

**Transportation Commission of Colorado
Statewide Plan Committee Meeting**

Meeting Agenda

**Wednesday, February 18, 2015 – 4:00 P.M. – 4:15 P.M.
4201 East Arkansas Avenue
Denver, Colorado**

**Debra Perkins-Smith, Director
Division of Transportation Development**

**Kathy Gilliland, Chair
District 5, Livermore**

**Shannon Gifford
District 1, Denver**

**Kathy Connell
District 6, Steamboat Springs**

**Steven Hofmeister
District 11, Haxtun**

**Douglas Aden
District 7, Grand Junction**

- **Introductions – Kathy Gilliland – 3 minutes**
- **Approve minutes of January Joint Asset Management / Statewide Plan Committee – Kathy Gilliland – 2 minutes**
- **Statewide Transportation Plan (SWP) Final Draft Executive Summary – Michelle Scheuerman – 10 minutes**
- **Adjourn**

THE AGENDA MAY BE ALTERED AT THE CHAIR'S DISCRETION.



DATE: February 18, 2015
TO: Statewide Plan Committee of the Transportation Commission
FROM: Debra Perkins-Smith, Director, Division of Transportation Development
SUBJECT: Statewide Transportation Plan Executive Summary

Purpose

To provide an opportunity for final review of the revised Statewide Plan Executive Summary document.

Action

Provide final comments at the February Statewide Plan Committee meeting and recommend March adoption of the SWP to the Transportation Commission, subject to no significant changes based on February 20 STAC recommendation.

Background

Since the close of the public review and comment period, enhancements and minor refinements have been made to the draft Executive Summary based on the comments received. CDOT has discussed and addressed the comments received by the Federal Highway Administration (FHWA) and the Denver Regional Council of Governments (DRCOG). Both agencies expressed satisfaction with the revisions incorporated into the SWP Executive Summary.

Key revisions and enhancements to the SWP Executive Summary include:

- Added text to clarify the relationship between the transportation facilities of the State Highway System, the National Highway System (NHS), and those owned and maintained by local jurisdictions
- Provided more detail on performance measures, and their correlation to investment decisions
- Described the MPO planning process and coordination with CDOT in more detail
- Labeled graphics to clarify ownership of facilities being highlighted
- Minor refinements to the Needs and Gap analysis
- Added brief section on economic benefits of transportation investments
- Provided more detail on future SWP monitoring and reporting processes

Key Benefits

This workshop will provide an opportunity to receive final comments on the SWP Executive Summary.

Next Steps

- March 2015 - Transportation Commission adoption of the 2040 SWP

Attachments

Attachment A -Internal Review Copy of the Revised SWP Executive Summary.



JOINT ASSET MANAGEMENT AND STATEWIDE PLAN COMMITTEE MEETING

Date: January 21, 2015

Joint Committee Members Attending: Commissioner Les Gruen, Commissioner Heather Barry, Commissioner Steven Hofmeister, Commissioner Kathy Connell, Commissioner Sidny Zink, Commissioner Kathy Gilliland, Commissioner Doug Aden, Commissioner Shannon Gifford

Other Commissioners Attending: Commissioner Gary Reiff, Commissioner Bill Thiebaut, Commissioner Ed Peterson

Others Attending: CDOT HQ: Don Hunt, Debra Perkins-Smith, Jeff Sudmeier, Erik Sabina, Michelle Scheuerman, Gail Hoffman, Aaron Willis, Jason Wallis, William Johnson, Kavya Rajasekar, Richard Zamora, Scott McDaniel, Josh Laipply, Scot Cuthbertson, Maria Sobota, Herman Stockinger, Angie Drumm, Amy Ford, Barbara Gold, Bill Schiebel, Ryan Rice, Ty Ortiz, Saeed Sobhi, Mark Nord, Bob Group, Tromila Maile. CDOT Regions: Myron Hora, Dave Eller, Karen Rowe, Tony DeVito. Others: Vince Rogalski, STAC chair; Carla Perez; and Charles Dwyer and Greg Mohrman, AECOM.

- *Meeting Minutes:* Minutes of the November 19, 2014 meetings of the Asset Management Committee and of the Statewide Plan Committee were approved.
- *Asset Management Metrics and Targets:* Debra Perkins-Smith, Director of the Division of Transportation Development, , provided an overview of the purpose of the meeting, which was to approve transportation asset management metrics and targets and decide how to best include these metrics in Policy Directive (PD) 14.

Recommendation: Following the discussion, the Asset Management Committee agreed that the All CDOT Asset Management Metrics and Performance Targets (Developed by CDOT Staff) table updated from the Risk-Based Assessment Plan in the meeting packet should be referred to in and attached to the final version of Policy Directive (PD) 14. The committee acknowledged that the objectives in the table will be refined and evaluated. Two revisions are already anticipated to the table.

William Johnson, manager of the Transportation Performance Branch, presented information on performance metrics and targets.

- Attachment B contained more detailed information on the meaning of the performance metrics and target, and how candidate project selection is informed by the metric and target.
- The table includes the Infrastructure Condition targets already in PD 14 for bridges, pavement, and maintenance, as well as additional fiscally constrained and aspirational targets for bridges, buildings, Intelligent Transportation Systems (ITS), roadway equipment, culverts, geohazards, signals, walls and tunnels.
- Currently, CDOT exceeds the objectives in PD 14 for bridges, which pertain only to the percentage of bridge deck area that is not structurally deficient. For the other bridge objectives in the table, CDOT estimates that CDOT has a \$900 million backlog.

- CDOT is not meeting the 80% High/Moderate Drivability Life objective for pavement condition on Interstates and National Highway System (NHS), but expects to by 2023.
- Regarding pavements, Commissioner Gary Reiff commented that CDOT's current requirement that only 70 percent of surface treatment projects in the CDOT Regions must match the model recommendations is a big variation. Chief Engineer Laipply suggested that CDOT update the Chief Engineer Policy Memo 10 to reflect the 80 percent target.
- CDOT is not meeting its roadway equipment target. CDOT is seeking a roadway equipment manager to get a better handle on needs and expenditures. CDOT Deputy Director Scot Culbertson said CDOT also is considering a buy-back lease method of acquiring roadway equipment.
- Geohazards are rock fall sites, rockslides, debris flows, landslides, embankments and engineered slopes, and sink holes. CDOT is one of the first state departments of transportation that is applying performance measures to geohazards.
- CDOT Executive Director Don Hunt praised the Asset Management program as coming a long way since it began as a formal program.
- Debra Perkins-Smith pointed out that the performance curves for some of the assets indicate that they may never reach their targets. She said CDOT could use different approaches than in the past, such as leasing rather than owning roadway equipment.
- William Johnson stated that to achieve fiscally constrained targets, CDOT would need to fund at these annual levels: signals, \$34 million; buildings, \$29 million; and road equipment, \$42 million. He suggested that all asset programs could achieve performance targets at some point during the next 20 years, but not all concurrently. Additionally, asset programs are considering other approaches to achieve performance targets with no added investment.
- *Policy Directive 14:*
Recommendations: The Statewide Plan Committee recommended to the full Transportation Commission that it adopt PD 14 in February after PD 14 is revised in response to comments from commissioners. The committee also agreed that the All CDOT Asset Management Metrics and Performance Targets (Developed by CDOT Staff) table in the meeting packet should be referred to in and attached to the final version of Policy Directive (PD) 14.

Before discussion began, Debra Perkins-Smith said PD 14 is typically revised before work on the Statewide Transportation Plan begins. The Transportation Commission has not formally adopted PD 14 because not all the measures or objectives were decided. The highlighted items in the asset management table are already in PD 14 and the other objectives in the table were recently developed. Jeff Sudmeier, manager of the Multimodal Planning Branch, reviewed PD 14 with the committees, highlighting the areas that are new or revised. Comments dealt with three areas of PD 14: Infrastructure Condition, System Performance, and Planning Principles.

- Infrastructure Condition – Chief Engineer Josh Laipply said that without more objectives in PD 14, it appears to some policy makers that CDOT is allocating too much money to bridges, for example. Don Hunt said the Risk-Based Asset Management Plan could simply be referenced in

PD 14, as it is now. Some commissioners, however, said they liked having all the objectives that guide distribution of funds in one place.

- System Performance – The Planning Time Index (PTI) measure was changed to reflect current data for traffic for the 90th percentile of Interstates, NHS (excluding Interstates), and Colorado Freight Corridors centerline miles. For Interstates and Colorado Freight Corridors, the PTI is 1.25 or less; for NHS, it is 1.08 or less, reflecting that it doesn't include the congested segments of the Interstates. The higher the PTI number, the more congestion, said Erik Sabina, manager of the Information Management Branch. Concerning two different measures often used in assessing traffic flow, Erik Sabina said in layman's terms PTI compares a really bad day to an ordinary bad day, while Travel-Time Index (TTI) compares a typical bad day to free-flow conditions.
 - Minutes of Delay Measure - The minutes of delay measure for congestion is recommended for deletion because it was based on an older methodology. The future statewide travel model should assist CDOT in developing a new metric for measuring congestion.
 - Data - Don Hunt requested a map of the state with the PTI information based on analysis for performance measures in PD 14.
 - Colorado Freight Corridors - The Colorado Motor Carriers Association worked with CDOT on identifying the Colorado Freight Corridors detailed in the draft Colorado Freight Plan. The Colorado Freight Corridors were selected based on average annual daily traffic for trucks, percentage of trucks to the rest of the traffic, functional class of highways, and input from the Project Management Office. Don Hunt requested a map of the freight network in the state.
 - Rail - Commissioner Kathy Gilliland asked why CDOT isn't including rail in system performance in PD 14 since it is another mode of travel. Debra Perkins-Smith said PD 14 is to provide guidance on where CDOT money should be invested, and rail, owned and operated by the private sector, is largely outside CDOT's purview, except where highways cross railroads. David Krutsinger of the Division of Transit and Rail said CDOT has a methodology of determining where limited funds for improvement of rail-highway crossings should be spent, and Josh Laipply outlined some recent steps that CDOT has taken to improve cooperation with the railroads. Freight Rail will be added to the Safety section of PD 14, in addition to Truck Freight, Debra Perkins-Smith said.
- Planning Principles – The planning principles are recommended for deletion because they are either adequately addressed in PD 14 or will be in future goals and objectives. One of those principles dealt with economic vitality. Commissioner Kathy Gilliland said she thought economic vitality should be in PD 14 because it helps build the case for more transportation investment. Debra Perkins-Smith said that while CDOT is using an Economic Toolkit to select projects based on the jobs created and the multiplier effect on the economy, it doesn't yet have the tools to measure how transportation investment impacts the economy statewide. She said Economic Vitality will be added as a goal area later.
- Implementation Plan – Although no commissioners commented on this area, it was mentioned that additional measures and objectives will be brought to the Transportation Commission for

consideration for incorporation into PD 14 as they are developed. Potential new areas are Bike and Pedestrian (for system performance), Truck Freight and Freight Rail (for safety), and new goal areas for Economic Vitality and Environmental Sustainability.

- *Statewide Plan Update and Next Steps:* Michelle Scheuerman, manager of the Statewide Planning Section, reviewed comments received during the public comment period on the Regional Transportation Plans and the Statewide Transportation Plan website and Executive Summary. More than 2,000 individuals accessed the website (www.coloradotransportationmatters.com) during the public review period, and 32 comments on a variety of topics were submitted. None of the comments will require substantive changes to the Executive Summary or the Regional Transportation Plans. Commissioners said they want to see revisions to the Executive Summary of the Statewide Transportation Plan (SWP) on the website before recommending approval of the SWP to the full Commission. All changes in the Executive Summary will be reflected in the web-based Statewide Transportation Plan.
 - Governor's State of the State Address – Don Hunt said that Governor John Hickenlooper stated in his State of the State address that he wanted to improve capacity for I-25 and I-70 (although he didn't say how he hoped to pay for it) and asked how that charge is reflected in the Statewide Transportation Plan. Debra Perkins-Smith said that expansion needs were included in the overall needs and gaps analysis section, but the two corridors were not called out specifically.
 - Utilization of Statewide Plan Website – Commissioner Ed Peterson asked if the statewide planning website is being underutilized. Michelle Scheuerman said future town hall meetings on transportation issues will drive more people to the website, and the website also will be used to track progress on the Statewide Transportation Plan.
 - Thanks to Staff – Commissioner Doug Aden commended all CDOT employees involved in public outreach on the plans, saying it was far more inclusive than for past plans.

TRANSPORTATION MATTERS



STATEWIDE TRANSPORTATION PLAN

2040

DRAFT - 2/11/15
FOR REVIEW ONLY

EXECUTIVE SUMMARY

On behalf of the Colorado Transportation Commission, I would like to thank you for your interest in the future of transportation in Colorado and invite you to read this Statewide Transportation Plan.

The Statewide Transportation Plan is a vision document that outlines what our transportation options will look like over the next 10 and 25 years.

These are exciting but challenging times for transportation in our state. Increasing population and employment are putting greater demand on the existing statewide transportation system. Changing demographics and travel behavior are increasing demand for greater modal choice.

Our transportation system is a key element of a vibrant and globalized state economy. Transportation investments will create and enhance access to jobs, enhance freight movement, support increased trade, and improve economic competitiveness.

Annual funding for transportation can no longer keep pace with the costs of operating, maintaining, and improving the statewide transportation system. Like many other states, Colorado needs to explore funding options and finance mechanisms to stretch dollars further, replace declining gas tax revenues, and reduce dependency on uncertain federal funding.

With limited funding available, the Colorado Department of Transportation (CDOT) has developed a vision for the Statewide Transportation Plan that guides investment for Colorado's multimodal transportation system that balances:

- Preservation and maintenance,
- Efficient system operations and management practices, and
- Capacity improvements, while incorporating risk-based asset management and cash management practices to optimize cost-effective project delivery.

CDOT has developed this plan in a web-based format as a better way to communicate with the public. I am excited about the different media we are using to communicate with the public, as our population has diverse interests and learning styles.

Thank you for your interest in our Statewide Transportation Plan and for helping CDOT to develop the kind of transportation system that Coloradans expect and deserve!

Sincerely,



Commissioner Ed Peterson,
Chair of the Colorado Transportation Commission

Welcome to Colorado’s Statewide Transportation Plan, located at: www.coloradotransportationmatters.com. The state of Colorado has one of the most diverse and challenging transportation systems in the country. With over 23,000 lane miles, 3,400 bridges, and 35 mountain passes that are kept open year round, we at the Colorado Department of Transportation (CDOT) are proud of the work we do to connect the people of Colorado to one another, and connect our state to the rest of the nation and the world.

In order to provide, operate, and maintain a multimodal transportation system that is best for Colorado and supports economic vitality, we need a Statewide Transportation Plan that maps out how we can safely move people, goods and information in the most effective way, given limited funding.

With the participation of over 60,000 Coloradans, our 10 rural Transportation Planning Regions, and five Metropolitan Planning Organizations, and in coordination with individual modal plans for transit, rail, aviation, freight, bicycles and pedestrians, we have created an integrated plan that outlines four goals for our multimodal transportation system - safety, mobility, economic vitality, and maintaining the system. We have identified strategic steps to achieve our goals and priority corridors to focus on within the next decade.

- **To improve SAFETY**, we have data-driven processes to reduce crashes and education strategies to modify driver behavior, helping move Colorado towards zero deaths.
- **To enhance MOBILITY**, we are going to improve operational efficiencies regionally and at a corridor level; future projects will look at opportunities to provide more mobility choice and connections. We will launch a new inter-regional express bus service between Denver, Ft. Collins, Glenwood Springs, and Colorado Springs. We are going to enhance travel reliability and reduce congestion by employing more cost-effective operational strategies. When appropriate, managed lanes that include HOV lanes and tolled express lanes will be implemented.
- **To promote ECONOMIC VITALITY**, CDOT will consider economic benefits when selecting projects, including job creation, job access, and economic savings. We are also exploring alternative funding sources to ensure the transportation system helps maintain our state’s economic competitiveness.
- **To preserve and MAINTAIN THE SYSTEM**, CDOT will implement its risk-based asset management plan, which focuses more on preventative maintenance and using risk factors to determine which roads, bridges, tunnels, culverts, and other assets need to be addressed first - doing the right repairs at the right time.

Over time, CDOT will continue to explore options for more sustainable funding, continue to improve business practices, enhance our system resiliency to address extreme weather events, implement sustainability and environmental initiatives, and prepare our organization and our workforce for the future.

Throughout the implementation of our Statewide Transportation Plan we will continue to engage you on our progress. Working together we can deliver the transportation system that Colorado deserves.

Sincerely,



ADD SHAILEN BHATT SIGNATURE

Don Hunt
Executive Director, Colorado Department of Transportation



OUR STATEWIDE TRANSPORTATION PLAN

"Our state's safety and economy are dependent on infrastructure and the Statewide Transportation Plan details our commitment to finding solutions to critical transportation needs such as I-25 and I-70. We also need to think creatively about how we fund those solutions. We cannot wait for the federal government to solve the transportation funding problems in Colorado. It is up to us to build our roads to the future."

-Governor John Hickenlooper

TOGETHER WE'RE MOVING COLORADO FORWARD

The Colorado Department of Transportation's (CDOT) mission is to provide the best multi-modal transportation system for Colorado that most effectively and safely moves people, goods, and information.

WHAT IS THE STATEWIDE TRANSPORTATION PLAN?

CDOT's roadmap for 10 and 25 years ahead is called the Statewide Transportation Plan and we couldn't have created it without your vision. This plan identifies future needs for your transportation system and provides strategic direction to achieve these goals. It also discusses ways to balance maintaining the system and capacity improvements, new travel choices, and increasing efficiency. The Statewide Transportation Plan combines perspectives from: regional stakeholders, multi-modal transportation interests, and the public.

Coloradans know that transportation matters - for our state, our economy, and our future. The transportation system connects people to the places that they live, work, and play. When it breaks down - in terms of capacity, reliability, or choice - time is wasted, opportunities are missed, and connections are gone.

This is why the Statewide Transportation Plan is performance-based. CDOT has developed a series of performance measures to better indicate how well we are meeting our goals for safety, mobility, economic

vitality, and maintenance. Strategic actions and investment strategies proposed in this plan are focused on helping CDOT meet the goals and performance measures set for our transportation system.

MODERNIZING CDOT

As stewards of transportation dollars, CDOT is looking for better ways to get things done, more economically and quicker. That is why CDOT has been modernizing its structure to be more efficient, effective, and smart. CDOT's Action Plan articulates the progress made in the past four years and outlines next steps. The Action Plan is located on CDOT's Statewide Plan website, www.ColoradoTransportationMatters.com. The new Program Management Office has been created to help keep money moving to projects and help track, monitor, and evaluate project delivery. The new Division of Transportation Systems Management and Operations is using cost effective solutions and technology to keep the system moving and help you make informed decisions about travel times and options. CDOT is also getting more out of the system by making wise decisions on the best way to maintain and preserve our transportation system using a risk based approach. The new Office of Emergency Management will enhance our ability to communicate during extreme weather events and introduce proactive strategies in vulnerable areas to prevent transportation system degradation.

COLORADO'S HIGHWAYS

The **State Highway System**, as defined in this plan, includes all of the highways that CDOT owns, operates, and maintains.

RELATIONSHIP BETWEEN THE NATIONAL HIGHWAY SYSTEM AND COLORADO'S STATE HIGHWAY SYSTEM

A subset of the State Highway System includes a portion of the National Highway System (NHS) routes. All NHS facilities are routes designated as important to the nation's economy, defense, and mobility. NHS facilities can be either on-system (CDOT maintained and operated), or off-system (locally owned and maintained by cities and counties). The off-system NHS routes are not part of the state highway system.

The State Highway System includes:

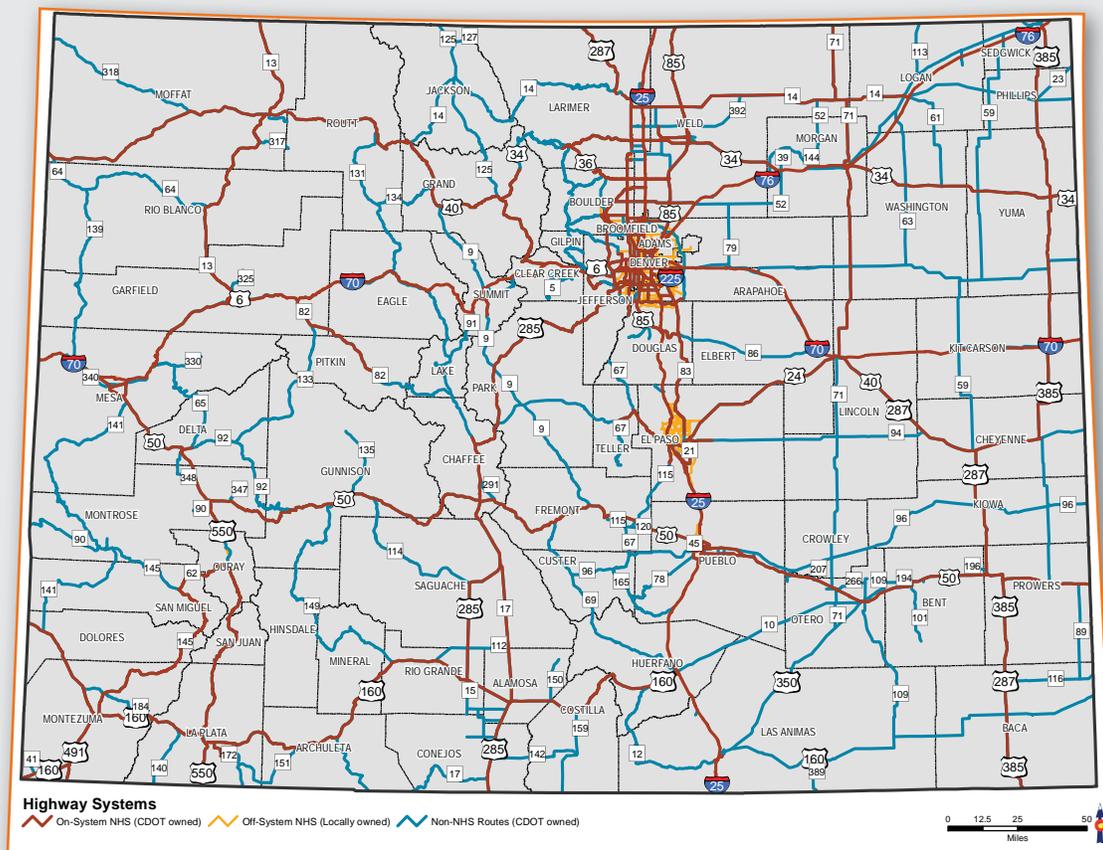
NHS On-System routes, which include all of the Interstates (i.e., I-70, I-25), various US Highways (i.e., US 40, US 50) and certain State Routes (i.e., SH 13, SH 71). Colorado NHS on-system routes total approximately 4,423 highway miles.

Non-NHS routes, which are US Highways and State Routes that are not designated on the NHS but are owned, operated, and maintained by CDOT. A few US Highways

are not on the NHS; for example, US 350 and a portion of US 160. State Routes, for example, sections of SH 318, and SH 149 are additional highways not on the NHS that are owned, operated, and maintained by CDOT, and provide important state connections between cities, towns, and other highways. Colorado Non-NHS routes total approximately 4,680 highway miles.

The State Highway System includes roadways in both rural and urban areas, many of which serve as main streets or key arterial roads in local communities. Colorado's State Highway System has approximately 9,103 highway miles of which: 952 miles are interstates, 3,497 miles are US Highways, and 4,654 miles are State Routes.

Local Roads: The remaining roads throughout the state are local roads that CDOT does not operate or maintain. Local roads are generally the responsibility of the local cities and counties. However, certain local roads are part of the NHS, and receive federal transportation funding for improvements. Some of these local roads are labeled off-system NHS because they are not part of the State Highway System as defined above. Local roads in Colorado total approximately 12,068 highway miles, including 485 miles of Off-System NHS routes. Many local roads are neighborhood streets with low traffic volumes.



TRANSPORTATION NEEDS – WHAT WE HAVE FOUND

CDOT conducted a data driven analysis to determine our multi-modal transportation needs to 2025 and 2040. In the next 25-years, there will be 7.8 million Coloradans. That’s a population increase of 47 percent. There will be 5.0 million jobs, an increase of 51 percent (Source: DOLA, 2012). Although the number of miles per capita traveled in Colorado is expected to remain flat, the increase in population and employment means the demand for travel will increase by about 47 percent. Growth of this size will put unique demands on our transportation system. At the same time, CDOT has to maintain its existing transportation assets for the long-term, including more than 23,000 lane miles of roads, over 3,400 bridges, 35 year-round mountain passes, and help support interregional transit as well as more than 55 urban and rural general public transit providers, and over 100 human services agencies providing transportation services. Based on this and other data, this plan identifies needed levels of investments to: maintain the existing system, invest in multi-modal expansion, and improve system operations, interregional and rural transit, and safety.

Annual funding for transportation can no longer keep pace with the costs of operating, maintaining, and improving the statewide transportation system. The gas tax, CDOT’s main source of funding, has a flat rate that hasn’t increased in the past 20 years. The future growth in population and driving will put more pressure on our transportation system, while increased fuel efficiency of vehicles will translate to less revenue collected at the pump. At the same time, Coloradans are asking for more travel options,

COLORADO’S WEB-BASED TRANSPORTATION PLAN

CDOT developed this plan with a focus on communicating better with the public using technology and on providing information that the public and stakeholder groups can use to discuss transportation issues. The web-based format allows CDOT to actively implement and report on this plan in a manner that responds to the changing needs of the state in the years ahead. A combination of text, video, audio, and interactive presentations demonstrate where Colorado stands today, the challenges we face, and how we will continue to make progress in the future. Data, comment features, and interactive maps give you the tools to learn, explore, and continue the transportation conversation with CDOT.

The plan discusses the current state of our transportation system and presents a plan for Colorado’s transportation future in four parts: The Colorado Transportation Story; The Planning Process; Key Data Findings, Needs and Revenue;

improved mobility, better connectivity, reliable travel times, less congestion, and above all, improved safety.

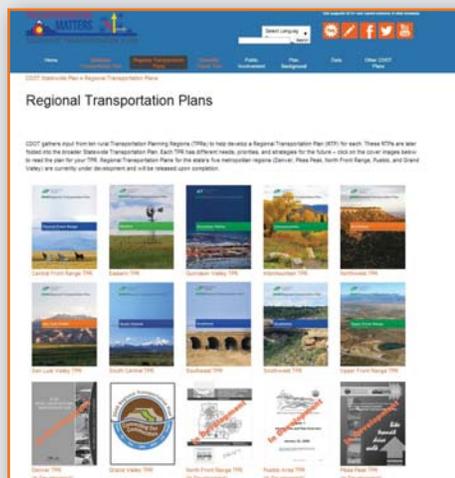
Colorado will need to find new long-term funding solutions to support a transportation system that balances safety, mobility, and expansion needs with the need to maintain the existing system. In the meantime we’re maximizing the existing system through improved operations, greater modal choice, and innovative financing partnerships to stretch our resources further.

Based on what we heard across the state and the needs identified, CDOT has developed goals, performance measures, and strategic action items as part of this plan to build on our work to-date and address the challenges that lie ahead.

In this executive summary document you will find discussion of:

- *Plan goals and objectives*
- *How this plan was developed*
- *Identification of our multi-modal transportation system*
- *Our multi-modal transportation needs, revenue sources, and the funding gap between needs and revenue*
- *Economic benefits of transportation*
- *CDOT’s overall investment strategy*
- *Top strategic actions to meet the plan goals*
- *Where we go from here to implement the Statewide Plan and tracking our progress*

and Moving Forward. The Statewide Transportation Plan can be found at www.ColoradoTransportationMatters.com.



MULTI-MODAL GOALS AND OBJECTIVES

CDOT and the Transportation Commission spoke with the public, stakeholders, and elected officials to develop four basic goals for the transportation system based on the plan vision. For each of these goals, a series of basic objectives and anticipated performance measures were identified. Policy Directive 14 (PD 14), available at www.ColoradoTransportationMatters.com, guides the development of this Statewide Transportation Plan, its implementation and future investment decisions that balance: preservation and maintenance, efficient system management and operation strategies, and capacity improvements. PD 14 identifies specific targets for performance measures associated with the Statewide Transportation Plan goals and objectives. PD 14 will be revised, as needed, to update performance objectives and incorporate additional objectives and measures for goal areas such as Freight Rail, Economic Vitality, and Environmental Sustainability. The five MPO Plans and various CDOT plans, including but not limited to the: Transit, Strategic Highway Safety, and Transportation Systems Management and Operations Plan were used to develop the goals, objectives, performance measures, and targets identified in the Statewide Transportation Plan and PD 14. For a complete list of CDOT Plans, see page five. For more information about the actual targets for each performance measure, see the PD 14 Technical Memorandum on the www.ColoradoTransportationMatters.com website.

GOAL	OBJECTIVES	PERFORMANCE MEASURES
SAFETY: Move Colorado toward zero deaths by reducing traffic-related deaths and serious injuries.	FATALITIES AND SERIOUS INJURIES: Reduce the number and rate of all transportation fatalities and serious injuries, economic impact of crashes, and the number of bicyclist and pedestrian fatalities and serious injuries.	<ul style="list-style-type: none"> ■ Number of fatalities ■ Fatalities per vehicle miles traveled (VMT) ■ Number of serious injuries ■ Serious injuries per VMT ■ Economic impact of crashes ■ Number of bicyclist and pedestrian fatalities involving motorized vehicles ■ Number of bicyclist and pedestrian serious injuries involving motorized vehicles
MOBILITY: Improve mobility and connectivity with a focus on operations and transportation choice.	<p>HIGHWAYS: Prevent the spread of congestion to uncongested highway segments and the growth of congested highway segments.</p> <p>TRANSIT: Increase ridership of small urban and rural transit agencies: maintain or increase the total number of miles of regional, inter-regional, and inter-city passenger services operated for the general public.</p> <p>BICYCLE AND PEDESTRIAN: Develop data and resources to identify measures of the level of service provided by bicycle and pedestrian facilities.</p>	<p>HIGHWAYS:</p> <ul style="list-style-type: none"> ■ Planning Time Index - Additional time required above the time needed at free-flow speed to ensure on-time arrival on an average day, regardless of the time of day <ul style="list-style-type: none"> ■ Interstates ■ National Highway System ■ Colorado Freight Corridors <p>TRANSIT:</p> <ul style="list-style-type: none"> ■ Transit Utilization - Ridership statewide and by subcategory: small urban and rural ■ Transit Connectivity - Miles transit vehicles are available to the general public <p>BICYCLE AND PEDESTRIAN:</p> <ul style="list-style-type: none"> ■ Under development -- obtaining data
ECONOMIC VITALITY: Improve the competitiveness of the state economy through strategic transportation investments.	<p>FREIGHT AND ECONOMIC GROWTH: Support strategies and operational improvements that facilitate multimodal freight movement and promote state, regional, and local economic goals.</p> <p>JOB ACCESS: Ensure transportation system provides access to jobs within reasonable commute times.</p>	<ul style="list-style-type: none"> ■ Under development -- obtaining economic and road/rail freight data
MAINTAINING THE SYSTEM: Preserve and maintain the existing transportation system.	<p>ASSETS: Maintain the condition of bridges; highway pavement; other assets (buildings, ITS, roadway equipment, culverts, geohazards, tunnels, traffic signals, and walls) and rural transit fleet vehicles.</p> <p>ANNUAL MAINTENANCE: Maintain snow and ice removal performance and overall maintenance of the highway system.</p> <p>TRANSIT: Maintain the percentage of rural Colorado transit fleet vehicles operating in at least fair condition. Require all CDOT transit grantees to have Asset Management Plans by 2017.</p>	<p>ASSETS:</p> <ul style="list-style-type: none"> ■ Condition of National Highway System bridges and pavement condition, including Interstates ■ Condition of bridges and pavement on state highway system ■ Condition of other assets <p>ANNUAL MAINTENANCE:</p> <ul style="list-style-type: none"> ■ Level of service for snow and ice removal ■ Overall maintenance level of service achieved for the highway system <p>TRANSIT:</p> <ul style="list-style-type: none"> ■ Transit asset condition

PLAN DEVELOPMENT – THE PLANNING PROCESS

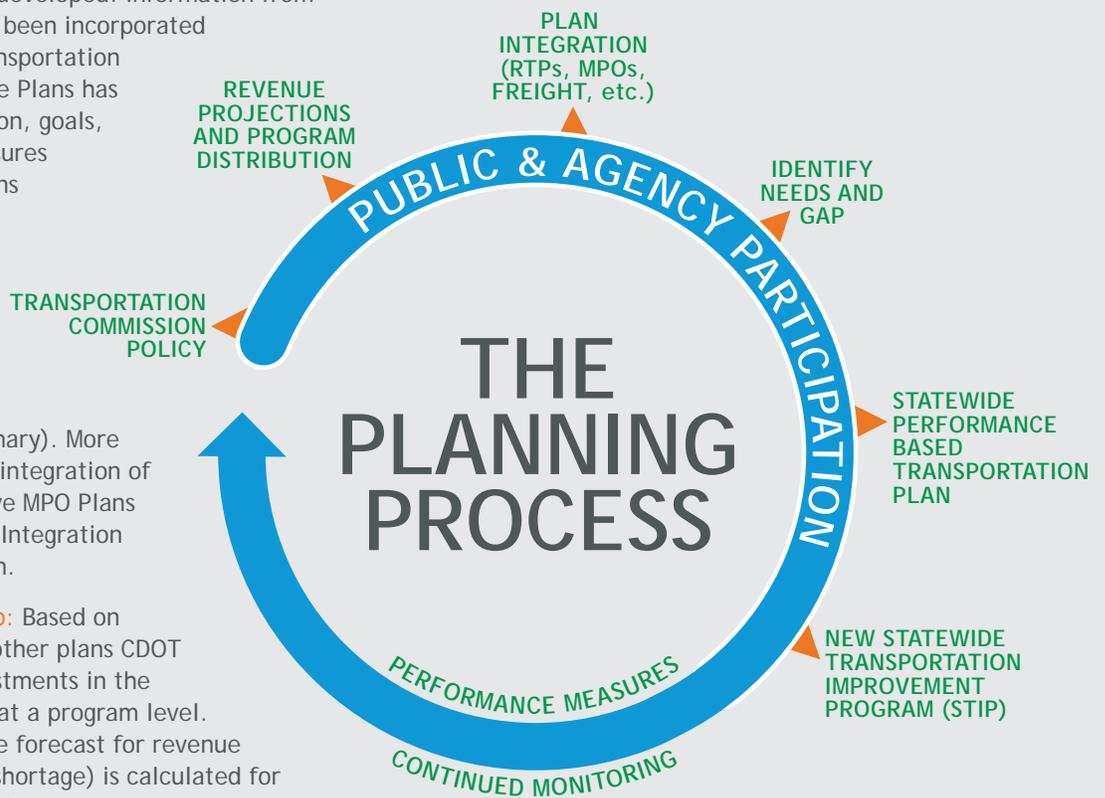
Planning is a continual process. Once a plan is done, work begins on implementation and measuring progress. To date the steps in developing the Statewide Transportation Plan included:

- **Transportation Commission Policy Setting:** The Transportation Commission develops a policy directive that provides an overall framework for the transportation planning process through which the multi-modal, comprehensive Statewide Transportation Plan is developed.
- **Revenue Projections and Program Distribution:** The Transportation Commission approves long-term transportation revenue forecasts and a plan for the anticipated distribution of those revenues among programs.
- **Plan Integration:** In addition to 10 rural Regional Transportation Plans (RTPs) and five Metropolitan Planning Organization (MPO) Plans that have been developed, CDOT has developed several other plans whose important findings are integrated into the Statewide Transportation Plan. The 10 rural RTPs were developed in conjunction with the Statewide Transportation Plan and have been integrated into the Plan as they were developed. Information from the five MPO plans has been incorporated into the Statewide Transportation Plan as data from these Plans has become available. Vision, goals, and performance measures from various CDOT Plans and the five MPO plans were reviewed and incorporated into the Statewide Transportation Plan Strategic Actions (see pages 22-23 of this Executive Summary). More information about the integration of the 10 RTPs and the five MPO Plans is included in the Plan Integration Technical Memorandum.
- **Identify Needs and Gap:** Based on data analysis and the other plans CDOT identifies needed investments in the transportation system at a program level. This is compared to the forecast for revenue and a funding gap (or shortage) is calculated for the time frame of the plan.

- **Statewide Performance Based Transportation Plan:** This plan addresses Federal and State planning factors. Both Federal and State transportation legislation require the plan to address specific planning factors. Plan goals and objectives, and performance measures were developed in PD 14 and incorporated into the Statewide Transportation Plan. Strategic actions were identified to address the goals and objectives. Success will be measured through performance measures consistent with federally legislated goals for performance measurement.

OTHER CDOT PLANS

- Transit
- Strategic Highway Safety
- Transportation System Management and Operations
- Freight
- Freight and Passenger Rail
- Bicycle and Pedestrian
- Aviation
- Risk-Based Asset Management
- CDOT Action Plan



- **Public and Stakeholder Participation:** Those involved in planning the future transportation system include:
 - Planning partners - 10 rural transportation planning regions and five metropolitan planning organizations.
 - Statewide Transportation Advisory Committee (STAC) - A group of elected or appointed officials representing the planning partners. STAC meets monthly to advise CDOT on transportation planning issues.
 - Other Stakeholders and advocacy groups.
 - State and federal agencies including:
 - Federal Highway Administration (FHWA)
 - US Bureau of Land Management (BLM)
 - Colorado Department of Public Health & Environment (CDPHE)
 - US Fish & Wildlife Service (FWS)
 - State Historic Preservation Office (SHPO)
 - US Department of Housing & Urban Development (HUD)

For more information about state and federal agency involvement, please see the Environmental Coordination Technical Memorandum.

- Tribal governments including: The Southern Ute Tribe and Ute Mountain Ute Tribe.
- Public - The public took part in plan development by participating in various plan activities described on the following page.

After this Statewide Transportation Plan is developed, CDOT then links the Plan goals to the project programming process through the development of the four-year **Statewide Transportation Improvement Program (STIP)**. Working with its planning partners, CDOT in the future will develop a 10-year Capital Improvement Program (CIP) of specific projects and initiatives. The CIP will identify potential projects for design and will feed the STIP, which CDOT uses to directly program dollars to projects.

- **Capital Improvement Program:** The development of a 10-year Capital Improvement Program (CIP) will bridge the gap between the long-range Statewide Plan and the four-year term STIP, to increase program delivery efficiency. Some benefits of a 10-year CIP include:
 - Communicate to the public and stakeholders the major project needs that can feasibly be achieved within the 10-year program window and the major project needs that could be achieved if additional funds were available.
 - Assist decision-makers in prioritizing major projects within the 10-year window and provide a foundation for the identification of projects if additional funds become available.
 - Provide a vision of the next 10-years to assist staff in anticipating upcoming projects and planning priorities for staffing and design needs.



PLAN DEVELOPMENT - WHAT WE HAVE HEARD

In developing the plan, CDOT sought input from the public in defining the long-term vision for the multi-modal transportation system. This public input helped to shape the plan goals, objectives, and recommended Strategic Actions.

There were several key results from the public outreach that were important for the development of the plan. These are linked to the plan goals below.

GOAL	PUBLIC OUTREACH RESULTS
SAFETY	<ul style="list-style-type: none"> Many telephone town hall participants cited safety as their top priority for CDOT to pursue.
MOBILITY	<ul style="list-style-type: none"> Surveys showed that most Coloradans believe transportation is important because it “moves people and goods safely.” Reducing congestion and increasing travel choice were also important concerns highlighted by the public surveys. Two hot topics during the majority of the Telephone Town Halls statewide were the need for improved transit and better bicycle infrastructure.
ECONOMIC VITALITY	<ul style="list-style-type: none"> Public Surveys indicated that Coloradans see a clear connection between their transportation system and the economic vitality of their area and the state. Job creation, commuting, freight movement, tourism, agriculture, and energy development were common topics of conversation statewide during the telephone town halls.
MAINTAINING THE SYSTEM	<ul style="list-style-type: none"> Survey questions on Coloradans’ top priorities in light of limited funding showed that maintaining the existing system and improving highway pavement were central concerns. The great majority of questions and comments received during the telephone town halls related to specific local highway maintenance issues, indicating the importance which Coloradans place on their travel experience.

Over 60,000 people participated in the public outreach activities. Both traditional and innovative approaches were used to reach out to the public for comment including:

- Press releases, newspaper, radio, and public access TV announcements
- Statewide Transportation Plan Transportation Matters Website - www.ColoradoTransportationMatters.com
- Public surveys



- Environmental webinars with transportation planning regions, state and federal agencies, and environmental advocacy groups
- 16 Telephone Town Halls - an interactive public meeting conducted over the telephone and hosted by local officials and Colorado Transportation Commissioners
- Public meetings with the Transportation Planning Regions

REGIONAL TRANSPORTATION PLANS

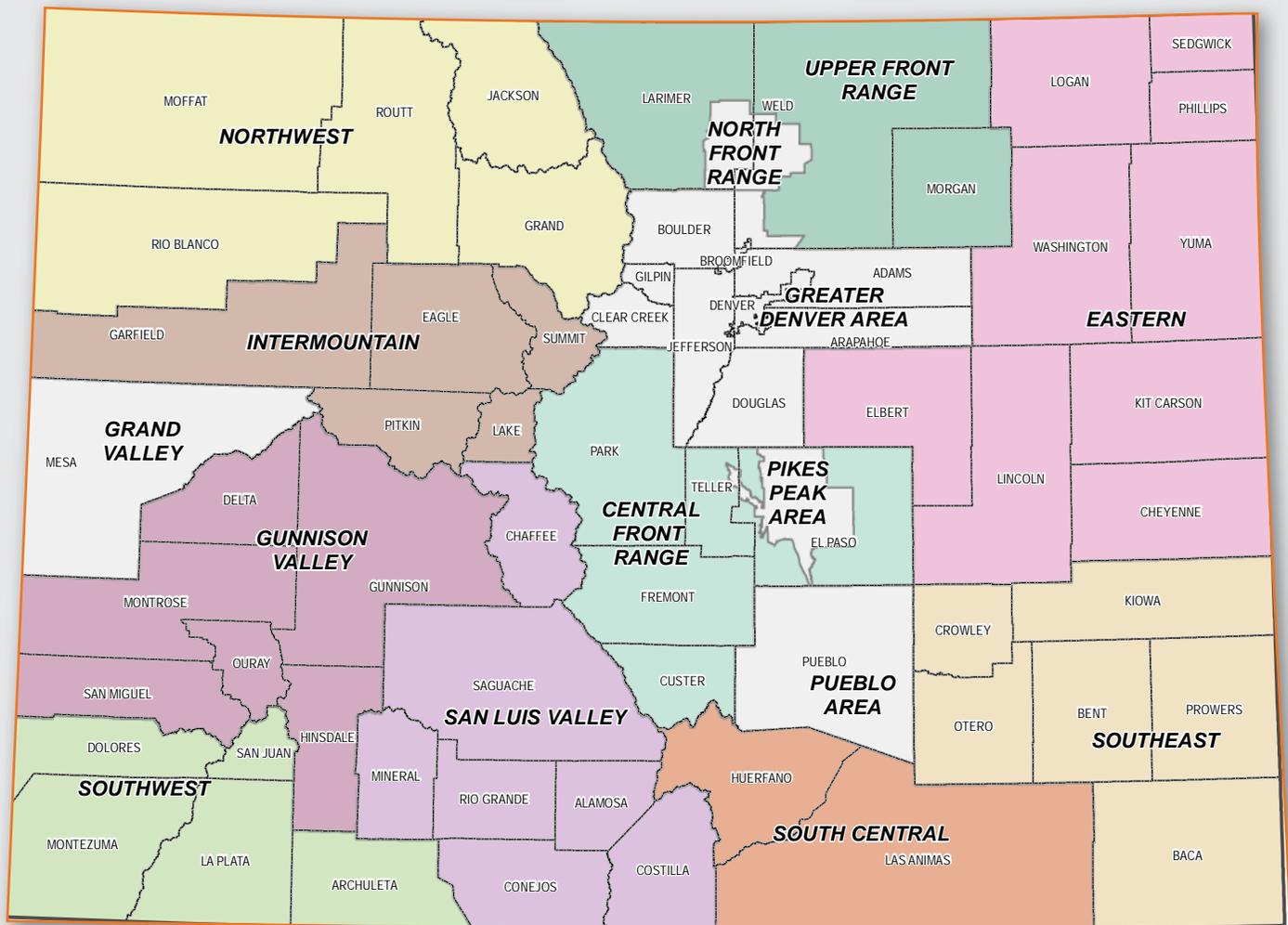
The 10 rural Transportation Planning Regions (TPRs) and the five metropolitan planning organizations (MPOs) each have developed their own regional plans that are reflected in the Statewide Transportation Plan. State law requires the 10 rural TPRs to each produce a 20-year Regional Transportation Plan (RTP).

MPOs are federally required organizations designated to carry out the metropolitan transportation planning process in areas with populations of at least 50,000. MPOs in Colorado include the Denver Regional Council of Governments (DRCOG), Grand Valley MPO (GVMPO) in Grand Junction, North Front Range MPO (NFRMPO) in the Fort Collins-Loveland-Greeley area, the Pikes Peak Area Council of Governments (PPACG) in the Colorado Springs area, and the Pueblo Area Council of

Governments (PACOG). MPOs are required to update their transportation plans every four to five years. The 10 rural TPRs and the five MPOs are shown on the map below.

Important features of the rural RTPs are reflected in the Statewide Transportation Plan, such as identification of regional priority corridors and multi-modal needs. Each RTP also includes a Regional Transportation Story that describes the unique characteristics of the Region and the transportation system, and informs the overall Colorado Transportation Story in the Statewide Transportation Plan.

The RTPs for the 10 rural TPRs and five MPOs can be viewed online at: www.ColoradoTransportationMatters.com.



MODAL PLANS

The following two pages briefly discuss CDOT's plans for specific modes of transportation.

TRANSIT

CDOT has developed a Statewide Transit Plan that provides a framework in which to achieve the long-range transit vision that: **Colorado's public transit system will enhance mobility for residents and visitors in an effective, safe, efficient, and sustainable manner; will offer meaningful transportation choices to all segments of the state's population; and will improve access to and connectivity among transportation modes.**



Using the Statewide Transit Plan as a foundation, CDOT will implement policies and strategies for funding enhanced transit services throughout the state. These transit services will implement the vision above and relieve congestion, promote environmental stewardship, and improve coordination of services with other providers in an efficient, effective, and safe manner.

Working with a Statewide Steering Committee, implementation actions and performance measures were created for each of the following six transit goals in support of the vision:

- **System Preservation and Expansion** - establish public transit as an important element within an integrated multi-modal transportation system.
- **Mobility/Accessibility** - improve travel opportunities within and between communities.
- **Transit System Development and Partnerships** - increase communication, collaboration, and coordination within the statewide transportation network.
- **Environmental Stewardship** - develop the framework of a transit system that is environmentally beneficial over time.
- **Economic Vitality** - create a transit system that will contribute to the economic vitality of the state, its regions, and its communities to reduce transportation costs for residents, businesses, and visitors.
- **Safety and Security** - create a transit system in which travelers feel safe and secure and in which transit facilities are protected.

The implementation actions range from coordination to operations to capital improvements and the processes to support these initiatives through partnerships; all of which are subject to the availability of state and federal funds. With over 55 general public transit providers, over 100 human services agencies providing transportation services, and many private providers, there is tremendous need around the state to maintain and enhance existing services, provide new services, and better coordinate services to make the most of the statewide transit system in meeting the needs of all Coloradans.

In spring 2015, CDOT will implement Interregional Express bus service on I-25 between Fort Collins, Denver, and Colorado Springs and on I-70 between Glenwood Springs and Denver. CDOT has studied the possibility of high speed transit along these two corridors and concluded while the vision for high speed transit is viable, the capital costs are prohibitive at this time. To view the Statewide Transit Plan, please visit the www.ColoradoTransportationMatters.com website.

RAIL

CDOT developed the State Freight and Passenger Rail Plan which outlined the following vision for the rail system: **The Colorado rail system will improve the movement of freight and passengers in a safe, efficient, coordinated, and reliable manner. In addition, the system will contribute to a balanced transportation network, cooperative land use planning, economic growth, a better environment, and energy efficiency. Rail infrastructure and service will expand to provide increased transportation capacity, cost effectiveness, accessibility, and intermodal connectivity to meet freight and passenger market demands through investments which include public-private partnerships.** As most of the rail system is privately owned, needs will be addressed primarily through private funding.



The interregional passenger rail system is currently very limited. Amtrak, with only two routes in the state, is the only provider of long-distance passenger rail service. CDOT will continue to support the retention of Amtrak services, although funds are not available to do so financially.

To view CDOT's State Freight and Passenger Rail Plan, visit the www.ColoradoTransportationMatters.com website. This plan will be updated in 2016.

AVIATION

CDOT has prepared the Colorado Aviation System Plan which is used as a tool to help the Division of Aeronautics improve overall system performance. The mission of the plan is: *in support of CDOT's development of a forward-looking multi-modal transportation system in the 21st century, the Colorado Division of Aeronautics shall promote partnering with its public and private constituents to enhance aviation safety, aviation education, and the development of an effective air transportation system through the efficient administration of the Colorado Aviation Fund.*



Objectives of the plan are that the state airport system:

- Has sufficient capacity to meet current and future needs.
- Has the ability to respond to unforeseen changes in the aviation industry or in the local market area.
- Provides support to the economy.
- Leverages historic investment and makes the most out of future investment.
- Operates in such a way as to address security and safety considerations, relative to perceived risks.

To view the Colorado Aviation System Plan, please visit the www.ColoradoTransportationMatters.com website.

FREIGHT

Highway freight movement plays a significant role in Colorado and is vital to both residents and the economy. Almost everything we see in our homes and communities has been transported as freight. CDOT has developed a Statewide Freight Plan, which has determined a vision that: **the Colorado transportation system will support the economic vitality of the state by providing for the safe, efficient, coordinated and reliable movement of freight.** *In addition, the system will contribute to a balanced transportation network, cooperative land use planning, economic growth, a better environment, and energy efficiency. Freight infrastructure and service will expand depending on available funds to provide increased transportation capacity, cost effectiveness, accessibility, and intermodal connectivity to meet freight market demands through investments which include public-private partnerships.*



CDOT has identified freight corridors, approximately 4,156 highway miles, which are critical to regional, state,

and national freight movement. The Freight Plan can be reviewed on the www.ColoradoTransportationMatters.com website. To view CDOT's State Freight and Passenger Rail Plan, visit the www.ColoradoTransportationMatters.com website.

IN 2011 **TRANSPORTATION OF GOODS & SERVICES CONTRIBUTED \$4 BILLION** IN VALUE ADDED TO COLORADO'S ECONOMY



BICYCLES & PEDESTRIANS

Colorado ranks 3rd highest for commuter bicycling and 20th for commuter walking in the country. Colorado ranked 6th in the 2014 Bicycle Friendly State Ranking published by The League of American Bicyclists.

In 2012, CDOT adopted its first Bicycle and Pedestrian Plan. Through the plan: *the department intends to increase bicycling and walking activity levels, for both transportation and recreational purposes, through both infrastructure projects and promotional programs, to help achieve the broadly established and supported economic, public health, environmental, and quality of life benefits.*



The Plan's focus was the development of investment criteria for selecting biking and pedestrian projects and programs. An important action for the Bicycle and Pedestrian System is for CDOT to complete a comprehensive inventory of bicycle and pedestrian facilities. To view the plan, please visit the www.ColoradoTransportationMatters.com website.

COMMUTER MODE SHARE IN COLORADO

	COLORADO	NATIONAL
AUTOMOBILE 	84.8%	86%
TRANSIT 	3.3%	5%
WALKING 	3%	2.8%
BICYCLING 	1.3%	0.6%
OTHER	0.8%	0.9%
WORK AT HOME 	6.5%	4.3%

COLORADO'S MULTI-MODAL TRANSPORTATION SYSTEM

The Statewide Transportation Plan includes all elements of the transportation system including transit, highways, freight, rail, bicycle/pedestrian, and aviation. In order

to plan for the future, it's important to examine and understand the current state of the transportation system.

POPULATION, EMPLOYMENT AND VMT

Population and employment are growing in Colorado, resulting in more people driving more miles on the state highway system. These trends are expected to continue for the next 25 years.

CHANGING DEMOGRAPHICS

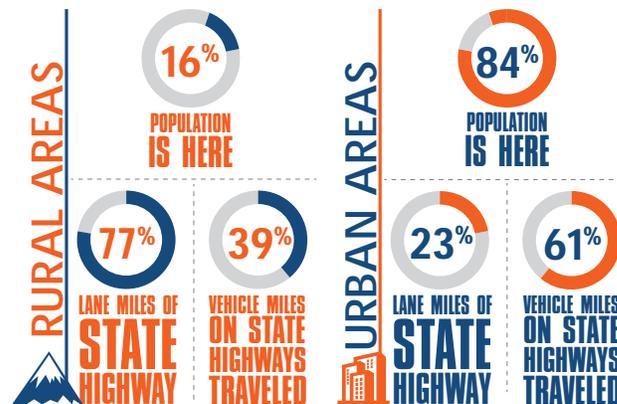


MOST GROWTH IS OCCURRING ALONG THE FRONT RANGE & SELECT MOUNTAIN CORRIDORS
 Source: Colorado Department of Transportation and Colorado State Demographers Office, 2013

TOTAL ANNUAL VEHICLE MILES TRAVELED ON COLORADO STATE HIGHWAYS AND LOCAL ROADS 2014-2040



Source: Colorado Department of Transportation, 2014



Source: Colorado Department of Transportation, 2013 and US Census, 2010

Urban areas are defined by the five MPO boundaries. Rural areas are the areas that fall within the 10 rural TPR boundaries.

HIGHWAYS AND BRIDGES

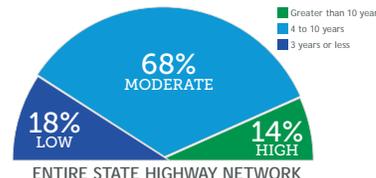
CDOT builds, maintains, and operates the state highway system, which encompasses:

- Interstates, US Highways, and State Routes.
- 23,000 total lane miles, 3,454 bridges, and 35 mountain passes open year-round.
- Eighty-two percent of Colorado highways have moderate to high drivability life and 98 percent of Colorado bridges are in fair or good condition.

CDOT MAINTAINS & OPERATES **23,000** TOTAL LANE MILES OF HIGHWAY

3,454 STATE-OWNED BRIDGES

DRIVABILITY LIFE RATINGS



82% of Colorado Highways have Moderate to High Drivability Life
 Source: Colorado Department of Transportation, 2014

35 MOUNTAIN PASSES ALONG STATE HIGHWAYS OPEN YEAR-ROUND

CDOT IS NOT RESPONSIBLE FOR:

- Local roads are owned, operated, and maintained by cities and counties.

FREIGHT

- CDOT has identified approximately 4,156 highway miles, that are critical to regional, state, and national freight movement.
- Colorado has 15 intermodal connectors on the national highway system (five truck/rail facilities, six airports, and four truck/pipeline facilities) which allow freight to be transferred from one travel mode to another.
- Currently, 14 freight railroads operate in Colorado; these railroads operate more than 2,800 miles of track in the state and currently operate on approximately 2,700 miles of those tracks. This freight rail network directly serves 48 of Colorado's 64 counties.

COLORADO IS HOME TO **THREE FEDERALLY-RECOGNIZED KEY FREIGHT CORRIDORS**
 THE HEARTLAND EXPRESS (DENVER COLORADO TO RAPID CITY SOUTH DAKOTA)
 THE PORTS-TO-PLAINS (LAREDO TEXAS TO DENVER COLORADO)
 THE CAMINO REAL (EL PASO TEXAS TO CANADA VIA DENVER)

OTHER ASSETS

- CDOT manages a fleet of 3,299 vehicles, which are used for road construction, maintenance, and general purposes.
- CDOT owns 1,174 buildings.
- CDOT currently manages 1,217 geohazard sites.
- CDOT owns 21 tunnels with a total length of 6.9 miles.
- CDOT maintains 6,064 culverts on the state highway system.

2,024
CONGESTION
AHEAD
INTELLIGENT
TRANSPORTATION
SYSTEM
(ITS) DEVICES

1,217
GEOHAZARD
SITES

3,299
VEHICLES

6,064
CULVERTS

1,174
BUILDINGS

CDOT IS NOT RESPONSIBLE FOR:

- The Division of Motor Vehicles is responsible for issuing drivers license and ID cards, registration and titling, and driving records.

TRANSIT AND RAIL

CDOT helps support approximately 55 urban and rural public transit providers, interregional transit, and over 100 human services transit providers that cover approximately 25,000 square miles.

- Elderly/ Disabled Providers - 10,000 square miles
- Rural Transit Providers - 13,000 square miles
- Urban Transit Providers - 2,300 square miles
- In Spring 2015, CDOT will implement interregional express bus service on I-25 between Fort Collins, Denver, and Colorado Springs and on I-70 between Glenwood Springs and Denver.



CDOT IS NOT RESPONSIBLE FOR:

- Local transit agencies, such as RTD, are responsible for transit services in rural and urbanized areas.
- Amtrak has only two routes, the California Zephyr and the Southwest Chief, in the state and is the only provider of long-distance passenger rail service.

AVIATION

- The Colorado Airport System includes a total of 74 public-use airports, of which 14 are categorized as commercial service airports and 60 categorized as non-commercial service general aviation airports.
- The projected average annual increase in airport aircraft landings and takeoffs is 2.4 percent from 2010-2030.
- A greater concentration of Colorado aviation activity is occurring at Denver International Airport, accounting for 94 percent of all passenger activity in 2013 compared to 92 percent in 2005.
- Almost all 74 airports are accessed via the state highway system, thereby making those highways priority corridors for purposes of aviation.
- According to a 2013 study, Colorado airports create the following annual economic benefits: 265,700 jobs statewide and total economic output of \$36.7 Billion.

CDOT IS NOT RESPONSIBLE FOR:

- Airport operations and maintenance are the responsibility of the individual airport.

BICYCLE AND PEDESTRIAN

CDOT operates a number of bicycle and pedestrian facilities which include shoulders and dedicated bike lanes. CDOT also maintains four trails across the state consisting of approximately 57 miles. CDOT is currently inventorying bicycle and pedestrian facilities on and along the state highway system. CDOT also plans to designate a route system that serves recreational and commuter markets and that provides connectivity.

- CDOT operates a well-established system of designated Scenic and Historic Byways.
 - These 25 routes frequently include bicycle and pedestrian facilities.
- In Colorado there are 76 trails identified by the Rails-to-Trails Conservancy consisting of approximately 664 miles of trails.

COMMUTER BICYCLING
3RD HIGHEST
IN THE COUNTRY

COMMUTER WALKING
20TH
IN THE COUNTRY

CORRIDORS

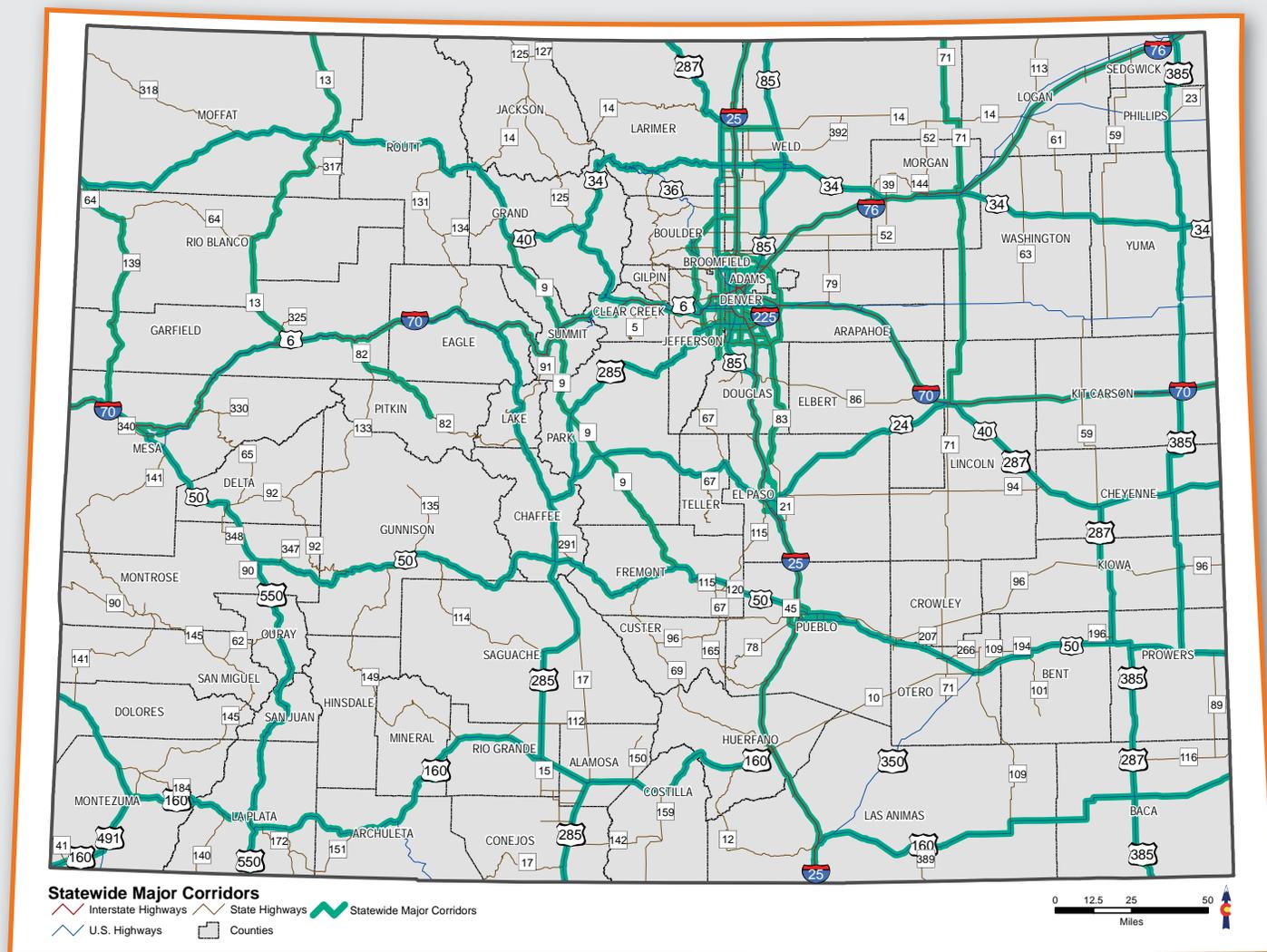
Transportation corridors are a key part of the overall framework for the multi-modal transportation system and this plan. CDOT has established a framework of 308 corridors across the state covering all interstate, US, and state highways. CDOT defines a corridor as a transportation system that includes all modes and facilities within a described geographic area. For this plan the corridor framework has been used as part of the identification of transportation needs, development of priorities, and as a focus for public and agency input. The Statewide Transportation Plan includes two specific corridor designations - statewide major corridors and regional priority investment corridors.

STATEWIDE MAJOR CORRIDORS

Statewide major corridors were determined by considering the National Highway System (NHS) designated routes along with freight and energy corridors and other

factors including, but not limited to congestion and safety. These are corridors that serve important statewide travel needs, support freight movement, and energy development. There are a total of 54 statewide major corridors covering 4,593 miles.

The freight corridors represent the highways most critical for freight movement in the state. The corridors were developed in coordination with MPOs, other planning partners, and motor carriers by examining the classification of roadways, for example all interstate highways were included, the number of trucks using the roadway on an average day, and the percent of trucks on the roadway as a percent of total traffic. The state highways that have been identified as key energy development corridors for the oil and gas industry experienced an approximate 35 percent increase in truck traffic over the ten year period between 1997 and 2007 when the oil and gas boom occurred in Colorado. This information is currently being updated with a new oil and gas study.

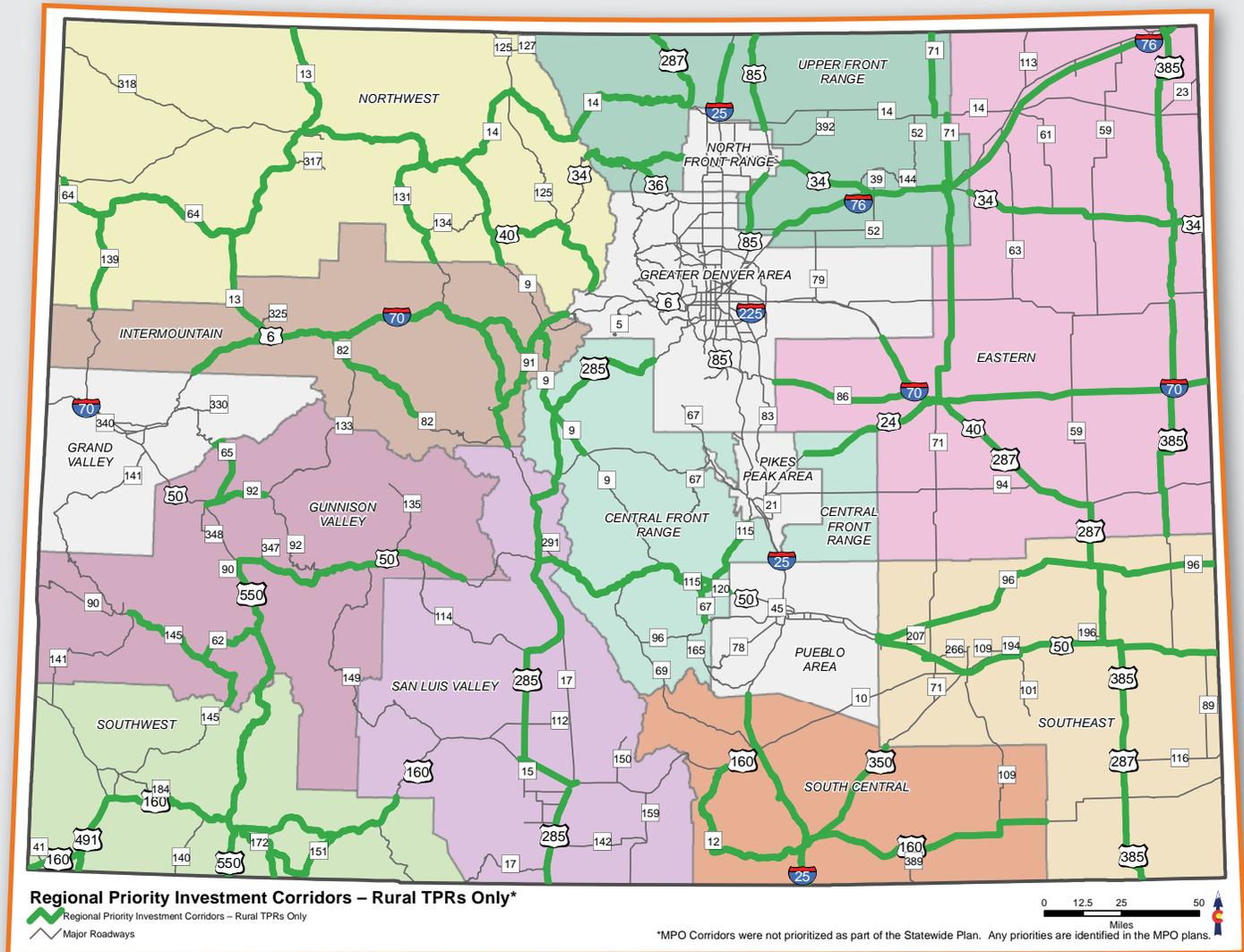


RURAL TRANSPORTATION PLANNING REGIONS (TPR) - REGIONAL PRIORITY INVESTMENT CORRIDORS

Rural TPR regional priority investment corridors were determined by each of the individual 10 rural TPRs. A regional priority investment corridor is a corridor that has been selected by the stakeholders of the 10 rural TPRs as having high importance to the region's transportation system or it is important because of a need for near-term improvements. These are the corridors designated by the 10 rural TPRs as higher priorities for investment should funding be available. More information on priorities for individual corridors can be found in the TPR plans, located on the www.ColoradoTransportationMatters.com website.

The 10 rural TPRs identified 65 regional priority corridors, covering approximately 3,507 miles.

- Eastern - 8 corridors, 656 miles
- Southeast - 4 corridors, 353 miles
- San Luis Valley - 5 corridors, 209 miles
- Gunnison Valley - 6 corridors, 268 miles
- Southwest - 5 corridors, 293 miles
- Intermountain - 7 corridors, 332 miles
- Northwest - 7 corridors, 490 miles
- Upper Front Range - 10 corridors, 397 miles
- Central Front Range - 6 corridors, 238 miles
- South Central - 7 corridors, 271 miles



COLORADO'S TRANSPORTATION NEEDS

How is Colorado preparing for change in transportation needs and demand from the present day outward to 2025 and 2040? In response to this question, CDOT has looked at various forms of data that may affect future transportation needs including: population growth, an aging population, changes in travel patterns and behavior, traffic congestion, preferred transportation modes, and the locations of key industry job growth.

The following sections identify key trends driving Colorado's long-term transportation needs for each of the four goal areas of the Statewide Transportation Plan. Using these trends, along with statewide and corridor specific data and information on the condition of the existing transportation system, CDOT was able to estimate the needed levels of investment in the transportation system for the next 10-years (to 2025) and to 2040.

SAFETY

Colorado has made substantial progress in reducing deaths and injuries on the statewide transportation system over the past decades. **New technology, ongoing educational campaigns, and targeted safety investments are critical to supporting CDOT's goal of Moving Towards Zero Deaths.**

fatalities and serious injuries remained fairly constant between 2006 and 2011, with a slight increase in 2012, decreasing again in 2013 (Source: CDOT, 2014). CDOT does not have sufficient data to determine a trend in regard to transit, but in 2012 there were 77 transit collision incidents, 2 transit collision fatalities, and 105 transit collision injuries in Colorado (Source: Bureau of Transportation Statistics, State Transportation Statistics 2014).

Over the past decade, Colorado has seen a steady decrease in traffic fatalities (from 742 in 2002 to 472 in 2012) and serious injuries (from 5,014 in 2002 to 3,242 in 2012) (Source: CDOT, 2014). This is despite the fact that both population and total vehicle miles traveled have increased during the same period of time. Bicyclist and pedestrian

CDOT has partnered with stakeholders to develop the Strategic Highway Safety Plan, which includes many actions and initiatives to reach the safety goal.

MOBILITY

Increasing population and employment are putting greater demand on the existing statewide transportation system, leading to congestion and impairing mobility. At the same time, changing demographics and travel behavior are increasing the demand for greater modal choice in the transportation system. **CDOT is working to improve mobility by enhancing system operations, providing greater travel options and travel reliability, increased connectivity, and investing in focused capacity expansion as limited funding allows.**

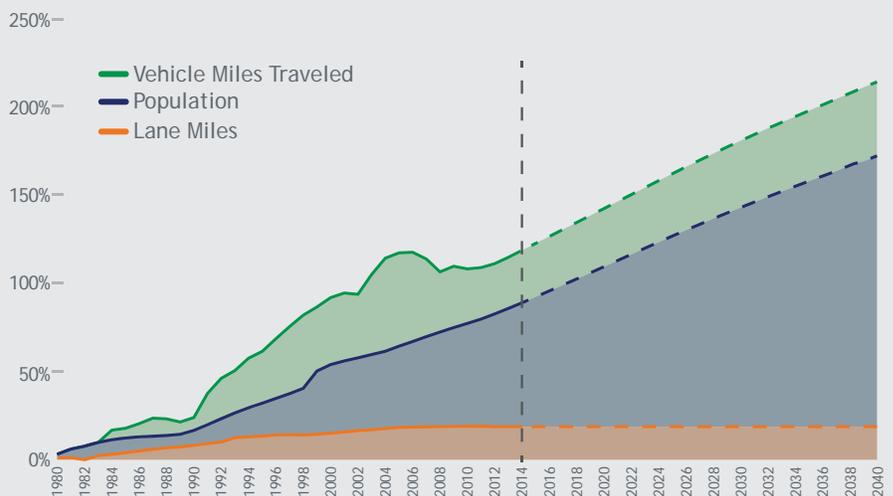
implementing the Transportation Systems Management and Operations Plan. Operational strategies, such as ramp metering, managed lanes, and/or traveler information provide a less expensive, short-term alternative to major capacity projects and can often improve congestion and 'buy time' before costly improvements become necessary.

Colorado's population is projected to increase 47 percent between 2012 and 2040 (Source: State Demographers Office, 2013).

Vehicle Miles Traveled (VMT) per capita decreased between 2006 and 2013. It is now projected to stay constant. Due to population and employment growth, however, total VMT is projected to increase 47 percent between 2012 and 2040 (Source: CDOT and State Demographers Office, 2013).

One method CDOT will use to enhance the overall mobility of the transportation system in a cost effective manner is

Percentage Increase in Population, Annual VMT, and Lane Miles From 1980 Projected to 2040



Note: Lane Miles and Annual VMT are for state highways and local roads.

ECONOMIC VITALITY

The transportation system is a key element of a vibrant and globalized state economy, and transportation investments will create and enhance access to jobs, enhance freight movement, support increased trade, and improve economic competitiveness. CDOT is emphasizing economic benefits such as job creation, job access, and economic savings in making investment decisions. Additional investments will be needed just to ensure the transportation system continues to function at the level necessary to maintain the state's economic competitiveness.

Employment is forecasted to grow by 51 percent between 2012 and 2040 (Source: DOLA, 2012). Most of those jobs will require some form of commute. In 2013, estimated traffic delays on congested corridors during peak hours cost the state \$133 million (Source: CDOT, 2013).

Colorado has a number of significant industries that are particularly reliant on the transportation system, such as agriculture, energy development, tourism, and freight. For example, the agriculture industry, which generates more than \$5 billion in economic output annually (Source: OEDIT, 2014), depends on the transportation system to



get goods to market. The energy industry relies on the transportation system to move equipment and product. As of July 2014, there are over 52,000 active oil and gas wells in Colorado (Source: Colorado Oil and Gas Conservation Commission, 2014). Visitors rely on the transportation system to access tourist destinations and provide an enjoyable experience. A record 57.9 million visitors spent \$14.6 billion in Colorado in 2011 (Source: OEDIT, 2014).

MAINTAINING THE SYSTEM

With limited funding available, CDOT is focused on maintaining the existing state highway system in the most cost-effective manner possible. CDOT maintains over 23,000 lane miles of highways, over 3,400 bridges, and keeps 35 mountain passes open year-round. Every \$1 spent now to keep a road in good condition avoids \$6-14 needed later to rebuild the same road once it has deteriorated beyond repair (Source: AASHTO, 2009).

CDOT is implementing its Risk-Based Asset Management plan to drive its performance on maintaining the system. A key part of this is Drivability Life, which is a new method used to assess pavement condition that promotes more frequent surface treatment and optimization of pavement investment. This new method is anticipated to increase treatment miles by 64 percent between FY 2012 and FY 2017 (Source: CDOT, 2014).

The Risk-Based Asset Management Plan also focuses on more preventative maintenance and using risk factors to determine which roads, bridges, and other assets need to be addressed first.

DRIVABILITY LIFE

PRIORITY BASED ON DRIVER'S EXPERIENCE



PRIORITIZED ROADS WILL RECEIVE MORE MINOR TREATMENTS



ENTIRE SYSTEM WILL RECEIVE MORE FREQUENT TREATMENTS



MORE LANE MILES TREATED PER YEAR



NEW METHOD

TRANSPORTATION INVESTMENT NEEDS

Transportation investment needs are generally defined as the dollars required to accomplish the plan goals for safety, maintaining the system, mobility, and economic vitality. CDOT used a range of data to identify multi-modal investment needs. The needs are divided into categories and into two time periods: a short-term planning horizon (2016 to 2025) and a long-term planning horizon (2026 to 2040). For more information about how the transportation investment needs were determined, please see the Transportation Needs Estimate and Gap Technical Memorandum on the www.ColoradoTransportationMatters.com website.

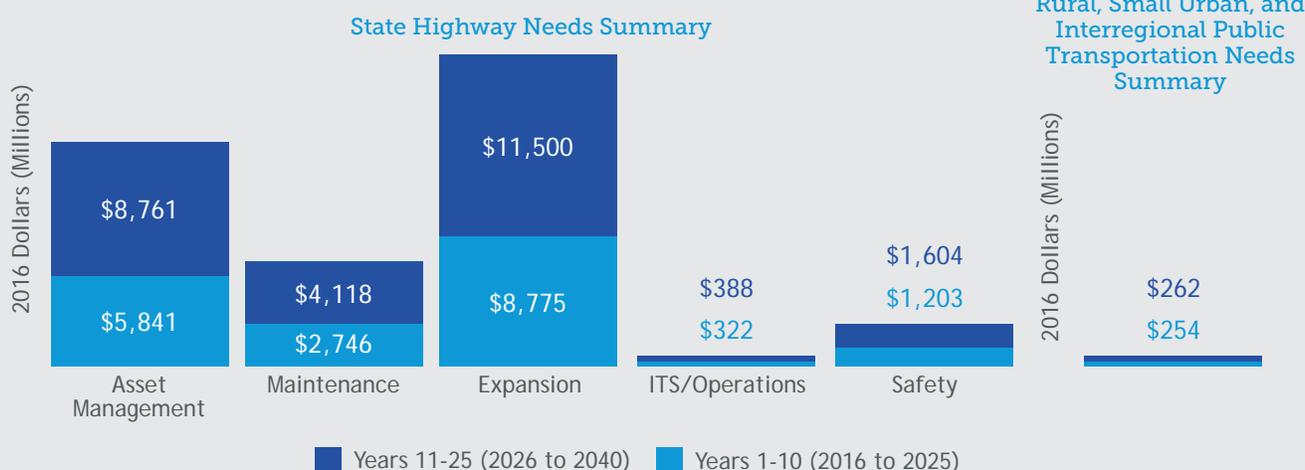
- **ASSET MANAGEMENT:** Replacing and rehabilitating existing and future transportation facilities on a long-term basis, including preventative maintenance. Also referred to as capital maintenance.
- **MAINTENANCE:** Everyday maintenance of the transportation system, for example: snow plowing, equipment maintenance, and minor road and bridge repairs. Also referred to as annual maintenance.
- **EXPANSION:** Investments that add capacity to the multi-modal transportation system by enhancing existing facilities or creating/building new infrastructure and services.
- **ITS/OPERATIONS:** Activities to improve traffic flow without adding capacity. This includes intelligent transportation systems (ITS) which provide traveler information and use technology to better manage traffic flow. The needs identified for ITS/Operations represent a significant increase above prior levels of funding in these areas. Operational elements are also embedded in other categories such as Expansion, as projects involving expanding the system often include operational fixes as well such as managed or toll lanes.

- **SAFETY:** Safety is generally enhanced with every project. The safety category includes education and targeted safety focused projects such as rail crossings and safety hot spots.
- **RURAL AND INTERREGIONAL PUBLIC TRANSPORTATION:** CDOT investments and grants in rural and small urban local and regional transit, and interregional transit services, including the new Bustang interregional service.

BICYCLE/PEDESTRIAN NEEDS: CDOT currently has insufficient data to fully determine bicycle and pedestrian needs and is conducting an inventory of bicycle and pedestrian facilities on and along the state highway system. As this is under development, only example bicycle/pedestrian needs were considered as part of the analysis.

LOCAL NEEDS: The needs discussed above only represent needs on the state transportation system. The state transportation system does not include local road systems, transit in major cities or aviation. For urban areas, MPOs address local system needs and revenues in their plans.

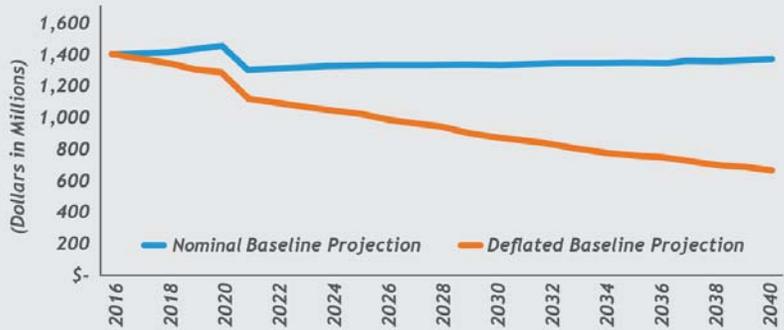
TOTAL NEEDS: CDOT, in its role as owner-operator of the state’s multi-modal transportation system, requires approximately \$45.8 billion (in 2016 dollars) in funding over the next 25-years. \$19.1 billion in needs have been identified in the next 10-years. The total needs are an estimate of funding required to reach the goals and objectives identified on page 4. They represent total dollars of needed improvements and were calculated independently from estimates of the funding available. The funding gap, which is the difference between the estimated needs and the funds available, and an investment strategy to use available funds to best address the needs, given the limited funding available, are identified on subsequent pages. The charts below provide a summary of the needs identified by category.



AVAILABLE REVENUE AND FUNDING GAP

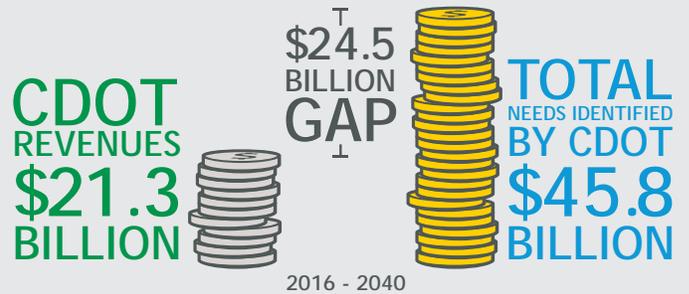
Projected revenues for the Statewide Plan include nearly \$800 million in years 2016-2020 in funds provided by legislation called Senate Bill 228. These funds would provide for important strategic highway and transit projects. More recent forecasts of revenue, however, suggest that these funds may be substantially reduced or eliminated with the latest forecast calling for only a little over a total of \$200 million.

2040 Statewide Transportation Plan Baseline Revenue Projection



CDOT, through legislative authority, uses transportation revenues from various taxes and fees to fund the entirety of its transportation program. CDOT forecasts future revenues based on projected federal funding, population growth, vehicle use and turnover, and future fuel efficiency. This baseline revenue forecast shows higher revenue levels between 2016 and 2020 as it includes nearly \$160 million per year from Senate Bill 228. From 2020 on, revenue is forecast to grow at less than 0.5% per year, lower than the anticipated rate of inflation. Two baseline revenue projection lines are shown above. The top line is the baseline revenue projection in future year inflated dollars. The bottom line shows the effects of inflation on the baseline revenue forecast in terms of reduced future purchasing power.

CDOT compared the 25-year needs estimate to an estimate of transportation revenue available over the same time period. This resulted in a funding gap. Projected revenues are less than the needs estimated, and will only cover approximately 46 percent of the projected needs. The projected needs exceed revenues by \$24.5 billion. For the next 10-years alone the funding gap is \$8.77 billion.



Source: Colorado Department of Transportation, 2014

CDOT faces a significant funding challenge for the present and the future in part due to a decline in purchasing power. When adjusting for inflation and rising construction costs, CDOT's annual revenues have declined to pre-1991 levels. In addition to inflation and rising construction costs, CDOT revenues have been hurt by decreases in state and federal gas tax revenue, which were 61 percent of all revenues in fiscal year 2013. Colorado's combined state and federal gas tax is 40.4 cents per gallon and does not rise with the price of gas. Colorado last increased its gas tax in 1992

Purchasing Power



In 1992 one tax dollar collected would purchase one dollar of construction work. Accounting for inflation, that same dollar will likely purchase less than 20 cents of goods and labor by 2034.

and it ranks below 34 other states (Source: American Petroleum Institute, 2014). Revenue is also decreasing due to more fuel efficient vehicles and the elimination of state general fund transfers that CDOT received between 1998 and 2009. Fuel efficient vehicles are great for the environment and allow their owners to fill up gas tanks less frequently. But these fuel efficient vehicles put just as much wear and tear on the highway system. Due to these funding challenges, CDOT only has enough money to maintain the infrastructure in its current condition for the next 10-years. During the next 10-years, the system will be maintained, but expansion projects will be very limited. With growing population and travel demand, this means CDOT will not be able to achieve all of its goals and objectives for mobility and addressing congestion.

Between 2025 and 2040, CDOT will no longer have the money to maintain the system in its current condition, resulting in lower ability to address needed maintenance, increasing travel times, and decreasing traveler convenience with ripple effects on the economic vitality of the state.

INVESTMENT STRATEGY

The current revenue picture and funding gap require difficult choices. CDOT's current investment strategy reflects today's funding reality, and charts a balanced approach that seeks to maintain the system and optimize our limited funding.

CDOT's investment strategy is reflected in the Program Distribution process. Program Distribution is a part of the planning process statewide Transportation Plan and outlines the assignment of projected revenues to various program areas for the time period of the Plan (2016-2040).

Revenues are updated and programs are funded annually through the annual budget process. However, Program Distribution provides a long-term view of what revenues are likely to look like, and how they will likely be allocated among programs in the future. Program Distribution reflects an investment strategy based on Policy Directive 14 (PD 14).

CDOT's investment strategy includes:

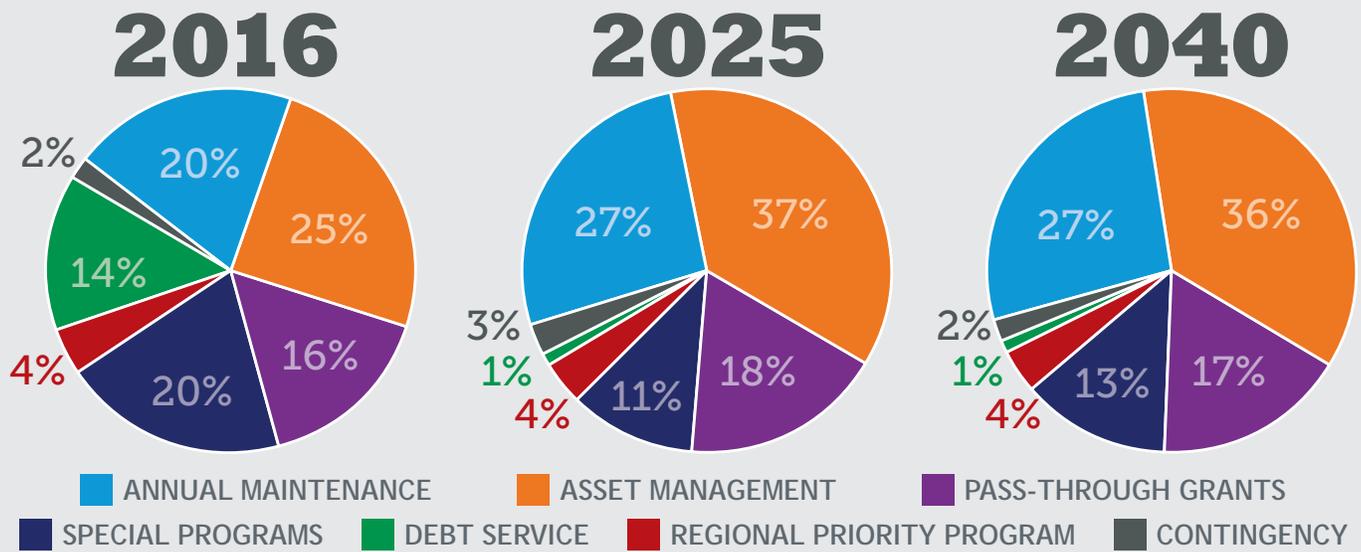
1. Safety is considered in every project type and will be addressed not only through targeted safety investment programs (such as HSIP and FASTER Safety), but through all programs and projects.
2. Optimizing limited funding, CDOT has placed an emphasis on maintaining our existing system rather than expanding capacity or focusing on other discretionary programs. CDOT maintains the transportation system through annual maintenance and the asset management program (capital maintenance). For each asset category (i.e. pavement, bridge, etc.), goals have been set to achieve a performance level which considers the limited funding and other factors such as the current overall condition of the assets in that category. This investment strategy will be driven by CDOT's Risk-Based Asset Management Plan.
3. Operational strategies will be considered before more costly capacity expansion. CDOT will use operational strategies such as active traffic management, managing travel demand, traveler information, incident management, and lane configuration changes as cost-effective ways to improve the mobility and travel time reliability of the existing transportation system where feasible. Operational strategies can provide immediate relief to some congestion issues and delay the need for many costly long-term solutions.
4. CDOT will invest in focused capacity expansion as limited funding allows, primarily through the use of managed lanes including high occupancy vehicle lanes and tolled express lanes. CDOT's Managed Lanes Policy requires that the use of managed lanes be strongly

considered during the planning and development of capacity improvements on state highways.

5. CDOT will continue to invest in a multi-modal transportation system through a balanced investment approach that considers highway, transit, aviation, and bicycle and pedestrian needs. As an example, CDOT's Bicycle and Pedestrian Policy requires that the needs of bicyclists and pedestrians shall be included in the planning, design, and operation of transportation facilities, as a matter of routine.
6. CDOT will use performance measures and objectives identified through PD 14 as a guide to making investment decisions in the different areas identified above. PD 14 is directly linked to the goals and objectives of the statewide plan and can be viewed on the www.ColoradoTransportationMatters.com website.

Reflecting the investment strategy outlined above, Program Distribution prioritizes investment in asset management and maintenance. In the first year of Program Distribution, a substantial allocation of funds go to debt service - paying down debt used to fund some major improvements in the past. In 2018, CDOT will have paid this debt off. As the debt is retired, Program Distribution anticipates those funds will be available to help meet asset management (capital maintenance) and annual maintenance goals. Between 2016 and 2025 the proportion of CDOT's program going to asset management and annual maintenance increases from 45 percent to 64 percent as debt service funds are redirected to maintaining the system. While this helps to achieve goals for asset management and maintenance for the next 10 years, it is insufficient to achieve those goals beyond 2025. Revenues remain relatively flat between 2025 and 2040, as does the proportion of revenues going to asset management and maintenance. However, as construction costs increase and purchasing power declines the funds allocated to asset management and maintenance must also increase to achieve plan goals beyond 2025, and that means new sources of revenue.

Your CDOT Dollar tracks CDOT performance and transportation expenditures, for more information please visit: www.yourCDOTdollar.com.



Asset Management and Maintenance funds are temporarily supplemented in the early years of Program Distribution through a program called RAMP. RAMP is not new money - just better cash management of existing CDOT funds. RAMP will fund multi-year projects based on year of expenditure, rather than saving for the full amount of a project before construction begins. Although not reflected in these charts, RAMP helps to support a level of Asset Management and Maintenance funding in 2016 similar to what is anticipated in subsequent years when the retirement of debt allows for additional funding. Asset Management, Maintenance, and the Regional Priority Program (RPP) - a flexible program for important regional projects- represent the bulk of CDOT's discretionary funds. Pass-through grants are funds that CDOT passes on to local and other agencies. Examples of pass-through grant programs include Congestion Mitigation and Air Quality (CMAQ) funding, Surface Transportation Program (STP)-Metro funding, and certain transit grants. Special programs are funds dedicated to alternate modes, targeted safety projects, and transportation systems management and operations.

TRANSIT INVESTMENT STRATEGY

With limited funds for transit available, maintenance of the existing transit system is a top priority for all areas of the state. The aging population poses new challenges for transit agencies in providing the needed transit services to elderly and disabled persons to access education, medical, service, shopping, and employment centers. Many transit providers are faced with diminishing operating funds due to rising costs, often resulting in a reduction in service at a time when transit services need to be increased to meet growing

demand. Based on surveys and stakeholder input, there is an increasing desire for additional operating funds to enhance mobility options throughout the state, as well as continuing to maintain the fleet and facilities in a state of good repair. Implementation of CDOT's first ever Statewide Transit Plan will be instrumental in allocating limited resources to make the statewide transit system as efficient as possible through strong partnerships and coordination through data-driven decision-making.



ECONOMIC BENEFITS OF TRANSPORTATION INVESTMENTS

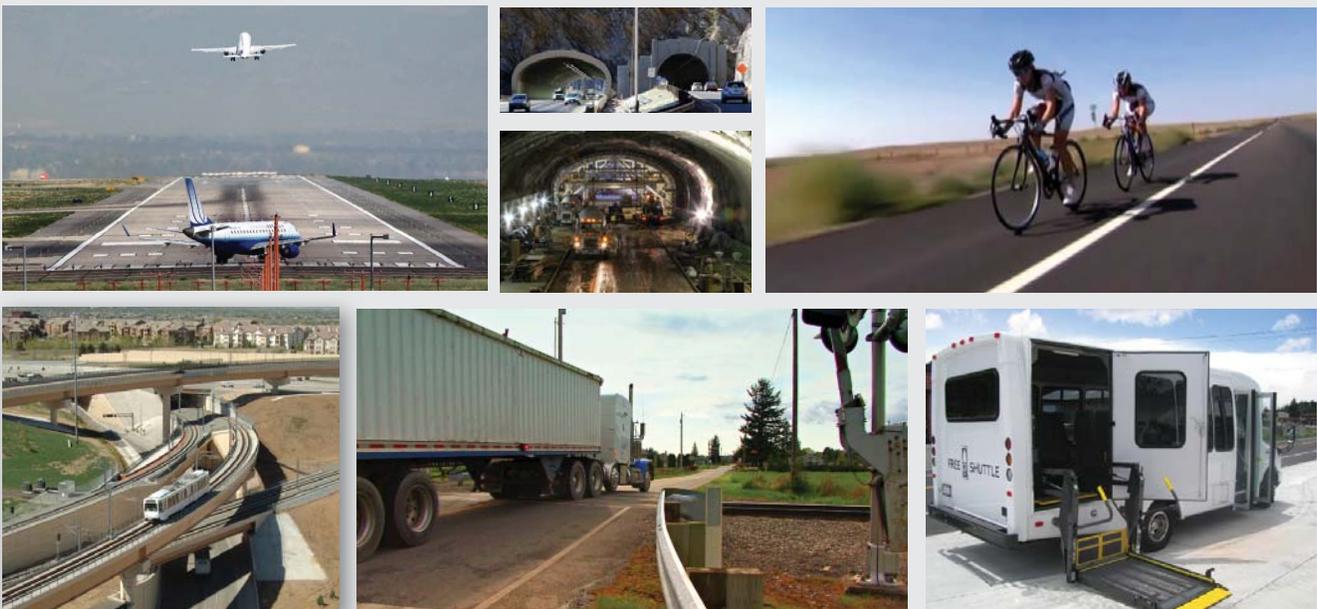
Investments in our transportation system are directly linked to achieving the Statewide Transportation Plan's goal for improving economic vitality. To demonstrate this, CDOT has analyzed the economic benefits of several different types of improvements that are similar to those that would be developed under this plan. CDOT's economic analysis identified the following types of benefits of transportation improvements on the economy:

- Total transportation performance benefits - these are the benefits to users of the transportation system including improved travel times, reduced costs of operating vehicles, and fewer crashes.
- Total business output - this is how much businesses will grow or expand as money moves through the economy as a result of the investment in transportation.
- Permanent and temporary construction related jobs created.

Different types of transportation improvements will return benefits to Colorado's economy in diverse ways. Based on CDOT's economic analysis:

- Reconstruction (resurfacing or overlays) or maintenance of an existing highway to address its long-term condition may return \$1.50 to \$2.00 to Colorado's economy for every dollar invested. The investment in preserving our existing system ensures that people and businesses maintain access to key destinations in an efficient manner without interruptions or safety concerns due to poor road and bridge conditions.
- Enhancing the operations of an existing, heavily traveled highway through improving interchanges and bridges and making needed minor capacity improvements may return \$3.00 to \$4.00 to Colorado's economy for every dollar invested. The investment in enhancing the operations along the highway improves travel times and access to key destinations.
- A major multimodal capacity expansion, including highway improvements, additional transit, and bicycle pedestrian facilities in a heavily congested location, may return \$10.00 to \$15.00 to Colorado's economy for every dollar invested. This type of investment significantly improves travel times and access for the long-term but typically at a much higher initial cost.

The return on investment of transportation funds will vary greatly between projects depending on the location, level of congestion, access maintained or enhanced, and the safety and maintenance concerns addressed. CDOT is committed to enhancing its evaluation of its programs and projects on the economic vitality of the state as part of the implementation of this plan.



STRATEGIC ACTIONS FOR THE STATEWIDE PLAN

To assist in addressing the goals and objectives for the transportation system, CDOT has identified the Strategic Actions to focus on, as limited funding allows. The Strategic Actions are the emphasis of specifically the next 10-years of plan implementation. Some of the actions are quickly implementable and build on existing CDOT activities. Others will take longer to implement. To ensure the list of actions

was multi-modal and covered all of the goal areas, CDOT incorporated actions from various plans for different modes of transportation and different topics (safety, operations, maintaining the system) as well as recent CDOT policies and stakeholder and public input. The Strategic Actions are organized by goal area and an icon in the right hand column shows which modes are the focus of each Strategic Action.

SAFETY GOAL: Move Colorado toward zero deaths by reducing traffic-related deaths and serious injuries.

SAFETY FOCUS AREAS: Focus targeted safety investments and strategies on eight emphasis areas: aging road users, bicyclists and pedestrians, data, impaired driving, infrastructure, motorcyclists, occupant protection, and young drivers.



REDUCE CRASHES: Identify and prioritize local road safety problems on all roadways using data driven processes and implement infrastructure, operations, and policy improvements as well as behavioral educational programs to reduce roadway crashes.



MOBILITY GOAL: Improve mobility and connectivity with a focus on operations and transportation choice.

OPERATIONS: Develop Region Operations Implementation Plans and Corridor Operations Plans and tools to better focus cost-effective transportation systems management and operations solutions at the regional and corridor level.



INTERREGIONAL TRANSIT: Implement Bustang (CDOT's new interregional express bus service) on I-25 between Fort Collins, Denver, and Colorado Springs and on the I-70 mountain corridor between Glenwood Springs and Denver.



MANAGED LANES: Enhance travel reliability and reduce congestion through the use of managed lanes, which includes high occupancy vehicle lanes and express toll lanes. CDOT's policy is to strongly consider managed lanes during the planning and development of capacity projects.



MULTI-MODAL SOLUTIONS: Consider multi-modal transportation opportunities and choices in all project development. Cooperate with local entities to coordinate and support efforts to implement multi-modal transportation infrastructure improvements (i.e., transit stations, bus bike racks, park-and-rides, transit slip ramps) that meaningfully integrate bicycle, pedestrian, and transit connectivity in the state's transportation network.



BICYCLE/PEDESTRIAN: Complete an inventory of bicycle/pedestrian assets on the state transportation system to assess needs and gaps for future prioritization.



ECONOMIC VITALITY GOAL: Improve competitiveness of the state economy through strategic transportation investments.

PROJECT SELECTION: In selecting projects, consider economic benefits such as job creation, job access, and economic savings.



FREIGHT: Implement freight project criteria from the State Freight Plan in project decision making and selection.



FUNDING TO MAINTAIN COMPETITIVENESS: Investigate alternative funding sources to meet the needs of the transportation system and ensure the transportation system continues to function at the level needed to maintain the state's economic competitiveness.



ICON LEGEND



PEDESTRIAN



HIGHWAY



AVIATION



BICYCLE



TRANSIT



RAIL



FREIGHT

MAINTAINING THE SYSTEM GOAL: Preserve and maintain the existing transportation system.

PAVEMENT MANAGEMENT: Continue to implement a drivability life approach to pavement management which measures the conditions drivers notice most including smoothness, pavement distress, and safety, and considers the amount of traffic highways carry. Through this updated approach, pavement condition can be optimized within available funds, driving surfaces will remain safe and all of Colorado’s highways will receive periodic treatment.



PREVENTATIVE MAINTENANCE: Conduct more preventative maintenance on pavements and bridges. Address preventative maintenance on all assets.



ASSET MANAGEMENT: Implement and expand a program for prioritizing assets in different categories (e.g., pavement, bridges, buildings, culverts, etc.) by analyzing budget trade-offs across asset programs.



MAXIMIZE FUNDING: Create opportunities to maximize existing maintenance funding through increased efficiencies, innovation, and shared resources.



STRATEGIC POLICY ACTIONS: Address multiple goal areas through key policies and initiatives. These five actions are expanded upon in the sections that follow.

SUSTAINABLE FUNDING: Work with transportation partners and elected officials to pursue sustainable transportation funding by investigating funding alternatives. Expand the use of partnerships with the public and private sector to help fund and deliver projects.



CDOT ACTION PLAN: Continue to implement improved business practices as outlined in the CDOT Action Plan, which covers the first few years of plan implementation.



PROJECT SELECTION AND PROGRAMMING: Continue to make more effective and efficient use of limited funding through the enhanced application of data-driven decision making processes, particularly for project selection.



RESILIENCY AND REDUNDANCY: Improve the resiliency and redundancy of the transportation system to address the potential effects of extreme weather and economic adversity, emergency management, and security. CDOT will develop further planning efforts in this area including identification of key corridors and coordination with other agencies.



SUSTAINABILITY AND THE ENVIRONMENT: Continue to implement CDOT’s Sustainability Plan and other environmental initiatives. Ensure all projects undergo timely and proper environmental review and compliance under the National Environmental Policy Act and other state and federal statutes.



The strategic policy actions are discussed in greater detail on subsequent pages because they each include multiple action items that will help address all of the goals areas.

Implementation of the Strategic Actions will be a collaborative effort including:

- The Colorado Transportation Commission.
- CDOT staff from various parts of the organization including all regions of the state.
- Federal Highway Administration.
- Statewide Transportation Advisory Committee.
- Our partners in local governments, rural Transportation Planning Regions, and Metropolitan Planning Organizations.
- Other state and federal agencies including resource agencies.
- Members of the public.

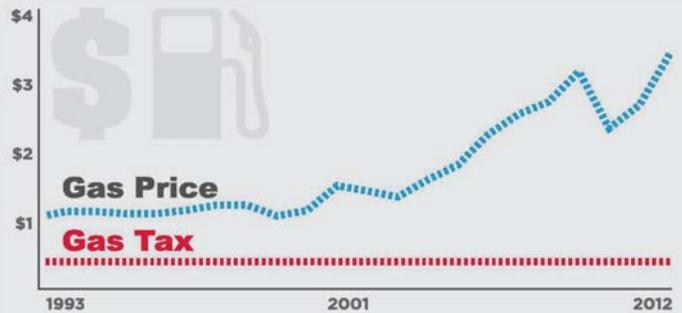
STRATEGIC POLICY ACTION - SUSTAINABLE FUNDING

Annual funding for transportation can no longer keep pace with the costs of operating, maintaining, and improving the state transportation system. Like many other states, Colorado needs to explore funding options and finance mechanisms to stretch dollars further, replace declining gas tax revenues, and reduce dependency on uncertain federal funding. CDOT needs a long-term, sustainable source of revenue. Options that could be considered include:

- Establishing a dedicated state sales tax for transportation.
- Increasing the state gas tax and indexing it to inflation.
- Exploring road user charges, which are fees on a per-mile basis for driving.
- Other user charges, like tolling new roadway capacity.
- Using more public-private partnership financing mechanisms.

While no single approach is likely to resolve all of CDOT's revenue challenges, a solution is necessary to prevent the

decline of the state's transportation system after the next 10 years. CDOT will employ innovative business practices, operational strategies, and data driven decision making to stretch existing funds while exploring new partnerships and revenue sources for the future. CDOT has developed "Your CDOT Dollar" as a tool to help citizens track CDOT spending, performance, and construction projects. You can access it via the www.YourCDOTDollar.com website.



Gas taxes are the main source of funding for Colorado Highways. The price of gas has risen, but the tax per gallon—18.4¢ federal + 22¢ state—has remained the same since 1992.

STRATEGIC POLICY ACTION – CDOT ACTION PLAN

CDOT is enacting several key program and policy changes to modernize business practices and provide an organizational structure that is responsive to today's demands. CDOT has been working on multiple initiatives that are captured in the CDOT Action Plan. The Action Plan describes key program and policy changes and can be accessed via the www.ColoradoTransportationMatters.com website.

EXPENDITURE BASED CASH MANAGEMENT APPROACH	To get as much money as quickly as possible to construction, CDOT will continue to implement a program which looks at the schedule of projects that can go to construction and matches available cash to those construction schedules.
PROGRAM MANAGEMENT	Tracking project schedules and budgets is critical to expenditure-based cash management. The program management office has been established to track all project and program schedules and budgets at CDOT.
ASSET MANAGEMENT	CDOT has developed the Risk-Based Asset Management Plan to define a framework for implementing new asset management strategies. This Plan outlines the current and forecasted condition of assets, performance goals, and specific investment strategies that CDOT will implement to maintain the transportation system at the lowest cost, and a framework for how risk will be included in asset management decisions.
TRANSPORTATION SYSTEMS MANAGEMENT AND OPERATIONS	CDOT will focus on implementing low cost, high value improvements to get more out of the existing system through the recently formed Division of Transportation Systems Management and Operations. Traffic operations strategies include traffic signal timing, ramp meters, traveler information, dynamic re-routing, and the limited use of shoulders as travel lanes during peak periods to reduce congestion.
EMERGENCY MANAGEMENT	Based on what we learned during the flood of 2013, a new Office of Emergency Management was created to respond quickly and efficiently when emergencies and disasters strike.
PREPARE OUR WORKFORCE	As CDOT employee's responsibilities change and grow, so must their skill sets. Training programs are being put into place to develop the skills needed to deliver Colorado's next generation transportation system.
FUTURES FORWARD INITIATIVE	CDOT is working proactively on short- and long-term planning efforts to anticipate a variety of future trends and scenarios. Five work groups are focusing on areas of big data (new data sources), technology, extreme weather events, workforce adaptation and funding/finance.

STRATEGIC POLICY ACTION – PROJECT SELECTION AND PROGRAMMING

CDOT is continuing to make more efficient and effective use of limited resources. A key element of this involves the continued application of more data-driven decision making. One of the best examples of this is Asset Management. CDOT uses a defined data-driven process for core asset management categories including pavement, bridges, maintenance, ITS, road equipment, culverts, geohazards, signals, walls, tunnels, and buildings.

The Asset Investment Management System (AIMS) is a budget and performance tool that assesses trade-offs between various asset funding scenarios, which incorporates data from individual asset management systems. AIMS uses data to assist decision-makers in identifying the most appropriate funding levels for assets (bridges, pavement, tunnels, etc.), based on the forecasted condition over many years. It also generates candidate project lists and recommended treatments for achieving the optimal life-cycle at the least cost. While AIMS represents a significant shift towards data-driven investment decision making, it is not inclusive of all asset categories. Tunnels and walls are asset categories that are currently being developed in AIMS. The expansion of AIMS to include these asset categories represents an opportunity to further strengthen the Asset Management program. This will also better position AIMS to perform cross-asset optimization; allowing decision makers

to better understand how asset performance metrics and targets, along with performance data, inform project selection and development. CDOT is also developing a transit capital asset inventory of vehicles, facilities, and park-and-rides for use in Asset Management analysis per FTA and MAP-21 requirements.

Many other CDOT programs are also data-driven, including FASTER Safety and the Highway Safety Improvement Program (HSIP). Others may be less data-driven but have established project selection processes (such as competitive grant programs). There are, however, other programs that could benefit from more defined criteria and data-driven processes to support decision-making. Examples include the selection of major capacity or mobility projects which typically require multiple funding sources, and special programs such as the federal TIGER program. Recent efforts to develop and implement more defined, data-driven process include the processes used to select projects for the RAMP program. The continued development and refinement of these processes going forward provides an opportunity to better inform decision-making, ultimately resulting in the more efficient and effective use of limited resources.

STRATEGIC POLICY ACTION – RESILIENCY AND REDUNDANCY

Building on lessons learned from the 2013 flooding and recent wildfires, CDOT will develop a resiliency and redundancy initiative for the Colorado's transportation system. Resiliency and redundancy are needed to be better prepared for natural and man-made disasters, including structural and economic impacts, and security issues. CDOT plans to:

- Obtain and consider all relevant information obtained from the Futures Forward Initiative, particularly from the Extreme Weather Work Group.
- Continue participation with the Colorado Resiliency Work Group.
- CDOT's Emergency Management Office will develop an emergency preparedness and response program focusing on community and agency coordination/communication protocols, and identification of key alternate routes to use in the event of an emergency.

- Refine preliminary asset risk and vulnerability assessment.
- Adopt CDOT policies that consider risk, resiliency and redundancy in planning, project selection, programming, design, and construction.

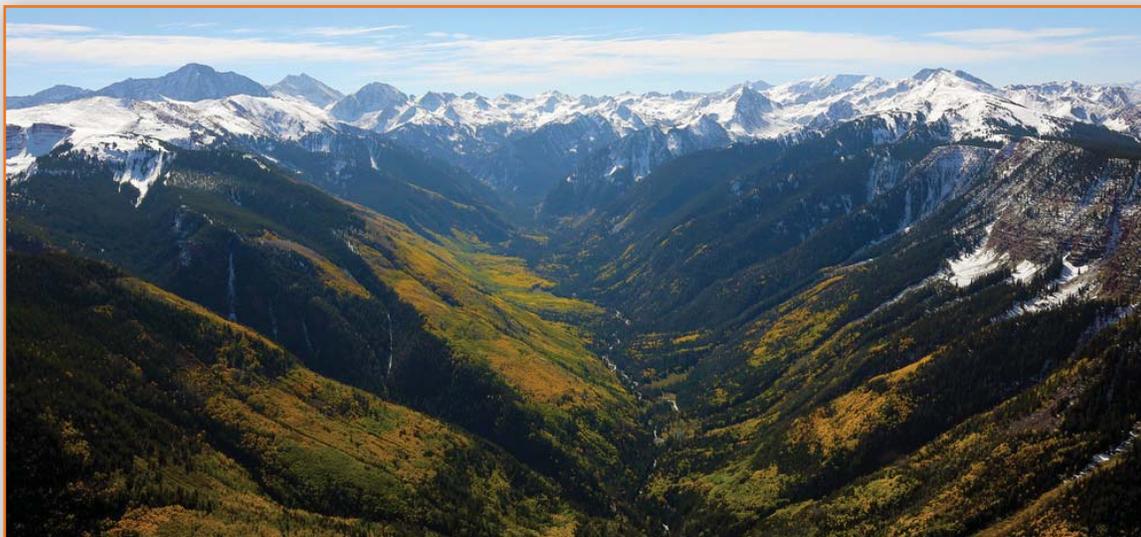


Before and after 2013 flood at Highway 24 and MP 116 East.

STRATEGIC POLICY ACTION - SUSTAINABILITY AND THE ENVIRONMENT

As part of implementing the Statewide Transportation Plan, CDOT will continue several key initiatives related to sustainability and the environment.

- **CDOT's Sustainability Program and Plan:** CDOT is committed to developing and supporting a sustainable organization and transportation system. Sustainability is defined by CDOT as meeting present and future transportation needs while preserving and restoring environmental and ecological systems, fostering community health and vitality, promoting economic development and prosperity, and ensuring equity between and among population groups and over generations. CDOT is concurrently developing a Sustainability Program as part of mitigating the effects of the transportation system on environmental resources.
- **Alternative Fuels Program:** CDOT has partnered with the Colorado Energy Office (CEO), Regional Air Quality Council (RAQC), and Colorado Department of Local Affairs (DOLA) to foster the development of a sustainable, statewide market for compressed natural gas (CNG) and other alternate fuel vehicles. The ALT Fuels Colorado program is funded with Congestion Mitigation and Air Quality (CMAQ) funds as well as Energy and Mineral Impact Assistance funds administered by DOLA.
- **Environmental Compliance:** CDOT will continue to comply with State and Federal requirements and continue to improve its environmental performance, mitigation measures, and endeavor to be a leader in sustainability efforts.
- **Innovation:** As new and innovative sustainability tools and environmental mitigation techniques are developed those techniques will be tested on CDOT projects and, after feedback and recommendations, will become a fixture in CDOT design and construction.
- **Storm Water Management:** CDOT has developed a strategic initiative to address permanent water quality storm water management, which makes more efficient use of resources. The initiative will achieve a holistic (regional) approach to permanent water quality treatment, rather than storm water management on a project-by-project basis, through the creation of a special water quality pool. The initiative includes a local partnership element that should result in larger mitigation projects with greater water quality impact and the incentive for local governments to take on the responsibility of on-going maintenance. In support of this effort, CDOT is working to inventory storm water management infrastructure statewide and develop a Statewide Permanent Water Quality Plan, linked to the STIP, which will help guide locals in identifying early partnership opportunities for mitigation projects related to planned transportation improvements on the part of CDOT.
- **C-PLAN:** As part of the development of the Statewide Transportation Plan, CDOT developed C-PLAN, an on-line mapping system that allows for better coordination with resources agencies on environmental data as well as public access to data. CDOT has used the C-PLAN to conduct multiple webinars in coordination with environmental agencies. C-PLAN can be accessed via the www.ColoradoTransportationMatters.com website.



SUMMARY AND IMPLEMENTING THE PLAN

This Statewide Transportation Plan provides CDOT's roadmap for the next 10 and 25 years and identifies:

- Goals and objectives for the statewide transportation system related to safety, mobility, economic vitality, and maintaining the system.
- Investment needs, revenue sources, and a funding gap.
- Strategic Actions to meet the plan goals.
- An overall Investment Strategy.
- Performance measures to evaluate progress towards plan goals and objectives.

The implementation of the Statewide Transportation Plan will include several important initial steps to best position

CDOT to achieve the plan goals and objectives and move forward with the Strategic Actions and Investment Strategy. The following provides a summary of these initial and ongoing steps to ensure the implementation plan. The steps have been divided into three categories:

- **CDOT's Role in Plan Implementation**, which are implementation steps primarily being taken by CDOT staff.
- **CDOT, Planning Partners, and Stakeholders Roles in Plan Implementation**, which are implementation steps that CDOT will partner with others on.
- **Public Engagement and Plan Implementation**, which are implementation steps that involve the general public.

CDOT'S ROLE IN PLAN IMPLEMENTATION

- **Implement the next steps of CDOT Action Plan:** Move forward with the steps outlined in the CDOT Action Plan, which includes key activities and initiatives for the next four years. The Action Plan can be accessed via the www.ColoradoTransportationMatters.com website.
- **Develop work plans to implement the Strategic Actions:** Begin with implementing the plans developed for the various modes of transportation (transit, bicycle/pedestrian, rail, aviation, and freight) and the Transportation Systems Management and Operations, Risked-Based Asset Management, and Strategic Highway Safety plans. CDOT will also develop work plans for implementation of the Strategic Actions not covered by the above mentioned plans.
- **Futures Forward Initiative:** Implement the Futures Forward Initiative, which will allow CDOT to be proactive in adapting the transportation system to future trends. It will also help CDOT to prepare for the next update of the Statewide Transportation Plan. It includes taking proactive steps to ensure that short-term (5-years or less) and long-term (5-20 years) planning anticipates a variety of potential future trends and scenarios. Through the Futures Forward Initiative, CDOT will identify, predict, and develop strategies to ensure that we will be poised and prepared to address short- and long-term needs and requirements. Five work groups are focusing on areas of big data (new data sources), technology, extreme weather events, workforce adaptation and funding/finance.

CDOT, PLANNING PARTNERS, AND STAKEHOLDERS ROLES IN PLAN IMPLEMENTATION

- **Addressing the Funding Gap:** The Transportation Commission and CDOT will work closely with planning partners as well as elected officials to develop proposals to address the funding gap identified in the plan.
- **MPO Plan Integration and Implementation:** Coordinate with Metropolitan Planning Organization (MPO) partners on the continued integration of MPO plans into the Statewide Transportation Plan. CDOT sits on the board and other committees of each of the MPOs and was involved in the development of each of the MPO plans. MPO plan implementation will be part of and coordinated with the ongoing implementation of the Statewide Transportation Plan. Specific coordination will occur on the development of the Statewide Transportation Improvement Program (STIP).
- **Rural Regional Transportation Plan (RTP) Implementation:** Coordinate with the rural Transportation Planning Regions on the implementation of their RTPs including their individual implementation actions and priorities. Specific coordination will occur on the development of the Statewide Transportation Improvement Program (STIP).

- **Measuring our Performance:** Performance measurement is how an organization measures its progress toward attaining its goals. Organizations like CDOT undertake performance measurement to understand and communicate how well they are doing. CDOT has been measuring its performance in a variety of areas for some time.

The most recent federal transportation reauthorization law, Moving Ahead for Progress in the 21st Century Act (MAP-21) enacted in 2012 is the first federal transportation reauthorization law to set national goals for transportation. The national goals are for safety, infrastructure condition, congestion reduction, system reliability, freight movement and economic vitality, environmental sustainability, and reduced project delays. MAP-21 also describes what should be measured or leaves establishment of measures to later rulemaking.

The Transportation Commission has updated the Statewide Transportation Planning policy, Policy Directive 14 (PD 14), to refine performance measures and objectives and to bring them into alignment with MAP-21. PD 14 provides an overall framework for the transportation planning process, including the Statewide Transportation Plan, which optimizes the transportation system by balancing preservation and maintenance, efficient transportation congestion management and operations practices, and capacity improvements.

CDOT will use performance measures and objectives identified in PD 14 as a guide to making investment decisions. The performance measurement framework in PD 14 supports for annual tracking of CDOT's performance in addressing the goals set forth in the Statewide Transportation Plan.

- **Moving from Planning to Projects:** Working with its planning partners, CDOT will develop a 10-year Capital Improvement Program (CIP) of specific projects and initiatives. The CIP will identify potential projects for design and feed the four-year Statewide Transportation Improvement Program (STIP), which CDOT uses to directly program dollars to projects. The goals, objectives, investment strategy, and performance measures set through the Statewide Transportation Plan will inform and provide a basis for the programming of projects.
- **Plan Monitoring:** Monitoring of the plan will be an ongoing and continuous process to ensure the state moves efficiently and effectively towards meeting its goals and objectives and implementing the Strategic Actions. Close monitoring will reveal the potential need for any adjustments in Strategic Actions and other priorities that may be necessary to address changing conditions or unforeseen circumstances. As with plan development, monitoring of the plan will involve various parts of CDOT, multiple regional and local planning partners, FHWA and other state and federal agencies and the public. Monitoring will also include receiving feedback from planning partners and the public on progress in implementing the Strategic Actions. The Statewide Transportation Advisory Committee (STAC) will advise CDOT staff on the mechanisms and issues for additional public discussion as the plan is implemented.
- **Plan Implementation Roadshow:** CDOT will conduct a series of events with planning partners and stakeholders in various parts of the state to update them on the key results of the Statewide Transportation Plan and the plan implementation process.

PUBLIC ENGAGEMENT AND PLAN IMPLEMENTATION

- **Ongoing Outreach:** Statewide transportation planning shouldn't end with the development of the Statewide Transportation Plan. It is an ongoing process. CDOT will use the web-based plan and Executive Summary as a framework for continued engagement of the public and planning partners on important transportation issues, key data, and findings. This continuous plan implementation process will guide the path for monitoring our progress and implementing the Strategic Actions and investment strategy. CDOT will track progress made on Regional Priority Investment Corridors. This ongoing outreach will ultimately lead to the development of the next Statewide Transportation Plan.
- **Continued Engagement Ideas:** Public Engagement will occur using a host of outreach methods including telephone town halls, web site content, mini-surveys, and social media throughout the next four-years, leading to the next plan update. The focus of this outreach will be key current transportation issues and will be a collaborative effort with MPO and rural TPR planning partners.
- **Plan Progress Report:** CDOT will prepare an annual report card for stakeholders and the public on plan implementation, which will be updated and available on the www.ColoradoTransportationMatters.com website. CDOT will work with the STAC in developing the format and content of this web-based report.



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