river as a healthy natural resource.
- Clean- up and restore eroded and blighted riverbanks and replant with appropriate riparian species, eradicate invasive species including tamarisk.

### **Loop Trails**

- Develop hard and soft surface loop trails in the river bottom areas adjacent to the towns. The trails link to islands in the river and nearby populated areas.
- Provide equestrian access point east of Battlement Parkway with equestrian loop trails running along the river corridor for several miles east and west of Parachute.

### **Boating and Fishing Improvements**

- Provide boater access points at Rifle, Rulison, Parachute and CR 300 with boater information signage.

- Explore provision of overnight camping for boaters and trail users, possibly as part of a commercial camping facility at Rulison, Parachute and CR 300.
- Explore provision of possible boater lunch stop and toilet facilities at appropriate locations, with landowner permission.

### **Interpretive Elements**

- Install wayside exhibit that interprets oil shale and gas extraction history and current activities in the area, including Rulison nuclear device experiment (Hands of Man Theme).
- Encourage participation by local school students in the stewardship of the corridor and outdoor classroom activities.

### **Summary of Estimated Costs**

Trail costs, along with issues of maintenance and patrolling, vary greatly from site to site and jurisdiction to jurisdiction. New trails built to all current standards, on their own rights of way and including features like exclusive bridges and spans cost a considerable amount of money. The Summary of Estimated Costs below shows a cost of approximately two million dollars per mile with moderate appurtenances.

At the other extreme is the utilization of existing surfaces and rights of way, where these are feasible and/or necessary, resulting in only moderate costs for signing, striping, and modification of grates and other potential hazards. Existing frontage roads, county roads, and US Highway 6 right of way exist along almost the entire projected length of the trail at present.

Trails are not just the surface area of a path. Trails projects often involve area restoration, clean-up, and re-vegetation. They also often involve the development of interpretive sites, access sites, and outdoor classrooms. These kinds of activities often lend themselves to participation and funding partnerships from a variety of sources.

Trail segments are often built and provided by new developments, and in some cases, expensive elements like river and drainage crossings have been developed in conjunction with utility companies that share the span. Historic bridge crossings are often used when the bridge is restored, and in some cases even moved and restored.

In short, any complex trail system, especially one this long and diverse, is likely to be developed over time utilizing a variety of funding sources from state and federal transportation project elements, grants, developer participation, local parks and recreation funding, educational sources, local industry participation, local government participation and good old fashion sweat equity from volunteers and bake sales!

**Cost Assumptions.** Estimated costs include mobilization and contingency (25%) at 2003 prices. Engineering, estimated at 15%, is shown in the segment-by-segment estimates. Right-of-way and land acquisition costs will vary by location and terms of conveyance and are not included in this estimate. In tabulations below, per-foot trail costs are averaged to reflect the weighted amounts of required walls, decking or other technical improvements.

## **Trails**

Three cost levels for multi-use trails based on site design challenges. All multi-use trails have warm tone concrete surface.

**Basic Trail On Grade**—10'-wide paved surface with 30" shoulders with minimal grading and site preparation: **\$ 100/lf.**

**Moderately Technical Trail**—Construction requires a low retaining wall or rock stabilization in addition to the trail surface: **\$ 300/lf.**

**Technical Trail**—Requires high retaining walls, decking or other more complex structures including hand railing in addition to the trail surface: **\$ 750/lf**

**Pedestrian Span** —10'-wide pedestrian bridge crossing the river. Assumes a 350' to 450' span: **\$ 500,000/ea.**

**Trailhead/Access Points**—Typical site includes soft surface parking for 30 cars, picnic tables, pit toilet, boat launch and gateway signage. Includes site clean-up, grading and non-irrigated landscaping. Assumes a 1 acre site: **\$ 150,000/ea.**

**Rest Area/Interpretive Site**—Typical site includes a bench and interpretive wayside display. Includes clean-up grading and non-irrigated landscaping: **\$ 25,000/ea.**

**Storm/Sun Shelter**—250 sf shelter structure located at select trailheads and rest areas: **\$ 35,000/ea.**

**Segment One: Glenwood Springs to Elk Creek (New Castle)**

<u>Item</u>	<u>Unit Cost</u>	<u>Quantity</u>	<u>Total</u>
Paved Trail	577	62,000 lf	\$ 35,800,000
Ped. Spans	500,000	3	1,500,000
Trailheads	150,000	3	450,000
Rest Areas	25,000	6	150,000
Strom Shelter	40,000	2	80,000
Total Construction:			\$37,980,000
Engineering @ 13%:			4,937,000
<b>Grand Total:</b>			<b>\$42,917,000</b>

**Segment Two: West Elk Creek Confluence To Rifle Creek (Rifle)**

<u>Item</u>	<u>Unit Cost</u>	<u>Quantity</u>	<u>Total</u>
Paved Trail	135	72,000	\$ 9,720,000
Ped. Spans	500,000	2	1,000,000
Trailheads	150,000	1	150,000
Rest Areas	25,000	7	175,000
Storm Shelter	40,000	2	800,000
Total Construction:			\$11,845,000
Engineering @ 13%:			1,540,000
<b>Grand Total:</b>			<b>\$ 13,385,000</b>

**Segment Three: Rifle Creek to Garfield County Line**

<u>Item</u>	<u>Unit Cost</u>	<u>Quantity</u>	<u>Total</u>
Paved Trail	245	128,000	\$ 31,360,000
Ped. Spans	500,000	0	0
Trailheads	150,000	4	600,000
Rest Areas	25,000	10	250,000
Storm Shelter	40,000	4	160,000
Total Construction:			\$32,370,000
Engineering @ 13%:			4,200,000
<b>Grand Total:</b>			<b>\$36,570,000</b>