

**Twin Tunnels Environmental Assessment  
Recreational and Section 6(f) Resources  
Technical Memorandum**

March 2012



Twin Tunnels Environmental Assessment  
Idaho Springs/Clear Creek County

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## Acronyms and Abbreviations

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AASHTO	Association of State Highway and Transportation Officials
CCC	Clear Creek County
CCMRD	Clear Creek Metropolitan Recreation District
CDOT	Colorado Department of Transportation
CIS	City of Idaho Springs
EA	Environmental Assessment
EPA	US Environmental Protection Agency
FHWA	Federal Highway Administration
GIS	geographic information system
MUTCD	Manual on Uniform Traffic Control Devices
NAC	noise abatement criteria
SCCP	Sediment Control Conceptual Plan
SLMT	Scott Lancaster Memorial Trail

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## Section 1. Purpose of the Memorandum

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The Federal Highway Administration (FHWA), in cooperation with the Colorado Department of Transportation (CDOT), is preparing an Environmental Assessment (EA) for proposed changes to the eastbound lanes of I-70 and the eastbound bore of the Twin Tunnels between MP 241 and MP 244 in Clear Creek County, Colorado. The Twin Tunnels area is one of the most congested locations along the I-70 Mountain Corridor. Improvements are necessary to improve safety, operations, and travel time reliability in the eastbound direction of I-70 in the project area. Additionally, the improvements will be consistent with the I-70 Mountain Corridor PEIS Record of Decision, I-70 Mountain Corridor Context Sensitive Solutions process, and other commitments of the PEIS.

This technical memorandum discusses the regulatory setting and describes the affected environment and the impacts of the Proposed Action on parks and recreational resources within the identified study area. The memorandum also documents mitigation measures, including applicable measures identified in the I-70 Mountain Corridor PEIS that would reduce any impacts during construction and operation. The I-70 PEIS identified comprehensive improvements for the corridor. The Proposed Action would immediately address safety, mobility, and operations in the eastbound direction at the Twin Tunnels, but would not address all of the needs in the Twin Tunnels area. The Proposed Action would not preclude other improvements needed and approved by the I-70 PEIS ROD.

## Section 2. How does the analysis relate to the Tier 1 PEIS?

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The *I-70 Mountain Corridor Final PEIS* committed to conducting specific additional analysis and coordination regarding impacts to recreation resources during Tier 2 projects. The following commitments from the PEIS are applicable to this Tier 2 project:

- CDOT will conduct further analysis of direct and indirect impacts on recreation resources during future project-specific Tier 2 processes. Additional analysis of direct impacts on recreation resources during Tier 2 processes will determine the degree and extent of impact.
- The lead agencies will continue to coordinate with jurisdictions regarding direct and indirect impacts to recreation resources, and specifically with Clear Creek County, Jefferson County, and the United States Forest Service regarding the *Clear Creek County Greenway Plan (2005)*, and United States Forest Service management activities.
- The mountain pine beetle infestation continues to change conditions surrounding recreation resources, and the United States Forest Service confirmed that these conditions are most appropriately addressed during Tier 2 processes.

The Tier 1 PEIS recognized the local communities' desire to maintain and improve trail connectivity along the I-70 highway as well as the many river access points. Therefore, for this EA, CDOT has considered approaches to incorporate and maintain future bike routes in the I-70 highway right-of-way, improve path connectivity, and continue to provide river access points in a manner compatible with CDOT and FHWA guidance. The Tier 1 PEIS suggested the following approaches be considered (not all of which may be applicable to the Twin Tunnels EA):

- Refer to principles applied to the Glenwood Canyon bike path and river access (potentially applicable as a model for mitigation measures)
- Consider policies to help identify state and federal transportation funding for pedestrian enhancement and connectivity

- Consider whether moving trails elsewhere is a more economical option to modifying the design of proposed transportation components
- Continue to coordinate with local jurisdictions, including the United States Forest Service regarding their motor vehicle facilities

## Section 3. What process was followed to analyze recreational resources?

### 3.1 Methodology

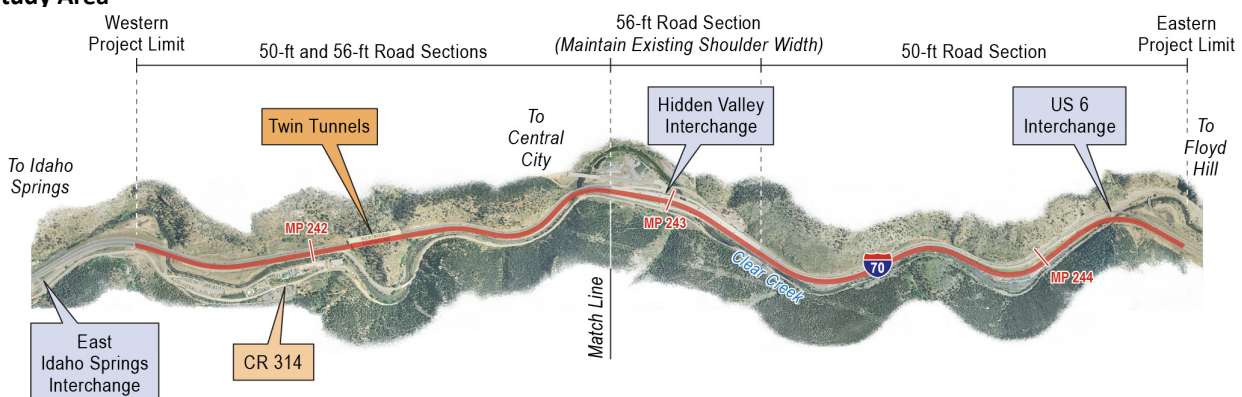
This analysis was conducted consistently with CDOT Bike and Pedestrian Procedural Directive 1602.1, which requires the incorporation of bicycle and pedestrian considerations throughout CDOT's Planning, Programming, Design, Construction and Maintenance operations (as well as Educational and Enforcement efforts).

Impacts to private and public parks, recreation, and open space facilities resulting from the proposed project were assessed based on the degree and extent of impacts to existing and planned facilities, and how well the project would accommodate planned facilities. Direct impacts to recreation resources and activities have been determined through use of GIS mapping technology to determine specific areas and size of encroachment. Indirect impacts have been assessed through noise modeling, travel data, access plans, and visual assessments. Effects to existing and proposed recreation resources and activities from the Twin Tunnels project were determined in coordination with the local jurisdictions and through public input.

### 3.2 Study Area

The study area for the I-70 Twin Tunnels EA recreation evaluation, displayed in **Figure 1**, comprises areas where direct and indirect impacts to recreation resources may occur. This study area encompasses the I-70 corridor from approximately mile marker 241 to mile marker 244.5 and averages approximately 800 feet in width. Contained within the study area are the east and west-bound lanes of I-70, Clear Creek, and the County Road 314 (also called the Frontage Road).

FIGURE 1  
Study Area



### 3.3 Data Sources

The location of existing and planned recreational resources and activities was determined through coordination with local jurisdictions, analysis of geographic information system (GIS) data, site visits,



and review of the current comprehensive land use, parks, and public services and facilities plans including the *Clear Creek Greenway Plan* (CCC, 2005).

### 3.4 Regulations

In a policy statement dated March 11, 2010, the US Secretary of Transportation stated the following

*The DOT policy is to incorporate safe and convenient walking and bicycling facilities into transportation projects. Every transportation agency, including DOT, has the responsibility to improve conditions and opportunities for walking and bicycling and to integrate walking and bicycling into their transportation systems. Because of the numerous individual and community benefits that walking and bicycling provide — including health, safety, environmental, transportation, and quality of life — transportation agencies are encouraged to go beyond minimum standards to provide safe and convenient facilities for these modes.*

And from Title 23 U.S.C. 217 the following is stated

*Bicycle transportation facilities and pedestrian walkways shall be considered, where appropriate, in conjunction with all new construction and reconstruction of transportation facilities, except where bicycle and pedestrian use are not permitted.*

In addition to encouraging the provision of bicycle facilities, FHWA is prohibited from funding projects that would sever or have a significant adverse impact on the safety of nonmotorized transportation.

Title 23 of the United States Code includes the following (§109(m)):

*Protection of Nonmotorized Transportation Traffic. --The Secretary shall not approve any project or take any regulatory action under this title that will result in the severance of an existing major route or have significant adverse impact on the safety for nonmotorized transportation traffic and light motorcycles, unless such project or regulatory action provides for a reasonable alternate route or such a route exists.*

CDOT Bike and Pedestrian Procedural Directive 1602.1 (February 4, 2010) requires the incorporation of bicycle and pedestrian considerations throughout CDOT's Planning, Programming, Design, Construction and Maintenance operations (as well as Educational and Enforcement efforts). Bicycle and pedestrian accommodations shall be integrated into the overall design process for state highway projects that begin the scoping process after the approval date of this procedural directive. Context sensitive solution practices are encouraged to determine the appropriate solution for accommodating bicyclists and pedestrians within the project area so that they are consistent with local and regional transportation plans. Consideration of bicycle and pedestrian accommodations in on-going projects will be incorporated as reasonable and feasible given budget and schedule constraints. Current American Association of State Highway and Transportation Officials (AASHTO) and Manual on Uniform Traffic Control Devices (MUTCD) standards for bicycle and pedestrian facilities shall be used in developing potential facility improvements.

Section 6(f) of the Land and Water Conservation Fund Act (36 Code of Federal Regulations 59) protects recreational lands planned, acquired, or developed with Land and Water Conservation Funds. National Park Service and Colorado State Parks supplied information for the inventory of Section 6(f) resources. Data provided by these agencies identified no recreation properties within the study area funded with Land and Water Conservation Funds and therefore Section 6(f) is not applicable to this evaluation.

## Section 4. Description of the Proposed Action

The Proposed Action would add a third eastbound travel lane and consistent 10-foot outside shoulder to the I-70 highway between the East Idaho Springs interchange and the base of Floyd Hill. The eastbound bore of the Twin Tunnels would be expanded to accommodate the wider roadway section, and the existing tunnel portal face would be removed and replaced. Additionally, the Proposed Action would straighten the curve west of the Hidden Valley interchange where the highest number and most serious crashes occur. This curve reconstruction also involves replacing a bridge on I-70 over Clear Creek.

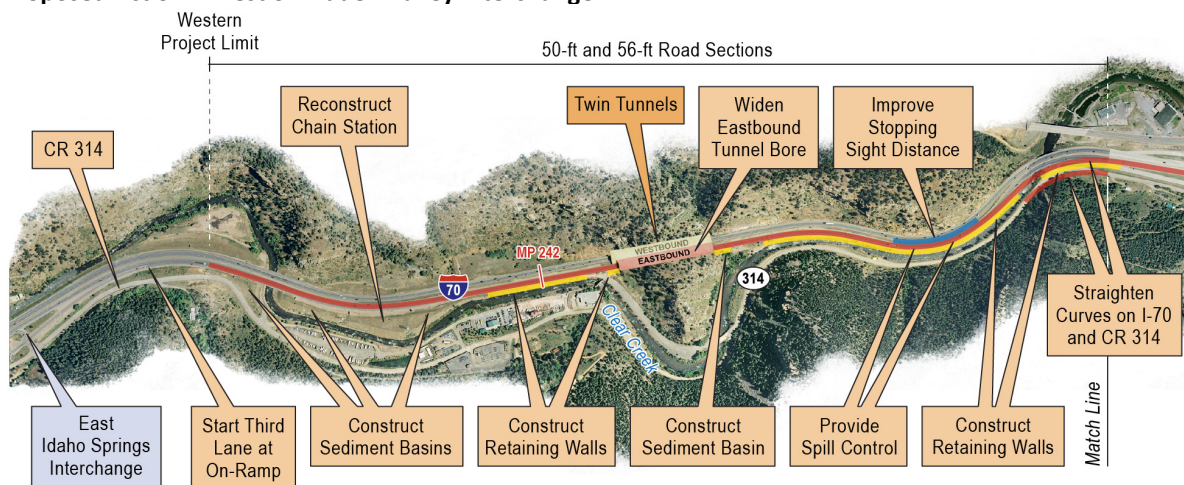
Other proposed improvements include reconstructing the chain station west of the Twin Tunnels, constructing and operating new sediment basins throughout the project area to treat stormwater runoff, installing wildlife fencing, and constructing retaining walls.

CDOT is considering a range of widths between 4 and 10 feet for the inside shoulder between the west project limits and the Hidden Valley interchange. A 4-foot inside shoulder would be provided east of Hidden Valley. A range of tunnel widths, corresponding to the variations in the inside median, is being evaluated.

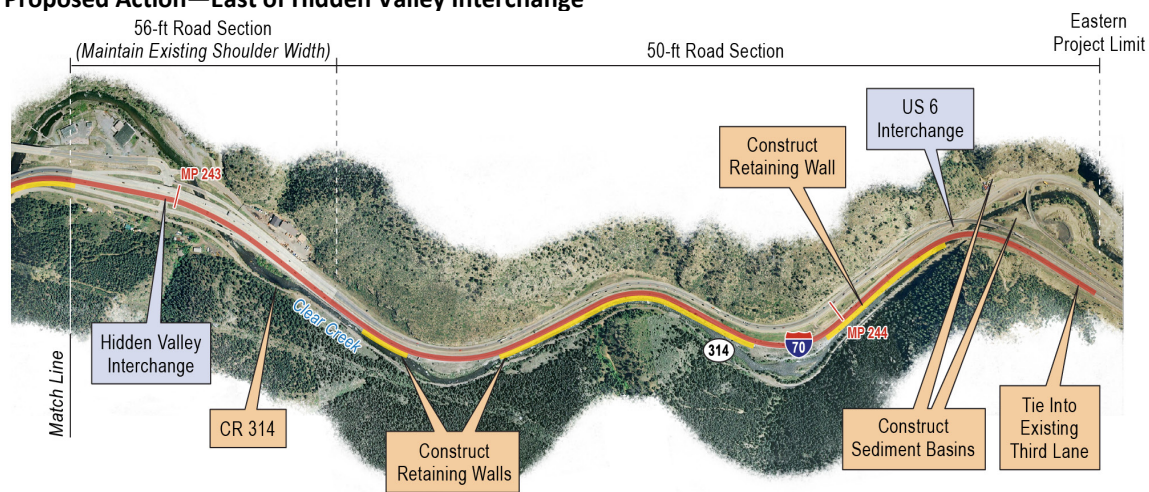
CDOT is also considering whether the additional capacity will operate exclusively as a general purpose lane or as a tolled lane during peak periods (also called a managed lane).

Proposed improvements west and east of Hidden Valley interchange are shown in **Figure 2** and **Figure 3**.

**FIGURE 2**  
**Proposed Action—West of Hidden Valley Interchange**



**FIGURE 3**  
**Proposed Action—East of Hidden Valley Interchange**



## Section 5. What are the recreational resources in the study area?

The resources identified in the study area include paved and natural surface trails, a skateboard park, ball fields, a rock climbing area, and Clear Creek, which currently has nine recreational accesses in the study area. Three planned recreation properties and two planned trails were also identified in the study area. The primary recreational activities in the study area include rafting, kayaking, fishing, bicycling, hiking, and rock climbing.

Management directives and planning for recreation resources within in the study area are detailed in the *Clear Creek Greenway Plan* (2005) and are also identified to some extent in the *System-Wide Master Plan (Draft)* (CCMRD, 2011), the *Clear Creek County Master Plan* (CCC, 2004), and the *Idaho Springs Comprehensive Plan* (CIS, 2008). These additional plans all endorse the proposals found within the *Clear Creek Greenway Plan* and tend to cede particular, recreational development and management details to the Greenway Plan.

### 5.1 Current Conditions of Recreational Resources in Study Area

Existing recreational resources are summarized in **Table 1**, displayed graphically in **Figure 4**, and discussed in more detail below. The existing conditions for recreational resources in the Twin Tunnels EA study area assumes that improvements proposed under Frontage Road Phase 1 are in place.

**TABLE 1**  
**Existing Recreational Resources**

Map ID	Property Name	Jurisdiction	Ownership	Information/Amenities
1	Skateboard Park	Idaho Springs	Idaho Springs	Public park; proposed river access point
2	Clear Creek Metropolitan Recreation District (CCMRD) Ball Field Complex (Shelley/Quinn)	Idaho Springs	Idaho Springs	Public park; restrooms, baseball fields, concession stand, parking, trailhead

TABLE 1

**Existing Recreational Resources**

Map ID	Property Name	Jurisdiction	Ownership	Information/Amenities
	Fields)			
3	Rock Wall	NA	CDOT right-of-way	Informal rock climbing area
7	Clear Creek Rafting Boating and Fishing Access	Idaho Springs	CDOT right-of-way	Accessible from private property of Clear Creek Rafting Company
8	Below Box Boating Access	Idaho Springs	CDOT right-of-way	Accessible from pull off on Frontage Road
9	Hidden Valley Fishing and Boating Access	Idaho Springs	CDOT right-of-way	Accessible from pull off on Frontage Road
10	Li'l Easy Boating Access	Clear Creek County	CDOT right-of-way	Accessible from Scott Lancaster Memorial Trail near Kermitt's Trailhead
11	Kermitts Fishing Access	Clear Creek County	CDOT right-of-way	Accessible from pull-offs on US 6 and I-70 Exit 244 Ramp
12	Kermitts Boating Access	Clear Creek County	CDOT right-of-way	Accessible from pull-offs on US 6 and I-70 Exit 244 Ramp
13	Unnamed Fishing Access	Clear Creek County	CDOT right-of-way	Accessible from Frontage Road. Pedestrian access only.
14	Unnamed Boat Access	Clear Creek County	CDOT right-of-way	Improved area with six parking spaces accessible from pull off on Frontage Road.
15	Under Bridge Boating Access	Clear Creek County	CDOT right-of-way	Accessible from pull off on Frontage Road
16	Scott Lancaster Memorial Trail	Clear Creek County	Multiple Ownerships	Paved, off-street and on-street trail: includes Scott Lancaster Memorial Bridge, restrooms, parking, picnic tables, benches

### 5.1.1 Recreational Facilities/Sites

Existing recreation facilities in the study area include two facilities in Idaho Springs (the Skate Park and CCMRD Ball Field Complex) and an informal rock climbing area within CDOT right-of-way. The CCMRD has a long-term lease with the City of Idaho Springs for maintenance of the ball field complex, which includes two lighted softball/youth ball fields, concessions, restrooms, picnic tables, and a gravel parking area. The complex also serves as a trailhead for the Scott Lancaster Memorial Trail. The Skate Park is also operated and maintained by CCMRD. Both of these facilities are rated in poor condition as documented in the CCMRD *System-Wide Master Plan (Draft)*.

### 5.1.2 Paved and Natural Surface Trails

Within Clear Creek County, the Clear Creek Greenway exists and is signed from the Jefferson county line to the Summit county line. Currently, portions of the greenway are on-street. The Scott Lancaster Memorial Trail (SLMT) functions as part of this greenway system and currently connects between Idaho Springs and the

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The *Clear Creek Greenway Plan* provides planning and development guidance for a recreational trail corridor that would eventually link the Platte River Greenway in Denver to the Continental Divide National Scenic Trail.

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junction of I-70 and US 6 near Kermitts. Within the study area, the SLMT has trailheads at the CCMRD Ball Field Complex, Game Check Area Park, and Kermitts. The Game Check Area Park and Kermitts are both informal trailheads with no improvements or user facilities. The SLMT is asphalt and includes segments of 8-foot wide off-street trail, on-street segments, and segments of old roadway exceeding 24 feet in width (CCC, 2005). No counts have been conducted to document the volume of use on the SLMT. Casual observations indicate that use includes fishing access and cyclists and is generally higher west of the Hidden Valley interchange (Shanks, 2012, Personal Communication). A number of cycling and hiking groups also use the trail for events and outings.

### 5.1.3 River Recreation

Clear Creek offers a range of activities for the outdoor enthusiast with fishing and boating being at the forefront. There is one formal and eight informal access points along Clear Creek within the study area, all of which are within CDOT right-of-way. Recreational river activities are important to Clear Creek County from an economic development perspective (see Section 3.14, *Social and Economic Resources of the Twin Tunnels EA* for more information).

Through coordination with Clear Creek County, four fishing access points along Clear Creek were identified as listed in **Table 1** and shown in **Figure 4**. Three of these accesses provide informal parking and one is pedestrian access only. From these access points, anglers can move up and down the creek to fish.

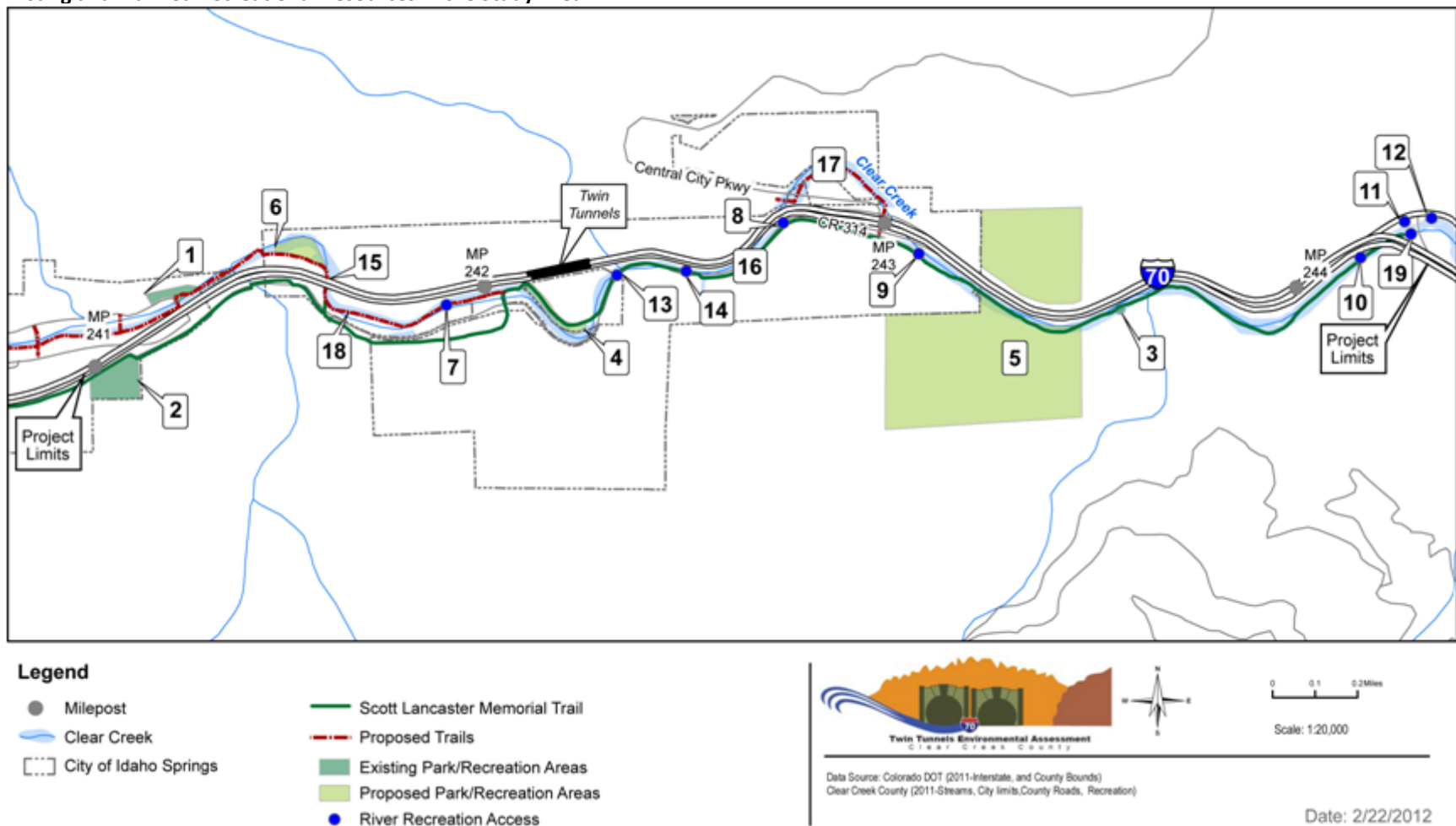
Boating is another common recreational activity on Clear Creek through the study area. Clear Creek County identified seven boating accesses along Clear Creek within the study area. There are 15 permitted rafting outfitters that operate on Clear Creek each running anywhere from three to nine trips per day through the study area from mid-May to early September. In January 2011, the Frontage Road EA project team conducted surveys of these rafting outfitters to obtain input about rafting operations on Clear Creek through the study area. Outfitters indicated that the stretch of river within the study area is used for most trips they run on Clear Creek. Peak periods for rafting are mid-June through mid-August with highest volumes on weekends. Trips typically run from about 8:00 AM to 7:00 PM. Most of the outfitters use the Kermitts Boating Access as a take-out for their trips and the frontage road is used for safety vehicles and shuttles. Private boating and kayaking is also common on this stretch of river, which offers Class III rapids.

### 5.1.4 I-70 Corridor Recreational Resources (outside the study area)

In addition to the resources located within the study area, I-70 provides primary access to hundreds of other sites outside of the study area including trails, campsites, rivers and lakes, ski areas, other developed facilities such as parks and ball fields, and undeveloped backcountry. These resources support an enormous variety of recreation activities. These recreation resources are identified in the *I-70 Mountain Corridor PEIS Recreation Resources Technical Report* (CDOT, March 2011).

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FIGURE 4  
Existing and Planned Recreational Resources in the Study Area



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## 5.2 Anticipated Future Conditions of Recreational Resources in Study Area

Planned recreational resources are summarized in **Table 2** and displayed graphically in **Figure 4**. These resources and planned improvements to existing resources are discussed in more detail below.

TABLE 2  
Planned Recreational Resources

Map ID	Property Name	Jurisdiction	Ownership	Information/Amenities
4	Game Check Area Park (proposed)	Clear Creek County	Private	Currently used informally. Proposed park including trailhead, parking, and restrooms
5	Simpson Property and Trail Rest Area (proposed)	Clear Creek County	Clear Creek County	Recently purchased open space located east of Hidden Valley, north and south of I-70; proposed picnic sites along Scott Lancaster Memorial Trail
6	Park (Former Sewage Treatment Site) (proposed)	Idaho Springs	Idaho Springs	Proposed park including restrooms
17	Trail at Hidden Valley Interchange (proposed)	Clear Creek County	Multiple Ownerships	Planned trail adjacent to Clear Creek as part of the Clear Creek Greenway
18	Greenway Creekside Trail (proposed)	Idaho Springs/Clear Creek County	Multiple Ownerships	Planned trail along Clear Creek as part of the Clear Creek Greenway.
19	Kermitts Trailhead (proposed)	Clear Creek County	CDOT right-of-way	Currently used informally for access to SLMT. Accessible from pull-offs on US 6 and I-70 Exit 244 Ramp

The *Clear Creek Greenway Plan* envisions the SLMT to be entirely off-street from east Idaho Springs to the trailhead at Kermitts. The plan also identifies potential future changes to SLMT including providing formal parking, signage, and other user facilities at trailheads.

The ultimate vision of the *Clear Creek Greenway Plan* is to develop an off-street greenway that would follow Clear Creek and serve as a recreational spine providing access to opportunities for fishing, kayaking, rock climbing, hiking and bicycling.

There are two planned trails in the study area that would also serve as part of the greenway system. These include two segments of trail adjacent to Clear Creek; Trail at Hidden Valley Interchange and the Greenway Creekside Trail between Scott Lancaster Bridge and Idaho Springs. Both of these trails are identified conceptually in the *Clear Creek Greenway Plan*, but no design has been undertaken.

Idaho Springs owns the CCMRD Ball Field Complex and the Skateboard Park, which are both operated and maintained by CCMRD. Planned facility upgrades documented in the *System-Wide Master Plan (Draft)* include rehabilitation of the Skateboard Park, new lighting at the CCMRD Ball Field Complex, and landscaping at both facilities. Idaho Springs also plans to develop another park at the former sewage treatment site north of I-70.

Clear Creek County owns two sites planned for recreational use; the Game Check Area Park and the Simpson Property open space. The Game Check Area Park will serve as a park and trailhead

with parking and restrooms. The site, which is currently used informally for parking and recreational access, is located south of the Twin Tunnels along the SLMT. The Simpson Property is also located along the SLMT and will serve as a picnic area and open space accessed solely from the trail.

The *Clear Creek County Master Plan* proposes to formalize the boating access at Kermitts and provide additional parking, signage and user facilities.

### 5.3 Is the future of recreational resources considered to be at-risk?

As discussed in Sections 5.1 and 5.2 of this technical memorandum, Clear Creek County and the City of Idaho Springs have plans in place to continue developing and improving recreational resources in the study area, including trails and recreational river access. Many of the respondents to the survey of rafting outfitters indicated the volume of trips they run on Clear Creek is growing. Because some of the recreational resources in the study area are within CDOT right-of-way, continued coordination for recreational planning is needed with local jurisdictions. With continued coordination, the future of recreational resources is not deemed to be at-risk.

### 5.4 What agencies were involved in this analysis and what are their issues?

Through the I-70 PEIS process, CDOT has coordinated with staff at Clear Creek County, Idaho Springs, the United States Forest Service, and the Colorado Parks and Wildlife to discuss management priorities and concerns about impacts to recreation resources in the I-70 corridor. More recently, CDOT has coordinated with local jurisdictions regarding the proposed action and the recreational resources in the study area.

The local municipalities' primary concerns related to recreation resources revolve around the implementation of the *Clear Creek Greenway Plan* and the preservation of access to Clear Creek. The Clear Creek Greenway has been a priority project for the county since adoption of the plan in 2005 and incorporates existing and planned recreation elements found within the jurisdictions of Idaho Springs and Clear Creek County. Many of the recreation amenities described within the plan are located partially or wholly within CDOT right-of-way, and coordination between the agencies is needed for implementation of these elements of the plan.

## Section 6. What are the environmental consequences?

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### 6.1 How does the No Action affect recreational resources?

Chapter 2 identifies six activities that would occur within the Twin Tunnel EA study area even if the Twin Tunnels project is not implemented. Frontage Road Phase 1 is the only activity that would affect recreational resources in the Twin Tunnels EA study area. As discussed in the *I-70 Frontage Road Improvements Categorical Exclusion* (CDOT, 2012a), Frontage Road Phase 1 will be completed in the fall of 2012 and will affect recreational resources in the Twin Tunnels study area as follows:

- The on-street segment of the Scott Lancaster Memorial Trail between the Doghouse Rail Bridge and Hidden Valley interchange will be improved to a 10-foot shared use path separated from travel lanes by a five foot buffer zone. Phase I includes a No Work Zone where roadway widening and shared use path improvements will not be completed at this time. This No Work Zone includes approximately 500 feet along the frontage road west of

Hidden Valley interchange. Vehicular, pedestrian and bicycle traffic will be maintained during construction of the Frontage Road Phase 1 improvements.

- The Unnamed Fishing Access located on the north side of CR 314 approximately 400 feet east of the Doghouse Rail Bridge will remain accessible by pedestrians. Parking will not be maintained due to the topography.
- The Unnamed Boating Access located on the north side of CR 314 approximately 1,400 feet east of the Doghouse Rail Bridge will be enhanced. A 120-foot long pull-out will be constructed with parking for six vehicles.
- Indirect effects are associated with changes in visual quality due to implementation of retaining walls along CR 314. Affected views would include those of recreationalists along Clear Creek and the SLMT. Four retaining walls are proposed in Phase 1 ranging from approximately 5 feet to 30 feet of exposed wall height.
- During the blasting of rock outcrops, use and access of Clear Creek will be restricted. Use and access may also be restricted due to other construction that may cause safety concerns. Coordination with rafting companies will be required to accommodate recreational users safely.

## 6.2 How does the Proposed Action affect recreational resources?

### 6.2.1 What are the direct effects including a managed lane?

Long-term, direct impacts would include realignment of the SLMT, removal of one Clear Creek Boating Access, and potential reduction in parking availability at Kermitts Trailhead and Kermitts Boating Access. The impacts are discussed in more detail below.

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Because I-70 would primarily stay on alignment under the Proposed Action, impacts to recreational resources would be minimized and predominantly of a temporary nature.

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West of the Hidden Valley interchange, I-70 would be shifted to the south to improve safety by straighten the existing horizontal curve. Approximately 700 feet of the frontage road (CR 314) alignment would be shifted south to accommodate this safety improvement. Two recreational resources would be impacted by the realignment; the SLMT and the Below Box Boating Access. In this area, the SLMT is an on-street route along CR 314 and would continue to be so under the Proposed Action. The realigned CR 314 would include a widened shoulder along the south side of the roadway for pedestrian and bicycle traffic. The Proposed Action includes retaining walls north and south of CR 314 along this realigned segment. The width would accommodate the Frontage Road Phase II improvements in the future, which include constructing a 10-foot separated shared use path through this segment. The Below Box Boating Access, which is located along the north side of CR 314 at this location, would be removed. This is one of eight boating accesses to Clear Creek in the study area. Existing boating accesses located approximately ¼ mile upstream and ½ mile downstream would still be available for recreational river access.

The Sediment Control Conceptual Plan (SCCP) prepared for Clear Creek recommends a number of improvements near the junction of I-70 and US 6 to provide water quality enhancements to Clear Creek. The improvements include a spill containment structure where Kermitts Trailhead is located and sediment basin where Kermitts Boating Access is located. These recreational accesses are currently undeveloped areas within CDOT right-of-way used informally for

recreational access. As part of the *Clear Creek Greenway Plan*, Clear Creek County desires to formalize these areas with improvements for recreational users. The plan acknowledges that coordination with CDOT for the recreational improvements is needed because the land is within CDOT right-of-way. Under the Proposed Action, implementation of water quality measures may reduce the available space for parking at these locations. It is not anticipated that these water quality measures would preclude continued informal recreational use or desired recreational improvements to the trailhead or boating access.

Within the study area, I-70 crosses over two planned recreational trails; the Greenway Creekside Trail and the Trail at Hidden Valley interchange. Under the Proposed Action, the existing I-70 bridge structures at these locations would remain in place and these planned trails would not be precluded.

The direct effects of the two roadway cross section options under consideration for the Proposed Action would not impact recreational properties differently.

## 6.2.2 How does the Proposed Action change without tolling?

Options for the additional travel lane under consideration for the Proposed Action, including use of a managed lane with tolls or a general purpose lane, would not impact recreational properties differently.

## 6.3 What indirect effects are anticipated?

As discussed in Section 3.17, *Visual Resources* of the Twin Tunnels EA, affected views would include those of recreationalists along Clear Creek and the SLMT. Under the Proposed Action, approximately 11,400 linear feet of retaining walls would be constructed to avoid floodplain impacts. Additionally, under the 56-foot roadway section, a 300-foot –long segment of I-70 east of the Twin Tunnels would be cantilevered to avoid floodplain impacts. This segment would protrude approximately 10 feet from the face of the retaining wall constructed along the north side of Clear Creek. Visual impacts associated with these project elements would be considered minor to moderate.

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Visual changes for recreational users would primarily be associated with retaining walls along the south side of I-70.

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The *Noise Technical Memorandum* (CDOT, 2012b) indicates that noise levels in the study area currently exceed the CDOT noise abatement criteria (NAC) at most of the identified noise sensitive receptors, including the SLMT. The location along the SLMT where noise levels were predicted was at the Scott Lancaster Bridge, which is less than 100 feet from I-70. Under the Proposed Action, the noise level at this location is predicted to increase by 2.3 dBA over existing conditions, which would not be a change perceptible to the human ear. Within the study area, this is the closest location of a recreational resource to I-70 and would be expected to have the highest degree of impact from noise as compared with other recreational resources. Therefore, although current noise levels likely exceed the CDOT NAC at most recreational resources in the study area, the noise level increase associated with the Proposed Action would not be perceptible to recreational users.

## 6.4 What effects occur during construction?

### 6.4.1 Scott Lancaster Memorial Trail

The SLMT would be temporarily impacted during construction by 1) use of the frontage road as a detour for interstate traffic, 2) realignment of I-70 west of Hidden Valley interchange, and

3) SCCP improvements and construction staging. Construction activities would affect two areas of the trail; 1) between Scott Lancaster Bridge and Hidden Valley interchange, and 2) at the east end of the trail near Kermitts Trailhead. Construction-related impacts to the SLMT are discussed below for each of these areas.

#### From Scott Lancaster Bridge to Hidden Valley Interchange:

This segment of the SLMT is an on-street route paralleling the Old Hwy 40 area (also known as the game check area) and the frontage road (CR 314). Between the Scott Lancaster Bridge and Hidden Valley interchange, Old Hwy 40 and the frontage road would be resurfaced for use as an interstate detour route for eastbound traffic during construction. The I-70 detour, which will carry approximately 2700 vehicles per day with a speed limit of 35 mph, will be in place for up to seven months through the summer and fall of 2013. It is anticipated that Old Hwy 40 (also known as the game check area), will be closed to pedestrian and bicycle traffic near the end of 2012 as construction crews begin preparations for the I-70 detour route. The Scott Lancaster Bridge would not be directly impacted, but travel lanes for the detour route would be as close as seven feet from the bridge. During construction, bicycle and pedestrian use of the SLMT would be maintained to the extent practicable. Provisions to maintain pedestrian and bicycle access are as follows:

- Pedestrian and bicycle traffic would be rerouted to the frontage road instead of using the segment of the trail across the Scott Lancaster Bridge and through the game check area. This portion of the frontage road is gravel and would only be used by bicycles, pedestrians, and emergency vehicles during the detour.
- Between the Doghouse Rail Bridge and Hidden Valley interchange, an 8-foot wide shared use path would be provided along the south side of the frontage road. The path would be paved and separated from vehicular traffic by a concrete barrier.

The condition of the SLMT during construction is depicted in **Figure 5**. While the I-70 detour route is being constructed and also when it is being restored after the detour, pedestrians and cyclists could experience construction-related delays on the frontage road east of the Doghouse Rail Bridge. Users could also experience construction-related delays when the trail is reconstructed along the new frontage road alignment to accommodate the I-70 realignment west of Hidden Valley interchange.

#### East End of Trail near Kermitts Trailhead:

At the trailhead area, various SCCP improvements would be implemented and construction staging would occur. Additionally, improvements would be made on the segment of I-70 over the SLMT directly west of the trailhead. Pedestrians and cyclists could experience construction-related delays and inconvenience, but trail access and parking would be maintained. Parking capacity could be reduced during construction staging.

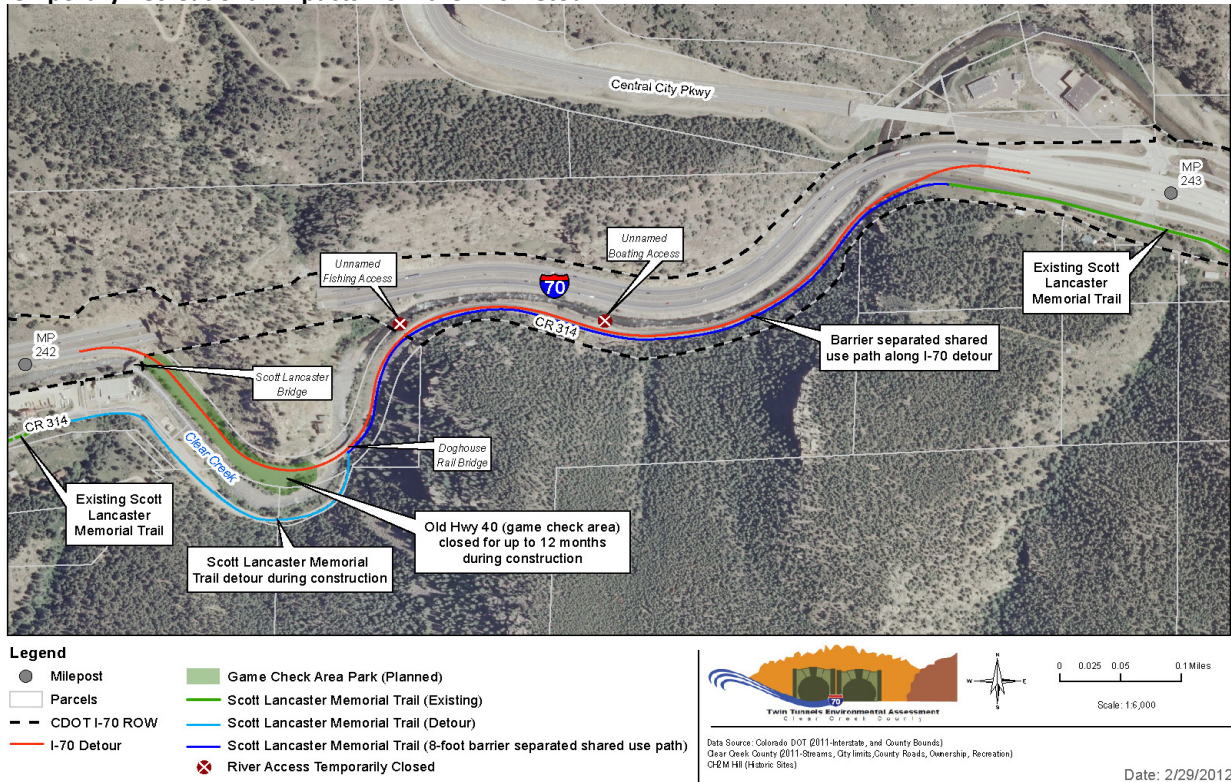
### 6.4.2 Game Check Area Park (planned)

The eastbound I-70 detour route described above would also result in a temporary impact to the planned Game Check Area Park. Although the park has not yet been developed, it already serves as an informal parking area and trailhead, which is part of its ultimate intended function. Prior to and during the detour, up to 10 months, this area will be unavailable for parking or use as a trailhead. After the detour, this area will be returned to existing conditions (or better) for use as an informal parking area and trailhead. Coordination with Clear Creek County is on-going to determine the post-construction condition of this property.

### 6.4.3 Clear Creek River Accesses

Three of the nine river access points would be unavailable for up to 12 months during construction. Unnamed Fishing Access and Unnamed Boating Access (between the Doghouse Rail Bridge and Hidden Valley interchange) would be temporarily unavailable during the eastbound I-70 detour. Kermitts Boating Access and Kermitts Fishing Access may be used for construction staging. It is anticipated that the fishing access would not be available for recreational access during construction, but the boating access would be maintained. Construction staging may also occur at Kermitts Trailhead, but parking and access to the L'il Easy Boating Access would be maintained.

FIGURE 5  
Temporary Recreational Impacts from the I-70 Detour



### 6.4.4 Clear Creek Rafting, Boating, and Fishing Activities

During tunnel blasting near the portals, rehabilitation of the Doghouse Rail Bridge, and during the reconstruction of the I-70 bridge over Clear Creek west of Hidden Valley interchange, recreational access along the banks of Clear Creek may be restricted and the creek may be closed periodically for safety reasons. No boating or fishing access in the vicinity of these construction activities would be allowed. The impact of Clear Creek closures to recreational river rafting is anticipated to be minimal because the closures are planned to occur outside of rafting season.

The Proposed Action would also require closure of the frontage road (CR 314) to local traffic for up to seven months during the I-70 eastbound detour. Because some of the rafting companies use the frontage road for safety vehicles and shuttles, this closure could have an impact on their operations as discussed in Section 3.14, *Social and Economic Resources* of the Twin Tunnels EA.

## Section 7. What mitigation is needed?

### 7.1 Tier 1 Mitigation Strategies

The phased approach of the Preferred Alternative from the Tier 1 PEIS allows for ongoing opportunities to avoid and minimize impacts to recreational resources, establish mitigation, and employ I-70 Mountain Corridor Context Sensitive Solutions. Mitigation approaches for recreational resources from the Tier 1 PEIS document that are relevant to this project include the following:

- Adversely affected functions of parklands or trails will be replaced or enhanced
- Design measures to minimize the area of impact will be implemented to the extent practicable
- Pedestrian and bicycle access will be maintained during construction to the extent practicable.
- Lane closures will be avoided during peak travel weekends and special events to the extent practicable.
- Roadway and work zone conditions will be communicated to travelers using websites, pre-recorded messages, and other similar mechanisms.

### 7.2 Twin Tunnels Mitigation

#### 7.2.1 Operations Mitigation

TABLE 3  
Mitigation for Adverse Operational Impacts to Recreational Resources

Activity	Location	Impact	Mitigation
Realignment of I-70	West of Hidden Valley interchange	Reduction in long-term recreational river access due to removal of "Below Box" Boating Access.	Do not preclude long-term use of other fishing and boating access locations in the study area to preserve adequate recreational river access.
SCCP improvements	Kermits Boating Access near junction of US 6 and I-70	Potential for reduced parking capacity	Implement SCCP improvements so as not to preclude long-term use of the area for boating access to Clear Creek.
SCCP improvements	Kermits Trailhead near junction of US 6 and I-70	Potential for reduced parking capacity	Implement SCCP improvements so as not to preclude long-term use of the area for trail access.

#### 7.2.2 Construction Mitigation

TABLE 4  
Mitigation for Adverse Construction Impacts to Recreational Resources

Activity	Location	Impact	Mitigation
Operation of eastbound I-70 detour during construction	On Old Hwy 40 between the Scott Lancaster Bridge and Doghouse Rail Bridge	Resurfacing and closure of the game check area and SLMT alignment for use as a temporary detour route for interstate traffic during construction.	<ul style="list-style-type: none"> <li>• Provide a temporary trail detour along CR 314 between the water treatment plant and the Doghouse Rail Bridge to maintain access for pedestrians and bicyclists during construction.</li> <li>• Provide an anchored concrete barrier</li> </ul>

**TABLE 4  
Mitigation for Adverse Construction Impacts to Recreational Resources**

Activity	Location	Impact	Mitigation
			<p>between the Scott Lancaster Bridge and detour traffic to protect the bridge from errant vehicles.</p> <ul style="list-style-type: none"> <li>Restore the game check area after construction so as not to preclude the trail connection or the planned recreational improvements for this site.</li> <li>Continue coordination with Clear Creek County regarding the restoration of the game check area.</li> </ul>
<p>Operation of eastbound I-70 detour during construction</p>	<p>On CR 314 between the Doghouse Rail Bridge and Hidden Valley interchange</p>	<p>Loss of recreational use of the SLMT due to resurfacing of the trail alignment for use as a temporary detour route for interstate traffic during construction.</p> <ul style="list-style-type: none"> <li>Temporary closure of Unnamed Fishing Access 400 feet east of the Doghouse Rail Bridge.</li> <li>Temporary closure of Unnamed Boating Access 1,400 feet east of the Doghouse Rail Bridge</li> </ul>	<ul style="list-style-type: none"> <li>Provide a barrier-separated, paved, 8-foot wide shared use path to maintain pedestrian and bicycle access during construction.</li> <li>After eastbound interstate traffic is returned to the I-70 corridor, the SLMT will be returned to existing conditions (which include Frontage Road Phase 1 improvements).</li> </ul> <p>Restore access areas after construction so as not to preclude long-term use of the area for boating access to Clear Creek. The Unnamed Boating Access, which will be formalized with six parking spaces during the Frontage Road Phase 1 improvements, will be restored to that condition.</p>
<p>Construction and restoration of I-70 detour route and construction of retaining wall along CR-314</p>	<p>Between Doghouse Rail Bridge and Hidden Valley interchange</p>	<p>Resurfacing of trail alignment resulting in potential construction-related delays for pedestrians and bicycles on the SLMT.</p>	<p>Maintain pedestrian and bicycle access during construction. One lane on the frontage road will be available for pedestrian, bicycle, and vehicular traffic and this lane will be managed using flaggers to direct two-way operation of traffic.</p>
<p>Rock blasting; I-70 Clear Creek bridge demolition, girder and deck work; Doghouse Rail Bridge rehabilitation</p>	<p>Twin Tunnels vicinity and west of Hidden Valley interchange</p>	<p>Temporary impediment to recreational river activities including boating and fishing due to periodic closures of Clear Creek.</p>	<ul style="list-style-type: none"> <li>Unless necessitated by safety concerns, river closures due to rock blasting, bridge demolition, or bridge rehabilitation, will not occur during rafting season.</li> <li>CDOT will coordinate with rafting companies prior to construction to develop communication protocols in the event of unanticipated river closures during rafting season. If river closures are necessary during rafting season, CDOT will communicate with rafting companies in accordance with previously agreed upon protocols.</li> <li>Construction areas near the banks of the creek will be fenced off to prevent access by anglers or other pedestrians.</li> </ul>



TABLE 4  
**Mitigation for Adverse Construction Impacts to Recreational Resources**

Activity	Location	Impact	Mitigation
			<ul style="list-style-type: none"> <li>• Temporary signage will be placed along Clear Creek to warn recreationalists of rock blasting activities and provide sources of information on the project and potential river closures.</li> <li>• A safety-critical zone will be established in the vicinity of rock blasting. Cyclists, pedestrians, and anglers will be evacuated from this zone before, during, and after rock blasting (approximately 30 minute durations).</li> </ul>
Foundation work for I-70 bridge over Clear Creek	West of Hidden Valley interchange	Temporary inconvenience to recreational river activities including boating and fishing due to construction activities adjacent to and over Clear Creek.	<ul style="list-style-type: none"> <li>• Spotters will be stationed upstream of the bridge to alert boaters of the construction and alert construction crews of approaching boats.</li> <li>• Construction activities that present a safety risk to boaters will be stopped temporarily until the boaters have passed through the construction area. CDOT will coordinate with rafting companies regarding protocols for on-river communication between spotters and boaters during construction.</li> <li>• Construction areas near the banks of the creek will be fenced off to prevent access by anglers or other pedestrians.</li> </ul>
Construction staging	Kermitts Trailhead near junction of US 6 and I-70	Temporary construction-related delays and inconvenience and reduction in parking capacity.	<ul style="list-style-type: none"> <li>• Maintain trail and boating access and some parking capacity.</li> <li>• Restore area after construction so as not to preclude long-term use of the area for trail access.</li> </ul>
Construction staging	Kermitts Boating Access near junction of US 6 and I-70	Temporary construction-related delays and inconvenience and reduction in parking capacity.	<ul style="list-style-type: none"> <li>• Maintain boating access and some parking capacity.</li> <li>• Restore area after construction so as not to preclude long-term use of the area for boating access.</li> </ul>

## Section 8. References

- City of Idaho Springs (CIS). 2008. Idaho Springs Comprehensive Plan. Idaho Springs, Colorado. July.
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