

Summary of Analysis Findings

The feasibility study evaluated the alternatives using the following analysis topics:

Environmental and Cultural Resources

- Wetland and riparian areas
- Significant natural communities
- Wildlife habitat impacts
- Undisturbed habitat impacts
- Cultural Resources

Trail Construction Costs

Trail Management and Maintenance

- Trail sustainability and maintenance
- Emergency response
- Interagency management

Visitor Experience






- Regional trail connectivity
- Trail aesthetic and character
- Access and parking
- Trail access opportunities
- Seasonality
- Visitor density
- Visitor conflict management

Eldorado Canyon State Park Interface

- Park capacity and visitation
- Access and parking
- Revenue and fee collection
- Trail and facility sustainability
- Visitor conflict and enjoyment
- Emergency access and response

Below are summary tables and brief descriptions of the findings. In addition to reporting out on the analysis topics, there is also an “overall” findings table and description, which “rolls up” the findings of the analysis topics and reports out on the analysis categories (listed in bold above).

The alternatives were assigned an impact score for each of the analysis topics and categories ranging from a Major Benefit to a Major Impact.

				
Major Benefit	Minor Benefit	Insignificant	Minor Impact	Major Impact

The impact scores are informed by best available and comparable data and were determined by reaching consensus among subject areas experts from all partner agencies. The intent of the impact scores are to provide a foundation and tool to develop a recommendation. They are not intended to be used in a strict formulaic way. In other words, the recommendation will not be derived by simply adding up the impact scores.

Summary of Overall Findings

Analysis Category	North Route	South Route
Environmental and Cultural Resources	○	●
Visitor Experience	◐	◐
Trail Construction Costs	\$360K to \$660K	\$410K to \$810K
Trail Management and Maintenance	◐	○
Eldorado Canyon State Park Interface	●	●

Environmental and Cultural Resources

- **North** has minimal new environmental impacts since most of the route follows an existing trail corridor with existing impacts.
- **South** has major impacts to environmental resources including major impacts to riparian, wildlife and undisturbed habitat.
- The impacts to the North Route would be insignificant, while the South Route would have major impacts.

Visitor Experience

- **Both** would provide an enjoyable and quality visitor experience. Some similarities and differences between the routes are highlighted below.
- **Both:**
 - meet desired bike trail design standards, with the exception of the Rattlesnake Gulch Trail which would be the access trail for the south route in ECSP.
 - offer expansive views and go through a similar diversity of landscape types.
 - may result in increased visitor conflict, due to increased trail visitation and the introduction of a new visitor type into the trail system.
- **North:**
 - is shorter (3.9 – 4.8 miles) with an elevation gain/loss of +1,010/-610 (E to W).
 - will accommodate more year-round use due to the combination of aspect and shade cover.
 - no temporal or seasonal use restrictions are anticipated.
- **South:**
 - is longer 6.5 – 7.1 (7.8 including Rattlesnake Gulch Trail) with an elevation gain/loss of +930/-480 (+1,860 including Rattlesnake).

- provides a new trail experience in an area that is currently inaccessible.
- may result in temporal and seasonal use restrictions.

Trail Construction: Estimate of Probable Cost

- **Both** have comparatively similar construction cost estimates

Trail Management and Maintenance

- **Both** are sustainable and can be constructed to achieve desired bike trail design standards with the exception of the Rattlesnake Gulch Trail which would be the access trail for the south route in ECSP.
- **North** improves trail sustainability and emergency access along a trail that is currently unsustainable in sections.

Eldorado Canyon State Park Interface

- **Both:**
 - adversely impact the park, which is already beyond capacity during busy periods.
 - increase traffic and congestion.
 - increase visitor density and potential conflict along existing trails.
 - increase visitation, estimated up to 60 more daily visitors.
- **North** improves trail sustainability and emergency response along the existing Eldorado Canyon Trail.

More information on the benefits and impacts can be found in the following analysis topic summaries below and in the corresponding sections of the report.

Summary of Environmental and Cultural Resource Findings

Analysis Topic	North Route	South Route
Wetland and Riparian Habitat	○	●
Significant Natural Communities	○	◐
Wildlife Habitat Impacts	○	●
Undisturbed Habitat Impacts	○	●
Cultural Resources	○	◐
Overall Impact	○	●

Wetland and Riparian Habitat:

- **North**
 - The N3 alternative has insignificant new impacts to wetland and riparian habitat since most of the route follows an existing trail corridor.
 - The N4 alternative has minor impacts to wetland and riparian habitat. N4 would result in two or more new stream crossings in a designated Habitat Conservation Area.
 - The overall impact would be insignificant.
- **South** has major impacts. It would cross 7 riparian corridors including South Draw and Johnson Gulch, unaltered riparian corridors that provide excellent effective habitat for wildlife.

Significant Natural Communities:

- **North** has insignificant new impacts. The north alternatives will largely stay on the existing trail corridor through the areas with significant natural communities.
- **South** has minor impacts resulting from crossing through several mapped significant communities.

Wildlife Habitat Impacts:

- **North** has insignificant new wildlife habitat impacts. The north alternatives will largely stay on the existing trail corridor through important wildlife habitat.
- **South** has major impacts.
 - It would intersect potential habitat for Preble’s meadow jumping mouse a federally listed threatened species. This will require consultation with US Fish and Wildlife Service (USFWS).

- It would impact the Boulder County designated South Draw Critical Wildlife Habitat Area and area currently closed to public access. Approximately 106 acres of this designated area or 12 percent of the total would be impacted.
- It would intersect winter range for mule deer and elk, and severe winter range habitat for elk, which will require management strategies that may include temporal or seasonal restrictions for trail users.

Undisturbed Habitat Impacts:

















- **North** The amount of new habitat disturbance would be insignificant. The north route would result in a reduction of up to 24 acres, a 1.5% reduction of undisturbed habitat in a designated Habitat Conservation Area.
- **South** The amount of new habitat disturbance would be major. The south route would result in a reduction of up to 324 acres or 26% of undisturbed habitat.

Cultural Resources:

- **North** has insignificant new impacts. The north alternatives will largely stay on the existing trail corridor through the areas with known cultural resources. These resources would need to be taken into consideration during a subsequent design phase.
- **South** has multiple cultural resources that would need to be taken into consideration during a subsequent design phase.

More information on the impacts can be found in the respective sections within the Environmental and Cultural analysis section of the report.

Summary of Visitor Experience Findings

Analysis Topic	North Route	South Route
Regional Trail Connectivity		
Trail Aesthetic and Character		
Access and Parking		
Trail Access Opportunities		
Seasonality		
Visitor Density		
Visitor Conflict Management		
Overall Impact Score		

Regional Trail Connectivity

- **Both** provide a major benefit by completing the desired regional connection.

Trail Aesthetic and Character

- **Both** provide a major benefit by offering an enjoyable and quality visitor experience.
 - Both also offer expansive views and go through a diversity of landscape types.
- **North**
 - is shorter (3.9 -4.8 miles) with an elevation gain/loss of +1,010/-610 (E to W). Elevation profiles are located in the Trail Aesthetic and Character section of the analysis.
 - Would achieve the desired bike trail standards using the N4 alternative. Portions of N3 likely cannot achieve the standards.
- **South**
 - is longer 6.5 – 7.1 (7.8 including Rattlesnake Gulch Trail) with an elevation gain/loss of +930/-480 (+1,860 including Rattlesnake)
 - would achieve the desired bike trail standards with the exception of the Rattlesnake Gulch Trail which would be the access trail to the south route.

Access and Parking

- **Both** have major impacts to current visitor parking, which are often at capacity. More information and a description of parking and capacity constraints are further analyzed in the Eldorado Canyon State Park Interface summary.
- **North** route trail users would likely use the ECSP Rincon Parking Area as the primary access point as it is the closest.
- **South** route trail users would likely use the ECSP Fowler Trail Parking Area as the primary access point as it is the closest.

Trail Access Opportunities

- **Both** would result in a minor benefit due to increased and improved trail access opportunities for multiple visitor types.
- **North** would provide a new experience in an existing or familiar trail corridor.
- **South**
 - would provide a new trail experience in an area that is currently inaccessible.
 - would provide a new, 13-mile loop, opportunity for hikers and trail runners.

Seasonality

- **North:**
 - would accommodate more year-round use due to the combination of aspect and shade cover.
 - would likely not have temporal or seasonal use restrictions.
- **South:**
 - would accommodate less year-round use due to the combination of aspect and shade cover.
 - may likely result in temporal and seasonal use restrictions due to hunting and impacts to Severe Winter Range for mule deer and elk.

Visitor Density

- **Both** would have a minor impact on trail density with an estimated additional average of 60 daily trail users during the busy summer months (June-August).
- **North** During the busy summer months this would increase trail density by up to 33% (compared to the existing use of the Eldorado Canyon Trail)
- **South** During the busy summer months this would increase trail density by up to 25% (compared to the existing use of the Rattlesnake Gulch Trail)

Visitor Conflict Management

- **Both** would have a potential minor impact on visitor conflict due to increased trail density and the introduction of a new visitor type into the trail system.
- **North**
 - The reconfiguration of the existing Eldorado Canyon Trail and continued management of

the existing trail to create a shorter loop for hikers and climbers may reduce potential conflicts by dispersing visitors and maintaining a bike-free option in the most congested section of the trail.

- May result in conflict resulting from adding a visitor type to an existing trail.
- **South**
 - The anticipated increase in the numbers of mountain bikers on the existing Rattlesnake Gulch Trail, which is steep, would likely contribute to increased visitor conflict along that trail.
 - would not contribute to conflict resulting from a change of use designations.
 - would retain a hiking only connection (the existing Eldorado Canyon Trail).

More information on the benefits and impacts can be found in the respective sections within the Visitor Experience analysis section of the report.

Summary of Trail Construction Cost Findings

Analysis Topic	North Route	South Route
<i>Estimated Cost Range</i>	\$360K to \$660K	\$410K to \$810K

Both

- Overall, costs to complete a multi-use connection along either the north or south are expected to be comparably similar.
- Estimated construction costs are conceptual and are likely to change as the design is refined.









North

- Re-building the north route would entail more technical construction.

South

- The south route construction is longer in total distance in more remote areas.

Summary of Trail Management and Maintenance Findings

Analysis Topic	North Route	South Route
Trail Sustainability and Maintenance		
Emergency Response		
Interagency Management		
Overall Impact Score		

Trail Sustainability and Maintenance

- **North**
 - would achieve the desired bike trail standards using the N4 alternative. Portions of N3 likely cannot achieve the standards.
 - improves the existing Eldorado Canyon Trail, which is in moderate to poor condition in some sections.
- **South** would achieve the desired bike trail standards with the exception of the Rattlesnake Gulch Trail will not meet desired bike trail standards which is the access to the south route and is not proposed to be improved.

Emergency Response

- **North** the improved Eldorado Canyon Trail would improve emergency access and response by implementing a more stable, less steep and sustainable route to facilitate emergency response. due to the improved trail sustainability and reduce grades.
- **South** - Due to the longer trail distance, emergency response times would be more complicated and longer.

Interagency Management

- **Both**
 - The partner agencies would formalize management responsibilities and procedures for law enforcement, emergency response and trail maintenance activities as part of the implementation process.
 - The partner agencies will work together on strategies to ensure visitors have enjoyable experiences, address capacity constraints including parking and traffic issues, and to protect existing resources.
- **South** would require coordination with Jefferson County to formalize an agreement for management, and emergency response and enforcement.

Summary of Eldorado Canyon State Park Interface Findings

Analysis Topic	North Route	South Route
Park Capacity and Visitation	●	●
Access and Parking	●	●
Revenue and Fee Collection	○	○
Trail and Facility Sustainability	◐	◑
Visitor Conflict and Enjoyment	●	●
Emergency Access and Response	◐	●
Overall Impact Score	●	●

Park Capacity and Visitation

- **Both:**
 - adversely impact ECSP, which is already beyond capacity during busy periods and currently experiencing significant increases in visitation.
 - result in an increase in visitation of approximately 60 more daily visitors exacerbating existing issues with park capacity.

Access and Parking

- **Both** negatively impact park access and parking availability, which is already beyond capacity during busy periods. No public parking is available in the town of Eldorado Springs or along Highway 170. Illegal parking in the town is a recurrent problem.

Revenue and Fee Collection

- **Both** would increase fee entry fee revenue accordingly. Fee collection is the only mechanism to generate revenue to fund operations. The park currently charges a daily vehicle entry fee and a walk-in/bike-in fee.

Trail and Facility Sustainability

- **North** – Re-designing the Eldorado Canyon Trail would improve trail sustainability.
- **South** – The anticipated increase in the numbers of mountain bikers on the existing Rattlesnake

Gulch Trail, which is steep, would likely contribute to additional maintenance needs.

Visitor Conflict and Enjoyment

- **Both** increase visitor density and conflict along existing trails.
- **South** The anticipated increase in the numbers of mountain bikers on the existing Rattlesnake Gulch Trail, which is steep, would likely contribute to increased visitor conflict along that trail.

Emergency Access and Response

- **North** would improve emergency access and response by implementing a more stable and sustainable route to facilitate emergency response.
- **South** would likely increase incidents affecting ECSP due to added visitors and new trail miles within the park, resulting in a major impact.