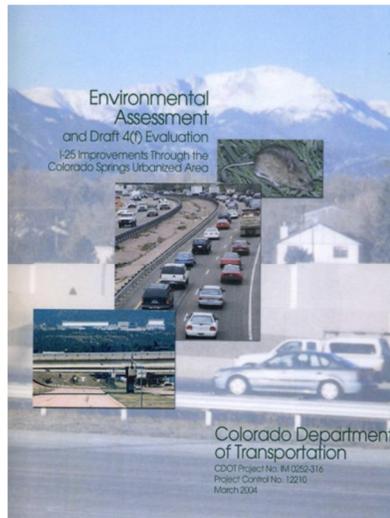




## **RE-EVALUATION, Mileposts 149 to 161**

### **Interstate 25 Improvements through the Colorado Springs Area Environmental Assessment**



## **CUMULATIVE IMPACTS TECHNICAL MEMO**

March 2012

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CDOT Region 2

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## **Introduction**

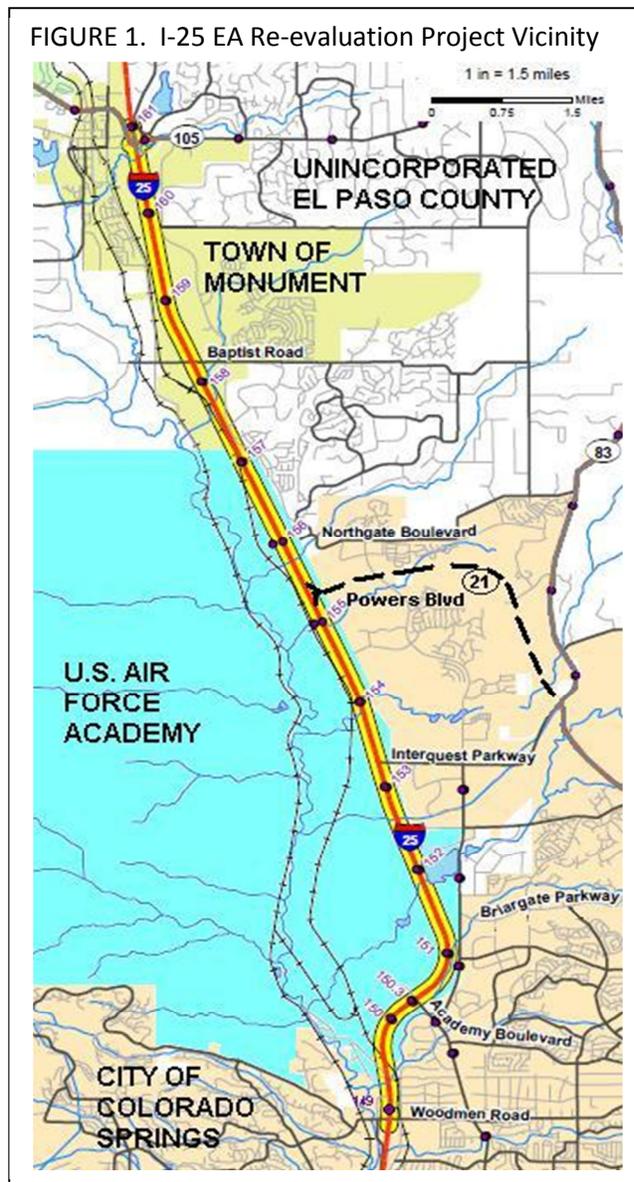
The Colorado Department of Transportation (CDOT) has prepared this technical memorandum to update findings on air quality described in the original 2004 I-25 Environmental Assessment (EA) with regard to the portion of the Proposed Action between Woodmen Road (Exit 149) in Colorado Springs and State Highway 105 in Monument (Exit 161). The proposed action is to relieve existing traffic congestion and address project future congestion on I-25 within the Colorado Springs urbanized area.

The I-25 EA originally evaluated impacts for the widening of I-25 between South Academy Boulevard (Exit 135) and SH 105, together with reconstruction of various I-25 interchanges within this corridor. Page 2-10 of the EA stated that, “Consistent with projected traffic demand in the I-25 corridor, the conceptual phasing for the Proposed Action calls for:

- (1) initially six-laning through central Colorado Springs, then
- (2) six-laning in northern El Paso County, and finally
- (3) adding HOV [High-Occupancy Vehicle] lanes through central Colorado Springs and widening to six lanes south to South Academy Boulevard.”

The first of these conceptual phases was undertaken in central Colorado Springs, completed in 2007. The so-called COSMIX project resulted in 12 miles of six-lane freeway, between South Circle Drive (Exit 138) and North Academy Boulevard (Exit 150). It included major reconstruction at several interchanges, notably not including the Cimarron Street interchange (Exit 141) or the Fillmore Street interchange (Exit 145). Additional funding will be needed to complete Phase 1.

For the year 2012, CDOT has received funding to begin the second phase, meaning to widen I-25 to six lanes in northern El Paso County, within the area shown in Figure 1. The EA calls for eventually widening I-25 all the way to SH105. Total funding for this project is yet to be determined. Currently enough is available to widen I-25 from Woodmen Rd to Interquest (Exit 153). Nevertheless, to be prepared for possible additional funding being available to complete the widening to SH 105 with this project or available in the near future, CDOT’s current EA re-evaluation effort is covering all Phase 2



improvements. Therefore, the study area for this re-evaluation extends northward all the way to Monument.

The I-25 EA included a new connection with Powers Boulevard (now State Highway 21), following SH 21 eastward to just past the Powers Boulevard/Voyager Boulevard interchange. The design and analysis of this connection in the I-25 EA superseded what was proposed earlier in the North Powers Boulevard EA that was approved in 1999. The current EA re-evaluation also includes this portion of Powers Boulevard from I-25 to just east of Voyager Parkway.

### **Summary of the 2004 EA Cumulative Impacts**

The 2004 I-25 EA included an extensive discussion of cumulative impacts, based on a 2003 CDOT study called *Sustaining Nature and Community in the Pikes Peak Region: A Sourcebook for Analyzing Regional Cumulative Effects*. Commonly referenced as the RCEA (Regional Cumulative Effects Analysis) this study considered the potential effects of four major upcoming transportation projects, I-25 widening, converting the Powers Boulevard Expressway to a freeway, upgrading Woodmen Road, and construction of today's Milton E. Proby Parkway to replace Drennan Road. Since 2003, various progress has been made in these respective corridors.

The RECA focused on resource areas that affect the sustainability of the natural and manmade environment, thereby affecting the quality of life in the Pikes Peak Region. The six key subject areas were: landscape patterns, water quality and quantity, air quality, transportation patterns, noise, and visual resources. The study looked at changes in these resources as far back as 1955 and as far forward into the future as 2025, the planning horizon year for the PPACG Long Range Transportation Plan then in effect.

Regarding landscape patterns, which encompass ecosystems as well as the structure of the urban environment, the EA noted that continued growth at the rate of about 100,000 residents per decade since 1960 has caused expansion of the urban area, thereby crowding out native habitats and species. Wetlands and riparian area were identified as a scarce resource vital to the sustainability of local ecosystems, accounting for just two percent (19,334 acres) of land cover in the study area. Out of an estimated 106 wetland acres within the EA project study area, the Proposed Action would impact 10.22 acres, and CDOT would replace them. Meanwhile, projecting continuation of past trends, urban development in the region was expected to consume another 450 acres between 2000 and 2025. Thus, the I-25 Proposed Action would have no cumulative effect on regional wetland trends.

Regarding water quality and quantity, the RCEA noted that more and more water is being imported into the region to meet the needs of the growing population. That water gets used, then treated and discharged into Monument Creek to flow south and join the Arkansas River in Pueblo. At the same time, replacing natural absorbent lands with hard, impervious surfaces means that the region's limited rainfall increasingly results in stormwater runoff, rather than recharging underground aquifers. Thus, impervious surface was identified as a key indicator of sustainability for water resources. The I-25 EA indicated that the I-25 Proposed Action would increase regional impervious surface by 0.4 square mile, while regional development through 2035 would likely increase impervious surface by 68 square miles. Thus I-25's contribution to the adverse regional trend would be negligible. Moreover, the I-25 Proposed Action will include features to reduce stormwater contaminants that are discharged to receiving waters.

Regarding air quality, the region's air quality monitors have shown major improvement since the last violation of a national standard in 1989. Thanks largely to improved vehicle technology and cleaner fuels, air quality has been improving despite major growth in regional population and vehicle miles of travel. Opened as four lanes (two each direction) in 1960, I-25 is the region's most heavily traveled roadway, where congested conditions result in unnecessary idling that adversely affects both local and regional air quality. Since the I-25 Proposed Action would vastly improve traffic flow, carbon monoxide (CO) emissions on freeways in the region were projected to decline as a percentage of total regional CO emissions between 2000 and 2025.

Regarding transportation patterns, I-25 has evolved into its role as the backbone of the region's street system, playing a key role for intra-regional trips by connecting east-west arterials. Total miles driven on I-25 were projected to increase by 40% (one million VMT) from 2000 to 2025, while total regional travel increases by 81% (8.5 million VMT). I-25 is clearly a mature corridor where capacity improvements are not fueling regional growth. The vast majority of regional growth is happening elsewhere, such as the Powers Boulevard corridor (six miles to the east) and beyond. It was concluded that I-25 improvements are needed in response to regional growth; they are not inducing it. Rapid growth had occurred for the past forty years (400,000 new residents) without any capacity added to I-25 since its opening.

The Pikes Peak Region has only a modest public transit service, limited by the fact that it does not have a dedicated local funding source (example: transit sales tax that supports the Regional Transportation District in Denver). Regional long range transit plans call for aggressive growth, including development of Bus Rapid Transit (BRT) lines in several corridors (but not I-25). A City of Colorado Springs Rapid Transit Study completed in late 2004 examined BRT system alternatives that would carry between 800 and 5,300 riders per day in 2030, and recommended a system of four routes totaling 37 miles in length. The study cited a BRT system in Orlando, Florida as a model of a successful system in an area of population density similar to Colorado Springs. The study was not completed when the RCEA and I-25 EA were prepared, but had already determined that the I-25 corridor was not a leading candidate for the BRT system.

The I-25 Proposed Action includes a future seventh and eighth lane to be dedicated for use by High Occupancy Vehicles (HOVs) through central Colorado Springs. The EA recommended HOV lanes for 12 miles from the Martin Luther King U.S. 24 Bypass (Exit 139) to Briargate Parkway (Exit 151). These would be the first HOV lanes in the region. At the time the EA was approved in 2004, the I-25 corridor had park-and-ride lots at Woodmen Road (Exit 149) and SH105 (Exit 161). These were used largely for inter-regional commuting to Denver, rather than for commuting within the local region.

Regarding noise levels, rapid urban growth has pushed the quiet countryside farther and farther out into the country. I-25 is not only the most heavily traveled roadway in the region, but also closely parallels the region's only railroad line, which carries some 30 trains per day, many of them mile-long "unit trains" carrying coal southward from Wyoming or empty cars northward for refilling. With regional growth, the Colorado Springs of 100,000 population has become the Colorado Springs Metropolitan Area with more than a half million El Paso County residents by 2000.

Based on the additional noise predicted with the Proposed Action, the I-25 EA recommended construction of eight new noise walls to supplement the five existing noise walls along the corridor.

Regarding visual character, the region has an enviable mountain background that includes Pikes Peak. These background views can be seen from I-25 and from much of the region with the notable exception of parts of the Powers Boulevard corridor where there is an intervening ridge. The region's semi-arid climate offers no notable lakes and few streams with perennial water flow, and also restricts the ability of road agencies to provide dense roadside vegetation. This leads to the predominance of native vegetation that does not require irrigation. With regard to the built environment, the region does have pockets of historic resources and districts. Generally these are not easily visible from major roadways. When Colorado Springs built the America the Beautiful Park at the southwestern edge of downtown, it was the City's preference that motorists on I-25 should be able to see into the park, rather than building a noise wall to block traffic noise from entering the park. The I-25 Proposed Action included development and use of design guidelines to ensure a consistent, attractive design of freeway features such as bridges and noise walls.

### **Changes to the Project that Would Affect Cumulative Effects**

Based on the current design, CDOT has not proposed to change the project in any way that would affect social, economic or environmental resources differently from what was described in the EA.

### **Changes in Analysis Data, Analysis Methods or Applicable Regulations**

Since the I-25 Proposed Action was analyzed in 2002 and the EA was approved in 2004, the following changes affecting cumulative effects have occurred:

- The RCEA, completed in 2003, prepared based on earlier data, has become somewhat outdated. Part of the RCEA's accomplishment was to inventory certain big-picture trends regarding environmental resources. A snapshot of the condition of these resources is now periodically prepared as PPACG Long-Range Transportation Plan, in a chapter called "Regional Setting" (see PPACG's website, [ppacg.org](http://ppacg.org)). This information is provided in the plan in response to requirements of national transportation law in effect since 2005 (the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, or SAFETEA-LU).
- Regarding land use patterns, regional growth has continued as anticipated in the RCEA, but began a new trajectory in 2011, when the owners of the Banning-Lewis Ranch filed for bankruptcy and most of this land east of Colorado Springs was sold to an energy company as land for exploratory drilling. Much of the region's future urban growth was planned to occur in the Banning-Lewis Ranch area, and now must occur somewhere else. This is likely to stretch regional growth in a north-south direction, and could increase growth in Ute Pass communities including Woodland Park. Stretching growth to the north and south may put increased traffic demand on I-25, accelerating the need for completion of the Proposed Action.
- Regarding water quality and quantity, an Environmental Impact Statement was completed for the Southern Delivery System (SDS), a major pipeline that will carry water from the Pueblo Dam more than 40 miles to eastern Colorado Springs. Construction of the pipeline has begun. In conjunction with the SDS project, various cooperative efforts are underway to address Fountain Creek Watershed problems. Additionally, the City of Colorado Springs in 2005 created the so-called "Stormwater Enterprise" to raise money for a backlog of drainage projects after sewage spills led to fines and lawsuits against the city. For several years, the City charged property owners stormwater fees based

upon the amount of impervious surface on their land, and used the funds to make badly needed regional drainage improvements. However, opponents argued that the fee was an unapproved tax and fought the program in a 2009 ballot initiative. Subsequently, the City scrapped the program as of the end of December 2009. Today, the region still faces major stormwater problems but has little funding available to address the problems.

U.S. Air Force Academy (USAFA) staff in December 2011 indicated during interagency consultation that erosion and sedimentation problems have increased noticeably in the streams that enter USAFA property from the east and then pass under I-25 to reach Monument Creek. These creeks are receiving increased runoff from private lands in this rapidly developing area. Stormwater management requirements apply to these private lands under Municipal Separate Stormwater System (MS4) permits, but whether or not the stormwater quality is as it should be, the increased volume has caused substantial erosion on USAFA property. CDOT's drainage structures convey the water from USAFA property east of I-25 to USAFA property west of I-25. The problem of increased water volume is degrading wetlands and riparian habitat occupied by the threatened Preble's meadow jumping mouse. All riparian crossings of I-25 are also important to other wildlife species as well. This problem is not limited to USAFA land but applies other drainages crossing I-25 as well.

CDOT's MS4 permit that expired at the end of 2011 is in the process of being replaced with a new permit that will have new, different requirements. It is too early to know what the impacts of this change will be. However, it is reasonable to assume that the new permit written by the Colorado Department of Public Health and Environment will not be less stringent than the permit it replaces.

- Regarding air quality, the Pikes Peak Region was facing an upward trend in ozone concentrations when the RCEA was written. Page 2-80 of the RCEA reported a PPACG staff assessment that a violation of the national 8-hour ozone standard appeared "likely by 2007." Fortunately, the upward trend appears to have ended as monitored concentrations have now been declining for about the past five years. Spillover benefits from State and regional programs targeting the Denver area are credited with some of the recent improvement in the Pikes Peak Region.

The CDOT NEPA Manual, published in 2008, indicates that the topic of greenhouse gases and global warming should be included in NEPA documents in the discussion of cumulative effects. Please see Appendix A for a discussion of this issue.

- Regarding transportation patterns, progress has occurred on all four major transportation corridors that were the focus of the RCEA: the COSMIX portion of the I-25 Proposed Action was constructed, as was the Baptist Road interchange; the new Milton E. Proby Parkway has been constructed by the City of Colorado Springs; Woodmen Road has been widened between I-25 and Academy Boulevard, and from Powers Boulevard to US 24; Powers Boulevard was extended northward from Woodmen Road to State Highway 83 in the 2000 to 2005 timeframe, and an Environmental Assessment for the central Powers Boulevard corridor was completed in 2010. The impacts of these projects have been consistent with those discussed in the RCEA.

The regional transit system called Springs Transit became Mountain Metro Transit in late 2005 and began receiving funds from a voter-approved Pikes Peak Rural Transportation

Authority (PPRTA). After this spurt of system expansion, however, declining economic conditions forced Colorado Springs to scale back transit operations substantially in 2009. Most of the PPRTA tax revenues are allocated for roadway system improvements. The PPRTA sales tax raises roughly \$60 million annually (thus, \$6 million for transit), but will expire in 2014. Plans are underway to take a proposed tax extension to a public vote prior to 2014. It is possible that the new proposal could alter the allocation of revenues from the existing formula (currently 55% for specific capital projects, 35% for maintenance, and 10% for transit). The original PPRTA capital list included priority sublists (A, B, and C). The current tax will be able to accomplish all "A"-list projects and some from the B list, leaving many B projects and all C projects unfunded.

The RCEA completed in 2003 and the I-25 EA completed in 2004 reflected regional traffic projections from PPACG's then-current Destination 2025 Long-Range Transportation Plan. That plan projected future weekday region vehicle miles traveled (VMT) in the region to total 19 million VMT in the year 2025. The most recent PPACG forecasts, from the *2035 Moving Forward Plan Update*, adopted in 2012, predicts future regional VMT of 18.6 million, with plan implementation. That is, with ten years of additional growth (2025 to 2035), the region is not expected by 2035 to reach the amount of VMT that was previously projected for 2025. This dramatic reduction in projected future traffic growth is attributable largely to PPACG's new regional travel model, VISUM, and updated transportation planning assumptions. The new plan does not assume any dramatic increases in transit service to account for the slower VMT increase.

- Regarding noise levels, the upward trend in noise with continued regional growth, as reported in the RCEA appears to have continued. Noise walls included as part of the I-25 Proposed Action were constructed as part of the COSMIX project, and noise walls also have been constructed along Woodmen Road and the Milton E. Proby Parkway. The Powers Boulevard EA recommended future construction of seven noise walls that together add up to about three miles in length (not continuous). One notable reduction in noise has resulted from cessation of Colorado Springs police helicopter operations, due to City budget cuts. Also, there is less noise from commercial aviation as passenger traffic at the Colorado Springs Airport has steadily declined since the RCEA was completed. New direct flights to several cities are to be added by Frontier Airlines in 2012.
- Regarding visual resources, the City of Colorado Springs purchased 789 acres in 2003 and has opened the area as the Red Rock Canyon Open Space, south of US Highway 24 and west of South 31<sup>st</sup> Street. This is one of the continuing open space purchases being made with a voter-approved tax for parks, trails and open space. In 2003, voters extended the tax through the year 2025. Also, a planned park east of I-25 at Cimarron Street was opened in 2005 (originally called Confluence Park but now called America the Beautiful Park). Thus, additional visual resources visible from major roadways have been preserved or created over time. However, city budget cuts in recent years have greatly reduced park maintenance and have resulted in the decision to not water the grass in many of them. In the region's semi-arid environment, parks traditionally green with grass in summer have been left dry and brown all year. The region's special tax noted above pays for acquiring new recreational resources but not to maintain them.

Additionally, the Town of Monument in early 2012 amended its land use plan for the I-25 Gateway Corridor, which comprises the northern portion of the study area for this re-evaluation. The land use identified for areas along the I-25 corridor are a mix of Business Park, Gateway Commercial and Community Commercial. No parks or recreation areas are planned. Open space areas are shown along several small drainages. This new land use plan focuses on quality development that would protect the scenic qualities of the area and would be more consistent with the topography.

The rural character of I-25 is changing as development pressures in northern El Paso County have intensified. An extensive listing of some of the new developments is provided separately in the I-25 EA Re-evaluation Land Use Technical Memorandum. The visual changes are evident not only in daylight but also with the rapid proliferation of nighttime lighting for these developments.

Westward views on USAFA property have remained largely natural and undeveloped, while urban development is consuming vacant prairie to the east side of I-25. Intense development is planned near the nexus of I-25 and Powers Boulevard, which will be the region's only junction of two freeway facilities. A notable exception on USAFA property was the completion of a 30-acre solar array panel in 2011, near North Academy Boulevard. A proposed new Visitors' Center near USAFA's north gate may introduce new visual impacts at that location. The I-25 Proposed Action would eliminate the existing Ackermann Overlook (roadside pulloff for viewing USAFA's airfield) north of the Briargate exit, but would replace it with a safer overlook about 2,000 feet to the north of the existing one.

### **Changes in Proposed Mitigation**

Various regional-level and project level mitigation strategies for addressing the key cumulative effects resources were discussed in the EA. Most of the project-level strategies are measures that CDOT routinely undertakes for mitigation of direct and indirect effects. None of the resource changes described above would necessitate changes to the mitigation strategies discussed in the EA. However, given the worsening conditions along creeks that cross under I-25 on USAFA property, CDOT will coordinate closely with USAFA staff to identify any mutually beneficial mitigation opportunities to minimize further damage and potentially improve the health of these creeks.

### **Conclusion**

Direct and indirect impacts of the I-25 Proposed Action are relatively minimal due to the fact that the freeway has existed for more than 50 years and that more than 80% of the region's current population has been added since then. Cumulative effects occur as a result of the project's direct and indirect effects when also considering the effects of all of actions affecting a given resource. Regional changes that have occurred since the 2004 I-25 EA have been reasonably consistent with EA and RCEA expectations, thereby not resulting in newly identified cumulative effects or the need for additional mitigation.

It is too early to tell how regional land use patterns in El Paso County will change in response to energy exploration on the Banning-Lewis Ranch property, but the changes more likely than not will place increased urgency on the need for additional capacity on I-25 in northern El Paso County, as included in the I-25 Proposed Action.

The key findings of this technical memorandum are summarized in Table 1, which follows.

TABLE 1. Summary of Previously and Currently Identified Cumulative Effects and Mitigation

EA 2004 – No-Action Alternative	EA 2004 – Impacts of Proposed Action	EA 2004 – Mitigation	2012 – What Has Changed	Re-evaluation 2012 – No Action	Re-evaluation 2012 – Impacts of Proposed Action	Re-evaluation 2012 - Mitigation
<p>Regarding <u>landscape patterns</u>, wetlands are resource important for sustainability. Urban development is expected to consume 450 acres of wetlands by 2025.</p>	<p>The I-25 Proposed Action would disturb 10.22 acres of wetlands, of which most (8.32 acres) will occur in the I-25 re-evaluation area.</p>	<p>CDOT routinely replaces all impacted wetlands, under its “no net loss” policy and will do so for I-25. Thus, the Proposed Action would not contribute to the ongoing, cumulative, wetland loss in the region.</p>	<p>The sale of Banning-Lewis Ranch east of Colorado Springs for energy exploration (instead of urban residential and commercial use) may result in accelerated development closer to the I-25 corridor</p>	<p>Wetland loss and degradation will continue with urban development.</p>	<p>No change to the direct, indirect or cumulative impacts of the Proposed Action.</p>	<p>No change to the mitigation identified in the 2004 EA.</p>
<p>Regarding <u>water quality and quantity</u>, development will add an estimated 68 square miles of impervious surface by 2035.</p>	<p>The I-25 Proposed Action would add approximately 0.4 square mile of impervious surface.</p>	<p>CDOT will implement water quality Best Management Practices to capture stormwater runoff and treat it before discharging to receiving waters.</p>	<p>In 2005, Colorado Springs established a stormwater fee to pay for regional drainage improvements, but the program ended in 2009.</p> <p>Regional development has degraded creeks in northern El Paso County that cross under I-25, especially on USAFA property.</p> <p>CDOT’s previous MS4 permit is being replaced with a new permit in 2012.</p>	<p>Continued urban development will increase stormwater runoff, resulting in degradation of creeks and water quality.</p>	<p>The I-25 Proposed Action in northern El Paso County will require MS4 water quality features to capture and treat stormwater runoff from I-25, which will have more impervious area due to widening. The design of MS4 features will have an opportunity to help address rapidly deteriorating conditions in the streams that cross I-25.</p>	<p>CDOT will work closely with USAFA to seek cooperative mitigation approaches regarding erosion along northern El Paso County drainages. CDOT will adhere to requirements of its new MS4 permit expected to be finalized in 2004.</p>
<p>Regarding <u>air quality</u>, the EA indicated that the No-Action Alternative might not meet the region’s CO conformity budget.</p>	<p>The I-25 Proposed Action was shown to meet all applicable air quality requirements.</p>	<p>No mitigation was required for long-term air quality impacts; only control of particulates during construction.</p> <p>The third, future phase of the Proposed Action includes High Occupancy Vehicle lanes through central Colorado Springs.</p>	<p>EPA first established a higher regional CO emissions budget, then approved a CO plan with effectively no budget constraint.</p> <p>EPA established a tighter 8-hour ozone standard in 2008. Regional ozone measurements have declined for the past several years, avoiding violation of the new standard.</p> <p>PPACG now predicts less total daily VMT for 2035 than it previously predicted for 2025.</p> <p>CDOT guidance now calls for EAs to address Mobile Source Air Toxics (MSAT) and Greenhouse Gas issues.</p>	<p>The No-Action Alternative would not exceed any CO emission budget. The COSMIX project completed in 2007 has addressed the congestion problem in the region’s area of densest development.</p>	<p>After re-evaluating the Proposed Action with updated socio-ec data, traffic projections and emissions factors, it is concluded that it will meet all applicable air quality requirements.</p>	<p>No change to the mitigation identified in the 2004 EA. Planned I-25 widening in 2012 is part of the second phase of the Proposed Action, which does not include the HOV lanes.</p> <p>See Greenhouse Gas discussion in the appendix to this memo. See MSAT discussion in the EA re-evaluation memo on air quality.</p>

Table 1, continued. Summary of Previously and Currently Identified Cumulative Effects and Mitigation

EA 2004 – No-Action Alternative	EA 2004 – Impacts of Proposed Action	EA 2004 – Mitigation	2012 – What has changed	Re-evaluation 2012 – No Action	Re-evaluation 2012 – Impacts of Proposed Action	Re-evaluation 2012 - Mitigation
<p>Regarding <u>transportation patterns</u>, the No-Action Alternative was not consistent with regional transportation plans. I-25 congestion would push traffic to find less efficient alternate routes.</p>	<p>I-25 would remain the backbone of the region's transportation system, its most heavily traveled roadway, to which all other major roadways connect. This is consistent with regional land use and transportation plans.</p>	<p>The Proposed Action includes future High Occupancy Vehicle Lanes, for buses and carpools. It accommodates trail crossings for non-motorized traffic.</p>	<p>Milton E. Proby Parkway has been constructed in southern Colorado Springs, with potential to connect airport trips to I-25 at Exit 135. Portions of Woodmen Road have been improved, and a Phase II improvement will begin in 2012, focusing east-west traffic to connect to I-25 at Exit 149. Local transit funding has been cut back due to budget constraints, perhaps delaying demand for transit accommodation on I-25.</p> <p>PPACG's new traffic forecasts now anticipate much less future travel demand in the region than previously expected, but I-25 will still get more congested, due to minimal availability of alternative routes.</p> <p>The local PPRTA tax for transportation improvements expires in 2014, but an extension will be likely proposed in an upcoming election.</p>	<p>Completion of the COSMIX project has relieved traffic pressure through central Colorado Springs, putting the spotlight on I-25 in northern El Paso County (still four lanes since its construction in 1960). North I-25 congestion is increasing, and may worsen more rapidly if regional growth formerly targeted to Banning-Lewis Ranch shifts to northern El Paso County.</p>	<p>No change to the direct, indirect or cumulative impacts of the Proposed Action.</p>	<p>No change to the mitigation identified in the 2004 EA.</p>
<p>Regarding <u>traffic noise</u>, traffic continues to increase with regional development. I-25 traffic and noise would increase with the No-Action Alternative</p>	<p>The I-25 Proposed Action would accommodate more traffic at higher speeds than the No-Action Alternative, resulting in higher levels of traffic noise.</p>	<p>The 2004 EA proposed seven new noise walls in addition to the existing and committed noise walls along the corridor.</p>	<p>The COSMIX project completed in 2007 constructed all the proposed noise walls except two near South Academy Boulevard (Exit 135), which would accompany widening there in a future phase of the Proposed Action.</p> <p>Federal and State noise abatement guidelines have changed, and a new forecasting model called TNM is to be used instead of the STAMINA model that was used in the 2004 EA.</p> <p>Continued growth along the I-25 corridor in northern El Paso County has created potential for new receptors to be affected by I-25 noise.</p>	<p>The noisiest portions of the I-25 corridor now have COSMIX noise walls. These will provide some noise reduction whether or not remaining future phases of the Proposed Action are implemented.</p>	<p>Following the new noise abatement guidelines and using the TNM model, it has been confirmed that the EA's noise findings for northern El Paso County remain valid.</p>	<p>No noise mitigation is needed for the Proposed Action in northern El Paso County. Noise impacts will be re-evaluated for other portions of the EA study area in the future, when construction funding becomes available.</p>

Table 1, continued. Summary of Previously and Currently Identified Cumulative Effects and Mitigation

EA 2004 – No-Action Alternative	EA 2004 – Impacts of Proposed Action	EA 2004 – Mitigation	2012 – What has changed	Re-evaluation 2012 – No Action	Re-evaluation 2012 – Impacts of Proposed Action	Re-evaluation 2012 - Mitigation
Regarding <u>visual character</u> , the No-Action Alternative would have little to no impact.	The Proposed Action would add extensive hard infrastructure to the I-25 corridor, including lanes, ramps and noise walls.	Use of design guidelines would help to mitigate visual impacts. Low-profile design was included to maintain a natural look on USAFA property.	<p>Continued urban development east of USAFA is changing the rural character of the area.</p> <p>USAFA added a 30-acre solar panel array next to I-25 in 2011.</p> <p>USAFA is considering plans to construct a new Visitors' Center near the Northgate exit.</p> <p>The Town of Monument changed its zoning regulations in 2012 to ensure that development along I-25 in Monument meets aesthetically appropriate "Gateway" standards.</p>	No change to the visual impacts anticipated in the 2004 EA.	No change to the direct, indirect or cumulative visual impacts of the Proposed Action.	No change to the visual impacts mitigation identified in the 2004 EA (e.g., design guidelines, North Powers interchange design).

## APPENDIX A

### Greenhouse Gases and Global Climate Change

The issue of global climate change is an important national and global concern that is being addressed in several ways by the Federal government. The transportation sector is the second largest source of total greenhouse gases (GHGs) in the U.S., and the greatest source of carbon dioxide (CO<sub>2</sub>) emissions - the predominant GHG. In 2004, the transportation sector was responsible for 31% of all U.S. CO<sub>2</sub> emissions. The principal anthropogenic (human-made) source of carbon emissions is the combustion of fossil fuels, which account for approximately 80% of anthropogenic emissions of carbon worldwide. Almost all (98%) of transportation-sector emissions result from the consumption of petroleum products such as gasoline, diesel fuel and aviation fuel.

Recognizing this concern, FHWA is working nationally with other modal administrations through the DOT Center for Climate Change and Environmental Forecasting to develop strategies to reduce transportation's contribution to greenhouse gases —particularly CO<sub>2</sub> emissions—and to assess the risks to transportation systems and services from climate changes.

At the state level, there are also several programs underway in Colorado to address transportation GHGs. The Governor's *Climate Change Action Plan*, adopted in November 2007, includes measures to adopt vehicle CO<sub>2</sub> emission standards and to reduce vehicle travel through transit, flex time, telecommuting, ridesharing and broadband communications.

CDOT issued a Policy Directive on Air Quality in May 2009. This Policy Directive 1901 was developed with input from a number of agencies, including the State of Colorado's Department of Public Health and Environment, the U.S. Environmental Protection Agency, the Federal Highway Administration, the Federal Transit Administration, the Denver Regional Transportation District, and the Denver Regional Air Quality Council. This Policy Directive addresses unregulated mobile source air toxics (MSAT) and greenhouse gases (GHG) produced from Colorado's state highways, interstates, and construction activities.

As part of CDOT's continuing commitment to addressing MSATs and GHGs, some of CDOT's program-wide activities include:

1. Developing truck routes with the goal of limiting truck traffic in proximity to facilities, including schools, with sensitive receptor populations.
2. Continue researching pavement durability opportunities with the goal of reducing the frequency or resurfacing and/or reconstruction projects.
3. Developing air quality educational materials, specific to transportation issues, for citizens, elected officials, and schools.
4. Offering outreach to communities to integrate land use and transportation decisions to reduce growth in vehicle miles traveled (VMT), such as smart growth technologies, buffer zones, transit-oriented development, walkable communities, access management plans, etc.
5. Committing to research additional concrete additives that would reduce the demand for cement.
6. Expanding Transportation Demand Management (TDM) efforts statewide to better utilize the existing transportation mobility network.
7. Continuing to diversify the CDOT fleet by retrofitting vehicles, specifying the types of vehicles and equipment contractors may use, purchasing low-emission vehicles, such as hybrids, and purchasing cleaner burning fuels through bidding incentives where feasible. Incentivizing is the approach likely to be used for this.
8. Exploring congestion and/or right-lane only restrictions for motor carriers.
9. Funding truck parking electrification (note: mostly via external grant opportunities)

10. Researching additional ways to improve freight movement and efficiency statewide.
11. Committing to incorporating ultra-low sulfur diesel (ULSD) for non-road equipment statewide before June 2010 – likely using incentives during bidding.
12. Developing a low-VOC emitting tree landscaping specification.

With regard to the first measure listed above, it should be noted that I-25 is a designated truck route. Channeling truck traffic onto this route keeps it off of other routes, such as Voyager Parkway and Struthers Road, which pass closer to neighborhoods, schools, and other sensitive receptors.

Because climate change is a global issue, and the emission changes due to project alternatives are very small compared to global totals, the GHG emissions associated with the alternatives were not calculated. The relationship of current and projected Colorado highway emissions to total global emissions of carbon dioxide is presented in Table A-1.

TABLE A-1. Comparison of Annual Global, Colorado and Project-Level CO<sub>2</sub> Emissions

<b>Global CO<sub>2</sub> emissions, 2005, in million metric tons (MMT)<sup>1</sup></b>	<b>Colorado highway CO<sub>2</sub> emissions, 2005, in MMT<sup>2</sup></b>	<b>Projected Colorado 2035 highway CO<sub>2</sub> emissions, 2035, in MMT<sup>2</sup></b>	<b>Colorado highway CO<sub>2</sub> emissions, % of global total, 2005<sup>2</sup></b>	<b>Re-evaluation area I-25 VMT, % of statewide VMT, 2005</b>
27,700	29.9	31.3	0.108%	0.64%

<sup>1</sup>EIA, International Energy Outlook, 2007

<sup>2</sup>Calculated by FHWA Resource Center

Colorado highway emissions are expected to increase by 4.7% between 2005 and 2035. The benefits of the fuel economy and renewable fuels programs in the Energy Independence and Security Act of 2007 are offset by growth in VMT. Colorado's 2035 statewide transportation plan predicts that VMT will double between 2000 and 2035. This table also indicates the amount of travel in the project corridor relative to total Colorado motorized travel.