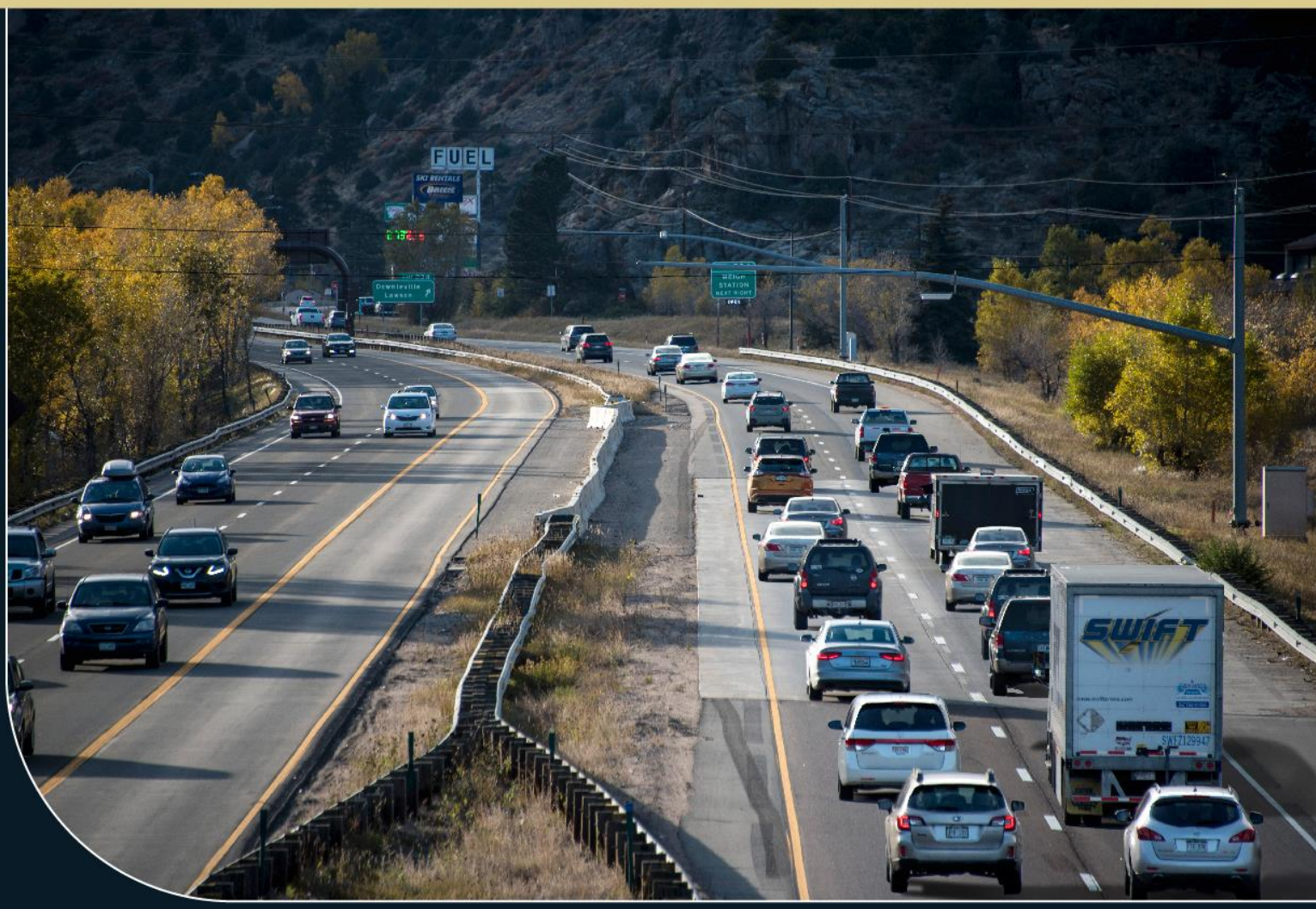

WB I-70 Peak Period Shoulder Lane

CATEGORICAL EXCLUSION

October 29, 2018

CATEGORICAL EXCLUSION

WESTBOUND I-70
PEAK PERIOD SHOULDER LANE

Clear Creek County, Colorado

CDOT Project Number: 21893
Federal Aid Project: NHPP 0703-445

Prepared for:

Prepared by:

October 29, 2018

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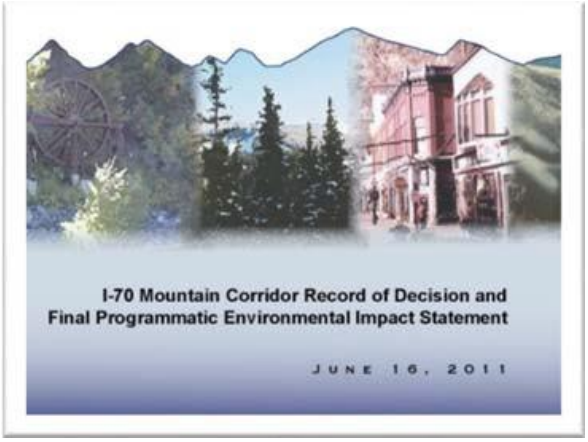
Acronyms and Abbreviations

ALIVE	A Landscape-Level Inventory of Valued Ecosystem Components
AM	morning
APE	Area of Potential Effects
AVE	area of visual effect
BMP	Best Management Practice
CDOA	Colorado Department of Agriculture
CDOT	Colorado Department of Transportation
CFR	Code of Federal Regulations
CPW	Colorado Parks and Wildlife
CSS	Context Sensitive Solutions
CR	County Road
DRCOG	Denver Regional Council of Governments
EB	eastbound
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
Forest Service	U.S. Department of Agriculture Forest Service
GHG	Greenhouse Gas
HPTE	High-Performance Transportation Enterprise
I-70	Interstate 70
ITF	Issue Task Force
LWCF	Land & Water Conservation Fund
MP	milepost
mph	miles per hour
MXL	Mountain Express Lane
NEPA	National Environmental Policy Act
NRCS	U.S. Department of Agriculture Natural Resources Conservation Service
PEIS	Programmatic Environmental Impact Statement
PLT	Project Leadership Team
PM	afternoon/evening
PPSL	Peak Period Shoulder Lane

PTI	Planning Time Index
ROD	Record of Decision
SB 40	Senate Bill 40
SH 103	State Highway 103
SHPO	State Historic Preservation Officer
SWEEP	Stream and Wetland Ecological Enhancement Program
TT	Technical Team
U.S.C.	United States Code
US 40	United States Highway 40
USFWS	U.S. Fish and Wildlife Service
WB	westbound
WVC	wildlife-vehicle collision

Chapter 1. Introduction

1.1 How was this Categorical Exclusion prepared?



The Federal Highway Administration (FHWA) and Colorado Department of Transportation (CDOT) has initiated the Westbound (WB) Interstate 70 (I-70) Peak Period Shoulder Lane (PPSL) project, which falls under the (*I-70) Mountain Corridor Programmatic Environmental Impact Statement (PEIS) Record of Decision* (*ROD*) (CDOT, 2011a).

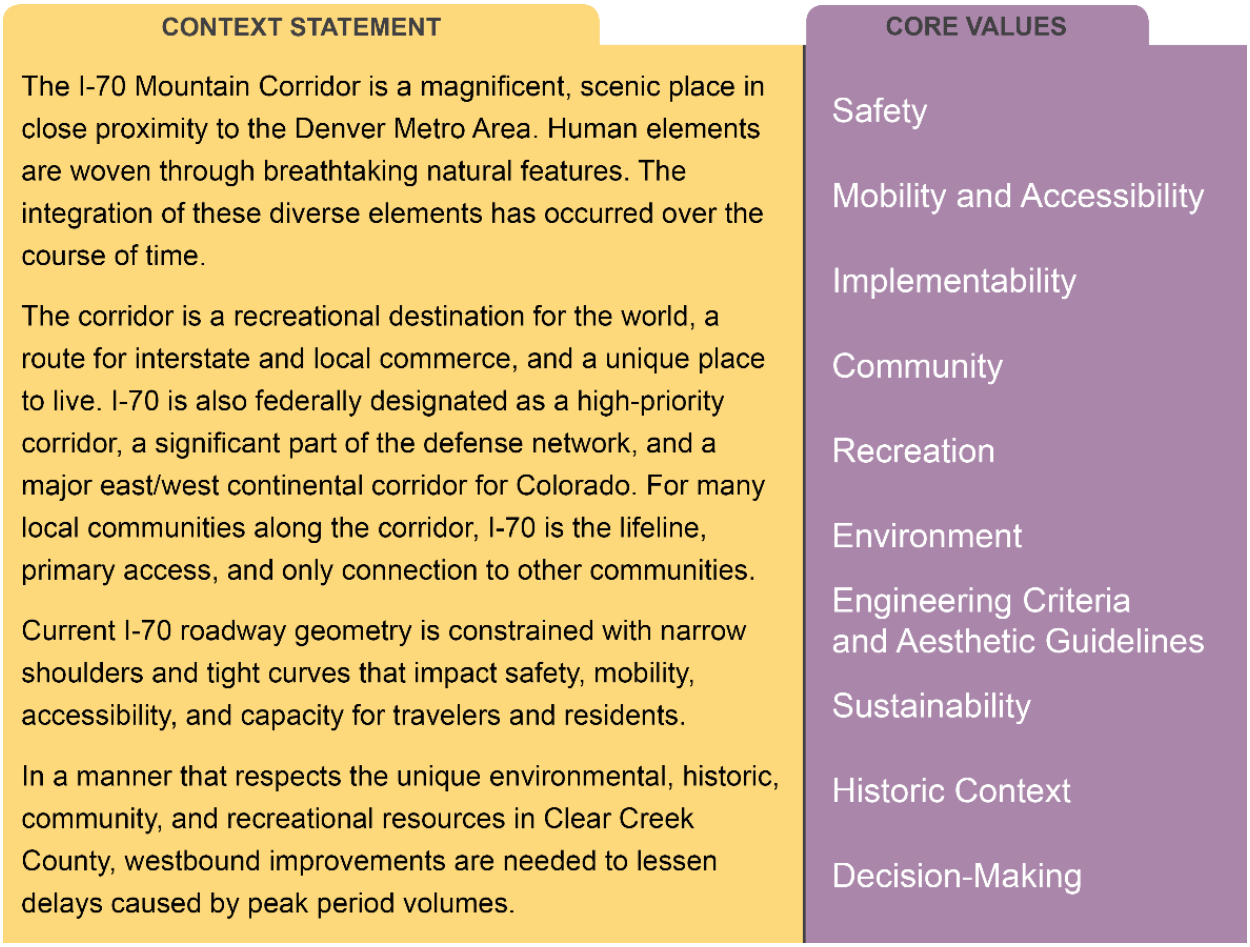
The *I-70 Mountain Corridor PEIS ROD* documented the decisions for future improvements along the I-70 Mountain Corridor between approximately Golden and Glenwood Springs, Colorado. It is a Tier 1 document, meaning that broad decisions are made, such as location, capacity, and mode, but project-specific details will be analyzed further in a Tier 2 document, as part of future project development. The ROD identifies a category of improvements included in the Preferred Alternative Minimum Program called "*Expanded use of existing transportation infrastructure in and adjacent to the Corridor*." The WB PPSL project fits within this category. It maximizes the use of the existing infrastructure, focusing on interim, low-cost operational improvements to maximize the peak period usage of the existing infrastructure.

The project is a Tier 2 project so it incorporates all processes and mitigation identified in the ROD for Tier 2 projects as appropriate. This NEPA documentation for the WB PPSL project, a Categorical Exclusion, is in compliance with 23 Code of Federal Regulations (CFR) 771.117(c)(26) and (c)(27), which includes modernization of highways and safety and traffic operations improvements that are consistent with the Proposed Action. Also, there is a history of similar past projects where there were no significant impacts, such as the Eastbound (EB) PPSL (now called Mountain Express Lane, or MEXL).

CDOT is incorporating public and agency involvement consistent with the I-70 Mountain Corridor Context Sensitive Solutions (CSS) guidance and with National Environmental Policy Act (NEPA) requirements. As part of the I-70 Mountain Corridor CSS process, a Project Leadership Team (PLT), a Technical Team (TT), and numerous Issue Task Forces (ITF) were formed. These teams included federal, state, and local agencies, as well as the general public and interest groups.

The teams developed a context statement and core values for this project. The context statement states the importance of I-70 for recreational and commercial travel while recognizing the unique environmental, historic, recreational, and community resources in the area. Core values of safety, mobility and accessibility, implementability, community, recreation, environment, engineering criteria and aesthetic guidelines, sustainability, historic context, and decision-making were adopted by the PLT. These core values were used to develop goals, objectives, and evaluation criteria which guided the development and evaluation of alternatives (Figure 1).

Figure 1. Context Statement and Core Values



An extensive stakeholder process was initiated in June 2017 to develop the details of the Proposed Action. This process is described in more detail in Chapter 5 and in Appendix A *Context Sensitive Solutions Process* of this document.

1.2 What is the background of the project?

In the study area, I-70 currently has two travel lanes in the WB direction and two general purpose travel lanes plus an interim PPSL in the EB direction. The EB PPSL allows the EB direction to have a third tolled shoulder lane during peak times. At least one local, two-lane road is also present throughout the corridor, running approximately parallel to I-70. The EB and WB lanes of I-70 are separated by either a median with guardrail or a concrete barrier. There are a total of nine grade-separated interchanges along I-70 within the project limits.

The annual average daily traffic on I-70 ranges from 50,000 vehicles per day near the Veterans Memorial Tunnels to 41,000 vehicles per day near US 40 (CDOT 2017a). Traffic modeling for this corridor shows that between 2019 and 2035, the number of vehicle miles of travel per day would increase by 10 percent; travel time would increase by 13 percent; and average speed would drop by 16 percent. (At the time of this analysis, WB PPSL was projected to open in 2019; instead, WB PPSL will open in 2020. At a growth

rate of 1.06 percent per year, the results presented in the table would also be indicative of conditions in 2020.)

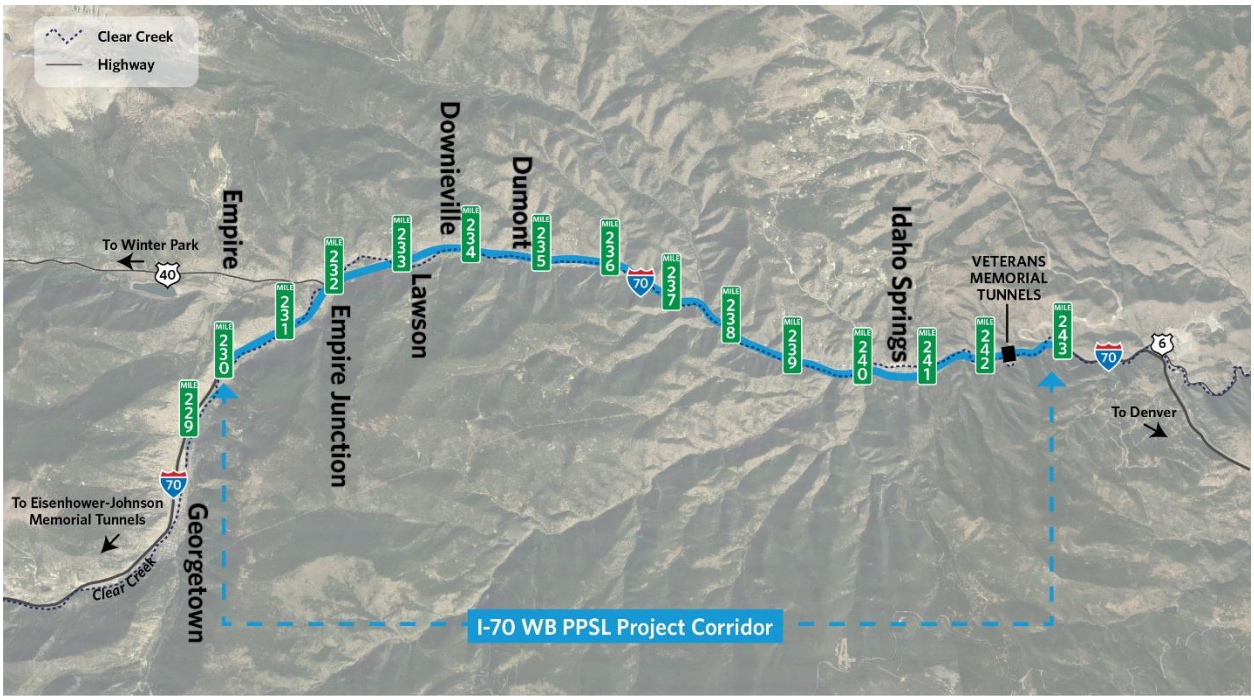
CDOT initiated the WB PPSL project to respond to peak hour traffic congestion that occurs in the WB direction in a manner similar to the improvements made in the EB direction, which opened to traffic late in 2015. The WB PPSL project is included in the January 2014 Memorandum of Understanding signed by CDOT, Clear Creek County, and Idaho Springs.

This project followed the CSS process including the Design Criteria and Aesthetic Guidelines as outlined in the 2011 ROD.

1.3 Where is the WB PPSL project located?

The WB PPSL study area is located between MP 243 and MP 230, on I-70 WB, connecting the eastern logical terminus of the Veterans Memorial Tunnels where slower WB speeds begin to occur, and the western logical terminus of Empire Junction where a high percentage of I-70 traffic departs on United States Highway 40 (US 40; Figure 2). It has independent utility and is a reasonable interim expenditure because it addresses the purposes of safety, reliability and congestion related to geometry. The WB PPSL project addresses these purposes until an ultimate solution can be identified in the study area.

Figure 2. Study Area



Source: HDR 2018.

1.4 Who will build and operate the Proposed Action?

CDOT is responsible for the design and construction of the Project as well as maintenance and operation of the facility. The High-Performance Transportation Enterprise (HPTE) oversees the management and operation of the tolling system. The E-470 Public Highway Authority serves as the Tolling System

Integrator and provides the back office system and customer service center to process and issue tolls, as well as collect payment for the tolls.

Chapter 2. Purpose and Need

2.1 What is the purpose of and need for the project?

The purpose of the Proposed Action is to provide operational mobility improvements on I-70 during peak periods in the WB direction when traffic volumes are highest. Traffic congestion during peak periods erodes travel time reliability, increases traffic on local roads, decreases motorist safety, and compromises the ability of emergency responders to respond quickly.

The WB direction of I-70 has the following specific transportation needs:

- **Travel Time Reliability.** Slow and unpredictable travel times on this stretch of I-70 severely affect I-70 recreational travelers, transportation-dependent commerce, and other I-70 users. The Planning Time Index (PTI) is used by CDOT to measure how reliable a given corridor is, and how much extra time a traveler should plan to traverse the corridor. It represents the 95th percentile travel time, compared to travel time in light traffic. For example if a corridor has a travel time in light traffic of 10 minutes, and the PTI is 1.50, a traveler should plan for the possibility that the trip may take 15 minutes.

  For the WB I-70 corridor from US 6 at the bottom of Floyd Hill to Empire Junction during peak times Monday through Thursday throughout the year, the PTI is between 1.16 and 1.20, meaning that the corridor is fairly reliable during the week. The worst 5 percent of these days only add a few minutes to a trip. However, on winter Fridays and Saturdays, the PTI jumps to 2.37 and 2.60, respectively. This means that an additional 20 to 24 minutes (above the 14-minute typical travel time) is typically needed to travel this stretch of I-70 during peak times on these days.

  As Figure 3 shows for the years 2015 and 2016, during non-peak periods in uncongested free-flow conditions from US 6 at the bottom of Floyd Hill to Empire Junction, travel time is 14 minutes. In contrast, travel time during peak periods ranges from 20 minutes to 32 minutes, increasing by 43 percent to 129 percent.

- **Safety.** Congestion-related crashes, like rear-end, occur more frequently on this segment of I-70 than the statewide average for a mountainous interstate. Analysis of crash data in this stretch of I-70 (Figure 4) shows that there is a cluster of rear-end crashes in the vicinity of the Veterans Memorial Tunnels, as well as concrete barrier crashes and wildlife-vehicle collisions (WVC; FHU 2017).

  Safety of I-70 travelers is also compromised by rocks falling onto the I-70 travel lanes, because of the highway's close adjacency to steep mountain slopes. Motorists are adjacent to unstable rock in the study area west of Idaho Springs. This issue affects safety and mobility. Between 2014 and 2017 (as of October 2017) there have been 37 rockfalls that have affected the entire interstate, WB I-70 lanes, or shoulders. These events closed the travel lanes or shoulders for up to several hours. Twelve crashes involving motorists striking large rocks or boulders in the roadway in the 4-year analysis period resulted in six injuries.

Figure 3. Travel Time By Time of Day

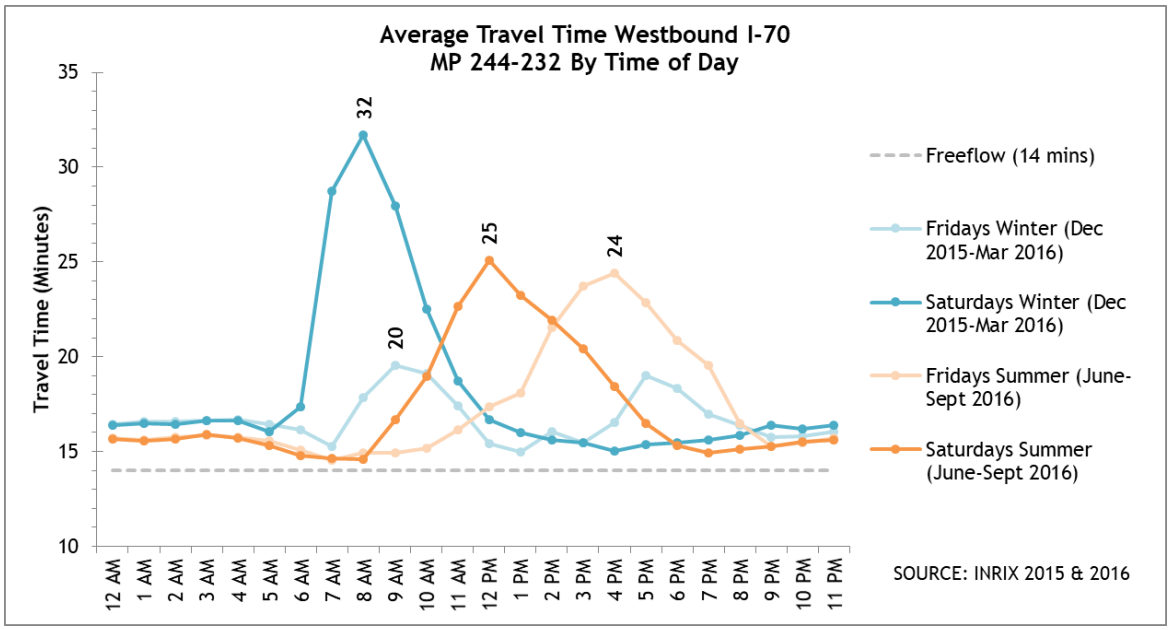
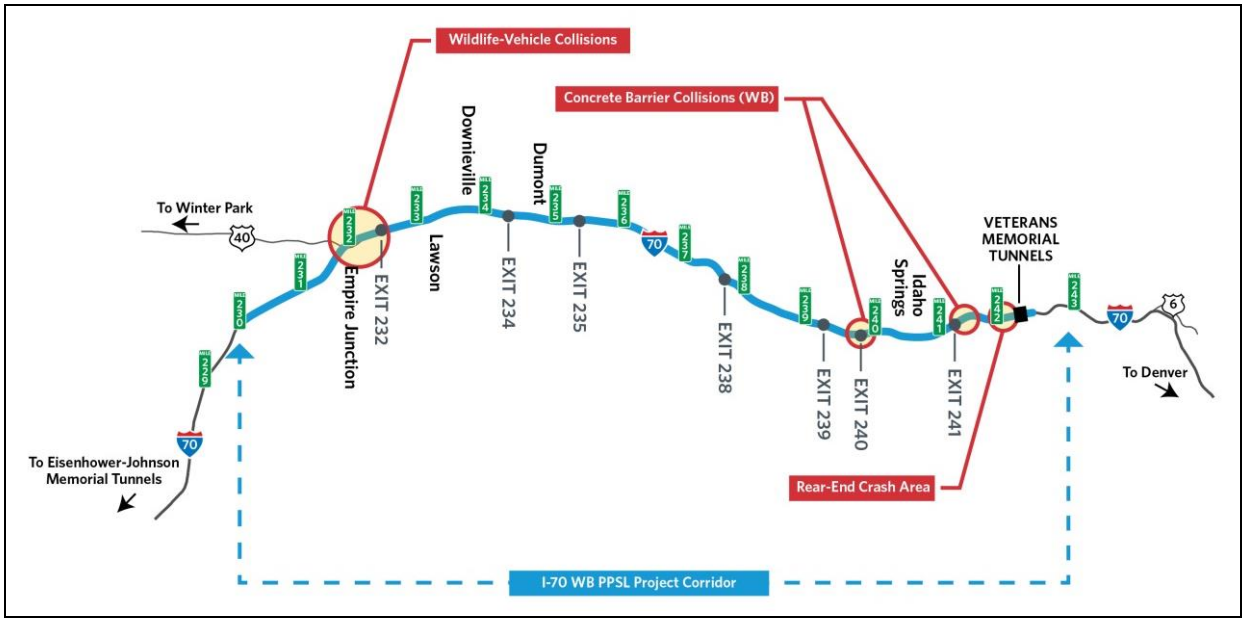


Figure 4. Crashes on I-70



- **Emergency Service Response.** Effective incident management is compromised by the prevalent congestion on this segment of I-70. Emergency service providers responding to incidents in the study area are delayed by the congestion and lack of alternate ways to get to incidents on I-70. The current edge-to-edge pavement is narrow and emergency vehicles have difficulty maneuvering through the density of congested vehicles to access incidents during peak periods. The severe congestion affects speed of response to incidents on I-70, which leads to longer delays and potential secondary

congested-related accidents. The delay in effective incident management compromises safety by delaying critical medical treatment.

Operational improvements on I-70 are intended to be implemented quickly, without substantial construction outside of the existing I-70 highway footprint. The proposed project is an interim solution for the study area in advance of longer-term major improvements to the I-70 Mountain Corridor in this area.

2.2 What other issues does the project address?

The interim project is needed because of rapid population growth in the Denver metropolitan area. In 2010, the population was 2,798,000 residents. By 2015 the metropolitan area population had increased to 3,076,000, a 10 percent increase—almost 300,000 people—in 5 years. The population of the Denver metropolitan area is expected to increase to more than 3.3 million by 2020 (Metro Denver Economic Development Corporation 2018).

> Peak periods on I-70 WB in the study area occur on Friday afternoons, and weekend and/or holiday mornings, when Denver metropolitan area residents travel to the Colorado mountains for recreational purposes.

The existing section of I-70 from the Veterans Memorial Tunnels to US 40 at Empire Junction consists of two travel lanes. The outside shoulder in the WB direction is approximately 10 feet wide and the inside shoulder is approximately 4 feet wide. This stretch of I-70 is one of the most congested stretches of interstate highway in the entire I-70 Mountain Corridor. There are no pragmatic alternative routes between the Denver metropolitan area and the central mountains of Colorado. High traffic volume on I-70 during both the summer and the winter has led to ever-increasing periods of slow traffic, which at times is considered a gridlock situation. The periods of highest congestion on WB I-70 are on Friday afternoons, weekend mornings, and/or holidays as travelers drive from the Denver metropolitan area to the mountains for recreational activities.

Local Access. When I-70 is congested, some motorists divert to alternate routes (primarily frontage roads), causing congestion for local traffic and reduced safety on these roads. The frontage road is the "main street" for Downieville, Lawson, and Dumont. In Idaho Springs, local access is along Colorado Boulevard, which is also affected by diversion due to I-70 congestion.

Weekday two-way traffic counts on the Stanley Road frontage road average 900 vehicles per day, but the volume more than doubles on weekend days. When I-70 travelers use the frontage road to avoid congestion on the highway, area residents and businesses are inconvenienced because they cannot get out of their driveways onto the frontage road. In addition, in-town roads in Idaho Springs are congested because travelers cut through town to avoid I-70 congestion.

Transit. There are issues with transit service in the study area. Buses using I-70 are stuck in the same congestion in the WB direction as other vehicular traffic. In addition, at the State Highway (SH) 103 interchange area, there is a lack of safe pedestrian access to the bus stops for the Bustang and the Prospector.

Deficient Infrastructure. The current highway facility is deficient in many aspects, including substandard and failing facilities for drainage, guardrails, and pavement. The highway facility in this area was designed in the 1950s; current levels of traffic far exceed original plans. Some ramps have inadequate sight distance and deficient design of acceleration and deceleration lanes.

Project needs form the framework for the development of a Proposed Action, which is assessed in the WB PPSL NEPA documentation—this Categorical Exclusion.

Chapter 3. Proposed Action

There is precedent in the study area for non-infrastructure improvements. In 2015 the EB PPSL opened on I-70 between Empire Junction and the Veterans Memorial Tunnels. The EB I-70 cross-section was reconfigured to provide a tolled travel lane on the inside shoulder during peak periods as heavy traffic returns to the metropolitan area. This operational interim improvement project has notably alleviated EB congestion, reducing travel times by 21 minutes.

The WB PPSL project adds an approximate 12-mile tolled PPSL on WB I-70 between the Veterans Memorial Tunnels (just west of MP 243) and the US 40/I-70 interchange (MP 232). The lane entrance begins approximately 500 feet east of the Veterans Memorial Tunnels portal. The WB PPSL maximizes the use of the existing alignment and infrastructure in order to minimize any new impacts within the study area. The 11-foot lane is open for use only during peak periods, and otherwise serves as the shoulder of the interstate. Use of the WB PPSL is prohibited for trucks, buses, or any vehicle over 25 feet long. Overhead signs showing the lane status and toll rate are located throughout the corridor and at the entrance point.

An ingress/entrance point for traffic coming onto WB I-70 from Idaho Springs is provided approximately 2,500 feet west of Exit 239. An egress point for traffic exiting to Downieville is provided about 4,400 feet east of Exit 235, and an egress point for traffic exiting to US 40 is provided approximately 4,400 feet east of Exit 232.

The WB PPSL ends approximately 1/2 mile west of Exit 232. Figure 5 illustrates the typical cross sections of the Proposed Action.

Improvements include:

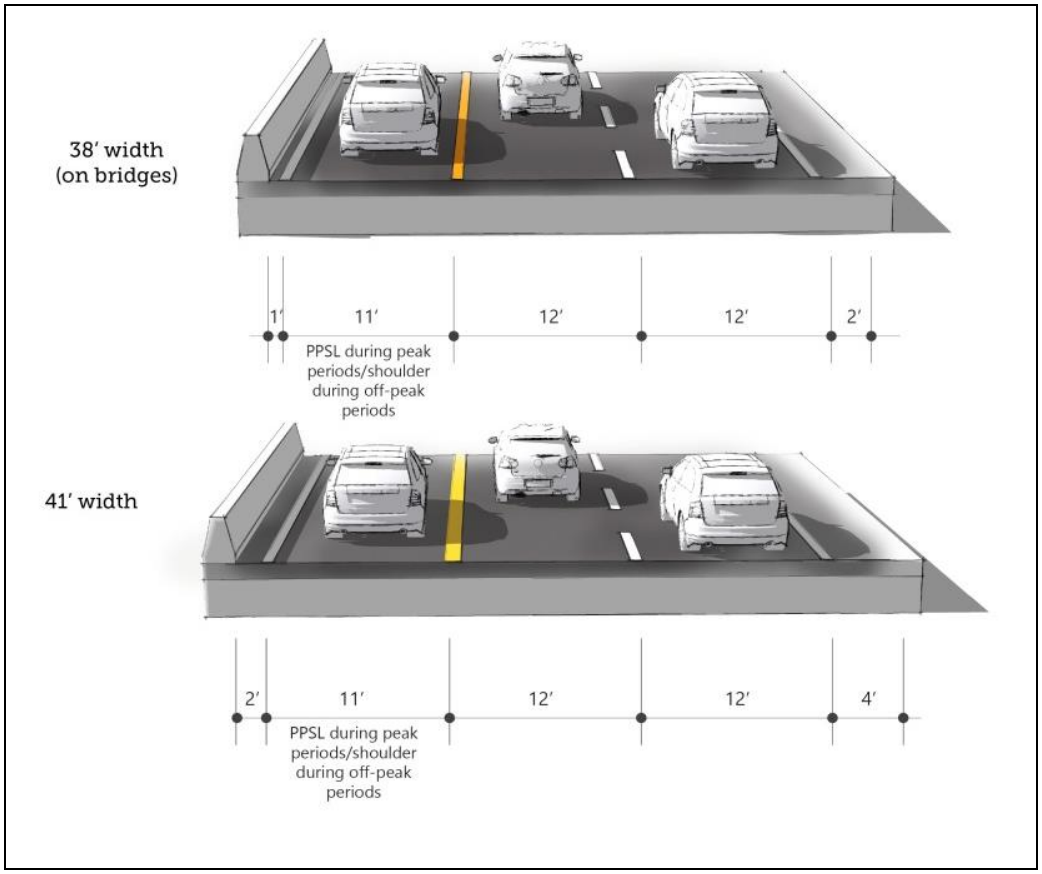
I-70 Modifications. The general purpose lanes and shoulder of WB I-70 are resurfaced and widened in select locations on the existing alignment between approximately MP 241.5 and MP 232 to accommodate a lane on the shoulder during peak travel periods. Drainage enhancements include a storm system for minor and major storm events and water quality facilities. At SH 103, I-70 is slightly realigned to enhance safety and improve drainage.

SH 103 Interchange Improvements. Ramp improvements address sight distance problems. The pedestrian sidewalk is improved by adding lighting and a decorative paving buffer adjacent to the existing sidewalk on the SH 103 bridge over I-70. This sidewalk connects to a new sidewalk buffered from 13th Avenue between the interchange ramp and Idaho Street in Idaho Springs.

Safety Pull-Outs. A total of seven new safety pull-outs are built—five along WB I-70 and two along EB I-70. One existing safety pull-out on EB I-70 is improved. The intention of these is to provide a space for vehicles to use if they experience a break down and for law enforcement to use.

Rockfall Mitigation. Rockfall mitigation measures are added at five locations to reduce the chance of rocks or other debris from falling on travel lanes or shoulders and reduce the potential for crashes and travel disruptions. Rockfall mitigation measures are included in the WB direction at MP 239, MP 238.4, MP 237.1, and MP 236.4, and in the EB direction at MP 240.3.

Figure 5. WB PPSL Proposed Action Typical Cross Sections



Source: HDR 2018.

Active Traffic Management. Dynamic signage informs drivers so the WB PPSL is appropriately used to reduce congestion. This innovative design improves mobility.

Fiber Optic Upgrades. Fiber optics are designed to accommodate future emerging technologies for autonomous and connected vehicles, improving driver information and emergency response capabilities.

Dumont Port-of-Entry Interchange. Merge area improvements to the Dumont interchange acceleration lane includes restriping of I-70 to reduce merge conflicts between truck traffic and the general-purpose lane traffic.

Dynamic signage

3.1 How does the WB PPSL operate?

The WB PPSL project is an interim operational project that falls within the 2011 ROD category of "Non-Infrastructure Related Components – Expanded use of existing transportation infrastructure in and

adjacent to the Corridor". The WB PPSL is intended to be an interim project to provide congestion relief until the Maximum Program of Improvements from the 2011 ROD can be developed and implemented. The WB PPSL will be installed with the intention of ceasing operation on the same schedule as the EB PPSL, which is by the year 2035 per a Memorandum of Understanding between CDOT, HPTE, and FHWA, unless modified by a different project. In addition, if specific operational limits are not met, FHWA has the right to require CDOT to restore I-70 to its pre-project operation

This project cannot and will not function as, or be converted to, the Maximum Program of Improvements from the 2011 ROD. Any change from what is proposed in this project would require a new CSS process and NEPA analysis. CDOT is committed to conduct visioning with stakeholders for the Maximum Program of Improvements through Clear Creek County to start planning for the ultimate solution.

Expected peak period operations described below are based on the draft *Concept of Operations* for the WB PPSL (Apex Design 2018), but actual operations are subject to change based on the final *Concept of Operations* and the Memorandum of Understanding between CDOT, HPTE, and FHWA. The WB PPSL is open for operation during peak traffic periods only. The peak periods have been identified at this time as Friday afternoons, Saturday mornings, and Sunday mornings during the winter and summer seasons. Also included are holiday peak traffic periods. The winter season begins on Thanksgiving weekend and ends on the second weekend in April when most of the ski areas close. Summer season covers Memorial Day weekend through Labor Day weekend. The EB PPSL is also open as needed after Labor Day through October 31, but based on congestion data for the corridor, the WB PPSL is expected to be open only as needed in the fall, Labor Day through October 31. The congestion data further indicates that the congested periods in the WB PPSL corridor vary by day and by season. Based on this data, the lane is open within the time windows described below and shown in Figure 6:

- **Friday:** 12:00 PM to 8:00 PM during winter; 10:00 AM to 8:00 PM during summer; as needed during fall.
- **Saturday and Sunday:** 6:00 AM to 1:00 PM during winter; 7:00 AM to 2:00 PM during summer; as needed during fall.
- **Holidays:** As needed, and determined on a case-by-case basis.

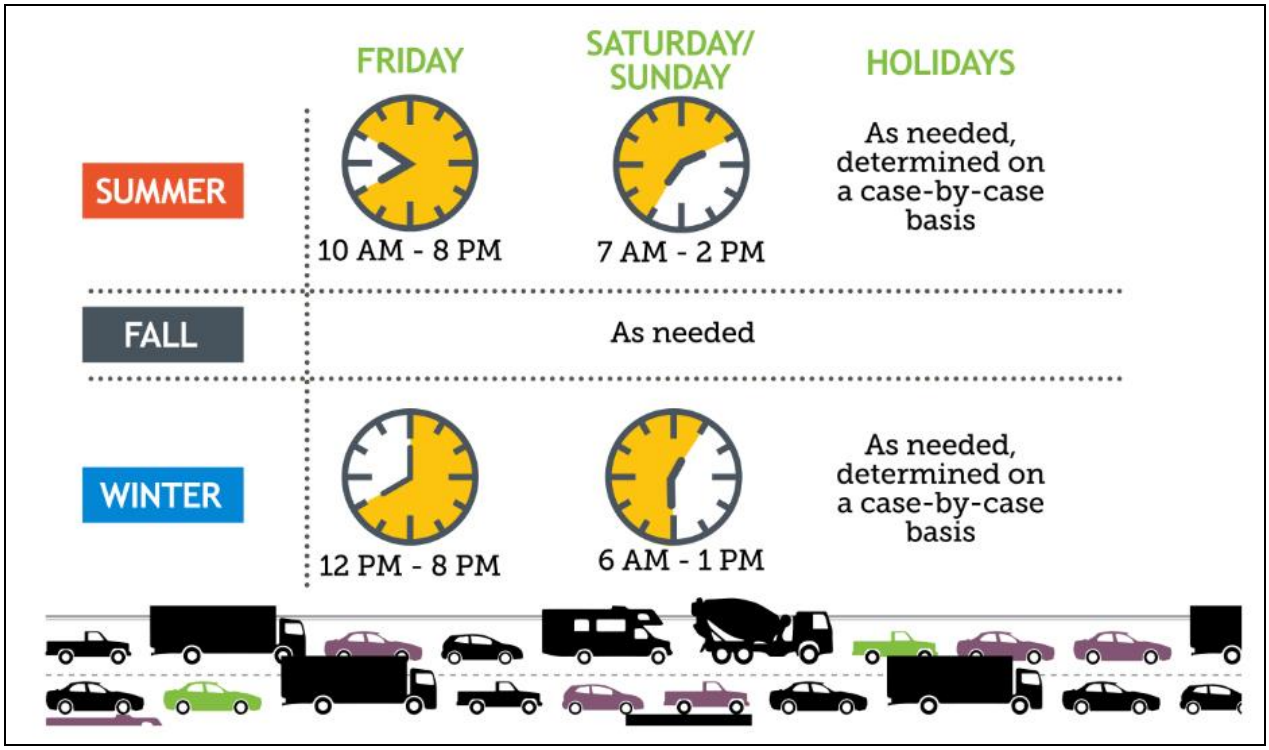
These operating windows begin before the typical onset of congestion, which allows CDOT to complete the lane opening procedures (visual inspection and sweeping) while there are fewer vehicles in the corridor.

Commercial vehicles, buses, vehicles with more than two axles, and vehicles longer than 25 feet are restricted from using the WB PPSL.

When not in operation, the WB PPSL is available for use as a shoulder.

Any proposed changes to the operating limitations of the EB PPSL and WB PPSL, or to the Memorandum of Understanding between CDOT, HPTE, and FHWA will be in accordance with the 2011 ROD.

Figure 6. Days and Hours of Operation of the WB PPSL



Chapter 4. Affected Environment and Environmental Consequences

This chapter discusses the existing conditions in the study area, and the impacts resulting from the construction and operation of the Proposed Action. Mitigation measures are identified to offset anticipated impacts and are documented in Section 4.27 Mitigation Summary (starting on page 45).

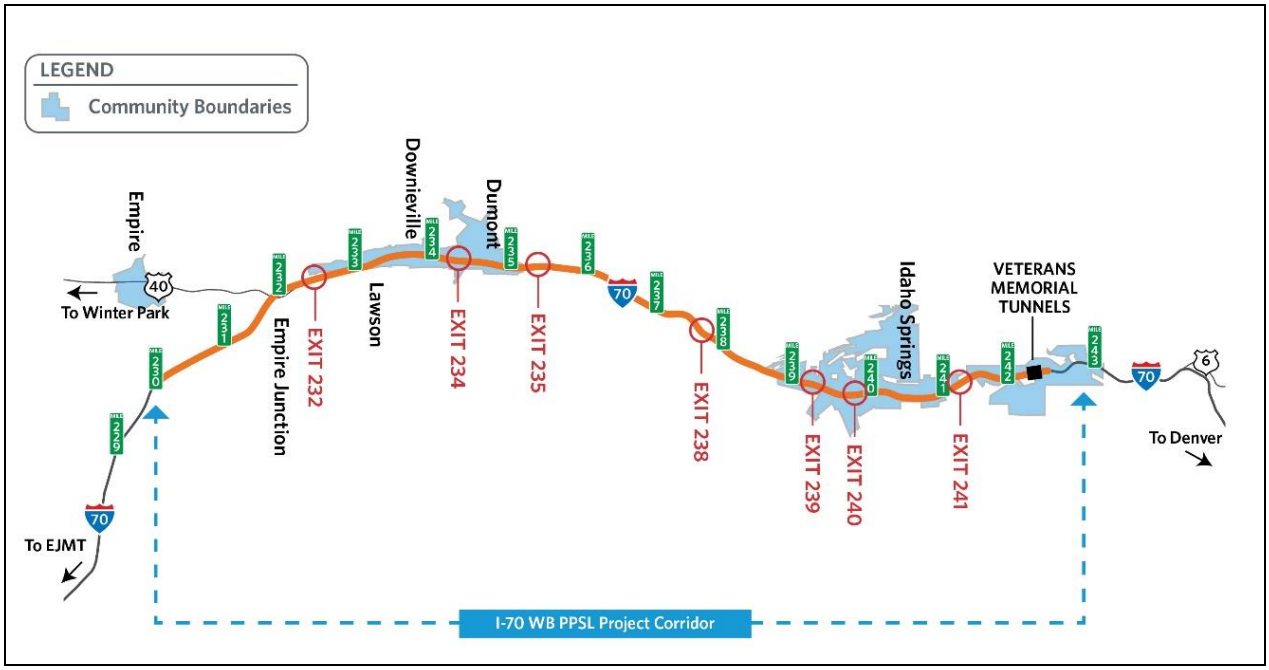
The study area for the WB PPSL project encompasses CDOT right-of-way along I-70 in both directions from MP 243 to MP 230 and areas immediately adjacent to the right-of-way. This study area was used to evaluate the **direct** effects of the Proposed Action.

For transportation and socioeconomic impacts, the study area for **indirect** effects includes Clear Creek County and the communities of Idaho Springs, Downieville-Lawson-Dumont, and the town of Empire. This area is broadly defined and includes the communities and other areas that would be **indirectly** affected by the Proposed Action. The indirect effects study area includes the communities shown in Figure 7.

For the remaining resources, the study area for **indirect** effects generally includes a 0.25-mile buffer around the project study area to encompass the communities and other areas indirectly affected by the Proposed Action.

There are minor variations in the indirect effects study areas for a small number of resources analyzed. These resource-specific study areas are identified in the technical memoranda or technical reports.

Figure 7. Study Area Communities



Technical memoranda and technical reports were prepared to document the resource-specific analyses listed below. They are in Appendix D *Technical Reports* of this document:

- Air quality
- Alternatives
- Archaeology
- Biological resources
- Drainage and Floodplains
- Environmental justice
- Farmlands
- Hazardous materials
- Land Use
- Noise
- Paleontology
- Recreation resources
- Right-of-Way
- Section 4(f)
- Section 6(f)
- Socioeconomic resources
- Transportation
- Visual resources
- Water quality
- Wetlands and Waters of the U.S.

4.1 Transportation and Safety

4.1.1 Transportation

The study area used for the transportation model extended from the bottom of Floyd Hill at MP 244 to just west of the junction with US 40 (MP 232) and included all pedestrian, bicycle and vehicular facilities within this length. The transportation study area was chosen to extend to the junction of US 6 at the bottom of Floyd Hill, because improvements to the corridor impact traffic upstream from the Veterans Memorial

Tunnels to US 6. The west end of the transportation model is west of the US 40 junction, well beyond the terminus of the WB PPSL.

I-70 Improvements and Impacts

In the study area between Veterans Memorial Tunnels and US 40, I-70 currently has two travel lanes in the WB direction and two general-purpose travel lanes plus an interim PPSL in the EB direction. The EB PPSL allows the EB direction to have a third tolled shoulder lane during peak times. At least one local, two-lane road is also present throughout the corridor, running approximately parallel to I-70. The EB and WB lanes of I-70 are separated by either a median with guardrail or a concrete barrier. There are nine grade-separated interchanges along I-70 within the project limits. The speed limit is posted at 55 miles per hour (mph) with a 45 mph truck speed limit entering the east end of the study area, but the truck speed limit restriction is removed near MP 243. The speed limit is raised to 60 mph for all vehicles near MP 240.5 and subsequently raised again to 65 mph near MP 238.5.

The annual average daily traffic on I-70 ranges from 50,000 vehicles per day near the Veterans Memorial Tunnels to 41,000 vehicles per day near US 40 (CDOT 2017a). Traffic modeling for this corridor shows that between 2020 and 2035, the number of vehicle miles of travel per day would increase by 7 percent and the travel time would increase by 2 percent.

Additional information about congestion in the transportation study area and safety is presented in Chapter 2.

The Proposed Action improves travel time reliability in the WB PPSL. A consistent speed is provided during peak periods in the tolled shoulder lane. The shoulder lane provides a mechanism for CDOT to assure a reliable and efficient travel time as travel time reliability degrades in the general-purpose lanes, as traffic growth continues through 2035. Studies have shown that travelers are willing to pay a toll for travel time reliability.

The Proposed Action provides improved mobility for all WB lanes in 2035. Table 1 presents 2035 peak period traffic conditions as compared to the No Action condition. More vehicles travel through the study area between Veterans Memorial Tunnels and US 40, as measured by vehicle miles traveled, at higher speeds than the No Action condition. In this study segment, VMT increases almost 8 percent between the 2035 No Action and the 2035 Proposed Action. Despite the increase in volume, speeds of these vehicles increase 4 percent, between the No Action and Proposed Action. This increases overall vehicular through-put, accommodating more travelers.

In terms of travel time by lane type, Table 1 demonstrates that the Proposed Action improves conditions over the No Action. Travel time in the general purpose lanes is reduced by about 3 percent over the No Action Alternative from the Veterans Memorial Tunnels to US 40 at Empire. For vehicles using the WB PPSL, the travel time is reduced by 10 percent in this study segment. Note in addition the travel time benefits of the WB PPSL extend upstream to the bottom of Floyd Hill, because the Proposed Action addresses the existing slow-point through the Veterans Memorial Tunnels by restriping the WB tunnel to include an approach lane to the WB PPSL for peak period use and two general-purpose lanes, and the removal of this bottleneck helps to alleviate some of the upstream congestion. The travel time in the general purpose lanes for this extended segment (the transportation study area) is reduced by 2 minutes, about 10 percent, by the Proposed Action compared to the No Action.

Table 1. I-70 Peak Period 2035 No Action and Proposed Action Travel Conditions

	Veterans Memorial Tunnels to US 40					US 6 to US 40
	Peak Period VMT (vehicle-miles)	Peak Period VHT (vehicle-hours)	General Purpose Lane Average Speed[1] (mph)	General Purpose Lanes Travel Time (min: sec)[1]	WB PPSL Travel Time (min: sec)[1]	General Purpose Lanes Travel Time (min: sec)[2]
2035 No Action	267,300	7,070	45 mph	14:27	N/A	19:33
2035 Proposed Action	288,200	6,700	47 mph	13:59	12:59	17:33
Change	**7.8%**	**5.2%**	**4%**	**-3.3%**	**-10.2%**	**-10.3%**

1. Measured from the Veterans Memorial Tunnels to US 40 at Empire Junction.
2. Measured from the US 6 on ramp at the bottom of Floyd Hill to US 40 at Empire Junction.
N/A: Not Applicable

Higher speeds of the Proposed Action also mean less congestion and shorter duration of congested periods. In turn, this reduces crashes that are congestion related. This addresses the need to improve safety. Emergency response times improve because the WB PPSL allows emergency vehicles to maneuver and bypass congestion to reach the crash location. Incident management times are dramatically improved, reducing the congestion-related crashes. This further addresses the need to improve safety.

Currently, bicyclists from Idaho Springs use WB I-70 to access the on-street bicycle route on Fall River Road because there is no other route available for them. The Proposed Action removes the option for bicyclists to use the shoulder of I-70 to access Fall River Road.

Effects to Local Roads

Traffic volumes measured in 2017 by Clear Creek County indicate that some WB traffic diverts to the local roads during the peak hours. Based on data from the EB PPSL, with the improved speeds and reduced congestion on I-70 because of the Proposed Action, the amount of diversion to the local roads decreases. This reduction in traffic on local roads provides benefits to adjacent communities by improving safety, emergency response time, and access and mobility to roads intersecting with the local roads, as well as reductions in noise and emissions.

4.1.2 Safety

The Proposed Action includes the conversion of the inside and outside shoulders and reuse of the cross section by restriping to accommodate the inside shoulder as a part-time use travel lane. Typical conversions of this type do not change the cross section. However, the Proposed Action includes widening of the cross section within the context of the corridor to provide additional shoulder width and lane width beyond what could have been included with a simple restriping of the corridor. These improvements are possible within the physical constraints of the WB PPSL corridor.

In addition, the design of the Proposed Action is informed by initial safety data from EB PPSL. As further empirical data is obtained from EB PPSL, minor refinements to the final design of WB PPSL may be made as appropriate. In the WB direction, from the Veterans Memorial Tunnels to US 40, the existing pavement is wider and there is more space (west of Idaho Springs) between the edge of I-70 and the rock

face. This context provides more opportunity to address some of the constraints that were encountered by the EB PPSL project.

The improvements to the cross section include the following:

- **Lane Width.** The Proposed Action includes roadway widening to accommodate 12-foot standard lane widths for the two general purpose lanes and an 11-foot PPSL, which is less than a standard lane width.
- **Shoulder Width and Shy Distance.** Outside shoulder widths are less than standard to minimize the roadway footprint. During peak operations, the inside shoulder/shy distance (2 feet) is also less than standard. However, during off-peak operations, when the WB PPSL is a full shoulder, the inside shoulder/shy distance (13 feet) is much greater than the standard.

Narrowing a roadway envelope can compromise safe operations to some extent. To alleviate this, the shoulder lane is only used during peak periods of congestion, balancing the need to reduce congestion-related crashes during peak times and allowing for a wider roadway envelope during off-peak times. The Proposed Action also includes a wider paved area, where corridor conditions allow, to provide extra space. In addition to the cross section changes described above, the Proposed Action also includes these safety features and elements on the corridor:

- **Emergency Pull-outs.** Seven pull-outs are added, which increase safety and help minimize disturbance if a vehicle breakdown occurs. Five pull-outs are added in the WB direction and two are added to the EB direction. One existing EB pull-out is enhanced. The pull-outs are also available for law enforcement to use for enforcement functions.
- **Monitoring of Operations by CDOT Staff.** Personnel at the Colorado Traffic Management Center monitor activity in the WB PPSL through Closed Circuit Television cameras placed strategically along the corridor to ensure efficient and safe operations. This helps to reduce incident clearance times, thereby reducing secondary congestion-related crashes.
- **Signage.** Signage, including dynamic message signs, is installed for traffic control and operation of the lane to inform motorists of lane open/closure status in order to provide safe conditions for all travelers.
- **Lane Opening Procedures.** The WB PPSL is only open to traffic after the lane is cleared of all obstructions, minimizing any potential safety conflicts.
- **Emergency Response.** Clear Creek County is responsible for emergency response along the WB PPSL corridor. Emergency response procedures for the Proposed Action follow the corridor incident management plan prepared for the EB PPSL. CDOT has prepared predetermined message sequences for the dynamic message signs to implement immediately when an incident occurs. This dramatically decreases crash response times. As experienced in the EB direction, emergency response times are anticipated to noticeably decrease. Reducing emergency response delay results in enhanced potential for those injured in a crash to receive critical medical treatment in a timely manner.
- **SH 103 Ramp Improvements.** The Proposed Action improves safety by improving the sight distance for the WB and EB off-ramps to SH 103, adding pedestrian lighting on the SH 103 bridge, adding raised patterned concrete next to the sidewalk on the SH 103 bridge, and lengthening the acceleration lane for the EB on-ramp.

- **Pedestrian Lighting.** In addition to the pedestrian lighting added to the SH 103 bridge, lighting is added to the box culvert carrying the East Idaho Springs Trail under I-70 just west of the Shelly/Quinn ballfields, which improves safety for pedestrians using this facility.
- **Drainage Improvements.** In the vicinity of the SH 103 interchange, the I-70 mainline centerline is shifted slightly, allowing improvements to drainage infrastructure that reduce safety concerns currently associated with the ponding of water and ice on the highway. Improvements are made in three areas in this vicinity: new inlets in the center of mainline I-70, just east of the bridge; improvements and replacement of the existing inlet at the WB off-ramp from I-70 to SH 103; and improvements on the EB I-70 on-ramp at SH 103.
- **Rockfall Mitigation.** By rock scaling and other actions, the Proposed Action improves some high-risk areas of traditional rockfall zones, reducing the likelihood of rocks tumbling onto the highway.
- **Wildlife Crash Mitigation.** Mitigation measures to reduce WVCs include seasonal signage and a reduced speed limit on the US 40/County Road (CR) 257 to I-70 WB on-ramp.
- **Exit 241 Improvements.** Increased sight distance for drivers exiting EB I-70 and turning onto the bridge at Exit 241. Drivers can see Colorado Boulevard traffic (including pedestrians using the sidewalk on the bridge) from the stop bar without inching into the crosswalk, and pedestrian safety is improved. The acceleration length of the WB on-ramp is increased which also improves safety.
- **Exit 240 to Exit 239 Auxiliary Lane.** The new WB auxiliary lane between Exit 240 and Exit 239 provides additional safety for motorists accelerating onto the WB lanes from Exit 240 or decelerating at Exit 239 to leave the WB lanes.
- **Dumont Port of Entry.** Decreased potential for vehicular conflicts results from the changes at the Port of Entry, where striping and reconfiguration of lanes separates traffic merging onto WB I-70 from the on-ramp from truck traffic exiting the Dumont Port of Entry.
- **Public education.** A public education campaign is planned prior to opening the WB PPSL to clarify correct PPSL usage related to speed and complying with laws related to driving over lane striping.

All of these design elements offer improved safety and help to mitigate safety concerns that result from using the shoulder as a part-time travel lane.

In addition, a noticeable operational benefit of the Proposed Action includes reduced congestion which also reduces congestion-related crashes. This benefit was clearly noticeable on the EB PPSL after it opened.

4.1.3 Traffic Operations and Safety During Construction

During construction of the Proposed Action most of the work occurs on the shoulder of I-70, so traffic is not detoured. As a result, this project will not have a large effect on traffic operations in the corridor. However, the travel lanes during construction may be narrowed, and the speed limit reduced in the construction area. Motorists traveling through the study area will likely experience a slight increase in travel time (and traffic may be backed up) because of the reduced speed limit, possible lane narrowing or shifting and other disruptions. The north side on- and off-ramps at Exit 240 (SH 103) are reconfigured during the WB PPSL construction, creating a need for occasional temporary detours to other Idaho Springs interchanges at Exit 241 or Exit 239. The on- and off-ramps at US 40 would remain open except

for temporary traffic lane shifts during some construction activity. There is also increased potential for crashes during construction.

Contained rock blasting and scaling will occur near MP 237.1. During blasting for rock scaling and rockfall mitigation, all traffic on I-70 is stopped for approximately 10 minutes before and 30 to 40 minutes after each detonation depending on the location. Blasts are small to limit collateral effects. The differential erosion of rocks or sediments of varying hardness and resistance to erosion can create benches. There could be four to six blasts per day depending on the sequence and number of benches. Blasting during peak periods (Friday afternoons and early evenings, Saturday mornings, and Sunday afternoons and evenings) is limited to the extent possible.

Other temporary effects that may occur are:

- Impacts to travelers on other roads
- Impacts to pedestrians and bicyclists on other roads
- Economic impacts to businesses from delays and detours
- Traffic delays that affect emergency response

4.2 Air Quality

The Proposed Action occurs in an area with relatively few sources of air pollution. It is wholly contained in an area designated as attainment/unclassified by the U.S. Environmental Protection Agency (EPA) (EPA 2018). There are no ambient air quality monitors in the vicinity of the WB PPSL project, or within Clear Creek County. Monitoring by the Colorado Department of Health and Environment Air Pollution Control Division has not been conducted in the Clear Creek County area since 1980; however, based on more recent monitoring done in Vail and in the study area for the Twin Tunnels Expansion project, there are no issues or concerns with exceedances of the National Ambient Air Quality Standards. In addition, near-road monitoring conducted in Denver (where there is substantially more traffic and other contributors such as industrial uses) has shown few exceedances of the National Ambient Air Quality Standards. The air quality in the study area is expected to remain good in the future, in part, due to technological improvements that reduce vehicle emissions over time, even while traffic on I-70 increases.

The Proposed Action is expected to result in decreased congestion and improved operational efficiency during the selected peak traffic hours during which the WB PPSL is in operation. The decreased congestion reduces tailpipe emissions associated with congestion. No adverse effects associated with greenhouse gas (GHG) emissions are anticipated from implementation of the Proposed Action. Although motor vehicle emissions in the study area may increase, they are unlikely to result in a violation of the National Ambient Air Quality Standards; therefore, there are no air quality impacts.

Temporary impacts to air quality during construction are anticipated because of the use of standard roadway construction techniques and equipment that result in the release of diesel and dust emissions.

4.3 Noise

CDOT conducted noise monitoring before and after the EB PPSL project was constructed. This biannual monitoring is consistent with the commitments in the 1041 application to Clear Creek County for the EB PPSL project. Approximately every six months, once in the winter and once in the summer, noise measurements are collected at 14 noise-sensitive receptor locations in the study area. These measurements are taken during both peak period and off-peak period, which helps characterize the noise

environment both when the EB PPSL is in use and not in use. Noise measurements indicated that the EB PPSL did not result in a perceptible change in noise levels at the majority of monitoring locations. In locations where perceptible changes have occurred, they have been attributed to increases in traffic volumes on both on I-70 and the frontage road, as many of the monitoring locations are affected by traffic on both facilities, rather than because of implementation of the EB PPSL. Another cause is that some of the monitoring locations have shifted. As land uses have changed, some monitoring locations have had to move from 80 to 320 feet from where the baseline measurements were taken, thereby affecting the ability to accurately compare against the original measurements. In general, the EB PPSL does not appear to have perceptibly influenced traffic noise levels at sensitive receptors throughout the corridor.

In addition to the ongoing monitoring, site-specific noise monitoring was performed to measure noise reduction after installation of the concrete Type 7 barrier with glare screen. The results of this monitoring indicated a perceptible decrease in noise.

The noise measurements collected as part of the WB PPSL noise assessment are similar to the existing sound levels observed as part of the EB PPSL noise study.

There is one existing noise wall in the study area (Photo 1) that was originally built under CDOT's Type II noise wall program. The Proposed Action requires that about 500 feet of this wall is moved approximately 4 feet north of the travel lane to improve sight distance. This does not impact its effectiveness.

Photo 1. Existing Noise Wall at MP 239

The WB PPSL project does not meet FHWA requirements for a detailed analysis of highway traffic noise and noise impacts and is therefore classified as a Type III project, per 23 CFR 772.

Incidental noise reduction benefits may occur in Idaho Springs because concrete barriers (not intended for noise abatement) are planned on the outside shoulder in areas where I-70 is elevated. These barriers are concrete Type 9 barriers with a glare screen on top, and are about 56 inches high. They are not noise barriers. Modeling using FHWA's Traffic Noise Model was performed as part of the EB PPSL environmental process. This modeling indicated that a 45-inch barrier could provide a 2- to 4-decibel incidental noise reduction at the residences nearest to I-70 where the line-of-sight between the receptor location and vehicle traffic on I-70 was blocked (CDOT 2014). However, field measurements taken after the EB PPSL project was constructed show incidental noise reduction benefits that are greater than 2 to 4 decibels. A change of 2 to 4 decibels is barely perceptible; however, a larger more perceptible reduction in noise may occur. Similar noise reductions are expected following the implementation of the Proposed Action.

Temporary increases in noise occur during construction are anticipated because of the use of standard construction techniques and diesel-powered equipment that generates noise, during both day and night operations.

4.4 Regulated Materials and Solid Waste

The following potential hazardous material concerns occur in the study area and could be affected by the Proposed Action (GeoSearch 2017):

- Mining and milling activities occurred in the project vicinity from approximately 1859 to the 1980s (Clear Creek County 2017a). There are likely to be mine-related wastes that were utilized as roadway embankment beneath the I-70 roadway (NRCS 2013). Metals, including arsenic and lead, have been found in soil and groundwater samples throughout the study area (Colorado Department of Public Health and Environment 2017). Based on planned depths of excavation and construction activity, the potential for impacted soil and/or groundwater to be encountered during construction activities is considered high.
- The exit from I-70 at Downieville (Exit 243) once housed several former and current gas stations, to the north of I-70 (Terracon 1990). Operations at the former and current gas stations may have impacted the study area. The potential for encountering impacted soil and/or groundwater during construction activities is high. At Exit 243 adjacent and to the north of I-70, levels of benzene in groundwater are above Risk Based Screening Levels in several monitoring wells and are naturally attenuating (Delta 1991).
- At CR 308, 50 feet north of I-70 near MP 235, underground storage tanks associated with a former gas station are located adjacent to the south of the building and to the north of I-70 (Rex 2002, Palmetto 2011). Additionally, the Downieville Fuel Stop, 60 feet north of I-70 near MP 235, contains soil and groundwater that has been impacted (Rex 2002, Palmetto 2011). The groundwater plume was reported to be moving to the south, toward CR 308 and I-70, and monitoring wells in the vicinity have recorded free product and benzene at levels exceeding the Colorado Department of Public Health and Environment basic standard for benzene in groundwater (0.005 milligram per liter) for various sampling events every year from 2010 to 2017 (Palmetto 2017).
- Structures throughout the study area were demolished from the early 1900s to the 1960s when I-70 was constructed. Demolition debris or fill from unknown sources that could contain lead-based paint, asbestos-containing materials, mine wastes, or other regulated materials or demolition debris could be present. Proposed activities could disturb these areas of debris.
- Demolition or removal of polychlorinated biphenyl-containing structures may occur during construction.

Direct impacts to regulated materials and solid waste are likely to occur during construction. The disturbance of mine-related wastes increases the possibility that these mine-related pollutants could be spread through wind dispersion, leaching, and drainage. Dewatering activities could result in the generation of contaminated ground water. Monitoring, commercial, domestic, and municipal wells are located in or adjacent to the study area and may be impacted (Colorado Division of Water Resources 2017). Additional information regarding direct impacts to water quality are included in Section 4.12 *Water Quality*.

4.5 Farmlands

Approximately 1 acre of soils classified as “farmland of statewide importance” by the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) is affected by construction of the Proposed

Action (NRCS 2017). Because these soils occur within CDOT right-of-way, the project is considered exempt from the Farmland Protection Policy Act by NRCS.

4.6 Threatened and Endangered Species

Table 2 lists the federally and state-listed species potentially found within the study area. The Proposed Action has the potential to impact threatened and endangered species as noted in Table 2.

Table 2. Federally and State-Listed Species and their Potential to Occur in the Study Area

Species	Status[1]	Habitat Requirements	Potential for Occurrence in the Study Area
Birds			
Bald Eagle (*Haliaeetus leucocephalus*)	SC	Widespread species that nests and roosts in large trees. Typically prefers foraging near waterbodies with abundant prey and large trees for perching.	May occur. No known nest sites within study area; however, suitable wintering habitat is present along Clear Creek (Colorado Parks and Wildlife [CPW] 2017a).
Least Tern* (*Sterna antillarum*)	FE, SE	Reservoirs, lakes and rivers with bare, sandy shorelines for nesting and foraging.	Unlikely to occur. No suitable habitat is present in the study area. This species is included because it occurs in the Platte River system of which Clear Creek is part.
Mexican Spotted Owl (*Strix occidentalis lucida*)	FT, ST	Occurs at elevations below 9,100 feet in large steep canyons with exposed cliffs and dense old growth mixed coniferous forests.	Unlikely to occur. Suitable steep canyon habitat does not occur in the project corridor and there are no breeding records for Clear Creek County (Wickersham 2016).
Whooping Crane* (*Grus Americana*)	FE, SE	Mid-river sandbars, wet meadows, and reservoir edges along the Platte River in Nebraska.	Unlikely to occur. No suitable habitat is present in the study area. This species is included because it occurs in the Platte River system of which Clear Creek is part and downstream impacts could occur.
Piping Plover* (*Charadrius melodus*)	FT, ST	Reservoirs, lakes and rivers with bare, sandy shorelines with pebbles for nesting and foraging.	Unlikely to occur. No suitable habitat is present in the study area. This species is included because it occurs in the Platte River system of which Clear Creek is part and downstream impacts could occur.
Peregrine Falcon (*Falco peregrines anatum*)	SC	Various open habitat where there are suitable nesting cliffs, mountains, open forested areas, and human population centers. Nests on ledge or hole on face of rocky cliff or crag from 4,500 feet	May occur. There is suitable nesting habitat identified near Empire Junction/US 40 in the study area; however, no known

Table 2. Federally and State-Listed Species and their Potential to Occur in the Study Area

Species	Status[1]	Habitat Requirements	Potential for Occurrence in the Study Area
		to 10,000 feet in elevation. River banks, tundra mounds, open bogs, large stick nests of other species, tree hollows, and man-made structures.	nests have been identified (CPW 2017a).
Mammals			
Canada Lynx (*Lynx canadensis*)	FT	Found primarily within the subalpine and upper montane forests zones typically from 8,000 to 12,000 feet in elevation. Early successional spruce/fir and lodgepole pine forests used for foraging, mature and old growth spruce/fir and lodgepole pine containing large downed woody debris used for denning. Riparian areas, mixed aspen/conifer, mature spruce/fir, and shrublands to forested lynx habitat also used for foraging.	May occur. Suitable habitat exists adjacent to the study area.
North American Wolverine (*Gulo gulo luscus*)	PT, SE	Alpine and arctic tundra, boreal and mountain forests (primarily coniferous).	Unlikely to occur. No suitable habitat in study area.
Townsend's Big-Eared Bat (*Corynorhinus townsendii pallescens*)	SC	Semi-desert shrublands, pinyon-juniper, woodlands and forests, mines, and caves occurring at elevations up to 9,500 feet.	May occur. No suitable roosting habitat is present in the study area; however, suitable foraging habitat is present.
Fish			
Greenback cutthroat trout (*Ancorhynchus clarki stomias*)	FT	Cold, clear, gravelly headwater streams and mountain lakes which provide an abundant food supply of insects.	Unlikely to occur. No suitable habitat in the study area.
Pallid sturgeon* (*Scaphirhynchus albus*)	FE	Inhabits large, silty rivers with a diversity of depths and velocities formed by braided channels, sand bars, sand flats and gravel bars.	Unlikely to occur. No known populations in study area. This species is included because it occurs in the Platte River system of which Clear Creek is part and downstream impacts could occur.

Table 2. Federally and State-Listed Species and their Potential to Occur in the Study Area

Species	Status[1]	Habitat Requirements	Potential for Occurrence in the Study Area
Plants			
Western Prairie Fringed Orchid* (*Platanthera praeclara*)	FE	Occurs in mesic to wet unplowed tallgrass prairies and meadows but have also been found in old fields and roadside ditches in Nebraska	Unlikely to occur. No suitable habitat in the study area. This species is included because it occurs in the Platte River system of which Clear Creek is part and downstream impacts could occur.
Amphibians			
Boreal toad (*Anaxyrus boreas*)	SE	Occurs between 8,000 feet and 11,000 feet elevation in spruce-fir forests and subalpine and alpine meadows. Prefers damp conditions; marshes, wet meadows, streams, ponds, and lakes. Boreal toads feed on a wide range of invertebrates and insects, including flies, mosquitoes, grasshoppers, beetles and moths.	May occur. Suitable habitat is mapped in the western portion of the study area in wetlands near the US 40 and I-70 interchange (CPW 2017a).
Northern leopard frog (*Rana pipiens*)	SC	Suitable breeding habitat found in streams, natural lakes and ponds, glacial kettles, stock ponds and reservoirs, and marshes and wetlands. This species overwinters underwater.	May occur. Suitable habitat exists along the riparian areas adjacent to the Clear Creek corridor and in the wetland identified in the study area (CPW 2017a).
Common garter snake (*Thamnophis sirtalis*)	SC	Wetlands, ponds, and the edges of streams	May occur. Potential suitable habitat present in the wetland and streams in the study area.

Source: USFWS 2017; CPW 2017a and 2017b.

*Species potentially impacted by Platte River system water depletions.

[1]Status Codes: PT = Proposed Threatened; FE = Federally Endangered; FT = Federally Threatened; SE = State Endangered; ST = State Threatened, SC = State Special Concern.

The only federally listed species that may be affected by the Proposed Action is the Canada lynx (Photo 2). Lynx using the adjacent forested habitats near the study area are likely habituated to noise and human activity from I-70 and unlikely to flee in response to the additional noise and activity produced by project construction.

Photo 2. Canada Lynx
Photo Credit: USFWS Digital Library 2012.

Loss of habitat and lighted signage can affect threatened and endangered species. Approximately 0.5 acre of scrub-shrub habitat above 8,000 feet and adjacent to the highway is removed for highway widening. A maximum of four electronic signs that display a message at all times are installed above 8,000 feet. No additional external lighting is required on these signs. The addition of electronic signs in the study area results in a moderate, but geographically limited, effect to lynx.

Water use required for some construction activities affects federally listed species that are potentially impacted by depletions to the Platte River system. These species include the least tern, piping plover, Western prairie fringed orchid, Whooping crane, and Pallid sturgeon. Measures outlined in the U.S. Fish and Wildlife Service (USFWS) Final Programmatic Biological Opinion will be followed to minimize impacts.

No critical habitat for any federally listed species occurs in the study area.

On July 17, 2018, the USFWS concurred with the assessment that the Proposed Action is not likely to adversely affect the continued existence of the Canada lynx. A copy of this letter is included in Appendix B *Agency Coordination* of this document.

4.7 Raptors and Migratory Birds

The Migratory Bird Treaty Act (16 United States Code [U.S.C.} 703-712) protects migratory birds and their nests, eggs, young, and parts from possession, sale, purchase, barter, transport, import, and export, and take. Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668–668c) and the Migratory Bird Treaty Act.

The mixed montane forest, riparian habitat, and steep rocky terrain found within the study area provide foraging, roosting, and nesting habitat for a variety of migratory birds. Surveys for raptor nests were conducted in August and November 2017. One inactive raptor or raven nest was documented on a cliff on the north side of I-70 just east of the Idaho Springs skateboard park. Bridge and culvert structures were surveyed for nests. No nests were observed.

The Proposed Action results in a loss of roadside habitat that is converted to transportation use. This includes removal of 59 trees. The loss of these trees and 0.5 acre of shrub-scrub habitat slightly reduces habitat availability for migratory birds and raptors in the study area. However, the area that is converted is disturbed roadside habitat that provides little habitat value.

Rockfall mitigation measures are included in some locations to prevent rocks or other debris from falling on travel lanes or shoulders, and reduce the potential for crashes and travel disruptions. Rockfall

mitigation is installed at five locations. Direct impacts to raptors are possible as a result of entanglement in the material used to prevent rockfalls. The frequency of entanglement incidents is unknown and has only been documented at two locations across the state.

Construction of the Proposed Action may result in some direct mortality to migratory birds, and displacement of birds from habitat near construction areas. Construction of the Proposed Action occurs from spring 2019 through December 2020. Most of the study area does not provide adequate cover and habitat for raptors or migratory birds. However, if construction takes place during the nesting season for migratory birds (April 1 through August 31), nest loss or abandonment may occur. Disturbance by construction workers and equipment may be substantial enough to cause stress to nesting birds and result in abandonment and/or predation of nests.

Contained blasting and rock sculpting to mitigate for unstable rock slopes near MP 237.1 results in potential disturbance to nesting and roosting birds in the area of blasting.

4.8 Terrestrial and Aquatic Wildlife

Large terrestrial mammal species that regularly occur within suitable habitat in the study area include mule deer, elk, and bighorn sheep. The entire study area is designated by Colorado Parks and Wildlife (CPW) as mule deer summer and winter range, and areas north of I-70 are designated as winter concentration areas. Elk summer range is designated north and south of I-70 from west of Idaho Springs, and winter range is present south of I-70. Bighorn sheep are frequently observed on the north side of I-70 throughout the study area. Areas north of I-70 are designated as summer and winter range with designated areas of winter concentration adjacent to I-70. Bighorn sheep production areas are located on the north side of I-70 west of Fall River Road (CPW 2017). Bighorn sheep typically stay on the north of I-70 to avoid the densely forested habitat on the south side of I-70, which is considered unsuitable for sheep. During the winter months, sheep are attracted to magnesium chloride that is used as a deicer on I-70. CPW has mapped the entire study area as black bear habitat. Moose are rare in the study area, but may occasionally be seen west of Empire Junction (CPW 2017b).

The study area provides foraging habitat for a variety of predators, including coyote, red fox, bobcat, raccoon, and striped skunk. In addition, mountain lions are found throughout the region. Common small mammal species include ground squirrels, mice, chipmunks, bats, and rabbits. Beaver are frequently observed adjacent to Clear Creek.

WVCs are a concern in the study area. Between MP 230 and MP 243, a total of 97 WVCs were reported between 2007 and 2016. Of these crashes, five resulted in injuries to motorists and the remainder resulted in property damage only. No human fatalities from WVC accidents were reported during this timeframe. Most reported WVC crashes involved deer (73 percent), with collisions with bear, elk, bighorn sheep, mountain lion, mountain goat and moose also reported. Higher concentrations of WVCs are observed around the Empire Junction interchange (MP 231-232) and the Veterans Memorial Tunnels (MP 242).

The Proposed Action has direct impacts to terrestrial mammals including minimal loss of about 0.5 acre of low-quality roadside habitat that is converted to transportation use. This includes removal of 59 trees. Most project improvements occur in existing highway right-of-way and require minimal vegetative clearing. The Proposed Action results in three traffic lanes being in operation during peak periods. Traffic volumes are already high during these times, and the additional traffic lane is expected to have little effect on mammals, which are already limited from moving across the interstate at these times. I-70 currently

poses a substantial barrier to movement for most terrestrial mammals in the study area. Additional lighted signage further increases the barrier effect of I-70 as wildlife seek to avoid these lighted areas.

The WB PPSL could result in an increase in WVCs for bighorn sheep or mule deer. Increased mortality of bighorn sheep (Photo 3) because of WVC may occur, especially when de-icing salts attract bighorn sheep to roadsides during winter months.

Photo 3. Bighorn Sheep
Photo credit: USFWS Digital Library 2006.

Clear Creek (Photo 4) is considered a “high value” fishery that provides high-quality habitat for a variety of fish and other aquatic species. Clear Creek supports wild, naturally reproducing brown trout populations and stocked populations of rainbow trout. Other species present in Clear Creek include brook trout, Snake River cutthroat trout, fathead minnows, common carp, and various species of sucker (CPW 2017a). There are no direct impacts to aquatic species as a result of the Proposed Action.

Photo 4. Clear Creek in the western portion of the study area near MP 232.
Photo credit: HDR.

Project construction activities temporarily displace mammals from the active construction areas because of increased noise, construction lighting and human activity during construction. However, wildlife that currently occupy the study area or use the adjacent areas for foraging are likely habituated to noise and human disturbance due to the disturbed nature of the study area, and, therefore, the impacts associated with construction noise and lighting and the potential for displacement of mammals are considered minor.

Contained blasting and rock sculpting to mitigate for unstable rock slopes near MP 237.1 can result in potential injury or disturbance to wildlife in the area of blasting. Noise from blasting can temporarily startle and displace bighorn sheep if they are in the area. Blasting in the vicinity of production areas located north of I-70 can result in sheep and lambs moving to a site further away from the disturbances of the blasting noise. Blasting is limited to one rock buttress near MP 237.1.

4.9 Riparian Vegetation

Riparian areas, which are located sporadically along the banks of Clear Creek in the study area, serve as buffer zones to the creek and are home to unique wildlife species, including protected species. The dominant tree species in the riparian corridor in the study area is narrowleaf cottonwood, with scattered ponderosa pine, Douglas-fir, thinleaf alder, river birch, sandbar willow, Engelmann spruce, common snowberry, and red twig dogwood. Because of the incised channel and steep banks of Clear Creek,

riparian vegetation is not contiguous within the study area, and is only found where the stream remains hydrologically connected to its floodplain, resulting in sediment deposition that can support riparian plant communities.

Colorado Senate Bill 40 (SB 40) (33-5-101-107, Colorado Revised Statutes, 1973 as amended) is a law designed to protect and preserve fish and wildlife resources associated with streams and riparian areas in Colorado. A SB 40 Certification will be obtained from Colorado Parks and Wildlife (CPW) when construction occurs in any stream, its banks, or tributaries that meet SB 40 Certification application criteria. Clear Creek is an SB 40 jurisdictional stream.

The Proposed Action results in no direct to riparian vegetation.

4.10 Vegetation and Noxious Weeds

The study area is located adjacent to Clear Creek, a perennial tributary of the South Platte River. The elevation of the study area ranges from approximately 7,400 feet to 8,250 feet above mean sea level. The study area is primarily located within the montane and foothills zones, and the vegetation communities are predominantly evergreen forests and scrub/shrub communities (Chapman et al. 2006). The montane zone is characterized by open stands of ponderosa pine at lower elevations and Douglas-fir forests at higher elevations. North of I-70 is mainly ponderosa pine forest, and south of I-70 is mainly Douglas-fir forest.

As defined by the Colorado Department of Agriculture (CDOA), noxious weeds are plants that reduce agricultural productivity, lower real estate values, endanger human health and well-being, and damage scenic values (CDOA 2017). The Clear Creek County Noxious Weed Management Plan (Clear Creek County 2013) and the CDOA Noxious Weed List were reviewed to determine which noxious weed species may occur in the county. Noxious weeds were noted during previous field work conducted in the area for the EB PPSL project and updated and verified during the August 2017 site visits for the WB PPSL. A total of 12 species designated as noxious weeds by the State of Colorado were documented in the study area.

The Proposed Action converts about 0.5 acre of shrub-scrub vegetation to transportation use. The converted areas are primarily roadside vegetation of low habitat value to wildlife. The Proposed Action requires the removal of 59 trees.

Construction activities disturb about 11.4 acres of vegetation along I-70 and expose soils in areas that have been previously disturbed, creating a potential for the introduction and spread of noxious weeds in the study area. Noxious weed species that occur in the disturbed areas of the study area have the potential to spread into areas impacted by roadway construction.

4.11 Wetlands and other Waters of the United States

The study area is located adjacent to Clear Creek, a perennial tributary to the South Platte River. Waters of the U.S. within the study area consist of 12 stream channels and 1 wetland. Eight of those are stream channels considered a part of Clear Creek; and the remaining are Soda Creek, Georgia Gulch, Spring Gulch, and Mill Creek. In addition, there are numerous unnamed intermittent drainages located throughout the corridor associated with the mountain topography. The emergent wetland near Dumont is likely to be a jurisdictional water of the U.S.

No direct impacts to waters of the U.S. are expected from the implementation of the Proposed Action.

Construction impacts are possible if spills of fuels or other materials cause a pollutant discharge into waters of the U.S., including wetlands. Removal of soil and vegetation to construct the Proposed Action may result in increased erosion, which may result in increased sedimentation in waters of the U.S. No direct permanent or temporary impacts to waters of the U.S are expected from the implementation of the Proposed Action.

4.12 Water Quality

Clear Creek is the primary water resource in the study area and generally flows immediately adjacent to I-70 (Photo 5). Clear Creek generally runs parallel to the south of I-70, but crosses to the north of I-70 in several locations, including near MP 243, MP 241 and MP 232. CDOT removes snow from the travel lanes and applies traction sand or salt-based liquid deicers to maintain winter mobility. The highway contributes surface runoff to Clear Creek and other receiving streams during snowmelt or rainfall runoff conditions.

Photo 5. Looking north at Clear Creek in the town of Idaho Springs.

Photo credit: HDR.

Clear Creek's existing water quality is currently threatened by a number of conditions, including erosion from historical mines, mine drainage, runoff from urban development, population growth, local roadway runoff, and I-70 runoff. The study area is within the area designated by the EPA as the Clear Creek/Central City Superfund Area, and includes several locations where mining-related drainages, mill sites, and mine waste piles have been remediated as well as numerous mill sites along I-70 that have not been remediated (CDOT 2011a, CDOT 2011b).

Other stormwater runoff issues in the study area include the following:

- Sedimentation and poor drainage at the Lawson overpass. Currently, the existing water quality detention basin at this location is not connected to runoff. Also, sediments from a steep area on the north side of I-70 are accumulating under the overpass and increasing chances of flooding.
- Sedimentation and slow drainage at the Fall River Road underpass. The source of sediment is unclear, but the result is similar to the problem at the Lawson overpass. Where Fall River Road passes under I-70, fine sediment and water tend to pool and to flood the road.

The Proposed Action increases the impervious surface area within the study area by 8.1 acres and thus results in increases in roadway runoff and in minor increases in usage of winter maintenance materials.

To offset the increases in stormwater runoff and related pollutants, the Proposed Action includes three permanent water quality detention basins. These basins treat a combined 2.6 acres of on-site and off-site runoff. These basins treat less impervious surface than is created by the Proposed Action, but they do result in a benefit to water quality by addressing some of the ongoing off-site drainage concerns in the watershed.

The Proposed Action reconstructs the existing Lawson water quality detention basin, improving water quality in this area, capturing both on-site and off-site runoff.

At Fall River Road, drainage improvements include improving existing inlets, ditch and rundown maintenance, and possible grading to direct water away from the county road. These improvements reduce the amount of sediment on the roadway and pooling in this location.

Indirect impacts include the potential disturbance of mine tailings and a minor increase in usage of winter maintenance materials. During heavy snowfall events, the decreased shoulder width results in snowplows pushing snow and winter maintenance materials beyond the edge of the pavement. These materials could enter Clear Creek.

Disturbance and erosion of underlying soil, stockpiles, and access roads during construction contributes to water quality degradation in Clear Creek. Vehicle tracking can carry loose sediment onto the roadway that can be transported into Clear Creek. Concrete wash-out has the potential to be conveyed into the drainageways. Accidental spills from machinery, drilling activities, and storage tanks affect water quality during construction. Soil disturbed during construction could lead to long-term erosion and sedimentation in Clear Creek if not mitigated.

4.13 Floodplains

Based on the Flood Insurance Study and Flood Insurance Rate Maps of Clear Creek County, Colorado (Clear Creek County 2017b), there are five Federal Emergency Management Agency (FEMA) Special Flood Hazard Areas mapped along the project corridor. These areas, commonly known as the “100 year floodplain,” depict the zones where the National Flood Insurance Program’s floodplain management regulations must be enforced and the areas where mandatory purchase of flood insurance applies. Currently, the Clear Creek County Flood Insurance Study is undergoing revisions that include modifications to the base flood elevation boundaries, or the 100-year floodplain, on the Clear Creek, Soda Creek, and Chicago Creek stream systems. These revisions are based on a hydraulic study performed by ICON Engineering that incorporates updated topographic data and hydrology to improve the accuracy of the published Flood Insurance Rate Maps. FEMA issued preliminary maps for public comment in December 2017. Once adopted, these revisions will become the effective floodplain information for Clear Creek County. Because the preliminary maps represent the best available information, they were used for the WB PPSL analysis.

There are seven locations where improvements are adjacent to the floodplain but no filling occurs in the floodplain. The Proposed Action was carefully designed to avoid any encroachment on the floodplain.

There is no grading or other construction activity occurring within the floodplain during construction. Therefore, no effects on floodplains are anticipated during construction.

4.14 Historic Properties

Under Section 106 of the National Historic Preservation Act of 1966, federal agencies are required to evaluate the effects of their undertakings on historic properties. This process involves identifying historic properties, evaluating effects, resolving adverse effects, and mitigation.

Consultation with the State Historic Preservation Officer (SHPO) and interested or consulting parties is an important part of the Section 106 process. Consulting parties included Clear Creek County, City of Idaho Springs, Historical Society of Idaho Springs, Mill Creek Valley Historical Society, Clear Creek Archives and the Georgetown Trust for Conservation and Preservation.

The Section 106 analysis for this project was conducted in compliance with the 2008 Programmatic Agreement among FHWA, the U.S. Department of Agriculture Forest Service (Forest Service) Rocky Mountain Region; Department of the Interior (Bureau of Land Management) Glenwood Springs Field Office, Advisory Council on Historic Preservation, Colorado SHPO, and CDOT regarding implementation of the Proposed Action.

The initial Area of Potential Effects (APE) boundary is an area extending 500 feet from the CDOT right-of-way on the north side of I-70 for the majority of the corridor. On the south side of I-70, the extent of the APE is within the existing CDOT right-of-way for the majority of the corridor.

CDOT reviewed the APE in June 2017 with consulting parties and the Colorado Office of Archaeology and Historic Preservation (OAHP). Based on consultation with the Section 106 ITF, the APE is expanded in several areas, specifically at Empire Junction, on the south side of I-70 at Downieville, and north in east Idaho Springs.

Table 3 lists the 38 historic properties within the APE and the resource type. The Section 106 effect determinations for the eligible properties are shown in Table 3 and based on consultation with SHPO and the consulting parties.

Two Section 106 ITF meetings occurred during the course of the Section 106 consultation.

- The Section 106 ITF held the first meeting on June 27, 2017, to review the initial APE.
- The Section 106 ITF held the second meeting on August 9, 2018, to review the eligibility and effects determinations.

Minutes from both of these meetings are contained in Appendix A of the *Westbound I-70 PPSL Historic Resources Technical Report* (HDR 2018).

Table 3. Historic Properties within the Area of Potential Effects

Site No.	Name/Address	Resource Type
5CC.181	Lawson School	Building
5CC.201	Idaho Springs Downtown Commercial District	District
5CC.229	Charlie Tayler Waterwheel	Structure
5CC.231	Miner Street Bridge	Structure
5CC.251	John Gunstrom House	Building
5CC.313	Mill City House	Building
5CC.326	Stanley Consolidated Mine	Site
5CC.328	Big Five Mine	Site
5CC.332	Alma-Lincoln Mine	Site
5CC.339	Maude Munroe Mine/Donna (Dona) Juanita Mine	Site
5CC.427	Central Colorado Railroad	Linear Resource (5 segments in APE)
5CC.654	Dumont School	Building
5CC.985	Darragh Placer	Site

Table 3. Historic Properties within the Area of Potential Effects

Site No.	Name/Address	Resource Type
5CC.1151	Mt. Evans Road/SH 103—Segment	Linear Resource (2 segments in APE)
5CC.2002	US HWY 6/40—Segment	Linear Resource (3 segments in APE)
5CC.2146	W. E. Anderson Store	Building
5CC.2157	Lawson Historic District	District
5CC.2290	Unidentified Mine	Site
5CC.2297.1	Trail	Site
5CC.2377	95 Dumont Lane	Building
5CC.2378	85 Dumont Lane	Building
5CC.2386	25 Dumont Lane	Building
5CC.2389	327 County Road 308	Building
5CC.2390	307 County Road 308	Building
5CC.2396	151 County Road 308	Building
5CC.2398	107 County Road 308	Building
5CC.2399	83 County Road 308	Building
5CC.2432	Log Motel	Building
5CC.2460	2229 Miner Street	Building
5CC.2473	2023 Miner Street	Building
5CC.2475	Graham-Wilkins House	Building
5CC.2476	2009 Miner Street	Building
5CC.2477	2005 Miner Street	Building
5CC.2478	2001 Miner Street	Building
5CC.2479	Golddigger Stadium	Structure
5CC.2485	Roberts Brothers Mercantile Co. Warehouse	Building
5CC.2486	Jones-Cooper-Treder House	Building
5CC.2514	Grass Valley Historic District	District

No historic or archaeological resources in the APE are adversely affected by the Proposed Action. All historic properties experiencing direct or indirect effects were determined to result in “no adverse effect”. No additional ROW or temporary or permanent easements will be acquired at historic properties. For additional information regarding the analysis of the historic and archaeological resources see the *Westbound I-70 PPSL Historic Resources Technical Report* (HDR 2018) and *Westbound I-70 PPSL Archaeological Resources Technical Memorandum* (HDR 2018). For additional information regarding the effects determinations see Appendix B *Agency Coordination* of this document.

CDOT sent a letter regarding eligibility and effects to the SHPO and Consulting Parties on July 11, 2018. The SHPO concurred with eligibility and effects on July 25, 2018 (Appendix B). Two Consulting Party responded on August 7 and August 11, 2018. The City of Idaho Springs agreed with the effect determinations but noted that Clear Creek County approvals are pending. The Georgetown Trust for

Conservation and Preservation requested more information about the APE and the evaluation of cumulative effects. They also stated that the proposed signage results in an adverse effect to the historic communities of Idaho Springs, Dumont, Downieville, and Lawson. CDOT responded to the Trust in a letter dated September 25, 2018.

After the design was refined, CDOT reopened the Section 106 consultation process with a letter to SHPO dated September 11, 2018, followed by letters to the consulting parties dated September 19, 2018. CDOT sent the letter to the Georgetown Trust for Conservation and Preservation via email on September 25, 2018. The SHPO sent a response dated September 21, 2018.

4.15 Section 4(f)

Section 4(f) of the U.S Department of Transportation Act of 1966 was enacted to protect publicly owned parks, recreation areas, and wildlife/waterfowl refuges, as well as historic sites of local, state, or national significance (eligible for inclusion on the National Register of Historic Places) from being converted to a transportation use.

There are four parks or ballfields immediately adjacent to I-70. There are also numerous trail crossings of I-70. Direct impacts to these resources are described in Section 4.22. Two trail crossings of I-70, the East Idaho Springs Trail and the Clear Creek Greenway), are subject to temporary impacts which constitute temporary occupancies. These are a Section 4(f) exception under 23 CFR 774.13(d).

There are 38 historic sites (including three historic districts) in the study area that are eligible for inclusion on the National Register of Historic Places. Indirect noise and/or visual effects occur to many of them, but in consultation, CDOT determined that the project results in no adverse effect to these properties as defined under 36 CFR 800.5. One historic property (Mt. Evans Road) is subject to a Section 4(f) exception (23 CFR 774.13(a).)) Appendix E includes a list of the historical and recreational properties, along with a description of impacts and a determination of whether or not these impacts are considered to be Section 4(f) uses.

4.16 Section 6(f)

Section 6(f) of the Land and Water Conservation Fund Act applies to properties purchased with these funds. The CDOT Online Transportation Information System was surveyed on August 8, 2017 for any properties developed with Land & Water Conservation Fund (LWCF) grants. No LWCF properties were identified within the study area, and this information was verified with CDOT's Section 6(f) specialist. Therefore, there are no impacts to Section 6(f) properties.

4.17 Paleontology

A combination of field survey and review of literature, public databases, geologic mapping, and museum records was used to assess the paleontological sensitivity of the study area.

The study area contains areas classified as having very low, low and moderate paleontological potential (Maberry, J.O. and Lindvall, R.M. 1977, Bureau of Land Management 2007). One area between MP 238.4 and 238.6 is mapped as Pleistocene in age, but the rest of the study area was found during field survey to contain artificial fill or be developed. No previously recorded fossil localities are located within the study area based on the record searches completed for this study, and no new fossil localities were discovered during the survey. Therefore, no impacts to paleontological resources are anticipated.

There is the potential to discover unanticipated paleontological resources during construction.

4.18 Land Use

Current land use in the study area includes public undeveloped lands (e.g., parks, open space, recreation, public lands), mixed use, rural residential, commercial, light industrial, and mining/historic mining uses. Land use in the eastern portion of the study area, primarily Idaho Springs, is predominantly mixed use, residential, and parks, open space, and recreation. The land use in the western part of the study area is less developed than the eastern part of the study area and includes historic mining, parks, open space public lands, and some commercial and residential use.

Current and proposed land use and zoning in the study area are primarily regulated by the City of Idaho Springs comprehensive plan *Envision Idaho Springs 2017* and the *Clear Creek County 2017 Community Master Plan*. These and other adopted plans and policies that influence land use and zoning in the study area are shown in Table 4.

The Proposed Action is consistent with existing land use, zoning, and local land use plans for Idaho Springs and Clear Creek County. The Proposed Action is also consistent with the 2011 I-70 Mountain Corridor PEIS and ROD.

No permanent land acquisition is needed for the Proposed Action.

The Proposed Action accommodates future land uses and land use plans in the study area. The Proposed Action does not change historical land use and growth trends because no new highway capacity is added.

Table 4. Plans and Policies in Study Area

Agency	Plans
City of Idaho Springs	▪ City of Idaho Springs Comprehensive Plan (2005a) ▪ Article 21 (Zoning) of the City Municipal Code (2005b) ▪ 3 Mile Area Plan (2008) ▪ Downtown Assessment for the Colorado Community of Idaho Springs (aka Downtown Idaho Springs Technical Assistance Program) (2012) ▪ Idaho Springs Zoning Map (2014) ▪ Highest and Best Use Economic Feasibility Study for the Interstate 70 Economic Hub at Exit 240 (2016) ▪ Envision Idaho Springs 2017 (2017a) ▪ East End Overlay District (2017b) ▪ East End Action Plan (2017c)
Clear Creek County	▪ Clear Creek County Sub-Area Plan Summary (2003) ▪ Open Space Plan (2005a) ▪ Clear Creek Greenway Plan (2005b) ▪ Floyd Hill Gateway Sub-Regional Master Plan (2009) ▪ Clear Creek County Zoning Regulations (2011b) ▪ Clear Creek County Vision for the I-70 Mountain Corridor (2014) ▪ Clear Creek County 2017 Community Master Plan (2017c)
Denver Regional Council of Governments (DRCOG)	2040 Metro Vision (DRCOG 2017)

4.19 Social and Economic

The I-70 Mountain Corridor is Colorado's only east-west interstate highway and is the primary access route from Denver to the mountains and Colorado's Western Slope. The City of Idaho Springs is the largest community in the project vicinity and is about 40 miles west of the Denver metropolitan area. Other communities in the socioeconomic study area include Downieville-Lawson-Dumont and Empire, as shown in Figure 7. The section of I-70 within the study area provides an important link between residents of Clear Creek County and Denver and allows WB travelers to drive to the mountains for recreational activities. The City of Idaho Springs and other mountain communities along I-70 rely on the mobility of travelers along the interstate highway to propel the region's local economy.

Colorado has been growing steadily in the last 15 years, and although much of the growth has occurred on Colorado's Front Range, Clear Creek County is seeing growth spilling over into its region. Between 2000 and 2010, the population in the State of Colorado rose 17 percent, and the towns of Downieville-Lawson-Dumont collectively experienced a 63 percent rise in population. During this same period, Clear Creek County, Empire, and Idaho Springs experienced a decline in population. Annual estimates of the population between 2010 and 2016 show an increase in population in Clear Creek County, Idaho Springs, and Empire and a decline in population in Downieville-Lawson-Dumont (U.S. Census Bureau 2010, U.S. Census Bureau 2016), as presented in Table 5.

Table 5. Population Changes 2010 to 2016

Location	2010	2016	Percent Change
State of Colorado	5,029,196	5,540,545	+9.0%
Clear Creek County	9,088	9,436	+3.8%
Empire	282	312	+10.6%
Downieville-Lawson-Dumont	594	474	-20.2%
Idaho Springs	1,717	1,996	+16.2%

Sources:
2010 U.S. Census (U.S. Census Bureau 2010)
2012-2016 American Community Survey (U.S. Census Bureau 2016).

The study area lies between numerous ski resorts and mountain recreational destinations to the west and the Denver metropolitan area to the east. In addition, local recreational opportunities include river rafting on Clear Creek, bicycling, and adventure recreational activities such as a zipline and hiking. As a result, the study area's economy is heavily reliant on tourism and through-travel stops. Existing traffic during peak travel times is congested and noticeably affects local travel, suppresses the number of skier and other recreational visits, and negatively affects local businesses that rely on the tourism economy.

There are about 181 businesses operating within the study area. Economic activities include construction, mining, and utilities, as well as service-related businesses. There are a number of government offices and activities in Idaho Springs, although it is not the county seat. Tourism and recreation-oriented businesses comprise about 47 percent of all businesses in Idaho Springs (ArLand Land Use Economics 2017; InfoUSA 2017). Between 2010 and 2015, both Clear Creek County and Idaho Springs experienced growth in annual sales tax revenue (City of Idaho Springs 2018, Colorado Department of Revenue 2017a and 2017b, ArLand Land Use Economics 2017).

In Clear Creek County, there are 5,580 housing units, and the mean annual household income is $91,677 (U.S. Census Bureau 2016). The majority of these housing units are single-family detached homes, and most homes in the county are owner-occupied (Clear Creek County 2012). The study area crosses five census tracts; and three of those have high percentages of low-income individuals living within them (U.S. Census Bureau 2016).

Public facilities in the study area include the Idaho Springs Public Library and Clear Creek Metropolitan Recreation Center in the City of Idaho Springs. The Clear Creek County Animal Shelter is located in Downieville-Lawson-Dumont. The Clear Creek School District is located in Idaho Springs. Carlson Elementary School is located in downtown Idaho Springs, while Clear Creek Middle School is located on SH 103 south of Idaho Springs. A primary care clinic opened in Idaho Springs in July 2017.

The Proposed Action results in overall improved conditions by easing peak period congestion on I-70 and improving emergency response times. Upgrades to the SH 103 interchange make businesses directly adjacent to the interchange easier to access from I-70, as well as increase safety for residents, businesses, and emergency service providers.

Easing of congestion during peak periods encourages more recreation- and tourism-oriented trips to Clear Creek County and other counties to the west. This indirect effect benefits local businesses, such as restaurants and retailers, from an increase in visitation to the area; is positive for economic conditions; and is of particular interest to Clear Creek County, which is actively encouraging a shift in the economic base to businesses that are more tourist-oriented.

During construction, temporary effects to residents and those accessing area businesses include detours, delays, temporary closures or impaired access to Clear Creek, impaired access to residences and businesses, potentially slower emergency responses, an increase in roadway congestion in and around the area, the presence of large equipment, temporary signage and lighting, dust from construction, and general temporary disruption to the surrounding area. Traffic may be closed in both directions on I-70 for approximately 30-minute intervals for safety during contained blasting to mitigate for unstable rock slopes near MP 237.1 or other construction operations, causing substantial short-term inconvenience for both WB and EB travelers who forgo trips during these closures or attempt to travel on alternate routes. During construction at the SH 103 interchange, motorists seeking to exit onto SH 103 may be detoured to either an earlier or a later exit on I-70, resulting in about 4.5 miles of out-of-direction travel. Use of a temporary construction easement for relocation of Chicago Creek Sanitation District sewer line causes a loss of several parking spaces in the City of Idaho Springs parking lot for about four to five months.

The economic effects of these temporary disruptions are difficult to estimate because there may be increases in economic activity at one interchange while construction effects are more negative at another interchange. Negative impacts may also be offset by positive effects from construction workers who purchase goods and services in the study area during construction and motorists who stop at area businesses because of construction traffic.

4.20 Environmental Justice

In accordance with FHWA's Guidance on Environmental Justice and NEPA (FHWA 2011) and CDOT's NEPA Manual, Version 5 (CDOT 2017), CDOT has evaluated:

- The distribution of minority and low-income populations within the study area.
- The issues, impacts, and benefits associated with the Proposed Action.

- Whether or not the Proposed Action results in disproportionately high and adverse human, health, and environmental impacts.
- Mitigation, as applicable.

The environmental justice evaluation process identified that of the six census tract block groups in the study area, three block groups have a higher percent of low-income individuals than is typical for Clear Creek County, and four block groups contain a minority proportion that is greater than Clear Creek County, which has a minority proportion of 8 percent. Census Tract 148 Block Group 1 has a higher percentage of Limited English Proficiency households than Clear Creek County. All of the Limited English Proficiency households within the block group are Spanish speaking.

The Proposed Action improves traffic operations and safety conditions when compared to the No Action condition. Traffic congestion along I-70 is reduced during peak periods, and the traffic volumes on the frontage road system are reduced, improving air quality and local accessibility in the area. No residential or commercial relocations or displacements, including environmental justice populations, occur as a result of the Proposed Action.

The study area already contains a major roadway so there are no effects to community or neighborhood cohesion as a result of the Proposed Action. Impacts to the visual character within the study area include the addition of signage, retaining walls in Idaho Springs, rockfall mitigation, and new pavement for pull-outs. Incidental noise reduction benefits provided by the tall concrete barrier in Idaho Springs are expected to occur to adjacent residential areas. Construction impacts include increased dust; noise; temporary detours; lighting; and impacts to access to businesses, residences, and recreational and community facilities. These impacts are distributed across all segments of the population and are expected to be short term and minor.

The WB PPSL is tolled. Although any toll price is higher relative to income for low-income users, tolls are not expected to be cost-prohibitive and do not exclude these populations from receiving the benefits associated with improved travel times throughout the corridor. Rather than converting an existing, general-purpose lane, the tolled WB PPSL provides an additional choice for travelers during peak periods Drivers can choose to pay the toll when a faster, more reliable trip is necessary. The benefits of the WB PPSL also include reduced congestion in the free general-purpose lanes and on the adjacent frontage road. Therefore, motorists who cannot or choose not to use the WB PPSL receive the benefit of decreased congestion and increased safety. In addition, residents (including environmental justice populations) benefit from the reduction in traffic volumes on local roads because the Proposed Action provides a more reliable travel time and reduces diversions from I-70 that cause the congestion on local roads.

None of these impacts meet the threshold of high and adverse, nor are they appreciably more severe or of a greater magnitude for low-income or minority populations when compared to the general population or any other segment of the population. In addition, the effects of the Proposed Action are not borne by any particular segment of the population, and both environmental justice and non-environmental justice populations are affected to the same extent.

There are measurable benefits to all populations, including environmental justice populations, because of the decreased traffic congestion on I-70 and the adjacent roadway system, improvements in emergency response times during peak periods, reduced air pollution from traffic on I-70 and the local road system,

and overall enhanced economic health in Clear Creek County. In addition, the concrete traffic barriers that are included in certain locations have incidental noise reduction benefits to adjacent land uses.

Therefore, the Proposed Action does not cause disproportionately high and adverse effects on minority or low-income populations.

4.21 Right-of-Way

The Proposed Action is in existing CDOT right-of-way; therefore, no permanent acquisition of right-of-way is anticipated. Six temporary construction easements are required. The total combined area of anticipated temporary easements is about 8,200 square feet, or about 0.19 acre. Five easements are on land owned by the City of Idaho Springs and the sixth is on privately owned land.

4.22 Recreation

There are numerous recreational resources in the study area, both publicly and privately owned. These include paved and dirt trails, campsites, parks, ballfields, a skate park, ziplines, and Clear Creek itself, which has access points throughout the study area and provides opportunities for fishing and rafting.

Rafting and fishing in Clear Creek account for a large portion of the area economy. Clear Creek County lists 16 rafting companies that operate in Clear Creek near the study area. A majority of these companies use this section of Clear Creek for multiple rafting trips. The Lawson Whitewater Park is also a regional kayaking destination.

Existing traffic during peak travel times is congested and noticeably affects local travel, diminishes the number of visits for skiing and other recreational activities, and negatively affects local businesses that rely on the tourism economy.

These recreational facilities are impacted by the Proposed Action:

- **Crossing of Greenway Trail under I-70 (just south of Idaho Springs City Hall).** The Greenway Trail currently crosses under I-70 at the bridge just east of SH 103. The Proposed Action changes the striping on the bridge over the trail, allowing for three lanes in the WB direction during peak periods. The Proposed Action also narrows the shoulder width, bringing traffic during peak periods closer to both sides of the bridge. This situation may result in snow or ice being thrown over the railing to the trail below during plowing operations.

  The Proposed Action also replaces the pavement with concrete, replaces the existing lighting with LED lights, removes the chain link fence between the trail and the slope under the bridge abutment, and removes the chain link fence between the trail and Clear Creek. The slope is improved by digging out the dirt behind the barrier and replacing it with cobble. Pedestrian railing that matches the pedestrian railing currently in place at Water Wheel Park is also added.

- **Idaho Springs Gold Digger Football Stadium.** The Proposed Action adds 7 feet of pavement adjacent to the stadium. Traffic moves 9 feet closer because there is an entrance ramp in this vicinity. No acquisition of right-of-way is required because all widening is in CDOT right-of-way; however, trees between I-70 and the play field are removed.

- **East Idaho Springs Trail Box Culvert Crossing Under I-70**. Located just west of the Idaho Springs Shelly/Quinn baseball fields, this box culvert is extended north by 4 feet and pedestrian lighting and

drainage improvements are added. The added lighting is a beneficial impact to this recreational facility. Drainage is improved by creating a cross slope across the bottom of the existing box culvert. Safety is improved for both pedestrians and bicyclists.

Additional indirect impacts include changed views from various recreational resources. Users of the Greenway through Idaho Springs may see views of the retaining walls below WB I-70. The culvert extension for Spring Gulch Road may be visible to users of the Philadelphia Mill Site Park, although the extension occurs on the north side of I-70.

Indirect effects to local recreation are anticipated. Because traffic congestion is anticipated to decrease, mobility and access is enhanced. This may result in increased visitation to local recreational destinations, such as the Clear Creek Greenway and Clear Creek itself. Clear Creek County is anticipating a resulting boost to its local economy.

A similar effect may occur to National Forest lands along I-70. As traffic congestion is reduced, more recreational trips may occur to National Forest lands. The Forest Service is concerned about possible adverse effects of increases in visitation to National Forest lands (including to the sustainability of the natural resource due to increased human presence). Because the Proposed Action improvements are temporary in nature, this effect is likely to also be temporary. CDOT is working with the Forest Service and Clear Creek County to alleviate adverse effects of increased visitation.

The construction of the Proposed Action results in temporary effects to recreational access and recreational facilities. Increases in noise, dust, and visual impacts from construction activity temporarily degrade the recreational experience in the study area. Temporary closures and restricted access are anticipated during construction for these recreational destinations:

- **Mt. Evans Scenic Byway.** During the construction of the SH 103 interchange improvements and enhancements to the sidewalk and lighting on SH 103 over I-70, access restrictions may occur.
- **East Idaho Springs Trail Box Culvert Crossing under I-70.** The East Idaho Springs Trail Box Culvert Crossing under I-70 is closed for approximately 3 to 4 months for the extension and lighting improvements. Users are detoured to the Exit 241 bridge over I-70
- **Planned Greenway Extension from Stanley Road north to Fall River Road.** This may be temporarily affected during construction of interchange improvements at Fall River Road.
- **Trail Access to Water Wheel Park.** During construction, access to the Water Wheel Park trail from the west is closed for between two and four weeks for manhole reconstruction. Bicyclists and pedestrians traveling to Water Wheel Park from the west are able to access the park through a 0.5-mile detour north over the SH 103 bridge and along Idaho Street to the trail that crosses under I-70 just south of City Hall to Water Wheel Park.
- **Hukill Gulch Trail:** The trail remains open, but construction activity including noise and dust temporarily diminishes the user experience.

4.23 Visual

The visual character of the area is dominated by rugged mountain views and coniferous forests on foothills in the middle ground and Clear Creek flowing through the bottom of the canyon. Although industry, tourism, and growing communities have shaped the corridor, the mountainous character

dominates the visual character of the area and creates visual continuity for the area of visual effects (AVE).

The AVE is within the Mountain Mineral Belt design segment of I-70, according to the *I-70 Mountain Corridor Context Sensitive Solutions Aesthetic Design Guidelines* (CDOT 2010). The improvements are visible to I-70 motorists, to residential and commercial uses adjacent to I-70, to recreationists along Clear Creek, and to trails along Clear Creek (CDOT 2011c). Rich in mining history, the Mountain Mineral Belt includes historic towns, such as Idaho Springs and Dumont, as well as many scenic views, vibrant forests, rocky hillsides, and waterways. However, the mountainous terrain breaks up any continuous or extended views in the corridor.

Merchants and economic development groups in Idaho Springs are concerned about any new infrastructure blocking views of important historic buildings in Idaho Springs. Numerous visual simulations were developed illustrating that, in Idaho Springs, the primary impacts to views include the parking lot at the northeast corner of SH 103 and I-70. Views of the Argo Mine and Mill are not blocked by the barrier with glare screen in the median. Visual simulations are included in the *Westbound I-70 PPSL Visual Resources Technical Report* (HDR 2018).

Table 6 summarizes the main findings of the visual impact analysis. Direct effects range from beneficial to adverse. The users that experience the greatest direct effects are the recreation or residential users viewing the highway improvements from the side of the highway. Rockfall mitigation sites are primarily visible to WB motorists, although some may be seen by EB motorists.

Table 6. Visual Impacts

Feature	Level of Effect	Details of Effect
Rock Stabilization Along WB lanes	Neutral	▪ **MP 239**—A new concrete barrier, vinyl-clad fence, and rock mesh are installed on the north side of the roadway to contain rockfall for about 1,200 feet. The fence is about 20 feet high and the rock mesh is about 80-100 feet high ▪ **MP 238.4**—Overhanging slab (20 feet wide, 2 feet thick). The slab is removed and replaced with sculpted shotcrete. Shotcrete is stained and sculpted to mimic adjacent natural rock. ▪ **MP 237.1**—Contained blasting and rock sculpting mitigates for unstable rock slopes. Fractured rock that can be stabilized by buttress, bolt and mesh. ▪ **MP 236.4**—Pinned mesh, barrier, and fence are needed. Viewers are primarily WB motorists who are less sensitive to the change. Because care is taken to make sure changes blend with the surrounding visual character, contrast is lessened and the rock stabilization is compatible with the existing views. The bolting and mesh is also compatible with treatment elsewhere along I-70 in Clear Creek County, so the travelers are used to seeing such treatment.
Rock Stabilization Along EB Lanes	Neutral	**MP 240.3**—Rockfall mesh is added with a barrier and fence at the bottom. EB travelers will see this rockfall mitigation. It is similar to other treatment elsewhere on the I-70 Mountain Corridor.

Table 6. Visual Impacts

Feature	Level of Effect	Details of Effect
Signage	Neutral	New signs are placed throughout the AVE. Viewers are primarily EB and WB motorists. New signs are compatible with existing visual character. Contrast is weak.
Median Barrier Walls/Rail	Neutral/Beneficial	Median walls are placed in four locations. These are not visible to the WB traveler because they are lower in elevation than the WB lanes. The EB traveler may see them in some locations, but they are compatible with the WB highway infrastructure already in place. Because the median barrier through Idaho Springs is a consistent type, the visual continuity is improved over the existing situation, which is a hodgepodge of barrier types. Contrast is weak.
Shoulder Retaining Walls	Neutral/Adverse	There are 11 new retaining walls added north of the WB lanes adjacent to the shoulder. These walls are primarily visible to adjacent residential and business areas but also to recreationists. Portions of the wall (with barrier on top) are also visible to the WB traveler. The longest retaining wall (1,258 lineal feet) is located in Idaho Springs from the Safeway Store to the west and is approximately 7 feet tall, including the barrier. Shoulder walls are more visible than median walls due to their height and visibility from more sensitive viewers. The tallest wall is almost 20 feet, including the barrier, and is clearly visible from the residential areas in East Idaho Springs, contrasts with the existing vegetated slope and is incompatible with a residential area. The majority of retaining walls farther west are lower in height and more compatible with the existing visual setting, resulting in a neutral impact.
Water Quality Detention Basins	Neutral	Three water quality detention basins are included. With mitigation, these represent weak contrast with the existing setting.
Auxiliary Lane Addition	Neutral	Between Exit 240 and Exit 239, the acceleration lane and deceleration lane are connected to from an auxiliary lane. Views are constrained to WB motorists. The addition of 12 feet to 13 feet of pavement is compatible with the existing view. Contrast is weak.
Vegetation Removal	Neutral	During construction, some vegetation is removed. This occurs in Idaho Springs to construct retaining walls, in Idaho Springs between Exit 240 and Exit 239 to accommodate the auxiliary lane in the median, to install rockfall mitigation, and along the truck on-ramp west of the Dumont Port of Entry. Trees, grasses, and scrub-shrub vegetation are removed.
Median Width Reduction	Neutral	This occurs in nine locations, all located west of Idaho Springs. Widening of the WB lane pavement occurs toward the grassy median, removing 14 percent of the total median area. The median width that remains varies from 13.7 feet to 19.4 feet. The remaining median maintains the same look and feel of the rural, grassy appearance, minimizing contrast and incompatibility. EB travelers are the primary

Table 6. Visual Impacts

Feature	Level of Effect	Details of Effect
		viewers because the median is generally at a lower elevation than the WB lanes.
Noise Wall Modifications	Neutral	A 500-foot section of the existing noise wall is moved approximately 4 feet to the north. Existing visual character remains. Weak contrast, compatible change. Because the existing wall is just moved, its final appearance is identical to its current appearance.
Guardrail Removal and Replacement	Beneficial	Through Idaho Springs, guardrail in median with paddles is removed and replaced with Type 9 barrier with glare screen. West of Idaho Springs, all existing guardrail on the outside is removed and replaced with new Type 3 barrier. The visual effect of this change is to improve continuity because the existing guardrail needs repair and is of multiple types.
Pier and Sign Structure Protection	Neutral	In four locations, existing Type 3 barrier is removed and replaced with Type 9 barrier. This is compatible with existing views. Contrast is weak.
Improvements to Trail Crossings	Beneficial	In two locations, improvements to lighting, drainage, removal of chain link fencing, and slope beautification occur, which improve the visual setting.

The visual effects during construction of the Proposed Action include materials, temporary lighting and signage, staging areas with vehicles and personnel, dust, fencing, and other similar items. This detracts from the view and creates a temporary negative impact for motorists and recreationists during the period of construction.

4.24 Energy

During peak periods, WB traffic volumes and congestion affect energy efficiency. Vehicles are typically at their most efficient traveling between 35 mph to 50 mph, whereas congestion during peak periods results in speeds ranging from 10 mph to 30 mph.

The Proposed Action results in both higher and more consistent speeds, resulting in decreases in energy consumption as more vehicles are able to operate at a more fuel-efficient speed range.

Construction activities have an impact on energy use. Short-term lane closures, minor ramp-to-ramp detours, and lane reductions of WB I-70 may lead to additional energy consumption and GHG emissions from stopped or queued vehicles. Energy consumption caused from construction of the Proposed Action is anticipated to consume minor quantities of energy and result in minor increases in GHG emissions.

4.25 Geology

The study area is in Clear Creek Canyon, with rugged mountains rising to the north and south sides of the roadway. The highest elevations in the study area are greater than 10,000 feet. Slopes adjacent to the highway are typically steep with exposed bedrock visible. The Idaho Springs mining district extends from Idaho Springs to Central City and Black Hawk in Gilpin County. Gold, silver, copper, lead, zinc, and uranium ores occur in the district, but the area is known primarily for its gold and silver production

(Colorado Geological Survey 2018). There are numerous adits (mine entrances) and old workings in the area in the mountainsides that form the northern roadway limit of WB I-70.

Existing rock slopes along I-70 through the study area are known to generate rockfalls that occasionally impact the interstate, creating hazards for motorists and closures of I-70 to clean up fallen rock. The highly fractured metamorphic and igneous rocks along the highway are vulnerable to rockfall along many of the existing cut slopes and natural slopes (Andrew 1994, CDOT 2018).

Geologic resources in the study area are affected by these activities:

- Rockfall mitigation applied at five locations west of Idaho Springs (Figure 8). Rock mesh and buttresses are added to stabilize the face of rocks to prevent rockfall along the corridor.
- Slope and rock stabilization to reduce erosion.

Figure 8. Areas Where Rockfall Mitigation is Conducted for the Proposed Action

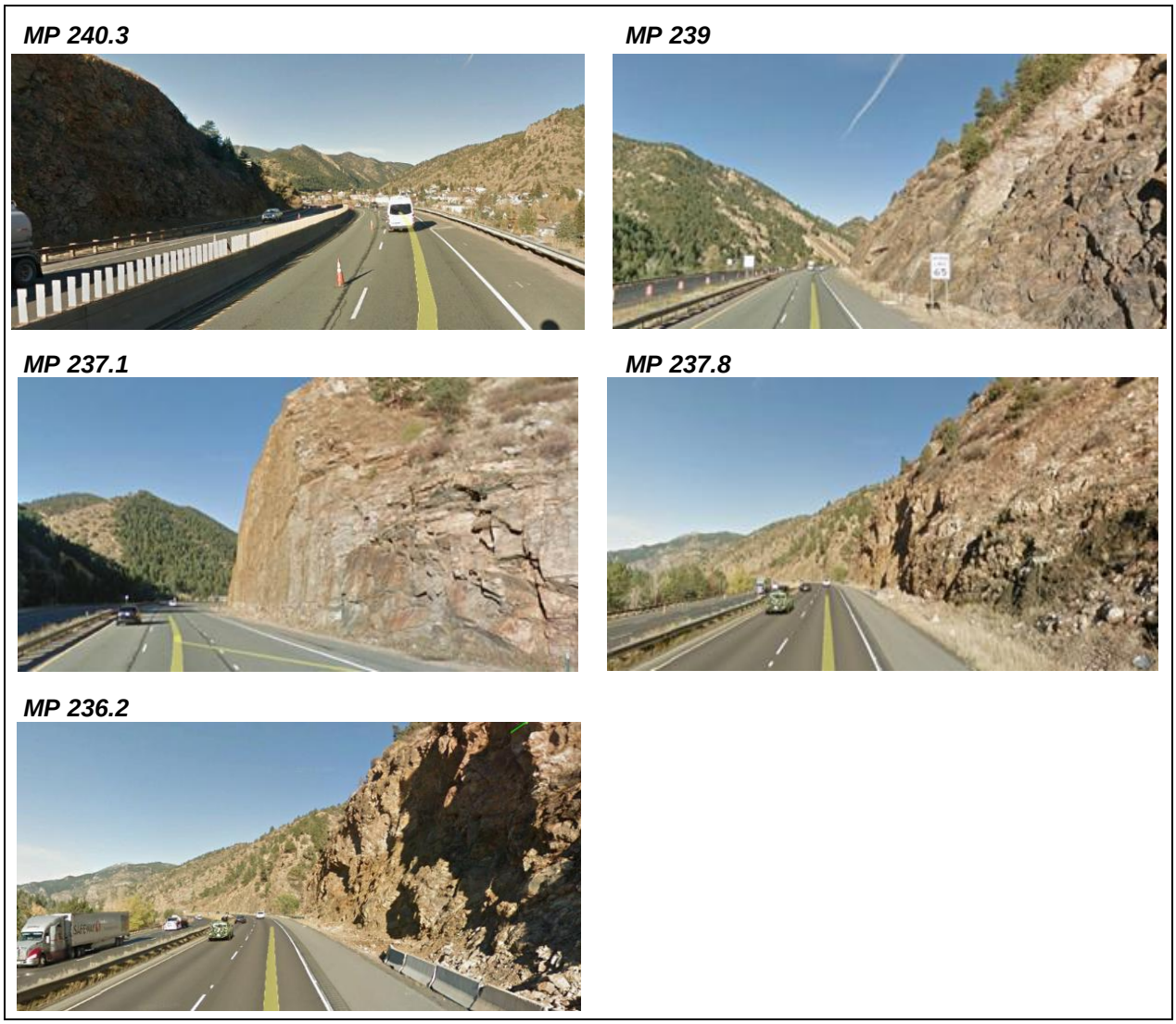


Photo credit: HDR.

Rockfall mitigation generates some loose rock, which is removed. Scaling of the existing slope is performed with hand tools to remove loose rock. Contained blasting and rock sculpting is conducted to mitigate for unstable rock slopes near MP 237.1. Blasting or vibration caused by rock mitigation activities may cause loose rock and soil to travel downhill towards the highway, which results in safety concerns. Excess waste rock is used on site if feasible, stockpiled for use on highway construction, or disposed of offsite.

Groundwater is not directly impacted by the Proposed Action. Impacts to surface soils in the median occur; these soils are currently fill and remain as fill after the widening. Some regrading of the right-hand shoulder ditch for drainage and rockfall catchment may occur. No interference with old mine excavations occurs.

Many of the existing rock cuts along I-70 in the study area include mineralized zones so there is no measurable increase in the amount of exposed mineralization. Air and surface water may chemically react with freshly exposed mineralized surfaces and mobilize contaminants. Mineralized veins are exposed in the rock face on the north side of I-70 throughout the study area, most notably between MP 239 and MP 237. Constructing the Proposed Action increases erosion, especially in the areas where loose soil conditions exist. Erosion occurs in areas of steep grades where surface water is directed to vulnerable areas. Areas most susceptible to soil erosion are located along the I-70 embankment adjacent to Idaho Springs and parts of the median along I-70 between MP 239 and MP 235 where walls are anticipated to be constructed.

4.26 Cumulative Impacts

The Council on Environmental Quality defines a cumulative impact as the impact on the environment that results from the combination of incremental impacts of the action and other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or nonfederal), entity, or person undertakes such other actions (40 CFR 1508.7). This section analyzes the cumulative impacts of the Proposed Action when added to other past, present, and reasonably foreseeable future actions. Projects built within the last 10 years (along with an analysis of impacts associated with the construction of the original I-70 in the 1960s) and reasonably foreseeable future actions that were analyzed for cumulative impacts are listed in Appendix C *Reasonably Foreseeable Future Actions* of this document. Only the resources for which there are measurable direct or indirect impacts from the Proposed Action are analyzed.

4.26.1 Visual Resources

Past and Present Conditions. Idaho Springs is the most densely developed portion of the study area. Other parts of the study area are dominated by rugged mountain views, coniferous forests, and historic mining features. As a result of original I-70 construction, there are rock cuts and swaths of land converted from residential and commercial use to transportation infrastructure.

Past transportation projects, such as the Twin Tunnels Expansion, the EB PPSL, the reconstruction of Colorado Boulevard in Idaho Springs, and the CR 314 Phase I Improvements have resulted in minor to moderate visual impacts from the widening of two tunnels, an expanded highway footprint, roadway modifications, vegetation clearing, and new walls and signage.

Impacts of Reasonably Foreseeable Future Actions. A number of the reasonably foreseeable actions result in changes to the visual character of the study area. Reasonably foreseeable transportation projects, such as the Fall River Road Bridge (a mitigation for the Proposed Action, which will be

constructed in advance), I-70 Floyd Hill to Veterans Memorial Tunnels Improvements project, and the CR 314 Phase II Improvements east of Idaho Springs add roads, bridges, walls, and paved surfaces to existing roads.

Stanley Mines Adventure Park adds visual elements typical of a mountain or rural amusement park, with an alpine coaster, zip ride, and drop rides. The Argo Mine and Mill redevelopment and Bighorn Crossing add commercial and residential elements that are visible from I-70. There is a trend toward more urban features in and around Idaho Springs.

Cumulative Impacts Including the Proposed Action. The Proposed Action results in neutral/adverse visual effects (shoulder retaining walls), neutral visual effects (rock stabilization, signage, water quality detention basins, vegetation removal, reduction in width of median, and noise wall modifications); and neutral/beneficial visual effects (median walls and barriers). Cumulatively, other actions are expected to contribute to a slight trend toward more urban, built features in the study area.

When combined with past, present, and reasonably foreseeable projects, the impacts of the Proposed Action do not substantially contribute to cumulative impacts on visual resources in the study area because the new built-up features (walls, rockfall mitigation, and new part-time lane) are minimal.

4.26.2 Socioeconomics

Past and Present Conditions. Recreational travel and recreational activities and facilities in the study area are dominant drivers of the local and regional economy. Clear Creek County is or was home to these industries: mining industry; timber industry; high-altitude agriculture; hydroelectric power generation; railroad and automobile transportation; and tourism and recreation.

Growth in Clear Creek County, counties to the west (such as Summit and Eagle), and in the Denver metropolitan area over the last several decades has contributed noticeably to land development in the study area. As land uses have changed, additional pressure has been placed on the transportation infrastructure and on other community facilities.

Past transportation projects, such as the original I-70 construction, Twin Tunnels Expansion, the reconstruction of Colorado Boulevard, and EB PPSL, improved socioeconomic conditions in the study area by improving mobility in the corridor, on I-70, and on the adjacent roads; and by improving safety for motorists. Sales tax revenue in Idaho Springs increased.

Impacts of Reasonably Foreseeable Future Actions. Reasonably foreseeable transportation projects, such as the I-70 Floyd Hill to Veterans Memorial Tunnels Improvements project and the CR 314 Phase II Improvements east of Idaho Springs, improve infrastructure and safety and enhance mobility. This positively affects many socioeconomic conditions, such as emergency vehicle response times, sales tax revenue and worker commute times, during peak periods. The I-70 Floyd Hill and CR 314 projects require some right-of-way from public and private properties.

Reasonably foreseeable private development projects, such as the land development at the top of Floyd Hill and Bighorn Crossing, bring additional residents and workers to the I-70 Mountain Corridor. Closing of the Henderson Mine results in the loss of mining jobs. The Argo Mill Development increases permanent and temporary housing in Idaho Springs.

Planned recreational projects, including development of the Clear Creek Greenway, the Virginia Canyon Open Space, Argo Mine redevelopment, and development of the Stanley Mines Adventure Park, are

anticipated to attract more visitors to the area, enhancing the tourist economy. These development projects are anticipated to add more traffic to I-70 as the primary means of access to these recreational projects.

Cumulative Impacts Including the Proposed Action. The Proposed Action improves mobility, travel time, and safety in the study area; and it is likely to contribute revenue to the economy in the study area, which is heavily reliant on tourism from the Denver metropolitan area and through-travel stops. Construction and operation of the Proposed Action, when combined with past, present, and reasonably foreseeable projects, contribute beneficial cumulative impacts on socioeconomic conditions. The effect of the Proposed Action on growth or land use development is anticipated to be minimal and is consistent with local land use and economic development planning.

4.26.3 Transportation

Past and Present Conditions. The construction of I-70 through Clear Creek Canyon in the 1960s and 1970s added significant transportation infrastructure, displacing residential and commercial uses. Within the last 10 years, the Twin Tunnels Expansion projects improved travel times and reduced the number of crashes in the area of the Veterans Memorial Tunnels on I-70. The CR 314 Phase I Improvements enhanced safety for local traffic and emergency response, especially during crashes, construction, or maintenance on I-70; and constructed a separated shared use path that increased multimodal connectivity and recreational access and enhanced safety for bicyclists and pedestrians. The EB PPSL project added a PPSL between the US 40/I-70 interchange and east Idaho Springs in the EB direction. During the peak periods when the EB PPSL is in operation, it reduces congestion and improves travel time reliability.

Impacts of Reasonably Foreseeable Future Actions. The proposed I-70 Floyd Hill to Veterans Memorial Tunnels Improvements project enhances safety and reduces travel times in the study area. The CR 314 Phase II Improvements east of Idaho Springs and the transit center/parking garage in Idaho Springs also result in safety improvements, increased multimodal connections, and access to recreational resources.

Cumulative Impacts Including the Proposed Action. The Proposed Action provides operational mobility improvements during peak periods when traffic volumes are highest. Reduced traffic congestion during peak periods improves travel time reliability, decreases traffic on local roads, increases motorist safety, and enhances the ability of emergency responders to respond quickly. Construction and operation of the Proposed Action, when combined with past, present and reasonably foreseeable future projects, contributes measureable beneficial cumulative impacts on the transportation network in the study area.

4.26.4 Recreation

Past and Present Conditions. Recreational travel and recreational activities and facilities in the study area are dominant drivers of the local and regional economy.

The construction of I-70 through Clear Creek County increased access to recreational resources in Clear Creek County and facilitated east-west travel through central Colorado. The Twin Tunnels Expansion projects improved conditions for recreationists through development of the Game Check Area Trailhead, which provided trailhead parking, restroom facilities and the completion of the Scott Lancaster Memorial Trail.

The EB PPSL project improved conditions for recreationists through development of the new Water Wheel Park with interpretive signage, the improved conditions of the Greenway just east of SH 103 and the enhanced pedestrian facilities (increased width from 4 feet to 10 feet) on the SH 103 bridge.

The CR 314 Phase I Improvements included a formalized boat access and parking area and construction of 0.37 mile of new separated shared use path.

Impacts of Reasonably Foreseeable Future Actions. The I-70 Floyd Hill to Veterans Memorial Tunnels Improvements project allows residents of the Denver metropolitan area to more easily access recreational opportunities in the I-70 Mountain Corridor.

The CR 314 Phase II Improvements east of Idaho Springs improve mobility and access to recreational resources in the study area.

Completion of the Clear Creek Greenway substantially enhances recreational values, contributing to the local economy.

Development of the Stanley Mines Adventure Park, the Argo Mine and Mill redevelopment, the Peaks to Plains Trail, Floyd Hill Open Space Park and trails, and the Virginia Canyon Open Space add recreational resources to Clear Creek County.

Cumulative Impacts Including the Proposed Action. Past and reasonably foreseeable future projects increase recreational opportunities along I-70 and improve mobility along the corridor allowing more traffic to access them. The contribution of the Proposed Action to this additional traffic is minimal.

The ability of Forest Service lands to handle the additional recreational visitors could be affected.

4.26.5 Historic Resources

Past and Present Conditions. As a result of original I-70 construction, there are rock cuts and swaths of land converted from residential and commercial use to transportation infrastructure. Numerous historic properties are located adjacent to I-70 in the study area. In most cases, they retain a substantial amount of historic integrity. The Twin Tunnels Expansion projects had an adverse effect on the bores of the Twin Tunnels, a historic resource.

Impacts of Reasonably Foreseeable Future Actions. Reasonably foreseeable transportation projects such as the I-70 Floyd Hill to Veterans Memorial Tunnels Improvements project and the CR 314 Phase II Improvements may have effects on historic resources.

Private projects that are reasonably foreseeable in the study area, including the Argo Mine and Mill Development and the Stanley Mines Adventure Park are also expected to affect historic resources. The private developments that have occurred to date tend to detract from the integrity of the historic setting.

Cumulative Impacts Including the Proposed Action. No adverse effects to historic properties occur as a result of the Proposed Action. Additional signage has been carefully located to avoid key viewsheds of historic properties. Therefore, the Proposed Action does not substantially contribute to cumulative impacts to historic resources in the study area when combined with other past, present, and reasonably foreseeable future actions.

4.26.6 Water Quality

Past and Present Conditions. Clear Creek's existing water quality is currently threatened by a number of conditions, including erosion from historical mines, mine drainage, runoff from urban development, population growth, local roadway runoff, and I-70 runoff. The study area is within the area designated by the EPA as the Clear Creek/Central City Superfund Area, and includes several locations where mining-related drainages, mill sites, and mine waste piles have been remediated as well as numerous mill sites along I-70 that have not been remediated.

The construction of I-70 in this corridor in the 1960s and 1970s added impervious surface and increased roadway runoff into Clear Creek. The EB PPSL project constructed permanent water quality detention basins that treated more impervious roadway area than was added by the project, resulting in a net benefit to water quality.

Impacts of Reasonably Foreseeable Future Actions. Reasonably foreseeable transportation projects, such as the I-70 Floyd Hill to Veterans Memorial Tunnels Improvements project and the CR 314 Phase II Improvements, are expected to construct appropriate water quality control structures to address highway stormwater runoff and maintain or improve existing water quality. Future private development projects, such as the Floyd Hill land development, Bighorn Crossing, and the Argo Mine and Mill Development, may result in increases in impervious surfaces or disturbance of mineralized soils or transfer mine-related pollutants to Clear Creek.

Cumulative Impacts Including the Proposed Action. The WB PPSL project results in minor increases to impervious surfaces and minor increases in the transport of de-icing salts and mine-related pollutants to Clear Creek, but these impacts are mitigated by the addition of new detention basins. When combined with past, present, and reasonably foreseeable future actions, the magnitude of these impacts is not great enough to result in substantial cumulative impacts to water quality in the study area.

4.27 Mitigation Summary

Mitigation measures are presented in Table 7.

Table 7. Mitigation Table

Mitigation Commitment #	Mitigation Category	Impact from NEPA Document	Commitment From Mitigation Table In Source Document (Use Exact Wording from Table in Source Document)	Responsible Branch	Timing/Phase of Construction Mitigation to be Constructed	Source Document of Mitigation Commitment and Page Number
1.	Transportation	Inappropriate lane usage	Educational campaign to provide information about how to appropriately use the lane.	CDOT Public Involvement	Post-construction	WB PPSL Categorical Exclusion, page 46
2.	Transportation	Traffic backups and detours may affect school district operations.	Work with local communities and the school district to minimize impacts to local traffic.	CDOT Engineering and Contractor	During Construction	WB PPSL Categorical Exclusion, page 46
3.	Transportation	Traffic backups because of lane restrictions	Work requiring closure of one lane will be conducted at night as much as possible. CDOT will work closely with the contractor to avoid closures to the greatest extent practicable. Closures will be minimized to the greatest extent possible during peak periods (WB—Friday afternoon, and Saturday/Sunday mornings) (EB—Sunday afternoon).	CDOT Engineering and **Contractor**	During Construction	WB PPSL Categorical Exclusion, page 46
4.	Transportation	Traffic backups	Advance signage along I-70 will warn of impending closures.	CDOT Engineering and Contractor	During Construction	WB PPSL Categorical Exclusion, page 46
5.	Transportation	Traffic delays and detours that may affect emergency vehicles	Notify emergency service providers (Colorado State Patrol, sheriff, police, fire dispatchers, ambulance providers, etc.) of the timing of impending detours or closures.	CDOT Engineering and Contractor	During Construction	WB PPSL Categorical Exclusion, page 46

Table 7. Mitigation Table

Mitigation Commitment #	Mitigation Category	Impact from NEPA Document	Commitment From Mitigation Table In Source Document (Use Exact Wording from Table in Source Document)	Responsible Branch	Timing/Phase of Construction Mitigation to be Constructed	Source Document of Mitigation Commitment and Page Number
6.	Transportation	Economic losses because of drivers not stopping to patronize local businesses	Signs notifying drivers of access to local business will be placed in both directions in advance of the East Idaho Springs interchange (Exit 241), SH 103 interchange (Exit 240), and West Idaho Springs interchange (Exit 239) as appropriate based on actual closures.	CDOT Engineering and Contractor	During Construction	WB PPSL Categorical Exclusion, page 47
7.	Transportation	Increased potential for crashes during construction.	There will be extensive warning of the work zone for affected traffic so that they know to slow to the appropriate posted speed limit.	CDOT Engineering and Contractor	During Construction	WB PPSL Categorical Exclusion, page 47
8.	Transportation	Impacts to travelers on other roads and pedestrians and bicyclists	As feasible, CDOT will minimize I-70 construction activities on weekends that could shift travel to alternative routes (SH 9 and US 285, in particular). In addition, CDOT will avoid peak travel weekends and special event time periods	CDOT Engineering and Contractor	During Construction	WB PPSL Categorical Exclusion, page 47
9.	Transportation	Removal of bicycle access from I-70 shoulder in study area	Construct a bridge between the Fall River Road/I-70 interchange and Stanley Road to improve bicycle and pedestrian mobility in the WB PPSL project corridor. This mitigation is being advanced as a separate project (Fall River	CDOT Engineering	Pre-WB PPSL Project Completion	WB PPSL Categorical Exclusion, page 47

Table 7. Mitigation Table

Mitigation Commitment #	Mitigation Category	Impact from NEPA Document	Commitment From Mitigation Table In Source Document (Use Exact Wording from Table in Source Document)	Responsible Branch	Timing/Phase of Construction Mitigation to be Constructed	Source Document of Mitigation Commitment and Page Number
			Road Bridge, project code 21892, Categorical Exclusion signed October 11, 2018).			
10.	Air Quality	Dust during construction.	File an Air Pollution Emission Notice.	CDOT Engineering and Contractor	Pre-Construction	WB PPSL Categorical Exclusion, page 48
11.	Air Quality	Dust during construction.	Prepare a Fugitive Dust Control Plan that specifies best management practices (BMP) to reduce dust during construction.	CDOT Engineering and Contractor	Pre-Construction	WB PPSL Categorical Exclusion, page 48
12.	Air Quality	Release of diesel emissions from construction equipment.	Use the cleanest fuels available at the time in construction equipment and vehicles to reduce exhaust emissions.	CDOT Engineering and Contractor	During Construction	WB PPSL Categorical Exclusion, page 48
13.	Air Quality	Release of diesel emissions from construction equipment.	Keep construction equipment well-maintained to ensure that exhaust systems are in good working order.	CDOT Engineering and Contractor	During Construction	WB PPSL Categorical Exclusion, page 48
14.	Noise	Construction noise impacts	Limit work to certain hours of the day where possible. Require the use of well-maintained equipment (particularly with respect to mufflers). Modify backup alarm systems within acceptable safety guidelines.	CDOT Engineering and Contractor	During Construction	WB PPSL Categorical Exclusion, page 48

Table 7. Mitigation Table

Mitigation Commitment #	Mitigation Category	Impact from NEPA Document	Commitment From Mitigation Table In Source Document (Use Exact Wording from Table in Source Document)	Responsible Branch	Timing/Phase of Construction Mitigation to be Constructed	Source Document of Mitigation Commitment and Page Number
			Locate haul roads away from noise sensitive receptors. Provide public outreach to inform residents in area of any noise producing activities			
15.	Materials and Regulated Solid Waste	Contaminated soil and groundwater from historical uses, spills or leaks may be encountered and disturbed during construction.	Follow the Materials Management Plan, which specifies management and disposal practices in areas where contaminated soil and groundwater, including mining and mineral processing wastes, may be encountered during construction. Workers on this project must follow CDOT Specification 250—Environmental, Health and Safety Management and the Materials Management Plan.	CDOT Environmental, CDOT Engineering, and Contractor	Pre-construction and During Construction	WB PPSL Categorical Exclusion, page 49
16.	Regulated Materials and Solid Waste and Water Quality	Ground disturbing activities could impact existing mine waste.	Exemptions from hazardous waste regulations may be granted for certain types of mining wastes under the Bevill Amendment. The Contractor will be required to follow the specifications included with the construction documents.	CDOT Environmental, CDOT Engineering, and Contractor	Pre-construction and During Construction	WB PPSL Categorical Exclusion, page 49
17.	Regulated Materials and Solid Waste	Dewatering activities (which are unlikely) could result in the generation of	The groundwater will either require treatment to meet surface water standards prior to discharge, or off-site disposal.	CDOT Engineering and Contractor	Pre-construction and During Construction	WB PPSL Categorical Exclusion, page 49

Table 7. Mitigation Table

Mitigation Commitment #	Mitigation Category	Impact from NEPA Document	Commitment From Mitigation Table In Source Document (Use Exact Wording from Table in Source Document)	Responsible Branch	Timing/Phase of Construction Mitigation to be Constructed	Source Document of Mitigation Commitment and Page Number
		groundwater that exceeds surface water standards for metals.	Standard CDOT specifications (107.25 and 250) address this and the Contractor will be required to follow these specifications.			
18.	Regulated Materials and Solid Waste	Monitoring, commercial, domestic and municipal wells are reportedly located in or adjacent to the project area and may be impacted during construction.	CDOT will initiate discussions with well owners regarding potential impacts to existing monitoring wells. Impacted monitoring wells will require proper abandonment and/or relocation per Colorado Division of Water Resources requirements.	CDOT Environmental, CDOT Engineering, and Contractor	Pre-construction, During Construction, and Post-Construction	WB PPSL Categorical Exclusion, page 50
19.	Regulated Materials and Solid Waste	Demolition debris or fill from unknown sources which could contain asbestos-containing materials may be encountered during construction	Samples of suspect materials will be collected and analyzed for asbestos-containing materials. In the unlikely event that suspected asbestos-containing materials is encountered, including with buried utilities, workers must follow CDOT Specification 250.07—Asbestos-Containing Material Management. Additionally, depending on the type of asbestos-containing materials, this material must also be abated in accordance with either Section 5.5 of the Solid Waste Regulations, or Regulation No. 8 of the Air	CDOT Engineering and Contractor	Pre-construction and During Construction	WB PPSL Categorical Exclusion, page 50

Table 7. Mitigation Table

Mitigation Commitment #	Mitigation Category	Impact from NEPA Document	Commitment From Mitigation Table In Source Document (Use Exact Wording from Table in Source Document)	Responsible Branch	Timing/Phase of Construction Mitigation to be Constructed	Source Document of Mitigation Commitment and Page Number
			Quality Control Commission Regulations.			
20.	Regulated Materials and Solid Waste	Demolition or removal of painted structures may occur during construction.	Paint samples will be collected and analyzed for lead content. CDOT requires that all metal project components (e.g., light poles, metal railing, and bridge girders) be recycled. As these materials are recycled, and not disposed at a landfill, it is not necessary to evaluate the content of lead by the toxicity characteristic leaching procedure, regardless of concentration. The recycling facility must be notified that metal project components contain lead, if applicable. Regardless of lead content, the future contractor must comply with Occupational Safety and Health Administration Regulation 1926.62 for worker safety.	CDOT Engineering and Contractor	Pre-construction and During Construction	WB PPSL Categorical Exclusion, page 51
21.	Regulated Materials and Solid Waste	Demolition or removal of polychlorinated biphenyl-containing structures may occur during construction.	Structures, such as transformers, that may contain polychlorinated biphenyls may require special management and disposal. The Contractor will coordinate with the utility owner for proper removal and disposal of electrical equipment	CDOT Engineering and Contractor	Pre-Construction/ During Construction	WB PPSL Categorical Exclusion, page 51

Table 7. Mitigation Table

Mitigation Commitment #	Mitigation Category	Impact from NEPA Document	Commitment From Mitigation Table In Source Document (Use Exact Wording from Table in Source Document)	Responsible Branch	Timing/Phase of Construction Mitigation to be Constructed	Source Document of Mitigation Commitment and Page Number
			that may be disturbed during construction.			
22.	Threatened and Endangered Species	Platte River species could be impacted by water depletions in tributaries such as Clear Creek.	Mitigation for impacts caused by water depletions on federally listed species will be addressed by FHWA and CDOT participation in the Platte River Recovery Implementation Program and South Platte Water Related Activities Program. Water used for this project will be reported to the USFWS at the completion of the project.	CDOT Environmental	Post-Construction	WB PPSL Categorical Exclusion, page 52
23.	Threatened and Endangered Species	Temporary disturbance or displacement of lynx above 8,000 feet	The CDOT Engineer and/or Contractor shall immediately report to the CDOT Biologist any lynx sightings within or adjacent to the proposed project area during construction. Coordination with the USFWS will be conducted within 24 hours and a temporary work stoppage may be required, per USFWS direction.	CDOT Environmental, CDOT Engineering, and Contractor	During Construction	WB PPSL Categorical Exclusion, page 52
24.	Threatened and Endangered Species	Temporary disturbance or displacement of lynx during nighttime work	Night work will be limited to a maximum of 4 consecutive nights followed by three nights of inactivity to allow lynx the opportunity to cross the highway. Night work restrictions	CDOT Engineering and Contractor	During Construction	WB PPSL Categorical Exclusion, page 52

Table 7. Mitigation Table

Mitigation Commitment #	Mitigation Category	Impact from NEPA Document	Commitment From Mitigation Table In Source Document (Use Exact Wording from Table in Source Document)	Responsible Branch	Timing/Phase of Construction Mitigation to be Constructed	Source Document of Mitigation Commitment and Page Number
			will only occur at elevations above 8,000 feet (MP 230-MP 234).			
25.	Threatened and Endangered Species/ Terrestrial and Aquatic Wildlife	Disturbance or displacement of lynx and other terrestrial wildlife due to highway lighting and lighted signs	Minimize highway lighting throughout the study area. Use shielded or downward lighting to minimize lighting impacts.	CDOT Engineering and Contractor	During Construction and Post-construction	WB PPSL Categorical Exclusion, page 53
26.	Threatened and Endangered Species	Mortality of the common garter snake in areas where erosion control blankets are used.	Erosion control blankets will have flexible natural fibers to allow for safe passage of snakes through the erosion control blanket.	CDOT Environmental, CDOT Engineering, and Contractor	During Construction and Post-construction	WB PPSL Categorical Exclusion, page 53
27.	Raptors and Migratory Birds	Direct impacts to raptors are possible as a result of entanglement in the mesh used to prevent rockfalls	Install rockfall netting with open gaps at the top of the netting rather than keeping it tight to allow raptors to escape in the event that they become trapped. Use nets with larger mesh sizes (4”) wherever possible.	CDOT Environmental, CDOT Engineering, and Contractor	During Construction	WB PPSL Categorical Exclusion, page 53
28.	Raptors and Migratory Birds	Construction-related disturbance to raptors that could result in potential loss of eggs or young of nesting raptors	A pre-construction survey for nesting raptors will be completed within a half-mile buffer of the study area prior to construction if construction is to occur between February 1 and August 31. If any nesting raptors occur within the buffer	CDOT Environmental, CDOT Engineering, and Contractor	Pre-Construction	WB PPSL Categorical Exclusion, page 53

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Mitigation Commitment #	Mitigation Category	Impact from NEPA Document	Commitment From Mitigation Table In Source Document (Use Exact Wording from Table in Source Document)	Responsible Branch	Timing/Phase of Construction Mitigation to be Constructed	Source Document of Mitigation Commitment and Page Number
			area, then CPW "Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors" guidelines will be followed.			
29.	Terrestrial and Aquatic Wildlife	Blasting related disturbance to Bighorn sheep lambing season (May to July)	Blasting will only be permitted outside of lambing season (May – July).	CDOT Environmental, CDOT Engineering, and Contractor	During Construction	WB PPSL Categorical Exclusion, page 54
30.	Terrestrial and Aquatic Wildlife	Bighorn sheep mortality	Install static signs with a targeted message, at two locations, e.g., "Caution: Bighorn Sheep on ramp next *XX (Distance)*" with flashing lights: ▪ Location #1—Off ramp from I-70 to US 40 at Empire (where on-ramp merges with CR 308). The sign will be placed after merge point of US 40 off-ramp and CR 308 (Flip-down "Caution: Bighorn Sheep" and "Bighorn Sheep Crossing"). Seasonal for April to July and October to November. Specific location of sign will be shown on final plans. ▪ Location # 2— CR 308 on the north side of I-70, west of	CDOT Environmental, CDOT Engineering, and Contractor	Pre-construction and During Construction	WB PPSL Categorical Exclusion, page 54

Table 7. Mitigation Table

Mitigation Commitment #	Mitigation Category	Impact from NEPA Document	Commitment From Mitigation Table In Source Document (Use Exact Wording from Table in Source Document)	Responsible Branch	Timing/Phase of Construction Mitigation to be Constructed	Source Document of Mitigation Commitment and Page Number
			Lawson, facing WB traffic. Place WB sign north of CR 308 (Flip-down "Caution: Bighorn sheep" and 'Bighorn Sheep Crossing: *XX (Distance)*". Seasonal for April to July and October to November. ▪ Location #3—Located on CR 257, approximately 750 feet west of the CR 257/US40 intersection (Flip Down "Caution: Big Horn Sheep and Big Horn Sheep Crossing") Note: Completed as advanced mitigation.			
31.	Terrestrial and Aquatic Wildlife	Bighorn sheep mortality	Speed limit reduction on west side of Empire Junction (US 40/CR 257) on-ramp to WB I-70. Speed limit will be reduced from 55 mph to 45 mph.	CDOT Traffic	Pre-construction	WB PPSL Categorical Exclusion, page 55
32.	Terrestrial and Aquatic Wildlife	Mule deer mortality	Removal of the portion of the fence along the dirt pathway, near MP 241.8, to the north from the gate to creek to improve wildlife connectivity.	CDOT Engineering and Contractor	During Construction	WB PPSL Categorical Exclusion, page 55
33.	Terrestrial and Aquatic Wildlife	Wildlife Barrier Impacts	Add Median barrier gaps for passages in the following locations: Stations 402+, 410+, 420+, 440+, 455+, 470+, 515+ and 530+.	CDOT Engineering and Contractor	During Construction and Post-Construction	WB PPSL Categorical Exclusion, page 55

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34.	Wetlands and Riparian	Construction work that could result in potential fuel spills in wetlands or waters of the US	Refuel equipment within designated refueling containment areas away from the ordinary high-water mark and wetlands.	CDOT Engineering and Contractor	During Construction	WB PPSL Categorical Exclusion, page 56
35.	Vegetation and Noxious Weeds	Vegetation disturbance and ground clearing that creates potential noxious weed issues.	Reseed and protect temporary disturbance areas with CDOT approved BMPs and avoid disturbance to existing vegetation, to the maximum extent possible.	CDOT Engineering and Contractor	During Construction	WB PPSL Categorical Exclusion, page 56
36.	Vegetation and Noxious Weeds	Introduction of noxious weeds from vegetation and ground disturbing activities.	An Integrated Noxious Weed Management Plan will be developed by the Contractor and implemented during construction. The CDOT Region 1 Landscape Architect will review, in coordination with the Engineer, and provide approval of the Integrated Noxious Weed Management Plan prior to Construction.	CDOT Environmental, CDOT Engineering, and Contractor	During Construction	WB PPSL Categorical Exclusion, page 56
37.	Water Quality	Additional impervious surface results in increased runoff and runoff-related pollutants in addition to increased use of	Construct three new water quality detention basins along the corridor. These basins will be located at approximately mileposts 231.8, 232.8, and 232,9.	CDOT Engineering and Contractor	During Construction	WB PPSL Categorical Exclusion, page 56

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Mitigation Commitment #	Mitigation Category	Impact from NEPA Document	Commitment From Mitigation Table In Source Document (Use Exact Wording from Table in Source Document)	Responsible Branch	Timing/Phase of Construction Mitigation to be Constructed	Source Document of Mitigation Commitment and Page Number
		winter maintenance materials.				
38.	Water Quality	Sedimentation and ponding on CR 308 at Lawson	Reconstruct the existing water quality detention basin at Lawson and construct additional sedimentation and ponding mitigation features.	CDOT Engineering and Contractor	Pre-Construction and During Construction	WB PPSL Categorical Exclusion, page 57
39.	Water Quality	Sedimentation and ponding at the Fall River Road Interchange	Improve the existing inlet, clean the existing ditch and rundown, and grade the road as practicable to direct runoff from the county road.	CDOT Engineering and Contractor	During Construction	WB PPSL Categorical Exclusion, page 57
40.	Water Quality	Increased potential for erosion resulting from ground-disturbing activities. Increased potential for spills and concrete washout materials to be introduced to Clear Creek.	Develop and implement a Stormwater Management Plan that typically includes temporary BMPs, such as silt fence, erosion logs, vehicle tracking pads, designated concrete wash-out basins, temporary soil stabilization, and good housekeeping practices.	CDOT Environmental, CDOT Engineering, and Contractor	Pre-Construction and During Construction	WB PPSL Categorical Exclusion, page 57
41.	Water Quality	Erosion during construction	Manage erosion and surface water away from water sources and ensure BMPs, such as wattles, silt fence, or temporary berms, are in place to prevent migration and sediment from waste piles, slopes and excavations.	CDOT Environmental, CDOT Engineering, and Contractor	Pre-Construction/During Construction	WB PPSL Categorical Exclusion, page 57

Table 7. Mitigation Table

Mitigation Commitment #	Mitigation Category	Impact from NEPA Document	Commitment From Mitigation Table In Source Document (Use Exact Wording from Table in Source Document)	Responsible Branch	Timing/Phase of Construction Mitigation to be Constructed	Source Document of Mitigation Commitment and Page Number
			Implement BMPs, such as vehicle tracking pads, wattles, and mulching, for stormwater runoff. Apply for and comply with a Colorado Department of Public Health and Environment Construction Activities Stormwater Discharge Permit.			
42.	Water Quality	Soil disturbed during construction can lead to long-term erosion and sedimentation in Clear Creek if not mitigated.	Revegetate and install permanent erosion controls and through maintenance of temporary erosion controls and plantings to stabilize disturbed areas.	CDOT Environmental, CDOT Engineering, and Contractor	During Construction and Post-Construction	WB PPSL Categorical Exclusion, page 58
43.	Floodplains	Minor alterations in roadway alignment may affect existing ditch capacities along I-70.	Ditches will be reestablished.	CDOT Engineering and Contractor	During Construction	WB PPSL Categorical Exclusion, page 58
44.	Floodplains	The addition or relocation of concrete barrier as a part of the Proposed Action may affect drainage patterns.	Drainage systems will be installed per spread requirements on the roadway, re-establish affected ditch capacities due to roadway alignment and grading, and provide sediment control measures.	CDOT Engineering and Contractor	During Construction	WB PPSL Categorical Exclusion, page 58

Table 7. Mitigation Table

Mitigation Commitment #	Mitigation Category	Impact from NEPA Document	Commitment From Mitigation Table In Source Document (Use Exact Wording from Table in Source Document)	Responsible Branch	Timing/Phase of Construction Mitigation to be Constructed	Source Document of Mitigation Commitment and Page Number
45.	Archaeology	Potential discovery of archaeological resources during construction	Should unidentified archaeological resources be discovered during construction, work will stop until the CDOT senior staff archaeologist is contacted and the resources have been evaluated to determine their significance, per CDOT Standard Specification 107.23.	CDOT Environmental and Contractor	During Construction	WB PPSL Categorical Exclusion, page 59
46.	Paleontology	Potential discovery of paleontological resources during construction	If any subsurface bones or other potential fossils are unearthed during project construction, work in the immediate area (20-foot diameter) shall be temporarily halted and the CDOT Staff Paleontologist shall be contacted immediately to evaluate the discovery and make further recommendations, per CDOT Standard Specification 107.23.	CDOT Engineering and Contractor	During Construction	WB PPSL Categorical Exclusion, page 59
47.	Social and Economic	Delays and detours during construction as well as temporary closures of Clear Creek.	Include coordination with rafting companies and emergency medical service providers as part of the construction Public Information Plan.	CDOT Engineering, CDOT Public Involvement, and Contractor	Pre-construction and During Construction	WB PPSL Categorical Exclusion, page 59
48.	Social and Economic	Access impacts to residences and businesses. Delays	Provide a detailed construction and detour plan to residents and business owners in the	CDOT Engineering, CDOT Public	Pre-construction and During Construction	WB PPSL Categorical Exclusion, page 59

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Mitigation Commitment #	Mitigation Category	Impact from NEPA Document	Commitment From Mitigation Table In Source Document (Use Exact Wording from Table in Source Document)	Responsible Branch	Timing/Phase of Construction Mitigation to be Constructed	Source Document of Mitigation Commitment and Page Number
		and detours during construction.	surrounding area as far in advance as possible.	Involvement, and Contractor		
49.	Social and Economic	Access impacts to residences and businesses. Delays and detours during construction.	Provide well-placed and highly visible signage to direct patrons to businesses	CDOT Engineering and Contractor	Pre-construction and During Construction	WB PPSL Categorical Exclusion, page 60
50.	Social and Economic	Access impact to residences, businesses, and travelers. Delays and detours during construction.	Stage construction to minimize impacts to area businesses, residents, and I-70 travelers.	CDOT Engineering and Contractor	During Construction	WB PPSL Categorical Exclusion, page 60
51.	Social and Economic	Temporary closures or access impacts to Clear Creek. Delays and detours during construction.	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.	CDOT Engineering and Contractor	During Construction	WB PPSL Categorical Exclusion, page 60
52.	Social and Economic	Temporary closures or access impacts to Clear Creek. Delays and detours during construction.	Construction areas near the banks of the creek will be fenced off to prevent access by rafters, anglers, or other pedestrians.	CDOT Engineering and Contractor	During Construction	WB PPSL Categorical Exclusion, page 60
53.	Social and Economic	Temporary closures or access impacts to Clear Creek.	Coordinate with rafting companies prior to construction to develop communication protocols in the event of unanticipated river closures	CDOT Engineering, CDOT Public Involvement, and Contractor	Pre-construction and During Construction	WB PPSL Categorical Exclusion, page 60

Table 7. Mitigation Table

Mitigation Commitment #	Mitigation Category	Impact from NEPA Document	Commitment From Mitigation Table In Source Document (Use Exact Wording from Table in Source Document)	Responsible Branch	Timing/Phase of Construction Mitigation to be Constructed	Source Document of Mitigation Commitment and Page Number
			during rafting season. If river closures are necessary during rafting season, CDOT will communicate with rafting companies in accordance with previously agreed-upon protocols.			
54.	Social and Economic/Transportation	Temporary lane closures during construction.	All construction activity will follow CDOT Region 1's Lane Closure Strategy for I-70 Mountain Corridor lane closure schedules.	CDOT Engineering and Contractor	During Construction	WB PPSL Categorical Exclusion, page 61
55.	Social and Economic	Delays and detours during construction.	Provide frequent and timely updates about construction activities.	CDOT Engineering, CDOT Public Involvement, and Contractor	During Construction	WB PPSL Categorical Exclusion, page 61
56.	Social and Economic	Emergency access delays during construction.	Maintain access for emergency vehicles through the project area at all times by providing a shoulder of adequate width for emergency access.	CDOT Engineering and Contractor	Before/During Construction	WB PPSL Categorical Exclusion, page 61
57.	Social and Economic	Delays and detours during construction.	Implement public information strategies such as media advisories, variable message signs, advance signs, a telephone hotline, real-time web cameras, and alternate route advisories to alert travelers to construction activities.	CDOT Engineering, CDOT Public Involvement, and Contractor	Pre-construction and During Construction	WB PPSL Categorical Exclusion, page 61

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Mitigation Commitment #	Mitigation Category	Impact from NEPA Document	Commitment From Mitigation Table In Source Document (Use Exact Wording from Table in Source Document)	Responsible Branch	Timing/Phase of Construction Mitigation to be Constructed	Source Document of Mitigation Commitment and Page Number
58.	Social and Economic	Loss of parking spaces in the Idaho Springs parking lot during construction.	Replace parking spaces as soon as possible.	CDOT Engineering and Contractor	Pre-construction and During Construction	WB PPSL Categorical Exclusion, page 62
59.	Right-of-Way	Temporary easements are required for construction	The right-of-way acquisition process for these temporary easements will follow the Uniform Relocation Assistance and Real Property Acquisition Policies Act to provide for fair and equitable treatment of the owners of the properties to be acquired and includes initial property valuation, determination of just compensation, negotiations, payment, and protection of rights under eminent domain. All impacted owners will be provided notification of the acquiring agency's intent to acquire an interest in their property, including a written offer letter of just compensation specifically describing those property interests. A right-of-way specialist will be assigned to each property owner to assist them with this process.	CDOT Right-of-Way	Pre-Construction	WB PPSL Categorical Exclusion, page 62
60.	Recreation/ Cumulative	Cumulative impact of transportation improvements	CDOT and FHWA will continue discussions as appropriate through the Collaborative Effort	CDOT Environmental	Pre-Construction	WB PPSL Categorical Exclusion, page 62

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		affecting recreational travel	regarding increased recreational visitors.	and CDOT Engineering		
61.	Recreation	Snow plows throwing snow on Greenway	Snow plow operating measures will identify areas where plows are directed to push rather than throw snow.	CDOT Maintenance	Post Construction	WB PPSL Categorical Exclusion, page 63
62.	Recreation	Pedestrian/bicyclist access and mobility during construction	Pedestrian and bicycle access will be maintained during construction to the extent practicable or a detour will be provided.	CDOT Engineering and Contractor	During Construction	WB PPSL Categorical Exclusion, page 63
63.	Recreation	Pedestrian/bicyclist effects during construction	Roadway and work zone conditions will be communicated to travelers using websites, pre-recorded messages, and other similar mechanisms.	CDOT Engineering, CDOT Public Involvement, and Contractor	During Construction	WB PPSL Categorical Exclusion, page 63
64.	Recreation	Trail closures and detours during construction	Trail closures and detours will be clearly signed and advance notice will be given.	CDOT Engineering and Contractor	During Construction	WB PPSL Categorical Exclusion, page 63
65.	Visual	Visual impact of signage	CDOT will continue to work with the Technical Team through final design to ensure signs are placed to minimize impact to sensitive resources.	CDOT Engineering	Pre-construction	WB PPSL Categorical Exclusion, page 63

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66.	Visual	Visual impact of rockfall stabilization	All materials used will be evaluated for consistency with the natural features to find what best blends in with the surroundings. In accordance with the aesthetic guidelines, the Project team will consider these best practices during design and construction in order to ensure the least impact: ▪ Use scatter blasting techniques and random rock drilling at varying depths to cause rock to break in natural patterns and expose natural rock fractures. ▪ Use rock staining when appropriate. ▪ For rockfall protection, use naturally sculpted benches and ledges across the face of rock instead of human-made features. When required, the use of natural contours supplemented with retention devices (such as protection fencing or mesh screens) can be used to minimize the extent of benching ▪ Rock quality and topographic conditions should be	CDOT Engineering and Contractor	Pre-construction and During Construction	WB PPSL Categorical Exclusion, page 64

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Mitigation Commitment #	Mitigation Category	Impact from NEPA Document	Commitment From Mitigation Table In Source Document (Use Exact Wording from Table in Source Document)	Responsible Branch	Timing/Phase of Construction Mitigation to be Constructed	Source Document of Mitigation Commitment and Page Number
			considered as a part of natural sculpting techniques ▪ When mesh rockfall draping is required, it should follow the existing natural contours of the rock face ▪ Efforts should be made to reduce the visual clutter of rock face protection devices. Consider PVC-coated colored mesh, draping the mesh over the edge of the face and attaching the mesh reasonably close to the face. The end of the mesh material should terminate in a hidden condition when possible ▪ Consider low reflectivity and color matching materials for rock safety structures. Rock safety structures that include earth-tone colors will match the patterns of surrounding rocks ▪ All site grading and existing disturbance restoration in the AVE should utilize landforms that reflect the patterns and diversity naturally occurring throughout the segment. Earthen embankments are natural reflections of the landscape and should mimic			

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			the patterns found in pre-existing conditions. Grading should avoid scarring on steep slopes, as well as the negative visual effects that result. New rock faces will be naturalized with custom shaping and coloration will be applied to reduce the contrast between new cuts and existing rock faces.			
67.	Visual	Visual impact of rockfall mitigation at MP 239	The concrete barrier will be stained with an approved natural color. The vinyl-clad fence is brown in color, and the rock mesh is similar in color to the rock face.	CDOT Engineering and Contractor	Pre-construction and During Construction	WB PPSL Categorical Exclusion, page 66
68.	Visual	Visual impact of shoulder and median walls	Use revegetation to soften the appearance of the walls where feasible. Protect existing trees during construction. The Colorado random reveal texture will be placed on the surface of the walls.	CDOT Engineering and Contractor	During Construction	WB PPSL Categorical Exclusion, page 66
69.	Visual	Visual impacts during construction	▪ Remove visually obtrusive erosion control devices ▪ Stockpile areas will be in containers or neatly organized, cleaned and located in less visibly sensitive areas and, whenever possible, not	CDOT Engineering and Contractor	During Construction	WB PPSL Categorical Exclusion, page 66

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Mitigation Commitment #	Mitigation Category	Impact from NEPA Document	Commitment From Mitigation Table In Source Document (Use Exact Wording from Table in Source Document)	Responsible Branch	Timing/Phase of Construction Mitigation to be Constructed	Source Document of Mitigation Commitment and Page Number
			visible from recreational areas. ▪ Lighting, including "down-lighting," will be directed toward the interior of the construction staging and work areas, and shielded so that it does not spill over into adjacent areas.			
70.	Geology	Rock cut exposing fresh rock including mineralized zones.	Encapsulate mineralized rock generated during blasting activities, away from groundwater, to prevent chemical reactions that could mobilize contaminants into water. If encapsulation is not feasible, mineralized rock will be removed from the area to an appropriate disposal site.	CDOT Engineering and Contractor	During Construction	WB PPSL Categorical Exclusion, page 67
71.	Geology/Water Quality	Erosion during construction	Manage erosion and surface water away from water sources and ensure BMPs, such as wattles, silt fence, or temporary berms, are in place to prevent migration and sediment from waste piles, slopes and excavations. Implement BMPs, such as vehicle tracking pads, wattles, and mulching, for stormwater runoff.	CDOT Environmental, CDOT Engineering, and Contractor	Pre-construction and During Construction	WB PPSL Categorical Exclusion, page 67

Table 7. Mitigation Table

Mitigation Commitment #	Mitigation Category	Impact from NEPA Document	Commitment From Mitigation Table In Source Document (Use Exact Wording from Table in Source Document)	Responsible Branch	Timing/Phase of Construction Mitigation to be Constructed	Source Document of Mitigation Commitment and Page Number
			Apply for and comply with a Colorado Department of Public Health and Environment Construction Activities Stormwater Discharge Permit.			
72.	Geology	Safety concerns during blasting	Steel blast mats will be used during blasting to constrain flyrock generated during blasts. All blasting will take place only during daylight hours. All blasting workers will have safety training.	CDOT Engineering and Contractor	Pre-construction and During Construction	WB PPSL Categorical Exclusion, page 68
73.	Geology	Potential to encounter underground mines during construction	Voids will be backfilled, or concreted as encountered. Awareness will be maintained when near previously encountered voids and/or mapped historical mine workings. Information awareness and warnings will be instituted since historical workings may not all be mapped or known in areas undergoing construction.	CDOT Engineering and Contractor	During Construction	WB PPSL Categorical Exclusion, page 68

Chapter 5. Public and Agency Coordination

5.1 CSS Process

As noted in Chapter 1, CDOT is following the I-70 Mountain Corridor CSS process, which is a required part of every project on the I-70 Mountain Corridor. This process is being followed throughout the WB PPSL project development process. This includes establishment of a PLT, a TT, and ITFs, as needed. It also includes following the six-step decision-making process of:

1. Defining desired outcomes and actions
2. Endorsing the process
3. Establishing core values, issues and evaluation criteria
4. Developing alternatives with project CSS teams and public
5. Evaluating, selecting, and refining alternatives
6. Finalizing documentation and evaluating the process.

For the WB PPSL project, CDOT formed a PLT, a TT, and numerous ITFs. These teams included federal, state, and local agencies, and various interest groups such as environmental, the trucking industry and tourism. They have provided input regularly throughout the project.

The PLT included local leaders from Clear Creek County and Idaho Springs, CDOT, FHWA, the Forest Service, the I-70 Coalition, the Town of Empire and consultant staff. The PLT's primary roles include leading the project, championing the CSS process, and enabling decision-making. As of October 2018, the PLT has met four times.

The TT included a broad group of representatives from local, state, and federal agencies, and various interest groups. The TT provided input on the Proposed Action, impact analyses and mitigation. As of October 2018, the TT has met 19 times. The PLT and TT will continue to provide input throughout the design and construction phases of the project.

ITFs made up of local, state, and federal agencies and interest groups were created to focus on critical issues within the study area. The following six ITFs met 12 times:

- Water quality, wetlands and aquatics: Stream and Wetland Ecological Enhancement Program (SWEEP)
- Wildlife issues: A Landscape-Level Inventory of Valued Ecosystem Components (ALIVE)
- Historic resources (Section 106)
- Project design elements in Focus Area 1
- Assurances
- Water Quality/Drainage

The teams developed a context statement and core values for the project, as shown in Figure 1. The context statement states the importance of I-70 for recreational and commercial travel while recognizing the unique environmental, historic, recreational, and community resources in the area. Core values of

safety, mobility and accessibility, implementability, community, recreation, environment, engineering criteria and aesthetic guidelines, sustainability, historic context, and decision-making were adopted by the PLT. These core values were used to develop goals, objectives, and evaluation criteria which guided the development and evaluation of alternatives.

Additional coordination, beyond what is described above, occurred in the form of individual and group meetings with local, state, and agencies, as well as other interested parties. The project team met with numerous agencies and interested parties to obtain input regarding project development. For information regarding these meetings, as well as all public and agency coordination, and the CSS process as it applied to the Proposed Action, see Appendix A *Context Sensitive Solutions Process* and Appendix B *Agency Coordination* of this document.

5.2 Public Outreach

An in-person public scoping meeting was held in Idaho Springs on July 26, 2017. The meeting was attended by 69 people. This meeting provided information to the public and an opportunity to ask questions and raise concerns directly with project team members. Issues of concern that were brought up at this meeting include:

- Consider sound barriers in Dumont area.
- Build a bridge from Stanley Road to Fall River Road.
- Consider closing the Fall River Road interchange.
- Consider wildlife passages (over or under).
- Consider air quality (more cars—particulates).
- Consider water quality.
- Consider wetlands.
- Dumont/Lawson area: to reduce noise, enforce law requiring mufflers on jake brakes, sound barriers on both sides of the highway.
- Rumble strip on the expanded side of the road (in the Dumont / Lawson area) should be pushed to the edge of the road.
- Consider aesthetics.
- Limit truck traffic during certain hours/weather to ensure traffic flows.
- Consider a pedestrian bridge over I-70 in Idaho Springs.
- Include Clear Creek Greenway in WB PPSL project.
- Sound barrier for both sides of I-70 in the Dumont-Lawson-Downieville area.

CDOT maintains a website for the WB PPSL project that includes project and future meeting information (https://www.codot.gov/projects/i-70-westbound-peak-period-shoulder-lane). Comments received via this website include:

- Tolled lane doesn't improve travel times.
- Affordable high-speed public transit or a rail system is preferred to additional lanes.
- Tolled lanes are inequitable and not affordable to all.
- Congestion will reduce economic benefits for mountain communities.
- Should focus on long-range, non-fossil fuel-based solutions.
- Adding lanes doesn't reduce traffic.

An online public meeting was open between May 26 and July 2, 2018 to provide information on the project and allow visitors to provide feedback and complete an optional survey. A total of 451 visitors accessed the online public meeting. Comments received via the online public meeting include:

- Concerns about EB PPSL, including narrow lane width, speed differential between tolled and general-purpose lanes, cost, need for barrier between tolled and general-purpose lanes, need for enforcement to prevent vehicles weaving in and out, and traffic congestion during construction.
- WB traffic congestion is very high.
- Inefficient use of space when lane is closed most of the time.
- Include bridge from Fall River Road to Stanley Road as part of Project.
- Commuter rail from Denver airport to Grand Junction would be better.
- Because WB I-70 is primarily uphill, driver education would better solve traffic congestion caused by driver error and the traffic flow problems caused by lower speeds of heavy trucks and some economy cars.
- Tolled lanes are inequitable and not affordable to all.
- City of Idaho Springs has experienced continual roadway construction since 2005.
- Run express lanes in one direction depending on the time of day, similar to I-25 from US 36 to downtown Denver to use space more efficiently and prevent people from avoiding tolls by dangerously crossing in and out of the lane.
- Robust bus system would be preferred.
- Support for project because it will alleviate congestion.

The City of Idaho Springs held a community meeting on June 4, 2018, to present information and solicit input about walls and barrier types for the WB PPSL project through Idaho Springs. The majority of the participants indicated a preference for Type 7 barrier with glare screen for the entire length of Idaho Springs due to consistent look and the incidental noise reduction benefits that residents may receive. Public questions and comments included:

- Can the Exit 240 ramps be raised so drivers can see across the bridge?
- The EB lanes are too narrow.
- Still a temporary fix. Let's double-decker the highway like in Glenwood Canyon and actually fix it.

- Is project all being done on CDOT property? Is permanent acquisition of right-of-way required?
- The height of the noise wall at the west end of town and the angle of the sun in the winter casts really bad shadows on the road and properties.
- When is the anticipated start date for construction of the WB PPSL and how will construction be phased?
- How can noise be reduced? Can barriers be coated with a dampening material or use a clear material on top of barriers to help block sound while still allowing visibility? Are sound walls planned?
- Can road material that is less noisy be used?
- The rumble strips are loud.
- Users of Water Wheel Park sometimes experience bad splashes from I-70.
- Is it possible to have higher barriers? Is it possible to have a shorter glare screen?
- Would one type of barrier be used through town or varying types? If there are different barrier heights through town, can the appearance of the transition between them be improved?
- Some residents of Idaho Springs don't want to see headlights and prefer a higher barrier.
- Will the barrier type result in a perceptible change in noise?
- Is the parking garage in town still planned and would it block views of downtown from I-70?
- Will moving the noise wall disrupt homeowners or result in structural damage?

An in-person public meeting was held on September 13, 2018 to update the public about the project and its planned construction. There were 79 people who signed in. Comments were received at the open house stations, verbally during the question and answer session and in written form. Comment received included:

- Are any private investors or foreign companies involved with this?
- Will this project solve the problem of congestion along I-70 when the congestion starts at the top of Floyd Hill?
- Through traffic should be prohibited from using the frontage road during construction.
- Why not look at an elevated highway like through Glenwood Canyon?
- How does the traffic from the PPSL get off to go on US 40 over Berthoud Pass?
- The Mountain Express Lane doesn't seem to be used.
- The Ski Areas should provide more free or low cost buses or vans for people, to cut down on everyone driving.
- Could we require permits to drive on I-70? Use a lottery system?
- Should make the lanes and bridges wider and permanent.

- Why is the Mountain Express Lane limited in its hours of operation?
- Need to make sure the quality of construction is better than it was on the Mountain Express Lane.
- It seems like the Floyd Hill project should be done first.
- Will this project just move the choke point farther west?
- How will construction impacts be minimized? Mountain Express Lane construction took too long.
- Make certain that different construction projects are coordinated.
- Thanks for making sure that lanes stay open during peak periods during the summer and winter, since Clear Creek County is a tourist based economy.
- Should give local residents free access to the Mountain Express Lane and to the WB PPSL.

Chapter 6. References

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