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# 1 Purpose and Introduction

The Colorado Department of Transportation (CDOT) 2035 Statewide Transportation Plan Amendment (Plan Amendment) is a supplement to the [2035 Statewide Transportation Plan “Moving Colorado: Vision for the Future”](#) (2035 Plan). In general, an amendment supplements an existing plan, while an update involves development of a new document that replaces the existing plan document. While CDOT is not required to update the Statewide Transportation Plan on a set schedule, this amendment was developed to maintain consistency with regional planning processes and to serve as a bridge between the 2035 Plan and the next plan update set for adoption by 2015. Given current economic and financial uncertainties, CDOT and its planning partners determined that an amendment to the existing plan would enable CDOT to achieve these goals, while using limited resources wisely.

As the needs of the state’s transportation system continue to grow, available revenue has not been sufficient to meet those needs in recent years. The cost to maintain the existing transportation system (without additional improvements) is estimated to be \$176 billion during the time horizon of the 2035 Plan; however, estimated revenues during that same time period only total \$123 billion. This funding gap means that CDOT and the other government entities responsible for maintaining the transportation system will have to develop new ways to make dollars stretch further and make difficult choices, including changes to the level of service provided, to investment priorities, or both.

In the years since the adoption of the 2035 Plan, CDOT has completed more than 235 construction projects, and provided continued maintenance to a system of over 9,100 centerline miles. During that same time, several important changes to the organization have improved CDOT’s ability to provide a multimodal transportation system. These changes include the formation of a Division of Transit and Rail and a groundbreaking new Bicycle and Pedestrian Policy. The new division is responsible for the planning, development, operation, and integration of rail systems in the statewide transportation system. CDOT’s Bicycle and Pedestrian Policy is intended to integrate the needs of bicyclists and pedestrians into the planning, design and operation of transportation facilities.

This Plan Amendment includes the following sections:

- **Transportation Planning Processes** – A brief overview of the long-range planning processes.
- **2035 Plan Amendment Process** – A brief overview of the reasons for and approach to preparing this Plan Amendment.
- **Financial Outlook** – An overview of current funding, changes in funding sources, and the current funding gap (i.e., gap between existing needs and available resources).
- **Metropolitan Planning Organization (MPO) Regional Transportation Plan (RTP) Updates and Amendments** – An overview of key changes made in updates or amendments to the MPO 2035 RTPs.
- **Public Involvement** – An overview of public involvement activities conducted as part of the Plan Amendment process.
- **Recent Accomplishments** – A summary of recent CDOT accomplishments since the 2035 Plan.
- **Emerging Issues in Transportation Planning** – An overview of significant emerging transportation planning issues, including sustainability and livability, air quality, greenhouse gas (GHG) emissions reduction, and performance measures.

- **Looking Ahead** – An overview of the next update to the statewide transportation plan.
- **Conclusion** – A summary of key points.

This document includes a number of links to web resources. A full listing of these resources is available in Appendix A.

## 2 Transportation Planning Processes

This section outlines CDOT's transportation planning processes, which includes RTPs that are incorporated into a single Statewide Transportation Plan. These plans outline a long-range (minimum of 20 years) vision for the future of transportation in each region and across the state. In order to implement these visions, CDOT and its planning partners develop transportation improvement programs that assign funding to specific projects in the short-term (6 years). CDOT determines how much funding will be available to complete projects using a resource allocation process. Each of these transportation planning processes is discussed in more detail in the following subsections.

Additional information on the transportation planning process is available at the CDOT Planning Section website at [www.coloradodot.info/programs/statewide-planning](http://www.coloradodot.info/programs/statewide-planning).

### 2.1. Statewide and Regional Long-Range Transportation Plans

The state of Colorado is required by law to develop a 20-year Statewide Transportation Plan that incorporates RTPs developed by the state's 15 [Transportation Planning Regions](#) (TPRs) and MPOs<sup>1</sup>. CDOT, in coordination with the rural TPRs, is responsible for the development of the ten rural TPR RTPs. The MPOs are responsible for developing their plans.

Of Colorado's 15 TPRs, five are MPOs for urban areas with populations greater than 50,000. The remaining ten TPRs are considered rural TPRs. MPOs in Colorado include the Denver Regional Council of Governments (DRCOG), Grand Valley MPO (GVMPO), North Front Range MPO (NFRMPO), Pikes Peak Area Council of Governments (PPACG), and the Pueblo Area Council of Governments (PACOG).

The 2035 Plan was adopted by the [Colorado Transportation Commission](#) in March 2008, and it outlines a comprehensive, multimodal transportation vision for the state of Colorado. It provides a statewide perspective that reflects the policies of the Colorado Transportation Commission and integrates the needs, revenues, and costs identified in all 15 RTPs. As a multimodal plan, all modes of transportation are included—highway, transit, freight, aviation, and bicycle/pedestrian. The 2035 Plan is corridor based and covers approximately 350 corridors statewide. [Corridor Visions](#) address all transportation

The state's transportation system is managed by CDOT under the direction of the Colorado Transportation Commission. The Commission is comprised of 11 commissioners who represent specific districts. Each commissioner is appointed by the Governor, confirmed by the Colorado Senate, and serves a four-year term.

<sup>1</sup> Federal law requires a minimum 20-year time horizon. Statewide Transportation Plans and RTPs typically maintain a longer time horizon of between 25 and 30 years.

modes and include strategies aimed at meeting each corridor's unique transportation needs.

MPOs are required by federal law to update their RTPs every 5 years, or in air quality non-attainment areas, every 4 years<sup>2</sup>. The MPO 2035 RTPs were adopted in late 2007 and early 2008. In keeping with the update cycle, MPOs updated or amended their RTPs concurrently with this Plan Amendment for adoption in 2011 and early 2012. While MPOs are required to update their RTPs every 4 to 5 years, there is no such requirement for the rural TPRs.

## **2.2. Transportation Improvement Programs**

The Statewide Transportation Plan is implemented by programming priority projects into the short-term, 6-year [Statewide Transportation Improvement Program](#) (STIP)<sup>3</sup>. The STIP identifies capital and programmatic projects by location, scope, funding sources, and program year. MPOs also develop Transportation Improvement Programs (TIPs), which are then included without modification into the STIP. Rural TPRs do not develop TIPs, and as such they work closely with CDOT to identify and prioritize projects for inclusion in the STIP. MPO RTP updates generally correspond with the required development of a new TIP every 4 years. New TIPs will be adopted by the five MPOs in 2011 and will program projects for funding in fiscal years (FY) 2012-2017. Similarly, CDOT is required to update the STIP every 4 years. The 2012-2017 STIP will be adopted in June 2011, just before the start of state FY 2012 on July 1, 2011.

## **2.3. Resource Allocation Process**

Resource allocation is the process by which CDOT, in cooperation with the MPOs and TPRs, forecasts and allocates state and federal transportation revenues for the full time horizon of the Statewide Transportation Plan (i.e., minimum of 20 years). This includes funding totals for each of CDOT's six [engineering regions](#). Revenues are forecast for each of the 6 years covered by the TIP and STIP, with a "control total" for the full time horizon of the plan. Resource allocation is necessary to maintain fiscal constraint, which is the requirement that plans conform to reasonably expected revenues. MPOs are subject to a federal requirement for fiscal constraint, and the Statewide Transportation Plan is subject to a state fiscal constraint requirement. While the resource allocation process is part of a plan *update*, it is not necessary for a plan *amendment*. This is because a plan amendment leaves much of the original plan unchanged, including the control totals. A modified resource allocation process was completed for this Plan Amendment and is discussed in further detail in Section 2.

# **3 2035 Plan Amendment Process**

CDOT is responsible for development of the Statewide Transportation Plan; however, there is no requirement to update the plan on a specific interval. Although not required, CDOT developed this Plan Amendment to maintain concurrency with the MPO RTPs, to incorporate and address significant changes in RTPs, and to address recent changes from a statewide perspective. The decision to develop a plan amendment instead of a plan update was the result of careful deliberation and discussion between

<sup>2</sup> MPOs in air quality non-attainment areas as defined in section 107(d) of the Clean Air Act (42 U.S.C. 7505a), or MPOs previously in non-attainment and subsequently designated in attainment, are required to update RTPs every 4 years instead of 5. In Colorado, this includes DRCOG, PPACG, and NFRMPO.

<sup>3</sup> TIPs and STIPs are required to cover a period of 4 years. As a matter of practice, CDOT develops a 6-year STIP to include some overlap going into each 4-year cycle.

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CDOT and planning partners, including the Federal Highway Administration (FHWA), Federal Transit Administration (FTA), MPOs, and TPRs. This approach was also vetted through the [Statewide Transportation Advisory Committee](#) (STAC) and the Colorado Transportation Commission. Based on these discussions, it was determined that the most prudent course of action was to develop a plan amendment, with more extensive efforts occurring during the next plan update cycle. The following several factors led to this approach:

- **Federal Transportation Authorization** – The most recent transportation authorization bill, Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), expired in September 2009. Since then, congressional action has been limited, with little progress on a new transportation authorization bill. New transportation legislation may include new planning requirements; therefore, proceeding with a plan update would have required the significant expenditure of time and resources on a plan that might not be compliant with new planning requirements in the next authorization.
- **2010 U.S. Census** – The 2035 Plan relies heavily on demographic information provided by the 2000 U.S. Census. A plan update completed before the release of 2010 Census data would be based on out-dated information that does not accurately reflect current population and demographic totals or trends.
- **Economic and Financial Uncertainties** – Transportation planning processes must frequently contend with unpredictable and unreliable funding sources; however, current economic circumstances make this more difficult than in previous planning cycles. Without a new transportation authorization bill, federal transportation funding remains in question. Thus, delaying a plan update a few years may provide the planning process with a more stable economic climate and greater certainty regarding funding levels.
- **Legal Requirements** – While MPOs are required to update their RTPs at least every 4 to 5 years, no such requirement exists for the Statewide Transportation Plan or for rural TPR plans.
- **Existing Plan** – The existing 2035 Plan is SAFETEA-LU compliant and maintains a minimum 20-year planning horizon (extending to 2035).
- **Limited Resources** – Given current economic circumstances and tight budgets, a plan update at this time would not be a prudent use of limited resources. A plan amendment allows CDOT and MPO staff to better prepare for an extensive update in the next plan update cycle.

In keeping with the plan amendment approach, CDOT developed a [modified resource allocation](#) process. This modified approach includes new revenue forecasts and allocations only for the years of the new STIP (FY 2012 to 2017), but it retains the 2035 totals consistent with the currently adopted 2035 Plan (in 2008 dollars). For the modified resource allocation, actual revenues were used for FYs 2008 and 2009, final budget numbers for FY 2010, and draft budget numbers for FY 2011 and STIP years of 2012 to 2017. Because the 2035 control totals are being left unchanged, this means that the dollars allocated for years 2018 to 2035 in the original 2035 Plan must be adjusted in this amendment to balance the changes made to allocations in 2008 to 2017.

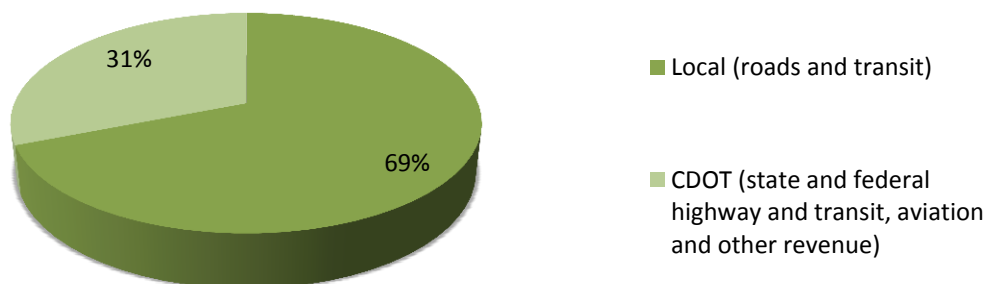
**Modified Resource Allocation**  
(\$ in billions- deflated)



## 4 Financial Outlook

The 2035 Plan forecast revenues of approximately \$123 billion (in 2008 dollars) for transportation in Colorado from 2008 to 2035. This amount reflects what is reasonably expected to be available over the full time horizon of the plan. Of this, CDOT receives, manages, and allocates 31 percent of this funding<sup>4</sup> for the state transportation system. This includes the State Highway System, representing more than 9,100 centerline miles that account for nearly 60 percent of the miles traveled on the state’s roadways. The remaining 69 percent is managed and allocated by local governments, primarily to local roadway projects. Local transit funding accounts for the next largest portion of transportation revenues in the state. This Plan Amendment retains the \$123 billion forecast in the 2035 Plan. It should be noted that forecasting revenues over a long time period must contend with significant uncertainties. As such, a forecast of revenue is no guarantee that funds will actually be available.

**Statewide Forecast of Revenues 2008-2035**  
\$123 billion (2008 dollars)



<sup>4</sup> CDOT uses the resource allocation process (discussed in the previous section) to determine how much funding each CDOT region receives from this overall total.

One significant uncertainty is the expiration of the current federal transportation authorization bill. Transportation authorization refers to the federal transportation authorization and funding bill that governs United States federal surface transportation spending. Authorization bills typically provide the authority and funding for a 6-year period. The most recent bill, SAFETEA-LU, authorized \$284.6 billion in federal surface transportation funding and expired September 30, 2009, but has been extended several times through continuing resolutions which maintain funding levels.

In the time since the adoption of the 2035 Plan, two state legislative changes were enacted into law that have had significant impacts on transportation revenue sources—Senate Bills 09-228 and 09-108.

- **Senate Bill 09-228** - This bill eliminated certain funding transfers<sup>5</sup> from the state's General Fund to CDOT and replaced them with another funding structure. This structure provides CDOT with up to 2 percent of gross General Fund revenues (from the state's General Fund) for 5 consecutive years if certain statewide economic and fiscal conditions are met. The Colorado Office of State Planning and Budgeting (OSPB) estimates that the conditions for a transfer will occur in FY 2012. The Colorado Legislative Council estimates that these conditions will not occur until FY 2014 or later. According to the 2009 State Fiscal Impact Note, SB 09-228 is estimated to provide transfers of roughly \$170 million to \$230 million per year when in effect. However, this will only partially replace funds lost from the bill's elimination of other funding transfers.
- **Senate Bill 09-108** - The Funding Advancements for Surface Transportation and Economic Recovery (FASTER) Act provides CDOT and local governments with a new funding source that is stable, predictable, and separate from the state's General Fund. Through modest increases in vehicle registration fees and other funding mechanisms, CDOT and local governments will receive funding dedicated to repairing structurally deficient bridges and making important road safety improvements across the state. FASTER also provides \$15 million per year for state and local transit-related improvements. It has been estimated that this act will result in revenues to CDOT and local governments of roughly \$179 million in FY 2010, increasing to roughly \$250 million by FY 2012. Additional information on FASTER appears in Section 6, Recent Accomplishments of this Plan Amendment.

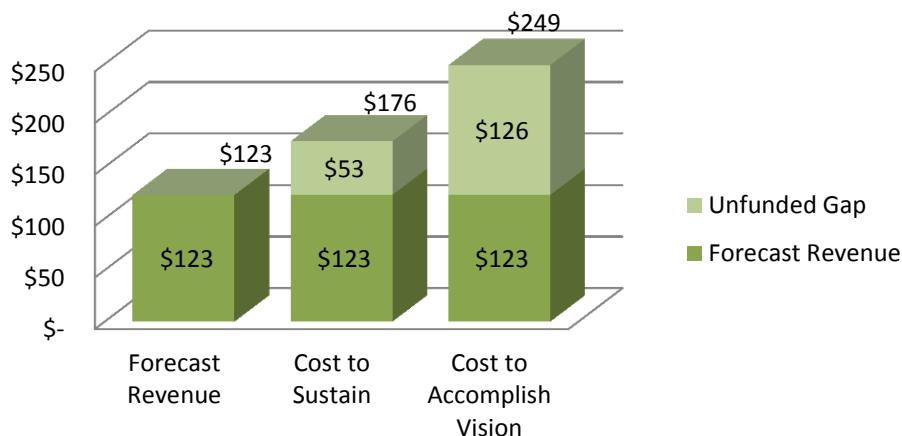
The 2035 Plan outlined the growing gap between available resources (i.e., revenue) and the resources required to maintain Colorado's transportation system. The 2035 Plan forecast that between 2008 and 2035, \$123 billion in revenue would be available for transportation in Colorado. The cost to sustain our state's existing transportation system at current levels of performance was estimated at \$176 billion, and the cost to accomplish the vision outlined in the 2035 Plan at \$249 billion<sup>6</sup>. This reflects funding gaps of \$53 billion and \$126 billion, respectively.

<sup>5</sup> Senate Bill 09-228 eliminated funding transfers provided by Senate Bill 97-01 and House Bill 02-1310.

<sup>6</sup> All figures are in 2008 dollars.



### Estimated 2035 Funding Gap (2008 \$ in billions)



This funding gap has only grown in size since the 2035 Plan was adopted. The continued growth of this funding gap is the result of several factors, such as:

- Diminished value of the gas tax** - Because the gas tax is a flat rate per gallon and gasoline sales have declined in recent years, the amount of funding collected from the gas tax has also declined over that time period. Also, the value of those dollars has diminished due to inflation. The federal gas taxes have not increased since 1993, and state gas taxes have remained unchanged since 1991; therefore, there is less revenue available from this funding source, and that trend is likely to continue.
- Increasing costs** - Since the beginning of the decade, the cost of maintaining, repairing, and rebuilding the state’s transportation system, according to the [Colorado Construction Cost Index](#), has increased nearly 50 percent<sup>7</sup>.
- Population growth** - As Colorado’s population continues to grow, the demands on our state’s transportation system will grow as well, requiring more capacity and more frequent (and sometimes more expensive) maintenance efforts.
- Aging System** - Transportation infrastructure is built for a particular lifespan, and as each element of the system comes closer to the end of its lifespan, maintenance costs increase and eventually more costly replacement becomes necessary.

In 2007 Governor Ritter convened the Transportation Finance and Implementation Panel to evaluate the state’s transportation needs and identify long-term programs and sustainable funding sources. The Panel recommended an *additional* \$1.5 billion in funding annually for the state transportation system. In contrast, over the past 2 years CDOT’s annual budget has averaged \$984 million.

<sup>7</sup> Based on the 2000 Colorado Construction Cost Index compared to 2009.

While funding provided by Senate Bill 09-108 (FASTER) represents an important first step in addressing the state's transportation funding gap, resources remain insufficient to maintain the existing transportation system, let alone meet future needs. The costs of providing and maintaining Colorado's transportation infrastructure are significant<sup>8</sup>:

- The average cost to construct one new lane of highway for 1 mile is approximately \$645,420.
- The average cost to reconstruct one lane of highway for 1 mile is approximately \$572,725.
- The average cost to resurface one lane of highway for 1 mile is approximately \$263,495.
- In FY 2010, CDOT spent more than \$6,353 per lane mile for maintenance activities including pavement repairs, minor resurfacing, and sweeping (excluding snow and ice removal). Expenditures on maintenance activities still fall significantly short of the level of spending required to maintain existing conditions.
- In FY 2010, CDOT spent more than \$66 million, or roughly \$9.75 per lane mile, on snow and ice removal.

The years ahead will require difficult choices. In the absence of new funding sources, trade-offs must be made. This may require changes to the level of service provided, investment priorities, or both. Examples of these trade-offs are:

- The level of service Coloradans are accustomed to on our state's roads may decline. Level of service describes how well drivers can get from one destination to another and includes factors such as traffic congestion, pavement condition, and snow and ice removal.
- Fewer dollars may go to capacity improvements, and more to maintenance activities.
- Roads may face closures due to weather as funding for snow and ice removal is reduced or prioritized for higher volume roadways. The cost of snow and ice removal varies by the number and magnitude of storm events in a given year.
- Funding for surface treatment may need to be prioritized among all the roads in the state highway system, meaning that some roads would receive more attention and some would receive less.
- Strategic projects may be subject to significant delays or reductions in scope.

These issues are already featuring prominently in discussions of Colorado's transportation system, and will only grow in significance in coming years. These and other tough choices will undoubtedly be a primary point of emphasis in the next plan update.

A recent trend in transportation funding is competitive grant-based programs. A competitive grant-based system requires government agencies to apply for funds on a project-by-project basis. A recent example of a competitive grant-based program is the Transportation Investment Generating Economic Recovery (TIGER) program. TIGER grants were awarded on a competitive basis for capital investments in surface transportation projects having a significant impact on the nation, a metropolitan area, or a region. More than \$78 billion in applications were received for \$2.1 billion in funding. In February 2010, Colorado was awarded \$10 million in TIGER I funds for a bus rapid transit and managed lanes project on US 36.

<sup>8</sup> Averages are for 2010 and calculated based on statewide costs.

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## 5 MPO RTP Updates and Amendments

As stated previously, the MPOs are required to update their RTPs at least every 4 to 5 years. Each of Colorado's five MPOs has or is currently updating or amending their RTPs concurrent with the development of this Plan Amendment. This Plan Amendment, at the time of adoption, incorporates the adopted plans from DRCOG, PACOG and GVMPO. The NFRMPO and PPACG will be adopting their long-range plans in September 2011 and January 2012, respectively. Their plans will then be amended into the Statewide Transportation Plan. The following is a brief description of the MPO plan updates/amendments and the web address for the documents.

**DRCOG** – DRCOG adopted an update to its 2035 Metro Vision Regional Transportation Plan (MVRTP) on February 16, 2011. A public hearing was held in December 2010 following a 30-day review period. The MVRTP was updated over a year and a half long stakeholder and committee process in conjunction with the comprehensive Metro Vision 2035 Plan. A significant level of effort was put into incorporating and considering sustainability principles. Specific long-range goals related to vehicle miles travelled (VMT) and GHG reduction, single-occupancy vehicle travel, and growth in urban centers were established. The fiscally constrained element of the updated 2035 MVRTP contained the same regionally significant roadway and rapid transit projects as the previous plan. Please visit the DRCOG website for more information: [http://www.drcog.org/index.cfm?page=RegionalTransportationPlan\(RTP\)](http://www.drcog.org/index.cfm?page=RegionalTransportationPlan(RTP))

**PACOG** – PACOG has prepared an amendment to the 2035 Pueblo Area Long-Range Transportation Plan, which was adopted on January 24, 2008. The amendment addresses some significant changes since the 2008 adoption of the 2035 RTP, particularly new information on transportation funding changes in Colorado. It also identifies emerging issues such as GHG emissions, sustainability/livability, climate change, and land use/transportation linkages as significant topics to be addressed in the next complete Plan Update. Many chapters of the plan remain essentially unchanged and have separate brief amendment documents. A few other chapters containing the supporting socio-economic and other data for the original plan have been updated where more current information is available. The chapters and any associated amendment documents are available at: [http://www.pacog.net/2035\\_LRTP\\_Page.html](http://www.pacog.net/2035_LRTP_Page.html). The public comment period opened on November 4, 2010, and concluded on February 22, 2011 at the final public open house. The PACOG Board adopted the amendment on April 28, 2011.

**Grand Valley** – The Grand Valley 2035 RTP is based on a thorough review and analysis of the land use and transportation plans of the cities of Fruita and Grand Junction, the towns of Palisade, Collbran, and De Beque and the county of Mesa (which includes the rural communities of Gateway, Loma, Mack, Mesa, Powderhorn, Whitewater, and other unincorporated areas of Mesa County included in the Rural Master Plan and Clifton/Fruitvale Community Plan). The RTP is intended to facilitate regional goals and improve the transportation infrastructure and services.

A key outcome of the RTP is to identify and/or reconfirm local community transportation visions and priorities. The plan clearly defines region-wide transportation goals, needs, and priorities and supports county and city comprehensive land use plans. Projects identified through a collaborative partnership among Mesa County, Grand Junction, Fruita, Palisade, De Beque, and Collbran aid in the programming and implementation of future transportation investments. The RTP was adopted on April 25, 2011. Please visit the website for more information: <http://www.2035rtp.com>

**NFRMPO** – The 2035 RTP Update will incorporate two new components: the Phase I North I-25 Environmental Impact Statement and a brief technical analysis of GHG emissions. A draft document will be available in June 2011. The document will still be a corridor based plan focusing on updating information in the document without a complete overhaul.

Public involvement efforts will focus on education and information rather than receiving input on items that are not proposed to change. Public outreach will include surveys and focus groups and use of the internet. The first round of public involvement was February to March 2011 with a second round when the draft plan is released in June. It is anticipated that the Council will adopt the RTP Update in September 2011. For more information on the RTP Update process, please visit: <http://www.nfrmpo.org/Projects/2035RTPUpdate.aspx>

**PPACG** – The PPACG is currently developing the Moving Forward Update. This Update incorporates information updated since 2008 and includes a discussion of emerging issues and trends. PPACG is also testing a new planning framework for the Transportation Research Board that is designed to improve collaboration among agencies and interests. PPACG will adopt the Moving Forward Update in January 2012. For more information on the update process, please visit: <http://www.movingforwardplan.org>

## 6 Public Involvement

The 2035 Plan Amendment provides an opportunity for CDOT to reaffirm Colorado’s long-range vision for a comprehensive multimodal transportation system, while ensuring that all stakeholders have a voice in the process. Public involvement is a key component in developing an effective Statewide Transportation Plan and STIP. As part of the development of the 2012-2017 STIP, CDOT Regions hosted [Project Priority Programming Process \(4P\)](#) meetings to discuss project selection and prioritization with each of their TPRs and/or MPOs. While the primary purpose of 4P meetings was to review the current STIP and solicit requests for new projects, they also served as outreach opportunities on the Plan Amendment. CDOT hosted over 64 county meetings, including meeting with tribal governments, followed by 20 joint and individual TPR meetings. More than 1,420 county commissioners, Regional Planning Council members, other stakeholders and citizens participated in the process, received information about the Plan Amendment and were provided with the opportunity to comment. In addition to these meetings, several other tools were used to communicate with planning partners, elected officials, and the public about the Plan Amendment, including the CDOT website and direct mail and e-mail postcard notifications.

CDOT needs active and engaged participants from a wide variety of viewpoints to ensure the long-range vision for transportation is consistent with the desires of Coloradans.

CDOT recently developed a new website ([www.coloradodot.info](http://www.coloradodot.info)) to provide information via the Internet, communicate complex information, and improve comment solicitation. The CDOT website enables users to access the Plan Amendment and provide comments electronically. Using CDOT’s comprehensive mailing database, e-mail and print postcards were sent to stakeholders notifying them of the availability of the Plan Amendment for a 30-day review and comment period. This low cost notification method allowed for a wide range of citizens to play an active role in the planning process. Following the conclusion of the 30-day review and comment period, CDOT reviewed and considered all comments received and provided responses as appropriate.

Targeted outreach methods were also used to ensure underserved populations statewide had an opportunity to provide comments on the Plan Amendment. The Plan Amendment document was made available in Spanish, at public offices, and on the CDOT Planning Section website. Additionally, postcard notifications were made in Spanish and distributed to Spanish-speaking outlets. A special effort was made to distribute notifications to community leaders that represent traditionally underserved populations throughout the state.

A full list of meeting dates and locations as well as locations where the Plan Amendment is available in hard copy format are listed in Appendix B.

## 7 Recent Accomplishments

Current resources are insufficient to maintain the existing transportation system, let alone meet future needs. In such an environment, it is especially critical that CDOT makes the best use of its limited resources. Over the past several years, CDOT has stretched limited dollars to maintain the transportation system and slow the system's rate of decline. In the two fiscal years (FY 2009 and FY 2010) since the adoption of the 2035 Plan, CDOT's annual budget has averaged approximately \$984 million. Over that period of time, CDOT has:

- Awarded more than 235 construction projects statewide, that included rock fall mitigation, roadway reconstruction and resurfacing, guardrail and snow gate installation, and bicycle and pedestrian trails.
  - Completed 88 roadway reconstruction and resurfacing projects.
  - Completed 16 bridge repair and replacement projects.
  - Addressed roadway and pedestrian and bicycle problems by completing 68 safety projects.
- Administered more than \$57 million in federal and state transit grant funds to local, regional and statewide transit infrastructure projects.

During this time, CDOT employees have also been hard at work maintaining the existing elements of the transportation system. Some of this work includes keeping roads and bridges passable in inclement weather (or reducing hours of closure), resurfacing roads to improve driver safety, and ensuring signs and travel lanes are clearly marked. CDOT's maintenance staff maintained more than 62 million square feet (or 2.2 square miles) of roadway surface and implemented preventive roadway maintenance activities that delayed the need for more costly rehabilitation and reconstruction projects.

CDOT safety programs have contributed to improvements in roadway safety and a reduction in the number of fatal accidents. Roadway safety improvements typically include better signing, freshly

### Examples of Recent CDOT Accomplishments

- C-470 Bike Path Rehabilitation, Douglas County
- I-76 Reconstruction, Sedgwick to Nebraska state line
- US 40 Downtown Steamboat Springs Resurfacing, Routt County
- 4<sup>th</sup> Street Bridge, Pueblo County
- Swan Mountain Recreational Path, Summit County
- Durango Transit Center, La Plata County

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painted road stripes, new acceleration and deceleration lanes, and identifying “hot spots” where correctable accident patterns are occurring. In addition to physical traffic safety improvements, CDOT also supports and coordinates driver education programs, such as [The Heat is On](#) and [Click it or Ticket](#), to raise driver awareness about potentially dangerous driving situations. The Heat is On campaign is focused on reducing drunk driving accidents by increasing enforcement activities to pull over drivers who are intoxicated. Preliminary data from this campaign showed a five percent decline in the number of alcohol-related fatalities between Memorial Day and Labor Day weekends in 2010 compared to 2009. The Click it or Ticket campaign focuses on increasing the number of drivers wearing safety belts.

Other recent CDOT accomplishments, including the implementation of the American Recovery and Reinvestment Act (ARRA) and FASTER, the development of a new Division of Transit and Rail, and a new Bicycle and Pedestrian Policy Directive are summarized in the following subsections.

### 7.1. ARRA

On February 17, 2009, President Obama signed the ARRA. As a result, Colorado received over \$500 million for transportation projects statewide. Of this, CDOT received \$386.8 million in federal highway funding and another \$12.5 million in federal transit funding (for transit projects in rural areas). The ARRA also provided additional transportation funding directly to transit agencies and the three large MPOs in the state for their prioritized projects. The primary goal of the ARRA was to quickly implement projects to create jobs and generate economic recovery. It is estimated that ARRA funded transportation projects in Colorado directly generated or sustained an average of over 2,000 jobs per month since the passage of the Act. With the designated funds, CDOT will complete approximately 133 ARRA funded projects, 115 of which are highway projects and 18 are transit projects. Additional information about ARRA is available on the [USDOT ARRA Website](#) and on the [CDOT ARRA Website](#).

### 7.2. FASTER

Governor Ritter and the Colorado General Assembly took an important first step in addressing the transportation funding gap with the 2009 passage of FASTER. The origin of FASTER dates back to the Colorado Transportation Finance and Implementation Panel. Although significant, the revenues FASTER generates represent only a portion of the additional \$1.5 billion in annual funding recommended by the panel. FASTER is estimated to provide over \$250 million annually for transportation improvements in Colorado through modest increases in vehicle registration fees and additional surcharges. A significant portion of these funds will flow to local governments to meet their needs, as well as provide dedicated funding to address deficient bridges, roadway safety and transit needs within the state. As of April 30, 2011, 43 safety projects and 21 bridge projects were either under construction or completed using funding from FASTER. Primary components of FASTER are:

- **Bridge Enterprise Program** - The Bridge Safety Surcharge provides funding specifically designated for Colorado’s most deficient state bridges, which are bridges that are identified by the department as *structurally deficient* or *functionally obsolete* and are rated by the department as *poor*. It also provided for the creation of a new [Bridge Enterprise](#) to oversee the repair, replacement, ongoing operation or maintenance, or any combination thereof, of a designated bridge. Revenues are to be phased in over 3 years, and have been estimated to total nearly \$95 million in the third year. To accelerate the completion of projects and take advantage of a low interest rate environment, the Bridge Enterprise completed an initial issuance of revenue bonds in 2010. Additional bond issuances are anticipated in future years.

- **Road Safety Program** - The Road Safety Surcharge provides funding for [road safety projects](#) defined in the legislation as “a construction, reconstruction, or maintenance project that the commission determines is needed to enhance the safety of a state highway, a county determines is needed to enhance the safety of a county road, or a municipality determines is needed to enhance the safety of a city street.” Annual revenue is estimated to total approximately \$122 million in FY 2010, increasing to \$144 million in FY 2012.
- **High Performance Transportation Enterprise** - The [High Performance Transportation Enterprise](#) (HPTE) was formed to aggressively pursue innovative means of more efficiently financing important surface transportation infrastructure projects. The HPTE replaces the Colorado Tolling Enterprise (CTE) and eliminates the previous prohibition on tolling existing roads, provided that all affected communities consent. The HPTE operates as a government owned business with its own board of directors.
- **Transit Funding Programs** - FASTER provides \$10 million per year to CDOT for statewide and regional transit and multimodal transportation projects. An additional \$5 million in transit funding is available through CDOT Regions for a [Local Transit Grant Program](#).
- **Planning Factors** - State law includes a series of planning “factors” that must be addressed in the Statewide Transportation Plan. FASTER added the following new factors:
  - Targeting of infrastructure investments, including preservation of the existing transportation system commonly known as “fixing it first” to support the economic vitality of the state and region
  - Safety enhancement
  - Strategic mobility and multimodal choice
  - Support of urban or rural mass transit
  - Environmental stewardship
  - Effective, efficient, and safe freight transport
  - Reduction of GHG emissions

### 7.3. Division of Transit and Rail

A new division within CDOT, the [Division of Transit and Rail](#), was created by Senate Bill 09-94 in 2009. The new division is responsible for “the planning, development, operation, and integration of transit and rail, including, where appropriate, advanced guideway systems, into the statewide transportation system.” The law also calls on CDOT to coordinate with other transit and rail providers and to plan, promote, and implement investments in transit and rail services statewide. Initial activities of the new Division include the development of a State Freight and Passenger Rail Plan, a Statewide Transit Plan, and an advisory committee. The plans will be integrated into the next update to the Statewide Transportation Plan.

#### Multimodal Transportation Planning

*A transportation mode is a means of transporting goods or people, such as roads, rail, biking, or walking (i.e., pedestrian), among others.*

*Although better known for highways, CDOT is a multimodal agency. Two recent developments build upon this multimodal focus and include the creation of a new Division of Transit and Rail and the adoption of a Bicycle and Pedestrian policy. Both of these efforts will promote the consideration of all modes of transportation in the planning, design and maintenance of our state’s transportation system.*

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## 7.4. Bicycle and Pedestrian Policy Directive

On October 22, 2009, CDOT adopted [Bicycle and Pedestrian Policy Directive 1602](#), a groundbreaking policy that calls for the needs of bicyclists and pedestrians to be included in the planning, design, and operation of transportation facilities as a matter of routine. While CDOT strives to implement this policy for all roadways, there are three exceptions to the policy: (1) when the law prohibits bicyclists and pedestrians from using the roadway; (2) when the cost exceeds 20 percent of the overall project; or (3) when the scarcity of population in the area identifies a lack of need for those types of facilities. The policy also directs CDOT to develop a Statewide Bicycle and Pedestrian Plan, include bicycle and pedestrian design in its Roadway Design Manual, and take action related to facility maintenance, education about the policy (for cyclists and drivers), and enforcement. The Statewide Bicycle and Pedestrian Plan will be integrated into the next update to the Statewide Transportation Plan.

# 8 Emerging Issues in Transportation Planning

Emerging issues are important transportation issues that have grown in significance in recent years and may require more intensive examination and attention than provided in previous planning efforts. Two of the most important issues include the related concepts of sustainability and livability as well as GHG emissions reduction. Air quality relates to both of these concepts, and although not a new issue, it is an issue undergoing significant change. Performance measures are also becoming an important topic in transportation planning as states move toward performance-based planning. Many of these are issues that cross political, physical, and organizational boundaries. As such, collaborative efforts and existing partnerships with other agencies play an important role in addressing them. Examples of these collaborative efforts are:

- [Transportation and Environmental Resource Council \(TERC\)](#) - The TERC was formed in 2002 to address transportation and environmental stewardship and includes CDOT, planning partners, and state and federal agencies. The TERC's Sustainability Subcommittee is involved in the development of statewide sustainability concepts and an accompanying framework to coordinate sustainability related efforts among state and local agencies.
- [Federal Interagency Partnership for Sustainable Communities](#) - This federal initiative is intended to coordinate housing, transportation, environment, and other community elements. The partnership is discussed in more detail below. At the state level, CDOT is involved in a number of similar efforts as discussed below.
- [Colorado Sustainable Main Streets Initiative](#) - Along with several other state agencies, CDOT is a partner in this effort to bring a collaborative, integrated process to leverage technical and existing financial resources to help communities enhance the sustainability of their downtowns.
- [Regional Air Quality Council \(RAQC\)](#) - CDOT is engaged in a number of collaborative efforts with the RAQC including a diesel-idling reduction program (Engines Off! Colorado), diesel retrofit programs, and the [OzoneAware](#) program, which is an educational campaign to help citizens become more aware of the ozone produced from their own activities and how they can take steps to reduce it. The RAQC also works closely with CDOT on the development of [State Implementation Plans](#) to comply with federal air quality standards for specific pollutants, and is partnering with CDOT on transportation and land use integration efforts.



- **Colorado Energy Smart Transportation Collaborative Effort** - Through a grant from the US DOT and Rockefeller Foundation, CDOT and the Governor’s Energy Office (GEO) have initiated this new collaborative effort with the aim of making the state transportation system more energy efficient and sustainable. As part of this effort, CDOT and GEO will work collaboratively with a number of stakeholders from federal, state, regional and local agencies to develop a framework and tools to enhance the planning process to include transportation energy use and greenhouse gas emissions.

The following sections provide a brief outline of current CDOT activities in the areas of sustainability and livability, air quality, GHG emissions reduction, and performance measures.

### 8.1. Sustainability and Livability

The related concepts of sustainability and livability are increasingly being considered in transportation planning and policy. Sustainability is the concept of adopting policies and practices that meet a community’s existing needs without compromising its ability to provide for future needs. Livability in transportation “is about using the quality, location, and type of transportation facilities and services available to help achieve broader community goals such as access to good jobs, affordable housing, quality schools, and safe streets.”<sup>9</sup>

At the federal level, the U.S. Department of Transportation (USDOT), the U.S. Department of Housing and Urban Development (HUD), and the U.S. Environmental Protection Agency (EPA) recently entered into an agreement known as the Interagency Partnership for Sustainable Communities. The partnership is intended “to help improve access to affordable housing, more transportation options, and lower transportation costs while protecting the environment in communities nationwide.” Additionally, the USDOT recently released its [Livability in Transportation Guidebook](#), which illustrates how livability principles have been successfully incorporated into transportation planning, programming, and project design.

At the state level, CDOT is engaged in a number of efforts related to the concepts of sustainability and livability, such as:

- Ongoing efforts of the CDOT Sustainability Council, including an energy performance audit program and the development of a CDOT fuel reduction plan.
- Initiation of a CDOT green maintenance program to reduce the environmental impact of maintenance facilities and activities.
- Completion of the GreenLITES Pilot Project to evaluate and rate the sustainability of transportation project designs.
- Completion of a study to assess the potential for sustainability improvements at CDOT rest areas, and the use of CDOT facilities and right-of-way for alternative energy generation.
- Completion of a land use and transportation integration study to identify a land use and transportation scenario planning tool for use in rural communities and to develop a pilot program to follow.

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<sup>9</sup> U.S. Department of Transportation. *Livability in Transportation Guidebook: Planning Approaches that Promote Livability*. First Edition. ICF International: Durham, NC; 2010.

## 8.2. Air Quality

CDOT's [Air Quality Program](#) improves air quality by ensuring that all CDOT projects and operations comply with federal, state, and local air quality laws and regulations, and by promoting strategies that reduce emissions of motor vehicle pollutants.

CDOT Air Quality Policy Directive 1901 was approved by the Colorado Transportation Commission on May 21, 2009. The directive is a collaborative, working agreement to programmatically address *unregulated* mobile source air toxics and GHGs produced from Colorado's state highways, interstates, and construction activities. It also called for the development of a CDOT Air Quality Action Plan. Currently in development, the Air Quality Action Plan will promote a vision of sustainable fleet management and public outreach and education to further understanding of GHGs and mobile source air toxics. It will also outline proactive programs and partnerships with other agencies to reduce transportation-related GHGs and air toxics emissions and to identify strategies to reduce VMT and vehicle hours traveled (VHT).

Another important air quality development is the current EPA re-evaluation of ozone standards. EPA designated the northern Front Range (including Denver and Fort Collins) as non-attainment for ozone in 2007. It is anticipated that the EPA re-evaluation of ozone standards will result in more rigorous standards that could put the entire state of Colorado at risk for ozone non-attainment. An announcement of the new standards is expected in the summer of 2011.

The EPA regulates many mobile source air toxics and GHGs. Mobile source air toxics are compounds emitted from highway vehicles and non-road equipment that can negatively influence human health. GHGs are gases in the earth's atmosphere that trap heat radiating from the earth's surface. The primary GHGs produced by the transportation sector are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and hydrofluorocarbons (HFC).

EPA regulates ground-level ozone levels by setting a minimum standard (i.e., a level of ozone that is acceptable at ground-levels). Communities that meet this standard are considered *attainment* areas, and ones that do not are considered *non-attainment* areas. Once an area is designated as non-attainment, state and local governments within that area must develop plans showing how they will meet the standards (i.e., achieve attainment).

VMT is related to air quality because gasoline-powered vehicles produce GHG emissions, ozone precursors (e.g., volatile organic compounds and nitrous oxide), and other air toxics. Thus, reducing the number of miles traveled would reduce the amount of emissions and air toxics as well. VHT is a similar concept, but involves the hours traveled instead of the distance. Reducing the amount of time a vehicle must be in operation to travel a certain distance (through congestion relief, system efficiency, and other related measures) will also affect emissions and air toxics.

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### 8.3. GHG Emissions Reduction

In the United States, transportation is the second largest source of GHG emissions, accounting for roughly 29 percent of all emissions<sup>10</sup>. A recent USDOT report to Congress, [Transportation's Role in Reducing U.S. Greenhouse Gas Emissions](#), outlines the issue and identifies strategies to reduce GHG emissions produced by the transportation sector. At the state level, FASTER includes a requirement that the Statewide Transportation Plan address the reduction of GHG emissions. The next federal transportation authorization bill may also have new planning requirements that address a reduction in GHG emissions. Many existing programs and efforts related to air quality and sustainability will play a role in achieving this reduction. In addition, CDOT is currently engaged in a number of activities that directly address the reduction of transportation GHG emissions. In 2011, CDOT in partnership with the GEO initiated a collaborative process with planning partners and stakeholders to develop a “framework” for incorporating a reduction in GHG emissions into planning processes in advance of the next update to the Statewide Transportation Plan. The collaborative process and framework will provide an opportunity for CDOT, GEO, planning partners and other stakeholders to examine strategies that make sense for Colorado, to develop opportunities for collaboration, and to identify next steps.

### 8.4. Performance Measures

Performance measures are part of a performance-based planning and management approach that includes setting clear policies and objectives, tracking performance data and trends, and forecasting to make planning and policy decisions. Performance measures are the “yardstick” by which future agency accomplishments are measured. CDOT’s [Annual Performance Report](#) provides an example of some of CDOT’s existing efforts in performance measurement. Since 1998, the Annual Performance Report has described CDOT’s performance using the same 25 measures. Historically, performance measures have primarily been used to measure the performance or safety of the transportation system using measures such as the fatalities per 100 million VMT, or the minutes of delay per traveler on congested highway segments. Performance measures are becoming increasingly important in other areas of CDOT’s operations, including planning. It is anticipated that the next federal transportation authorization bill will include additional requirements related to performance measures, and that performance measures will play a key role in the next Statewide Transportation Plan.

## 9 Looking Ahead

Current federal transportation law requires that MPO RTPs and statewide transportation plans maintain a minimum 20-year time horizon at the time of adoption. The next updates to the MPO RTPs, the Statewide Transportation Plan, and rural TPR RTPs will be adopted by 2015. At that point, it will be necessary to extend the time horizon of the Statewide Transportation Plan and RTPs beyond 2035 in order to maintain the required 20-year planning horizon. This means the next plan update will most likely involve the extension of the time horizon to 2040 or beyond. In contrast to this limited Plan Amendment, the plan update will involve revisiting and updating all aspects of the existing 2035 Plan. Key elements of the next plan update are:

- **New Revenue Forecasts and Resource Allocation** - The next plan update will conform to the resource allocation process described in Section 1.3. In contrast to the modified resource

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<sup>10</sup> Transportation’s Role in Reducing U.S. Greenhouse Gas Emissions, USDOT, April 2010.

allocation process completed for this Plan Amendment, the plan update will include updated revenue forecasts and resource allocation for the full time horizon of the new plan. This will include revenue anticipated from FASTER and SB 09-228 and utilize a new revenue model.

- **New Federal Requirements** - The next plan update will need to address and respond to potential new requirements included in the next federal transportation authorization, such as GHG emissions reductions and performance measures.
- **Public Involvement Process** - Extensive public outreach efforts will be undertaken as part of the next plan update. This will include both conventional methods such as public meetings, as well as newer techniques such as customer surveys and interactive web-based outreach.
- **Updated Demographic Information** - The existing 2035 Plan makes use of demographic information from the 2000 U.S. Census. The next plan update will involve the use of new data from the 2010 U.S. Census.
- **State Planning Factors** - As noted previously, new FASTER legislation included additional factors to address in the Statewide Transportation Plan. The next plan update will examine these factors in detail. The FASTER factors are in addition to existing planning factors already in state law: multimodal transportation considerations; coordination with county and municipal land use planning; and development of area wide multimodal management plans in coordination with the process of developing the elements of the Statewide Transportation Plan.
- **Integration of Multimodal Plans** - CDOT is currently in the early stages of developing a Statewide Bicycle and Pedestrian Plan, a Statewide Transit Plan, and a State Freight and Passenger Rail Plan. The next update will integrate these plans into a comprehensive, multimodal Statewide Transportation Plan.
- **Funding Issues** - Absent significant changes to revenues, the funding gap and the tough choices associated with this gap will require further discussion and consideration in the next plan update.
- **Emerging Issues** - The emerging issues identified in this amendment will also feature prominently in the plan update as sustainability, livability, air quality, GHG emissions and performance measures in transportation planning continue to grow in significance. CDOT will utilize a GHG model developed to analyze different scenarios to reduce GHG emissions.

## 10 Conclusion

As described in the Introduction, this Plan Amendment supplements the existing 2035 Plan. It outlines and summarizes the purpose of this document, the planning process, financial outlook, and recent accomplishments and key changes since the adoption of the 2035 Plan in 2008. A plan amendment, instead of a plan update, was determined to be the most prudent course of action given several factors, with more extensive efforts occurring during the next plan update.

Colorado's transportation system continues to face challenges since the adoption of the 2035 Plan. With the economic downturn, population growth, escalating costs, increasing congestion, aging infrastructure and declining resources, trade-offs likely will be required. Tough decisions will need to be made as to how to invest the limited dollars available.

With the passage of FASTER, CDOT receives a dedicated funding source for transportation improvements that helps offset the loss of or decline in other funding sources. However, it is still not

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enough to sustain, let alone fulfill, the vision the citizens of Colorado have expressed for the state's transportation system. It was estimated that between 2008 and 2035 an additional \$53 billion is necessary just to sustain existing transportation service levels in Colorado. To fulfill the vision of the citizens of Colorado and to meet community values throughout the state, CDOT will need to raise significantly more revenue than what is forecast through traditional sources.

Since the 2008 adoption of the 2035 Plan, CDOT has spent over \$1.9 billion (this includes the one-time infusion of approximately \$400 million from ARRA) on safety programs, transit, aviation, highway and bridge improvements, and operations and maintenance throughout the state. The majority of CDOT's budget is used for construction projects, highway maintenance and traffic operations. The sources of funds for CDOT are primarily federal transportation funds and the Highway Users Tax Fund (HUTF, which includes FASTER funds) accounting for approximately 85 percent to 95 percent of CDOT's revenues. Very little, if any, funds come from the state's General Fund.

Transportation planning provides the context to plan for the future of Colorado's transportation system through a collaborative process involving residents, the business community, and elected officials across the state. The vision for the transportation system will take into account the varied needs of our diverse state and will balance those needs with the funds available. Corridor visions express community values, environmental stewardship, economic development, and multimodal needs.

The next plan will address planning factors identified in the FASTER legislation, many of which CDOT has already been addressing in the planning process. CDOT will continue to move forward on efforts under way to address federal initiatives such as sustainability and livability, air quality improvement initiatives including reduction in GHG emissions, multimodal choice and connectivity, and preservation of the existing transportation system to support the economic vitality of the state.

In the years to come, CDOT will continue to use its available resources wisely to safely and effectively move people, goods, and information and provide the best multimodal transportation system for Colorado.