

AGENDA
REGIONAL TRANSPORTATION COMMITTEE
Tuesday, February 14, 2023 8:30 a.m.
1st Floor Aspen & Birch Conference Room
***In-Person Meeting with Virtual Option for Public (via Zoom)**

1. Call to Order
2. Public Comment
3. January 17, 2023 RTC Meeting Summary
(Attachment A)

ACTION ITEMS

4. FY 2022-2025 Transportation Improvement Program (TIP) Amendments
(Attachment B) Josh Schwenk, Planner
5. Regional Transportation Operations and Technology (RTO&T) Strategic Plan
(Attachment C) Greg MacKinnon, Program Manager, Transportation Operations
6. Federal Performance Measures Targets
(Attachment D) Alvan-Bidal Sanchez, Regional Transportation Program Manager

INFORMATIONAL BRIEFING

7. FY 2024-2025 Unified Planning Work Program (UPWP) Update
(Attachment E) Ron Papsdorf, Director, Transportation Planning & Operations
8. Population Cohort and Household Type Forecast: A Brief Summary of the Next 30 Years
(Attachment F) Robert Spotts, Program Manager, Mobility Analytics

ADMINISTRATIVE ITEMS

9. Member Comment/Other Matters
 - CDOT Report
 - RTD Report
 - RAQC Report
10. Next Meeting – March 14, 2023
11. Adjournment

ATTACH A

ATTACHMENT A

MEETING SUMMARY REGIONAL TRANSPORTATION COMMITTEE

Tuesday, January 17, 2023

In-Person Meeting with Virtual Option for Public (via Zoom)

MEMBERS PRESENT:

Yessica Holguin	Colorado Department of Transportation
Karen Stuart (Alternate)	Colorado Department of Transportation
Rebecca White (Alternate)	Colorado Department of Transportation
Randy Weil (Alternate)	Denver Regional Council of Governments
Doug Rex	Denver Regional Council of Governments
Wynne Shaw	Denver Regional Council of Governments
Kevin Flynn (Chair)	Denver Regional Council of Governments
Steve Conklin (Vice-Chair)	Denver Regional Council of Governments
Vince Buzek	Regional Transportation District
Bob Broom	Regional Transportation District
Brian Welch (Alternate)	Regional Transportation District
Debra Johnson	Regional Transportation District
Mike Silverstein	Regional Air Quality Council
Jeff Kullman	Michael Baker International

OTHERS (NON-VOTING OR VIRTUAL) PRESENT:

Michael Guzman (Alternate)	Regional Transportation District
Eula Adams (Alternate)	Colorado Department of Transportation
Ron Papsdorf (Alternate)	Denver Regional Council of Governments

Public: Lauren Pulver, Colin Dinsmore, Alex Mestdagh, Cathy Valencia, Christina Lane, Roy Howard, Chris Hudson, Aaron Heumann, Rachel Hultin, Jan Rowe, Alex Hyde-Wright, Carlie Campuzano, Sarah Grant, Chris Larmon, Austin Payne, Allison Cutting

DRCOG Staff: Greg MacKinnon, Robert Spotts, Cam Kennedy, Sang Gu Lee, Matthew Helfant, Emily Kleinfelter, Alvan-Bidal Sanchez, Emily Lindsey, Steve Cook, Brad Williams, Josh Schwenk, Kalie Fallon, Todd Cottrell, Nora Kern

Call to Order

Chair Kevin Flynn called the meeting to order at 8:30 a.m.

Public Comment

Chair Flynn took the opportunity to welcome Director Bob Broom as a returning member representing RTD and Director Michael Guzman as a new alternate member for RTD.

Summary of November 15, 2022 Meeting

The summary was accepted.

ACTION ITEMS

FY 2022 First Year Transportation Improvement Program (TIP) Project Delays

Todd Cottrell, Program Manager, Project and Program Delivery, reported that a timely initiation of TIP projects and project phases is an important objective of the Board. At the end of FY 2022, staff reviewed the implementation status of DRCOG-selected projects and

project phases with CDOT and RTD. DRCOG staff then met with project sponsors to discuss the delays and identify action plans demonstrating the sponsor's commitment to timely initiation. The TIP Project Delays Report for FY 2022 summarized the reasons for each delay and actions proposed by sponsors to get the project or phase(s) initiated.

Mr. Steve Conklin MOVED to recommend to the Board of Directors the actions proposed by DRCOG staff regarding TIP project delays for Fiscal Year 2022. The motion was seconded and passed unanimously.

Transportation Advisory Committee (TAC) Guidelines

Jacob Riger, Manager, Multimodal Transportation Planning, presented the major changes discussed with TAC in Fall 2022 and recommended for approval by TAC in December:

- Expand the number of local government representatives on TAC. For counties with three local government representatives, one member would represent the County, and two members would represent municipal jurisdictions.
- Use the DRCOG subregional transportation forums to identify and select local government members instead of the DRCOG Board Chair directly appointing them. The subregional transportation forums would also appoint local government alternates instead of the current practice of each member appointing their own alternate.
- Change the types and representation for several of the "special interest" members and establish a 2-year term for these members.
- Add a new provision for conducting an election whenever there is a TAC Chair or Vice Chair vacancy.
- Updating the requirements for a quorum and to carry an action due to the increased committee membership.

Mr. Conklin inquired if quorum rises to 20 affirmative votes to carry an action, would that create the possibility that the special interests alone could block action by the group? Mr. Riger replied that the addition of 10 new members will primarily comprise local government members while the portion of special interest seats would essentially remain the same.

GM/CEO Debra Johnson asked how equity will be defined and how the appropriate individual will be discerned to bridge the gap between housing and transportation, for example, while representing historically marginalized populations. Mr. Riger responded that the conversation regarding who would fill that new seat would occur within RTC since it is up to this committee to approve all the special interest seats. Mr. Ron Papsdorf added that for special interest seats, DRCOG solicits interest and takes applications to fill those seats.

Chair Flynn asked what criteria would be used to determine if the applicants for the equity special interest seat will effectively represent the interests of marginalized communities. Mr. Papsdorf responded that while guidelines have yet to be developed, there is federal guidance through Title 6 and some environmental justice guidance that will help staff address the framework for that special interest seat. Mr. Riger added that with all special interest seats, staff will ask applicants to discuss their background to demonstrate their

knowledge and experience to show they are subject matter experts in the fields they want to represent.

Executive Director Doug Rex took the opportunity to inform the committee that if this item is recommended today, it will be taken as a package to the Board in March along with other committee guideline updates that have been developed across DRCOG.

Ms. Wynne Shaw MOVED to recommend to the Board of Directors the proposed updates to the TAC section of the DRCOG Committee Policy, Guidelines and Descriptions. The motion was seconded and passed unanimously.

Regional Transportation Committee (RTC) Guidelines

Jacob Riger, Manager, Multimodal Transportation Planning, reviewed with the committee that at the November RTC meeting, staff discussed proposed updates to the RTC Committee Guidelines. The major proposed changes discussed included:

- Modifications to the identification and appointment of RTC's three "other members".
- Clarifying the Chair and Vice Chair of RTC, and when agency members are appointed.
- Clarifying the use of alternates.
- Routine updates and clarifications.

GM/CEO Debra Johnson MOVED to recommend to the Board the proposed updates to the RTC section of the DRCOG Committee Policy, Guidelines and Descriptions. The motion was seconded and passed unanimously.

Transportation Planning Framework

Matthew Helfant, Senior Transportation Planner, presented the proposed framework. He explained that based on the proposed updates to DRCOG's Committee Guidelines for TAC and the Regional Transportation Committee (RTC), DRCOG staff has revised the section of the *Framework* describing the roles, responsibilities, and membership of TAC and RTC to be consistent with the proposed updated Committee Guidelines.

Executive Director Rex reemphasized the importance of this framework and stated how helpful this document is in explaining the regional transportation planning process and thanked staff for their work on this item.

Ms. Wynne Shaw MOVED to recommend to the Board of Directors approval of the *Transportation Planning Framework* document. The motion was seconded and passed unanimously.

INFORMATIONAL BRIEFINGS

2021 Annual Report on Traffic Congestion in the Denver Region

Robert Spotts, Program Manager, Mobility Analytics, provided an overview of the *2021 Annual Report on Roadway Traffic Congestion in the Denver Region*. Topics included vehicle miles traveled in the region, the continued impacts of the COVID-19 pandemic on

travel and congestion, travel projections for 2050, and highlights of recently completed congestion mitigation projects.

Ms. Rebecca White complimented the work done on this report and hopes that CDOT can do a report like this looking at traffic congestion from the state level to show what is going on across Colorado.

Ms. Shaw commented on how this presentation helped to highlight further how valuable Bustang is since it can help get people from rural areas into urban centers.

Chair Flynn inquired about where the statistics stating that the population stood at 3.36 million in 2020 and is expected to grow to 4.41 million by 2050 came from and what area this refers to. Mr. Spotts responded that it refers to just the DRCOG area, and the statistics came from the State Demographer.

Chair Flynn asked why the Differences By Time of Day (April) chart shows the P.M. peak in 2021 seems to be equal, if not higher, than the P.M. peak in 2019 at least for a couple of hours. Mr. Spotts responded that there will be variations throughout the region. However, this one was selected since it was the most representative of the kind of data the Automated Traffic Recorder (ART) stations recorded regarding traffic at that time. This trend follows the national data that the P.M. peak has generally returned back to normal, but the A.M. peak has still not recovered to pre-pandemic levels.

Executive Director Rex mentioned that when looking at 2020-2021 RTD Transit Ridership Compared to 2019 slide, the data shows that ridership is far below the 2019 baseline. However, RTD has recently seen promising signs that ridership levels have been coming back in the last several months. GM/CEO Johnson replied that RTD has certainly seen an uptick in ridership. Nonetheless, estimates are that 20% of pre-pandemic ridership won't be recouped, similar to trends across the country. That being said, ridership has changed. There has been an upswing in off-peak ridership, and people are using the transit system to get to social gatherings such as sports events more now than before the pandemic.

Mr. Brian Welch added that RTD ridership trends between the bus and rail systems are not heading in the same direction at the same pace. The bus system ridership is certainly experiencing some promising trends, and the core of the bus system has stayed stable, while the rail system, particularly light rail, poses more challenges. Mr. Papsdorf noted that the investment in the light rail system might give the region opportunities to think about development around light rail stations to fill some of that capacity.

Regional Transportation Operations and Technology (RTO&T) Plan

Greg MacKinnon, Program Manager, Transportation Operations, and Steve Cook, Manager, Mobility Analytics and Operations, noted that the purpose of the plan is to guide the DRCOG region's near-term efforts to deploy technology tools and coordinated system procedures for operating the multimodal transportation system. These efforts will assist transportation operations staff in serving daily travel demands across the region. The plan envisions transportation systems serving all travel modes across the DRCOG region that are interconnected and collaboratively operated, managed, and maintained to optimize

safe, reliable, and efficient travel for all system users, contributing to the region's economic prosperity and high quality of life.

Mr. Papsdorf commended the work done by Mr. Cook and Mr. MacKinnon's team for working on this item and stated that, like most planning efforts DRCOG is involved in, this comprises all the agencies and partners in the region.

Ms. Stuart mentioned how incredible it is that technology has advanced enough that real-time data can be used to help keep the transportation system in the region safe and reliable and helps transform how the region deals with challenges.

Chair Flynn inquired about arterial traffic cameras and if there is a way to differentiate between the camera types. Mr. MacKinnon replied that we do have that data regarding which are Pan-tilt-zoom (PTZ) cameras and which are static cameras.

INFORMATIONAL ITEM

FY 2022 Annual Listing of Obligated Projects (ALOP)

Josh Schwenk, Planner, included the FY 2022 ALOP in the TAC packet for review. The report lists all transportation projects in the Denver region that received obligations of federal funds in Federal Fiscal Year 2022 (October 1, 2021 – September 30, 2022). A total of \$392.8 million of federal funds was obligated in FY 2022 for 91 transportation projects throughout the region.

ADMINISTRATIVE ITEMS

Member Comment/Other Matters

- CDOT Report – Ms. Stuart announced that Ms. Rebecca White will be leaving CDOT this month and stated her appreciation for all Ms. White has done and wished her well in her future endeavors. The Transportation Commission will receive a grants update during their meeting tomorrow. In November, a Central 70 ribbon-cutting event was attended by Shailen Bhatt, who became the new FHWA Director earlier this month. Lastly, Ms. Stuart mentioned CDOT is also working on a toll equity program and that CDOT's chief engineer Steve Harelson will be retiring later this month.

Ms. Yessica Holguin, Chair Flynn, Mr. Papsdorf, GM/CEO Johnson, and Mr. Mike Silverstein echoed the sentiment from Ms. Stuart and stated their own gratitude for the work Ms. White has done. Ms. White thanked everyone for their kind words and stated that she plans to still work in public service and will continue to make Colorado a better place to live.

- RTD Report – Mr. Vince Buzek stated that late last week, RTD swore in three new board members: Michael Guzman, Ian Harwick, and JoyAnn Rusha, and five current members who were re-elected. Mr. Buzek also stated that RTD's Executive Committee for 2023 will be Lynn Guissinger as Chair, Peggy Catlin as First Vice Chair, Erik Davidson as Second Vice Chair, Marjorie Sloan as Secretary, and Bobby Dishell as Treasurer. GM/CEO Johnson congratulated RTD's new and returning board members and stated that RTD is working with its subregional service councils on the Call for Projects Partnership program. GM/CEO Johnson also stated that the last big phase

from a community engagement perspective of the Fare Study and Equity Analysis has begun. The engagement will take place throughout the region this upcoming spring season and will shore up a recommended fare structure that will be brought to the RTD Board to consider beginning in January 2024. In addition, the Northwest Rail Peak Service Feasibility Study will have two meetings for public engagement, scheduled for January 31 and February 1.

- RAQC Report – Mr. Silverstein stated that the Air Quality Control Commission (AQCC) conducted a public hearing in December on the latest air quality plans for summertime ozone. Most of RAQC's planning work was approved by the AQCC and moved to the EPA for consideration. However, some technical issues and administrative policy issues still need to be addressed. RAQC is working on developing its long-range plan for summertime ozone and looking at emission control programs that will need to be put in place to improve air quality. Intensive stakeholder engagement processes will be conducted this year and next year to develop recommendations for additional air quality improvement strategies.

Chair Flynn informed the committee that DRCOG will be virtually conducting the Board of Directors meeting tomorrow night due to inclement weather.

Next Meeting – February 14, 2023

Adjournment

There were no additional comments from members. The meeting adjourned at 10:07 a.m.

ATTACH B

ATTACHMENT B

To: Chair and Members of the Regional Transportation Committee

From: Josh Schwenk, Planner, Transportation Planning and Operations Division
303-480-6771 or jschwenk@drcog.org

Meeting Date	Agenda Category	Agenda Item #
February 14, 2023	Action	4

SUBJECT

FY 2022-2025 Transportation Improvement Program (TIP) Amendments

PROPOSED ACTION/RECOMMENDATIONS

DRCOG staff recommends approval of the proposed amendments because they comply with the current TIP amendment procedures, as contained within the Board-adopted [Policies for TIP Program Development](#).

ACTION BY OTHERS

[January 23, 2023](#) – TAC recommended approval

SUMMARY

DRCOG's transportation planning process allows for Board-approved amendments to the current Transportation Improvement Program (TIP) on an as-needed basis. Typically, these amendments involve the addition or deletion of projects, or adjustments to existing projects and do not impact funding for other projects in the TIP.

The TIP projects to be amended are shown below and listed in Attachment 1. The proposed amendments to the [FY 2022-2025 Transportation Improvement Program](#) have been found to conform with the State Implementation Plan for Air Quality.

TIP ID#	Sponsor	Title	Reason for Amendment	New/Removed Funding	Internal Funding Shifts
1997-084	RTD	RTD Preventive Maintenance: Transit Vehicle Overhaul and Maintenance	Add new funding – revised formula funding	Add \$46,800,000 federal Section 5307	N/A
1999-052	RTD	State of Good Repair	Add new funding – revised formula funding	Add \$32,010,000 – federal Section 5337	N/A
2020-068	Adams County	I-270 Corridor Improvements	Add new funding – bridge design	Add \$10,100,000 – state FASTER-Bridge Enterprise	N/A
2022-018	CDOT Region 4	SH-7/95th St. Intersection Improvements	Replace Regional Priority Project funding with Legislative-Transit funding	Remove \$6,719,000 – state Regional Priority Project, Add \$6,719,000 – state Legislative-Transit	N/A
New Project	CDOT Region 1	Region 1 Vision Zero Pool	Create new pool for Vision Zero projects	Add \$15,000,000 – state Legislative	N/A
New Project	CDOT Region 4	I-25 Segment 5: SH-66 to WCR 38	Create new project	Add \$12,200,000 - state Legislative	N/A

PREVIOUS DISCUSSIONS/ACTIONS

N/A

PROPOSED MOTION

Move to recommend to the Board of Directors the attached project amendments to the *2022-2025 Transportation Improvement Program (TIP)*.

ATTACHMENT

1. Proposed TIP amendments

ADDITIONAL INFORMATION

If you need additional information, please contact Josh Schwenk, Planner, Transportation Planning and Operations Division at 303-480-6771 or jschwenk@drcog.org.

1997-084: Add \$46,800,000 in federal Section 5307 funding based on formula fund revisions

Existing

Title: **RTD Preventive Maintenance: Transit Vehicle Overhaul and Maintenance**

Project Type: **Transit Vehicles**

TIP-ID: **1997-084**

STIP-ID:

Open to Public:

Sponsor: **RTD**

Project Scope

Ongoing program: Overhaul and maintenance for transit vehicles. A portion of these 5307 funds will be applied to capital cost of contracting. RTD has privatized service on fixed-routes and private carriers provide capital maintenance in addition to fixed-route bus service. In addition to routine capital maintenance, RTD will apply 5307 capital maintenance funds to bus fuel cost and utility cost for LRT vehicles as a result of the Federal Transit Administration expanded definition of allowable cost.



Affected County(ies)
Regional

Performance Measures
<input type="checkbox"/> Bridge Condition
<input type="checkbox"/> Congestion
<input type="checkbox"/> Freight Reliability
<input type="checkbox"/> Pavement Condition
<input type="checkbox"/> Safety
<input checked="" type="checkbox"/> Transit Assets
<input checked="" type="checkbox"/> Transit Safety
<input type="checkbox"/> Travel Time Reliability

Amounts in \$1,000s	Prior Funding	FY22	FY23	FY24	FY25	Future Funding	Total Funding
Federal (5307)		\$66,800	\$70,900	\$73,000	\$75,200		
State		\$0	\$0	\$0	\$0		
Local		\$26,900	\$29,400	\$30,300	\$31,200		
Total	\$186,300	\$93,700	\$100,300	\$103,300	\$106,400	\$0	\$590,000

Revised Funding Table

Amounts in \$1,000s	Prior Funding	FY22	FY23	FY24	FY25	Future Funding	Total Funding
Federal (5307)		\$80,000	\$81,600	\$83,200	\$84,900		
State		\$0	\$0	\$0	\$0		
Local		\$26,670	\$27,200	\$27,700	\$29,300		
Total	\$186,300	\$106,670	\$108,800	\$110,900	\$114,200	\$0	\$626,870

1999-052: Add \$32,010,000 in federal Section 5337 funding based on formula fund revisions

Existing

Title: **State of Good Repair**

Project Type: **Transit Operational Improvements**

TIP-ID: **1999-052**

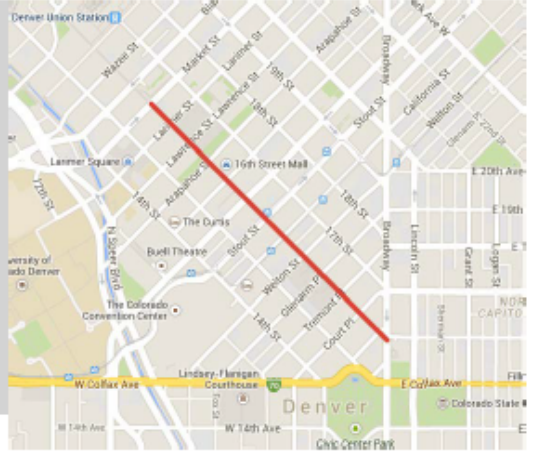
STIP-ID: **SST6740.010**

Open to Public:

Sponsor: **R T D**

Project Scope

Funds will be used for on-going maintenance of fixed guideways, track, rolling stock, electrical substations and rail stations.



Affected Municipality(ies)	Affected County(ies)
Denver	Denver

Performance Measures	
<input type="checkbox"/>	Bridge Condition
<input type="checkbox"/>	Congestion
<input type="checkbox"/>	Freight Reliability
<input type="checkbox"/>	Pavement Condition
<input type="checkbox"/>	Safety
<input checked="" type="checkbox"/>	Transit Assets
<input checked="" type="checkbox"/>	Transit Safety
<input type="checkbox"/>	Travel Time Reliability

Amounts in \$1,000s	Prior Funding	FY22	FY23	FY24	FY25	Future Funding	Total Funding
Federal (5337)		\$18,400	\$18,900	\$19,500	\$20,100		
State		\$0	\$0	\$0	\$0		
Local		\$4,600	\$4,750	\$4,900	\$5,100		
Total	\$43,880	\$23,000	\$23,650	\$24,400	\$25,200	\$0	\$140,130

Revised Funding Table

Amounts in \$1,000s	Prior Funding	FY22	FY23	FY24	FY25	Future Funding	Total Funding
Federal (5337)		\$26,410	\$26,950	\$27,500	\$28,050		
State		\$0	\$0	\$0	\$0		
Local		\$6,600	\$6,740	\$6,880	\$7,010		
Total	\$43,880	\$33,010	\$33,690	\$34,380	\$35,060	\$0	\$180,020

2020-068: Add \$10,100,000 in state FASTER-Bridge Enterprise funding for bridge design

Existing

Title: **I-270 Corridor Improvements**

Project Type: **Roadway Operational Improvements**

TIP-ID: **2020-068**

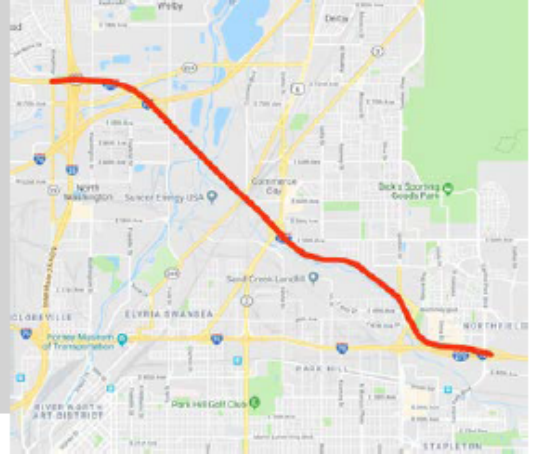
STIP-ID:

Open to Public:

Sponsor: **Adams County**

Project Scope

Environmental Assessment, preconstruction activities, and early action projects to address safety, reliability, and operational issues along the entire corridor.



Affected Municipality(ies)

- Commerce City
- Denver
- Unincorporated

Affected County(ies)

- Adams
- Denver

Performance Measures

- Bridge Condition
- Congestion
- Freight Reliability
- Pavement Condition
- Safety
- Transit Assets
- Transit Safety
- Travel Time Reliability

Amounts in \$1,000s	Prior Funding	FY22	FY23	FY24	FY25	Future Funding	Total Funding
Federal		\$0	\$0	\$0	\$0		
Federal (STBG)		\$0	\$0	\$0	\$0		
State		\$0	\$0	\$0	\$0		
State (Leg)		\$5,000	\$15,000	\$10,000	\$0		
Local		\$0	\$0	\$0	\$0		
Total	\$5,300	\$5,000	\$15,000	\$10,000	\$0	\$0	\$35,300

Revised Funding Table

Amounts in \$1,000s	Prior Funding	FY22	FY23	FY24	FY25	Future Funding	Total Funding
Federal		\$0	\$0	\$0	\$0		
Federal (STBG)		\$0	\$0	\$0	\$0		
State		\$0	\$0	\$0	\$0		
State (FASTER-B)		\$0	\$3,450	\$6,250	\$400		
State (Leg)		\$5,000	\$15,000	\$10,000	\$0		
Local		\$0	\$0	\$0	\$0		
Total	\$5,300	\$5,000	\$18,450	\$16,250	\$400	\$0	\$45,400

2022-018: Replace \$6,719,000 in Regional Priority Project funding with \$6,719,000 in Legislative-Transit funding

Existing

Title: **SH-7/95th St. Intersection Improvements**

Project Type: **Roadway Operational Improvements**

TIP-ID: **2022-018**

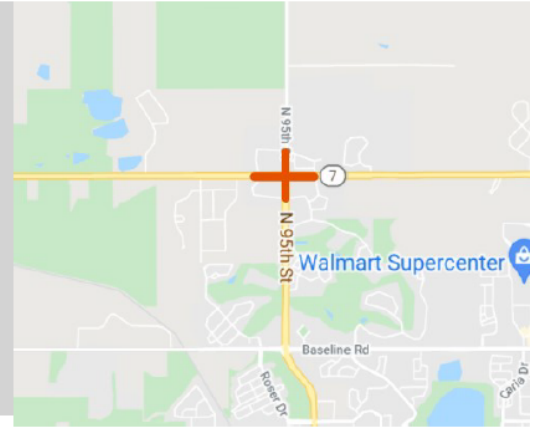
STIP-ID: **SR46600.099**

Open to Public:

Sponsor: **CDOT Region 4**

Project Scope

This project will construct an expanded SH-7 and SH-42 intersection, including new general purpose lanes, BAT lanes, transit stops, and multi-use path.



Affected Municipality(ies)

Affected County(ies)

Lafayette

Boulder

Performance Measures

- Bridge Condition
- Congestion
- Freight Reliability
- Pavement Condition
- Safety
- Transit Assets
- Transit Safety
- Travel Time Reliability

Amounts in \$1,000s	Prior Funding	FY22	FY23	FY24	FY25	Future Funding	Total Funding
Federal		\$0	\$0	\$0	\$0		
Federal (MMOF-ARPA)		\$0	\$2,400	\$0	\$0		
State		\$0	\$0	\$0	\$0		
State (Leg-T)		\$6,719	\$0	\$0	\$0		
State (MMOF)		\$0	\$0	\$2,800	\$0		
State (R P P)		\$6,719	\$0	\$0	\$0		
Local		\$0	\$3,802	\$4,436	\$0		
Total	\$0	\$13,438	\$6,202	\$7,236	\$0	\$0	\$26,876

Revised Funding Table

Amounts in \$1,000s	Prior Funding	FY22	FY23	FY24	FY25	Future Funding	Total Funding
Federal		\$0	\$0	\$0	\$0		
Federal (MMOF-ARPA)		\$0	\$2,400	\$0	\$0		
State		\$0	\$0	\$0	\$0		
State (Leg-T)		\$13,438	\$0	\$0	\$0		
State (MMOF)		\$0	\$0	\$2,800	\$0		
Local		\$0	\$3,802	\$4,436	\$0		
Total	\$0	\$13,438	\$6,202	\$7,236	\$0	\$0	\$26,876

New Project: Add new pool for Vision Zero improvements in CDOT Region 1

New Project

Title: **Region 1 Vision Zero Pool**

Project Type: **Safety**

TIP-ID: **Request**

STIP-ID:

Open to Public:

Sponsor: **CDOT Region 1**

Project Scope

CDOT Region 1 Vision Zero Pool. Funds improvements related to Vision Zero.



Affected County(ies)
Adams
Arapahoe
Broomfield
Denver
Douglas
Jefferson

Performance Measures	
<input type="checkbox"/>	Bridge Condition
<input type="checkbox"/>	Congestion
<input type="checkbox"/>	Freight Reliability
<input type="checkbox"/>	Pavement Condition
<input checked="" type="checkbox"/>	Safety
<input type="checkbox"/>	Transit Assets
<input type="checkbox"/>	Transit Safety
<input type="checkbox"/>	Travel Time Reliability

Amounts in \$1,000s	Prior Funding	FY22	FY23	FY24	FY25	Future Funding	Total Funding
Federal		\$0	\$0	\$0	\$0		
State (Leg)		\$0	\$10,000	\$0	\$5,000		
Local		\$0	\$0	\$0	\$0		
Total	\$0	\$0	\$10,000	\$0	\$5,000	\$0	\$15,000

New Project: Add new project for the portion of I-25 Segment 5 in the DRCOG region

New Project

Title: I-25 Segment 5: SH-66 to WCR 38

Project Type: Roadway Capacity

TIP-ID: Request

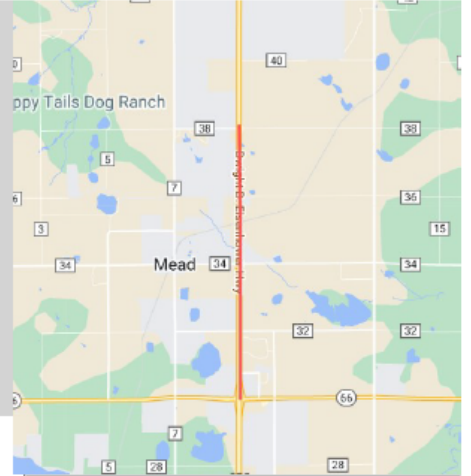
STIP-ID:

Open to Public:

Sponsor: CDOT Region 4

Project Scope

Design and construct one new express lane in each direction on the DRCOG portion of Segment 5 (SH-66 to WCR 38). Project also includes replacement/rehabilitation of key bridges, ITS, transit & safety components, multimodal options, replacement of portions of existing facility, and interchange improvements.



Affected Municipality(ies)
Mead

Affected County(ies)
Weld

Performance Measures	
<input checked="" type="checkbox"/>	Bridge Condition
<input type="checkbox"/>	Congestion
<input checked="" type="checkbox"/>	Freight Reliability
<input checked="" type="checkbox"/>	Pavement Condition
<input type="checkbox"/>	Safety
<input type="checkbox"/>	Transit Assets
<input type="checkbox"/>	Transit Safety
<input checked="" type="checkbox"/>	Travel Time Reliability

Amounts in \$1,000s	Prior Funding	FY22	FY23	FY24	FY25	Future Funding	Total Funding
Federal		\$0	\$0	\$0	\$0		
State (Leg)		\$0	\$4,000	\$8,200	\$0		
Local		\$0	\$0	\$0	\$0		
Total	\$0	\$0	\$4,000	\$8,200	\$0	\$0	\$12,200

ATTACH C

ATTACHMENT C

To: Chair and Members of the Regional Transportation Committee

From: Greg MacKinnon, Program Manager Transportation Operations

Meeting Date	Agenda Category	Agenda Item #
February 14, 2023	Action	5

SUBJECT

Regional Transportation Operations and Technology Strategic Plan

PROPOSED ACTION/RECOMMENDATIONS

DRCOG staff recommends approval of the *Regional Transportation Operations and Technology Strategic Plan*.

ACTION BY OTHERS

[January 23, 2023](#) – TAC recommended approval

SUMMARY

DRCOG, working with stakeholders from across the region, has developed a draft *Regional Transportation Operations & Technology Strategic Plan*. The purpose of the plan is to guide the DRCOG region's near-term efforts to deploy technology tools and coordinated system procedures for the multimodal transportation system. These efforts will assist transportation operations staff in serving daily travel demands across the region.

The plan envisions transportation systems serving all travel modes across the DRCOG region that are interconnected and collaboratively operated, managed, and maintained to optimize safe, reliable, and efficient travel for all system users, contributing to the region's economic prosperity and high quality of life. Ten objectives lay out the desired improvements to be monitored and measured to ensure progress towards meeting the vision.

This is an aspirational plan that provides guidance for the implementation of operational infrastructure and services to further strengthen the connections between transportation systems and improve the reliability of travel across the region. There are three main sections in the plan:

1. Current State of Regional Transportation Operations – A summary description of general responsibilities of the transportation system agencies across the region and the infrastructure they operate and maintain. Because of the complexity of multiple systems, services and stakeholders, the description is arranged into natural focus areas relevant to daily real-time transportation management.
2. Regional Transportation Operations Needs – An analysis comparing the current state of regional transportation operations against the plan's vision, goals and objectives. Generally, it is evident that operations are not well-connected between jurisdictions, agencies and travel modes. New strategies, processes and tools are needed to facilitate coordination between stakeholders to achieve the outcomes envisioned in the DRCOG Metro Vision Plan and the Mobility Choice Blueprint.

3. Action Plan – A list of initiatives organized into three groups: primary, secondary, and tertiary. The primary initiatives are critical to establishing the desired regional framework for operations data sharing upon which the secondary and tertiary initiatives can build.

This plan also provides guidance for the development of the upcoming call-for-projects for the RTO&T Set-Aside scheduled for early 2023.

PREVIOUS DISCUSSIONS/ACTIONS

[May 17, 2022](#) – RTC Informational Briefing
[January 17, 2023](#) – RTC Informational Briefing

PROPOSED MOTION

Move to recommend to the Board of Directors the attached *Regional Transportation Operations and Technology Strategic Plan*.

ATTACHMENTS

1. [Regional Transportation Operations and Technology Strategic Plan](#)
2. Staff presentation

ADDITIONAL INFORMATION

If you need additional information, please contact Greg MacKinnon, Transportation Operations Program Manager, at 303 480-5633 or gmackinnon@drcog.org.

REGIONAL TRANSPORTATION OPERATIONS & TECHNOLOGY (RTO&T) STRATEGIC PLAN

Regional Transportation Committee

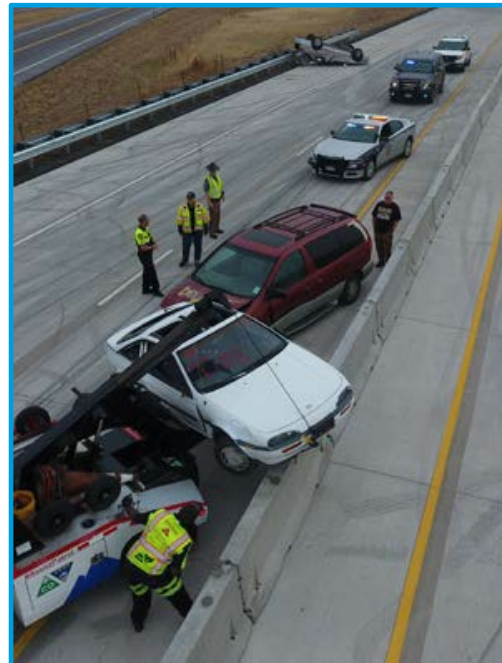
February 2023

Greg MacKinnon, DRCOG

RTO&T STRATEGIC PLAN



- Presented to RTC in January
- Multimodal day-to-day operation of transportation system
- Guides upcoming call-for-projects



KEY POINTS



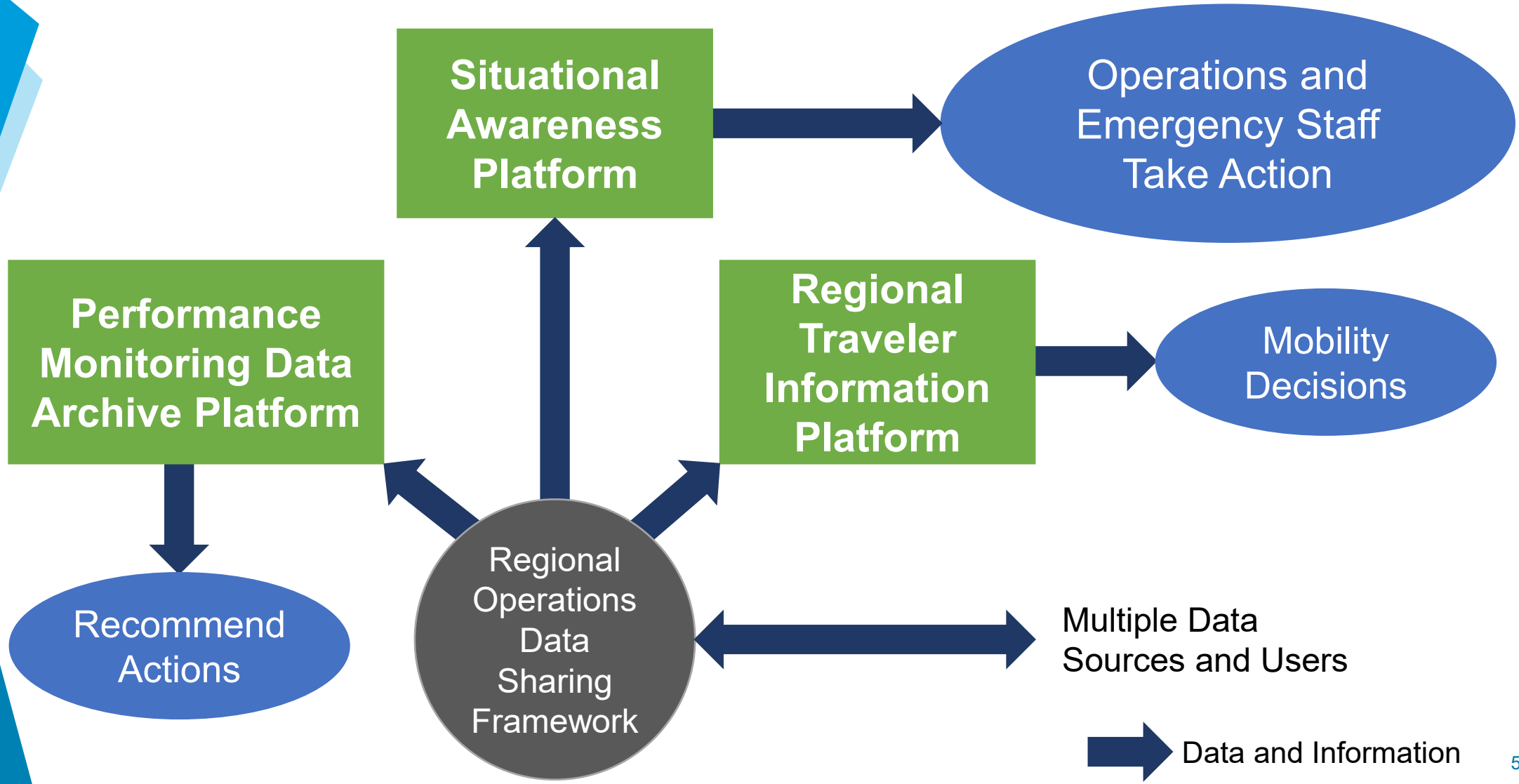
- Real-time data is essential to operate, manage and maintain a safe and reliable transportation system
- Collaborative and integrated management approaches are needed
- Technology is a tool, not the answer
- Varying capabilities and needs by jurisdiction
- Regional management needed for key initiatives
- DRCOG has a key role and can assist with monitoring operations performance indicators

RTO&T NEAR-TERM INITIATIVES



- Primary:
 - Situational awareness platform
 - Camera control sharing
 - Expand travel data collection and surveillance systems
 - Performance measures data platform
 - Strategies and processes to collaboratively manage operations
 - Traffic incident management operating procedures
 - Transit signal priority optimization procedures

DATA & INFORMATION SHARING FRAMEWORK



RTO&T NEAR-TERM INITIATIVES (2)



- Secondary:
 - Evacuation planning
 - Coordinate traveler information messaging
 - Work zone monitoring and coordination
 - Safety technology applications
- Tertiary:
 - Regional Multimodal Traveler Information Platform
 - Multimodal trip planner and payment system
 - Transportation Demand Management related support
 - Continuity of operations plans

RTC ACTION



- Move to recommend to the Board of Directors the attached *Regional Transportation Operations and Technology Strategic Plan*.

ATTACH D

ATTACHMENT D

To: Chair and Members of the Regional Transportation Committee

From: Alvan-Bidal Sanchez, Program Manager, Regional Transportation Planning
720-278-2341 or ASanchez@drcog.org

Meeting Date	Agenda Category	Agenda Item #
February 14, 2023	Action	6

SUBJECT

Federal Performance Measures Targets

PROPOSED ACTION/RECOMMENDATIONS

Staff recommends the proposed targets for the federal safety, infrastructure condition, travel time reliability and freight reliability performance measures.

ACTION BY OTHERS

[January 23, 2023](#) – TAC recommended approval

SUMMARY

Federal regulations require state departments of transportation (DOTs) and metropolitan planning organizations (MPOs) to set targets and report on progress towards achieving the targets for several performance areas in support of a performance-based approach to transportation planning and programming. These areas include safety, infrastructure condition (pavement and bridge), system performance, transit asset management, and transit safety. Federal guidance encourages targets to be realistic and achievable as they are very short-term in nature.

For the performance areas described below, DRCOG has the option of supporting the state's targets established by the Colorado Department of Transportation or establishing its own targets for the DRCOG MPO area.

PM1: Safety performance

DRCOG must set the safety targets based on a 5-year rolling average. DRCOG has until February 27, 2023 to set the 2023 safety targets and then report them to CDOT. DRCOG staff recommends continuing the practice of setting targets specific to the MPO area. The proposed 2023 targets are:

Safety	Targets
Number of fatalities	256
Rate of fatalities per 100 million VMT	0.930
Number of serious injuries	1,584
Rate of serious injuries per 100 million VMT	5.730
Number of non-motorized fatalities and serious injuries	330

PM2: Infrastructure condition

Pavement condition

The four performance measures under Pavement Condition are the percent of pavement in good and poor condition on both the Interstate System and non-Interstate National Highway System within the MPO area. DRCOG must set 4-year targets for pavement condition by March 30, 2023. DRCOG staff recommend supporting CDOT’s pavement condition targets shown in the table below:

Pavement Condition	Baseline	4-Year Targets
Percent of pavement in good condition (interstate)	43.5%	47.0%
Percent of pavement in poor condition (interstate)	3.9%	3.5%
Percent of pavement in good condition (non-interstate NHS)	39.3%	43.0%
Percent of pavement in poor condition (non-interstate NHS)	3.1%	3.5%

Bridge condition

Under this performance area, DRCOG must also set 4-year targets for good and poor bridge condition by deck area for the National Highway System (NHS) in the MPO area by March 30, 2023. DRCOG staff recommend supporting CDOT’s bridge condition targets shown in the table below:

Bridge Condition	Baseline	4-Year Targets
Percent of bridges in good condition	38.2%	36.0%
Percent of bridges in poor condition	3.4%	4.0%

PM3: System performance, freight, and CMAQ

Travel time reliability

The two performance measures under Travel Time Reliability are the percent of person miles traveled on the interstate and non-interstate National Highway System that are reliable within the MPO area. DRCOG must set 4-year targets by March 30, 2023. DRCOG staff recommend supporting CDOT’s travel time reliability targets shown in the table below:

Travel Time Reliability	Baseline	4-Year Target
Percent of the person-miles traveled on the interstate that are reliable	85.3%	79.0%
Percent of the person-miles traveled on the non-Interstate National Highway System that are reliable	94.7%	94.0%

Freight reliability

A separate measurement is required for travel time reliability for freight on the interstate system, the Truck Travel Time Reliability Index. It is broken down into five periods: morning peak, midday, and afternoon peak Monday – Friday, weekends, and overnight for each day. DRCOG must set 4-year targets by March 30, 2023. DRCOG staff recommend supporting CDOT’s freight reliability targets shown in the table below:

Freight Reliability	Baseline	4-Year Target
Truck Travel Time Reliability Index (TTTR)	1.39	1.46

Staff will discuss progress toward achieving the previous period's targets, review the methodologies and rationale, and explain the proposed targets at the February RTC meeting.

PREVIOUS DISCUSSIONS/ACTIONS

N/A

PROPOSED MOTION

Move to recommend to the Board of Directors adoption of the 2023 safety targets and four-year pavement condition, bridge condition, travel time reliability and freight reliability targets for the DRCOG MPO area as part of federal performance-based planning and programming requirements.

ATTACHMENT

1. DRCOG Staff Presentation
2. CDOT Staff Presentation (information only)

ADDITIONAL INFORMATION

If you need additional information, please contact Alvan-Bidal Sanchez, Regional Transportation Planning Program Manager, at 720-278-2341 or ASanchez@drcog.org.

Federal Performance Measures and Targets

Regional Transportation Committee
February 14, 2023

Alvan-Bidal Sanchez, AICP
he/him/el

Federal performance areas



PM1: Safety performance



PM2: Infrastructure condition



PM3: System performance, freight, and CMAQ



TAM: Transit Asset Management



PTASP: Public Transportation Agency Safety Plan

Federal Highway Administration

Federal Transit Administration

PM1: safety performance overview

- **Area** – Individual targets for **all public roads, developed and adopted annually**
(Covers the DRCOG MPO Region only)
- **Data** – Provided by CDOT, CDOT geo-locates “on-system” data and DRCOG geo-locates “off-system” data
- **Performance measures** –
 - Number of fatalities
 - Rate of fatalities per 100 million vehicle miles traveled
 - Number of serious injuries
 - Rate of serious injuries per 100 million vehicle miles traveled
 - Number of non-motorized fatalities and serious injuries
- **Calculation** – 5-Year rolling average of 5 individual, consecutive points of data
- **Federal guidance** –
 - Targets should be realistic and achievable, not aspirational
 - DRCOG can support CDOT’s state targets or set our own for the region
- **Penalty** –
 - No financial penalty or funding restriction
 - Additional scrutiny into the planning process during the quadrennial federal certification



Status on achieving previous targets

Estimated 315 fatalities in 2021

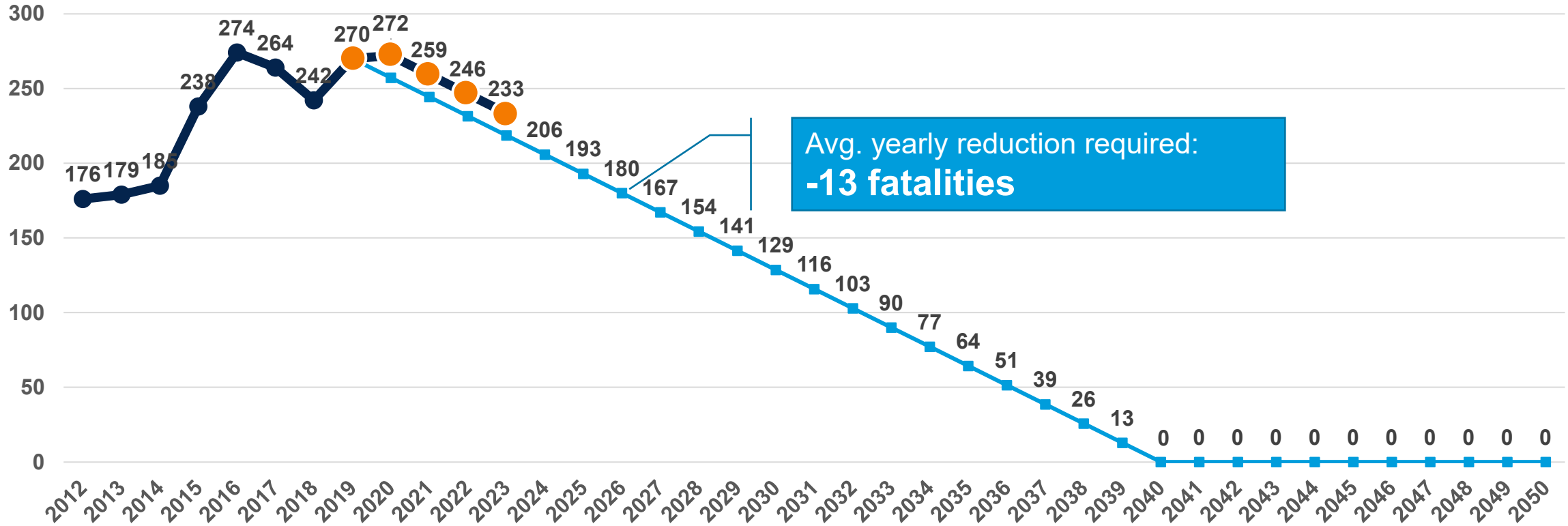
Performance Measures	Desired Trend	2018 (2014-2018)	2019 (2015-2019)	2020 (2016-2020)	2021 (2017-2021)	2022 (2018-2022)
		Achieved	Achieved	Achieved	Achieved	Achieved
Fatalities	↘↘↘	✓	✗	✗	⌚	⌚
Fatality rate	↘↘↘	✓	✓	✗	⌚	⌚
Serious injuries	↘↘↘	✓	✓	✓	⌚	⌚
Serious injury rate	↘↘↘	✓	✓	✓	⌚	⌚
Non-motorized	↘↘↘	✗	✗	✗	⌚	⌚

Actions towards achieving safety targets

- Updating **Taking Action on Regional Vision Zero** in 2023
- Conducted **Regional Complete Streets Prioritization Analysis**
- 2022-25 TIP includes **182 TIP Projects at \$1.7 billion** that will improve safety
- Hired DRCOG's **first dedicated Safety Planner**
- Hosting ongoing **Regional Vision Zero Work Group** meetings
- Participant in the **Colorado Safe Routes to Schools Advisory Committee**
- CDOT Regions 1 and 4 completed **Bicycle-Pedestrian Safety Studies**
- Participating on multiple corridor **safety studies**
- Awarded a 405c grant to explore a **Regional Crash Data Consortium**
- Participant in the **FHWA Safe Systems in HSIP Pilot Program**
- Participating in a **Vision Zero Community Peer Exchange**
- Exploring opportunities to apply and leverage **BIL funding**



Achieving zero fatalities by 2040

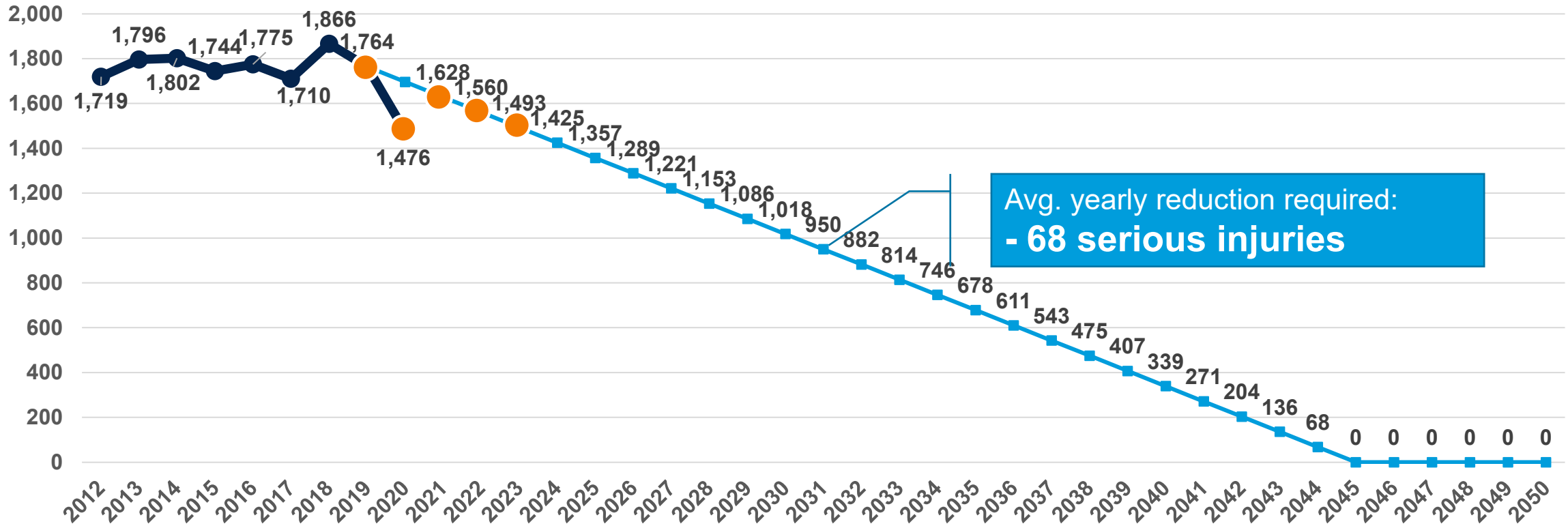


Year	2019	2020	2021	2022	2023	Calculating target
Number of fatalities	270	272	259	246	233	$(270+272+259+246+233)/5 = \underline{\underline{256}}$

Observed

Projection

Achieving zero serious injuries by 2045



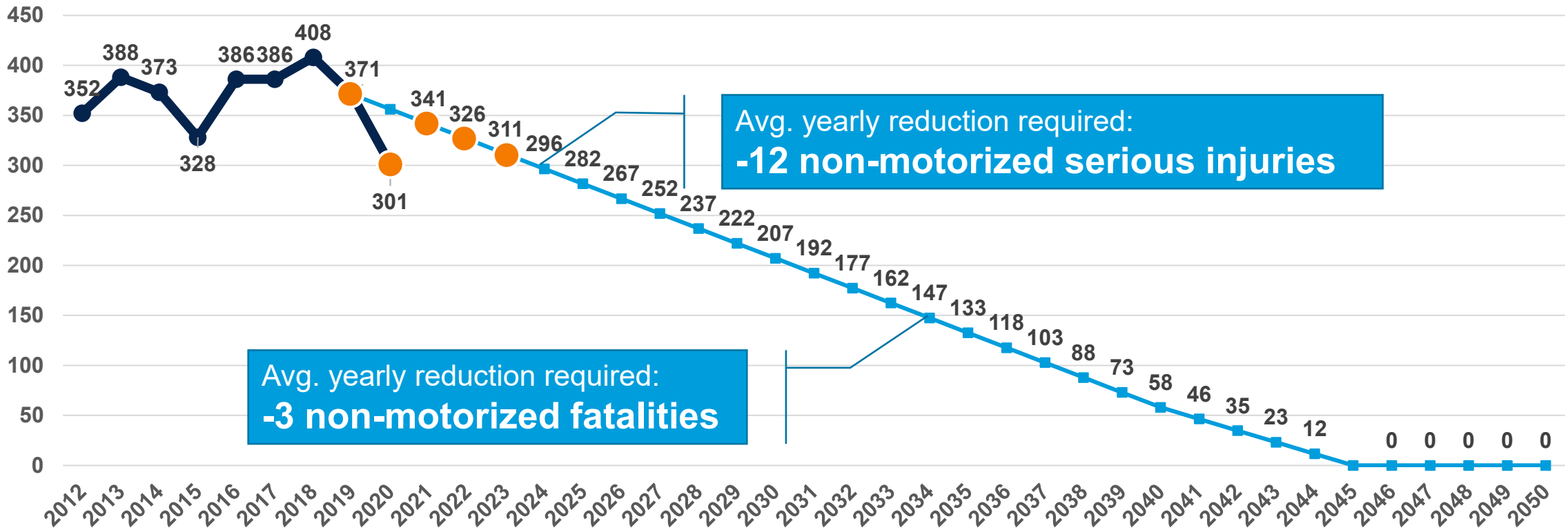
Avg. yearly reduction required:
- 68 serious injuries

Year	2019	2020	2021	2022	2023	Calculating target
Number of serious injuries	1,764	1,476	1,628	1,560	1,493	$(1,764+1,476+1,628+1,560+1,493)/5 = \underline{\underline{1,584}}$

Observed

Projection

Achieving zero non-motorized fatalities and serious injuries



Year	2019	2020	2021	2022	2023	Calculating target
Number of non-motorized fatalities & serious injuries	371	301	341	326	311	$(371+301+341+326+311)/5 = \mathbf{330}$



Proposed 2023 safety targets

Safety	Desired Trend	Baseline	2023 targets (2019-2023)
Number of fatalities	▼▼▼	TBD	256
Rate of fatalities per 100 million vehicle miles traveled	▼▼▼	TBD	0.930
Number of serious injuries	▼▼▼	TBD	1,584
Rate of serious injuries per 100 million vehicle miles traveled	▼▼▼	TBD	5.730
Number of non-motorized fatalities and serious injuries	▼▼▼	TBD	330

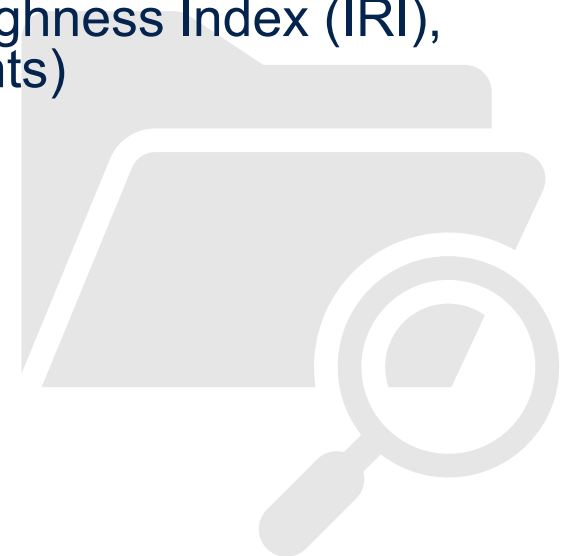


Infrastructure condition















PM2: pavement condition overview

- **Area** – Individual state 2- & 4- Year targets for the **non-interstate NHS** and 4-year targets for the **interstate** (DRCOG: 4-year target only)
- **Data** – Highway Performance Monitoring System (HPMS)
- **Performance Measures** –
 - % of interstate pavements in Good condition
 - % of interstate pavements in Poor condition
 - % of non-Interstate NHS pavements in Good condition
 - % of non-Interstate NHS pavements in Poor condition
- **Calculation** – Good and Poor Condition Rating Areas: International Roughness Index (IRI), Cracking, Rutting (Asphalt pavements), and Faulting (Concrete pavements)
- **Federal Guidance** –
 - Targets should be realistic and achievable, not aspirational
 - DRCOG can support CDOT's state targets or set our own for the region
- **Penalty** –
 - No financial penalty or funding restriction
 - Additional scrutiny into the planning process during the quadrennial federal certification



Status on achieving previous targets

Pavement Condition	Desired Trend	Four-year targets	Four-year observations	Met target or better than baseline?
Percent of pavement in good condition (interstate)		40.0%	43.5%	
Percent of pavement in poor condition (interstate)		5.0%	3.9%	
Percent of pavement in good condition (non-interstate NHS)		40.0%	39.3%	
Percent of pavement in poor condition (non-interstate NHS)		5.0%	3.1%	

Bridge Condition	Desired Trend	Four-year targets	Four-year observations	Met target or better than baseline?
Percent of bridges in good condition		44.0%	38.2%	
Percent of bridges in poor condition		4.0%	3.4%	

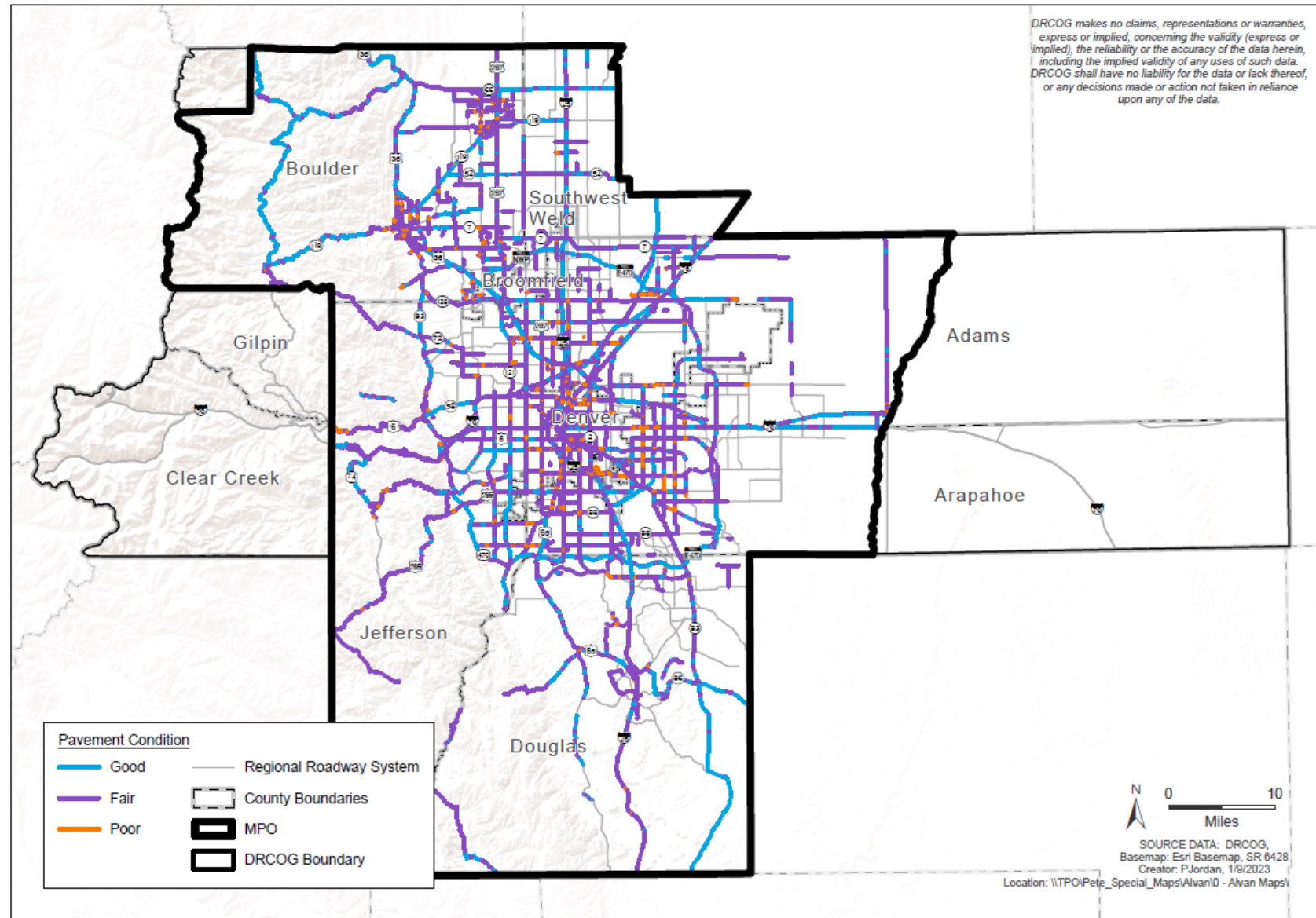
Pavement metric threshold

Rating	Good	Fair	Poor
IRI <i>(inches/mile)</i>	<95	95-170	>170
PSR* <i>(0.0-5.0 value)</i>	≥4.0	2.0-4.0	≤2.0
Cracking Percent <i>(%)</i>	<5	<i>CRCP: 5-10 Jointed: 5-15 Asphalt: 5-20</i>	<i>>10 >15 >20</i>
Rutting <i>(inches)</i>	<0.20	0.20-0.40	>0.40
Faulting <i>(inches)</i>	<0.10	0.10-0.15	>0.15

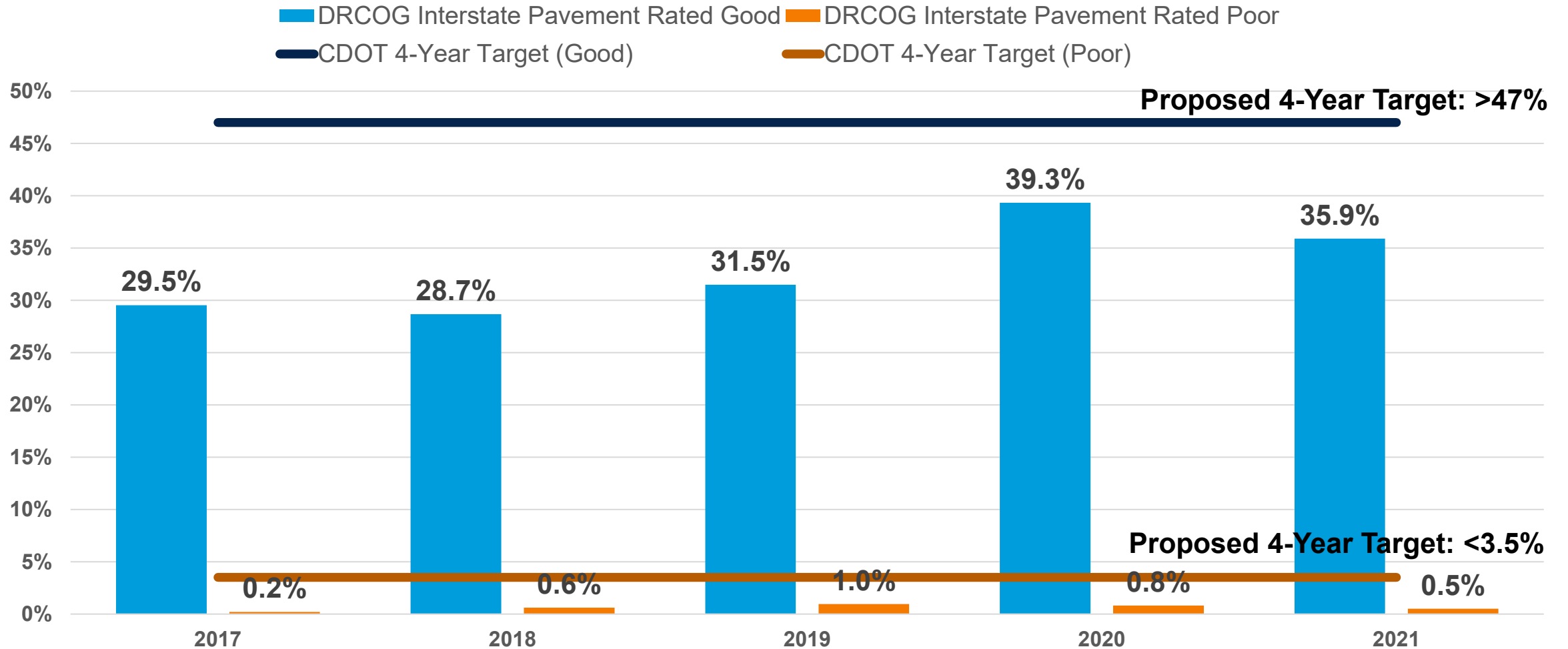
*PSR may be used only on routes with posted speed limit < 40mph.



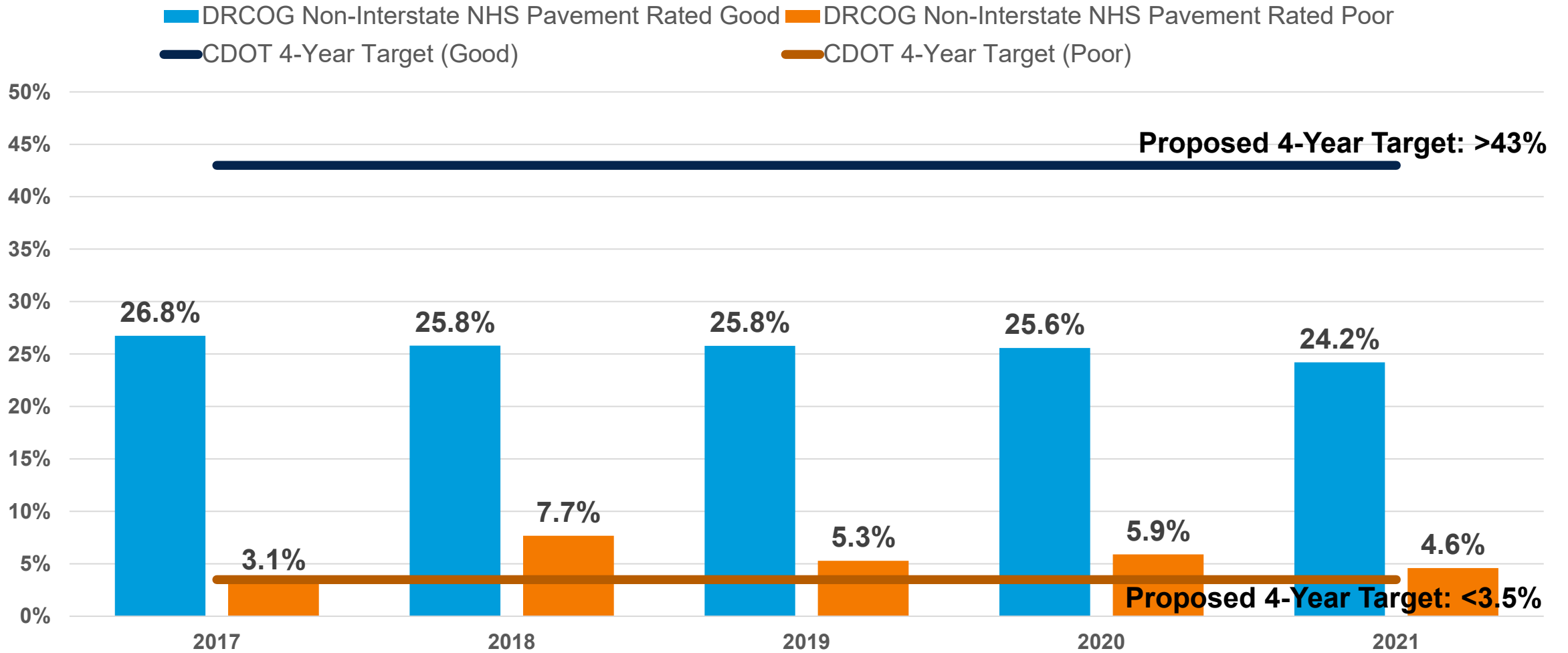
Pavement Conditions



Interstate pavement condition



Non-interstate NHS pavement condition

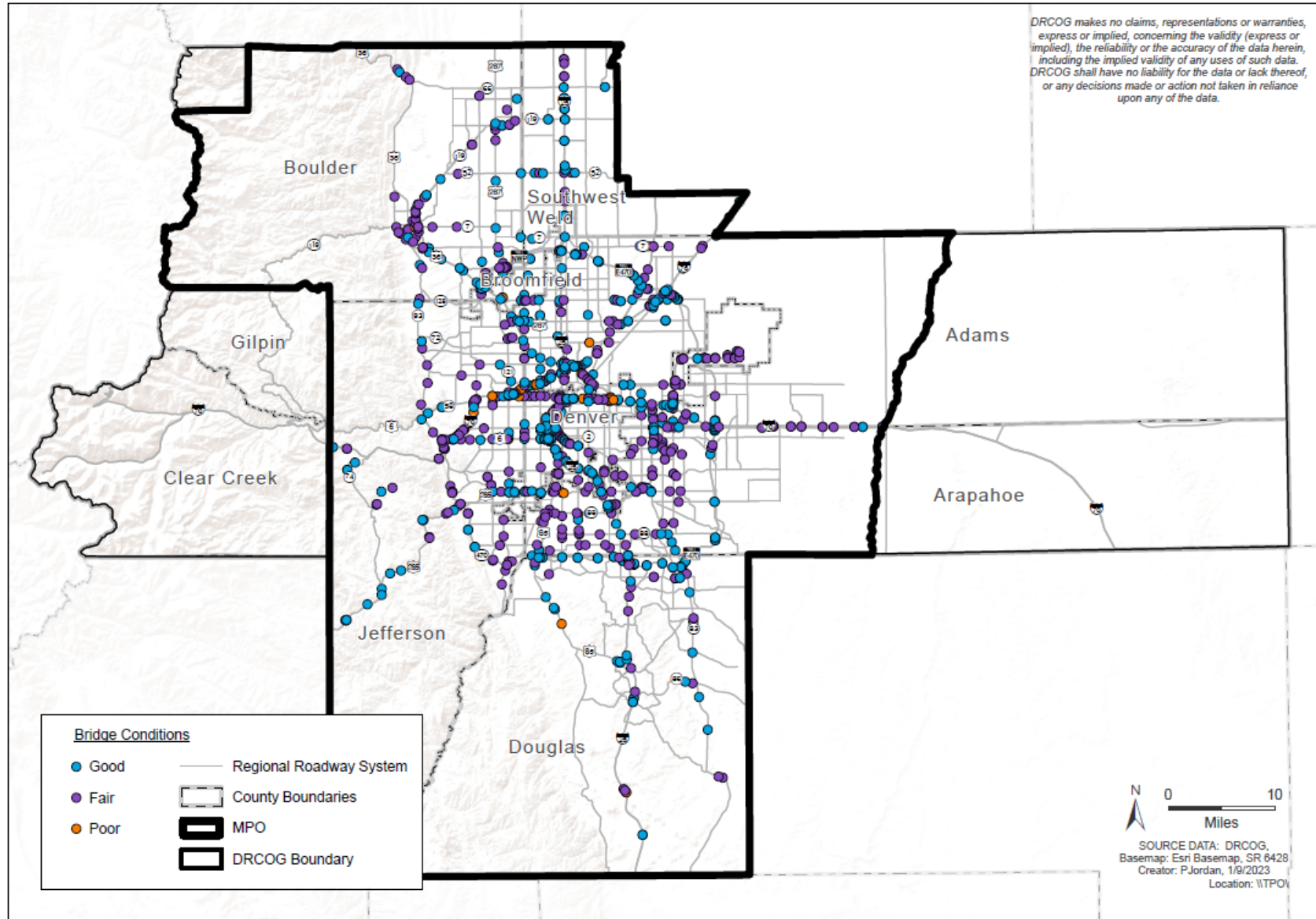


PM2: bridge condition overview

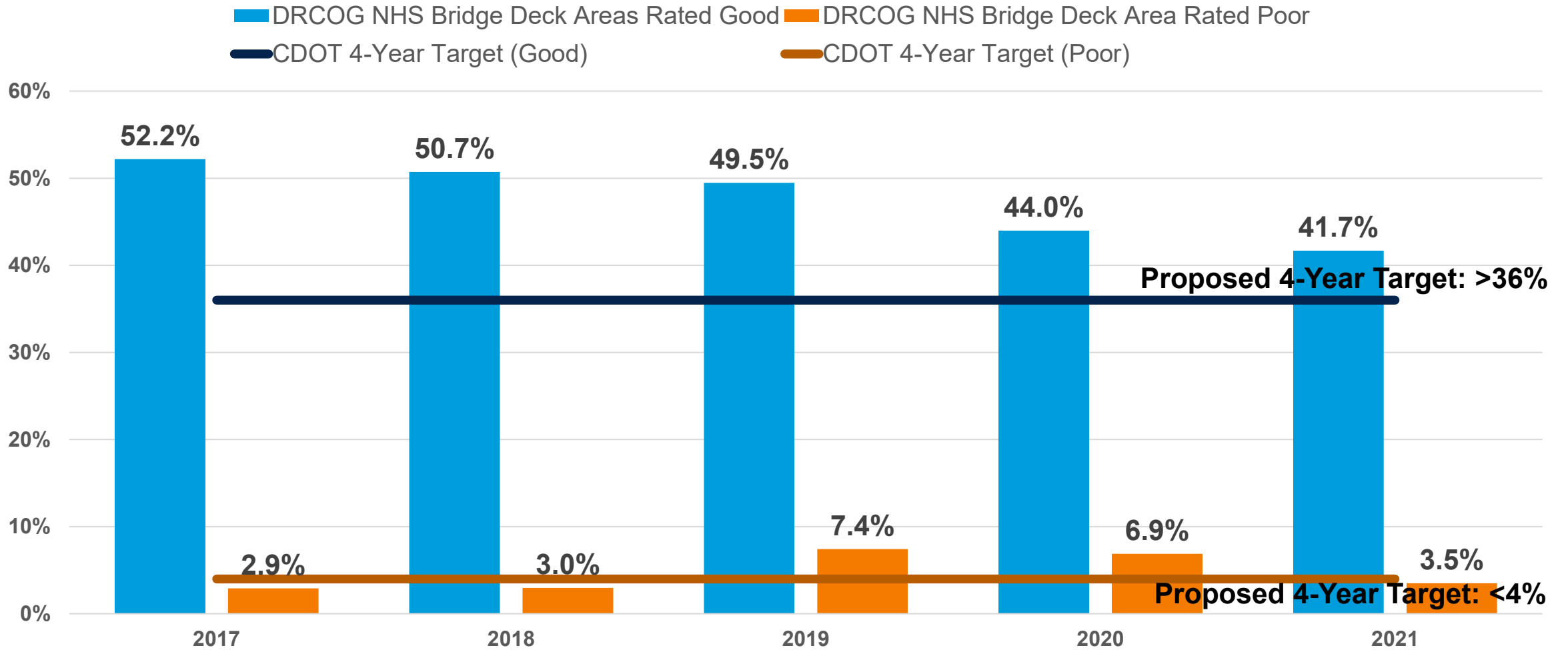
- **Area** – Individual state 2- & 4- year targets for **all bridges carrying the NHS**, including on- and off- ramps (DRCOG: 4-year target only)
- **Data** – National Bridge Inventory (NBI)
- **Performance Measures** –
 - % of NHS bridges by deck area classified as in Good condition
 - % of NHS bridges by deck area classified as in Poor condition
- **Calculation** – Good and Poor Condition Rating Areas: Deck, Superstructure, Substructure, and Culvert
- **Federal Guidance** –
 - Targets should be realistic and achievable, not aspirational
 - DRCOG can support CDOT's state targets or set our own for the region
- **Penalty** –
 - No financial penalty or funding restriction
 - Additional scrutiny into the planning process during the quadrennial federal certification



Bridge Conditions









Bridge deck area condition



Forecasting infrastructure condition

- CDOT staff uses infrastructure condition data and other assumptions (e.g., deterioration, treatment costs, inflation, etc.) to **develop 10-year forecasts**.
- Forecasts are generated through CDOT's Asset Investment Management System (AIMS), which is the Department's asset model. The forecasts **incorporate the effects of recommended life-cycle investment strategies** (i.e., a series of treatments, such as preventive maintenance, rehabilitations, and reconstructions) for both pavement and bridge.
- The Department generates forecasts **based on anticipated budgets, as well as higher- and lower-than-expected budgets**, to understand return on investment.
- Staff proposes infrastructure condition **targets based on anticipated budgets and the resulting condition forecast** to CDOT's Transportation Asset Management Oversight Committee.
- The targets are finalized through the approval of CDOT's Executive Director.

Proposed infrastructure condition targets

Pavement Condition	Desired Trend	Baseline	4-Year Targets
Percent of pavement in good condition (interstate)		43.5%	47.0%
Percent of pavement in poor condition (interstate)		3.9%	3.5%
Percent of pavement in good condition (non-interstate NHS)		39.3%	43.0%
Percent of pavement in poor condition (non-interstate NHS)		3.1%	3.5%
Bridge Condition	Desired Trend	Baseline	4-Year Targets
Percent of bridges in good condition		38.2%	36.0%
Percent of bridges in poor condition		3.4%	4.0%



Travel time reliability and freight reliability



System performance, freight, and CMAQ



Traffic congestion reduction

- Annual hours of peak hour excessive delay per capita
- % of non single occupancy vehicle travel



On-road mobile source emissions

- Total emissions reduction (kg/day)
 - NOx
 - VOC
 - CO
 - PM10



Travel time reliability

- % of PMT on the interstate that are reliable
- % of PMT on the non-interstate NHS that are reliable



Freight reliability

- Truck travel time reliability index

PM3: Travel time reliability overview

- **Area** – Individual state 2- & 4- year targets for the **interstate** and 4-year targets for the **non-interstate NHS** (DRCOG: 4-year target only)
- **Data** – National Performance Management Research Data Set (NPMRDS) & Highway Performance Monitoring System (HPMS)
- **Performance Measures** –
 - Percent of the person miles traveled on the interstate that are reliable
 - Percent of the person miles traveled on the non-interstate NHS that are reliable
- **Calculation** –
 - $Level\ of\ Travel\ Time\ Reliability = \frac{80th\ Percentile\ Travel\ Time}{50th\ Percentile\ Travel\ Time}$
 - Level of Travel Time Reliability (LOTR) for the reporting segment must be less than 1.50 to be considered reliable
- **Federal Guidance** –
 - Targets should be realistic and achievable, not aspirational
 - DRCOG can support CDOT's state targets or set our own for the region
- **Penalty** –
 - No financial penalty or funding restriction
 - Additional scrutiny into the planning process during the quadrennial federal certification

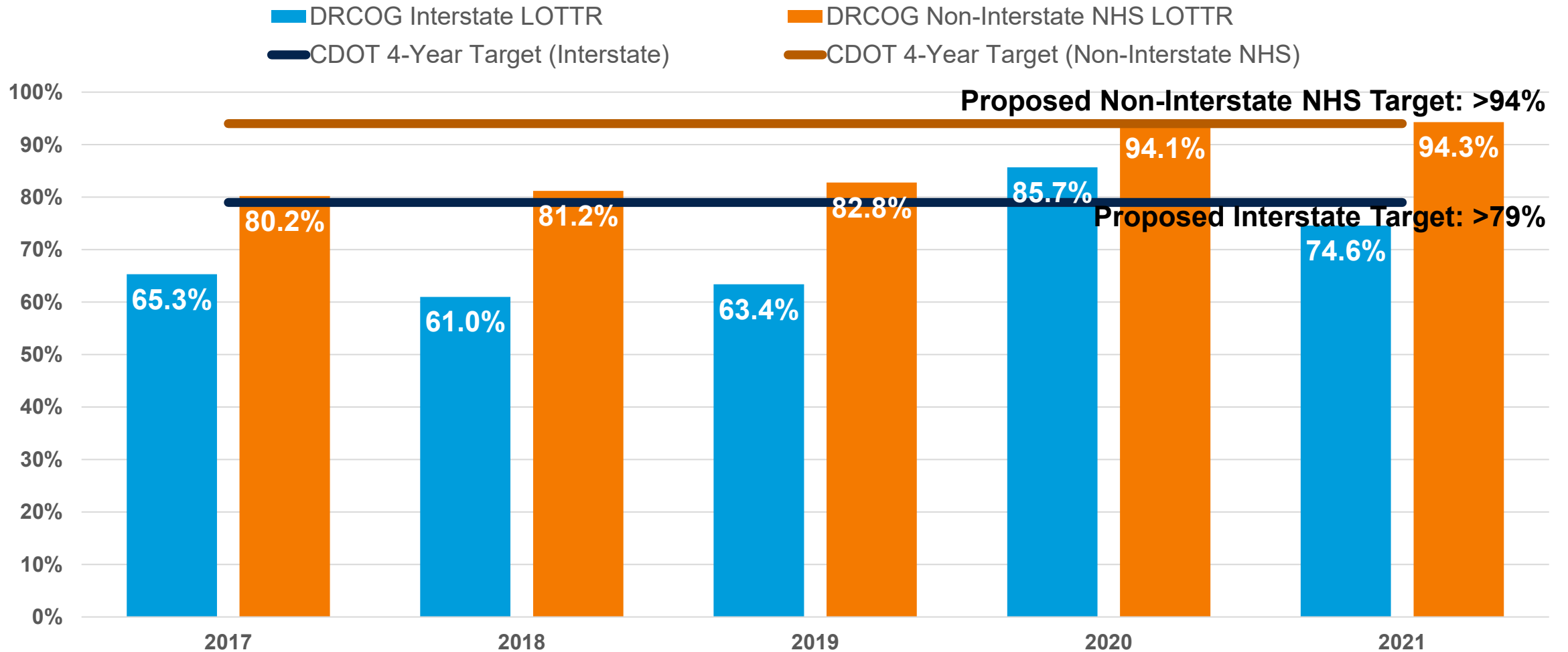


Status on achieving previous targets

Travel Time Reliability	Desired Trend	Four-year targets	Four-year observations	Met target or better than baseline?
Percent of the person-miles traveled on the interstate that are reliable	▲▲▲	81.0%	85.3%	✓
Percent of the person-miles traveled on the non-Interstate NHS that are reliable	▲▲▲	64.0%	94.7%	✓

Freight Reliability	Desired Trend	Four-year targets	Four-year observations	Met target or better than baseline?
Truck Travel Time Reliability Index (TTTR)	▼▼▼	1.50	1.39	✓

Travel time reliability

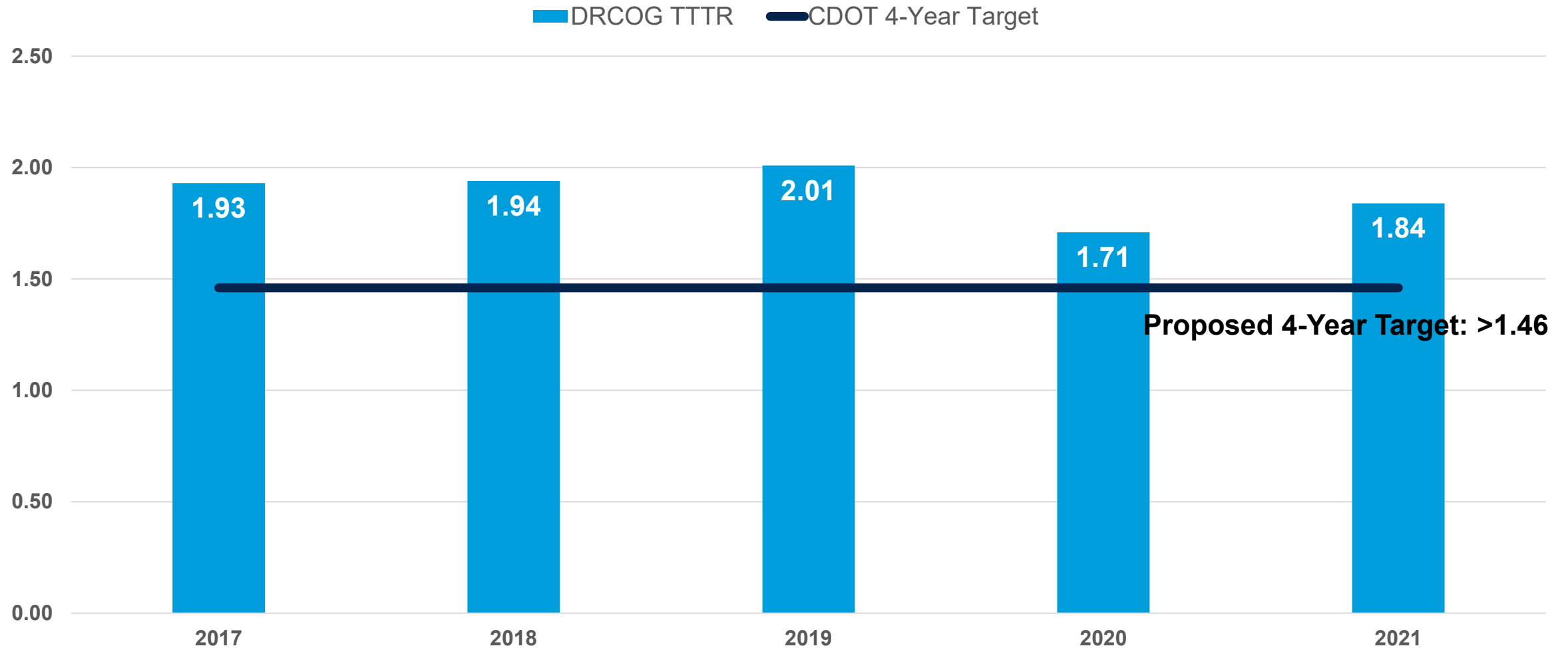


PM3: Freight reliability overview

- **Area** – Individual state 2- & 4- year targets (DRCOG: 4-year target only)
- **Data** – National Performance Management Research Data Set (NPMRDS)
- **Performance Measures** –
 - Truck Travel Time Reliability Index: Percent of the interstate system mileage providing for reliable truck travel times
- **Calculation** –
 - *Truck Travel Time Reliability* = $\frac{95th\ Percentile\ Travel\ Time}{50th\ Percentile\ Travel\ Time}$
- **Federal Guidance** –
 - Targets should be realistic and achievable, not aspirational
 - DRCOG can support CDOT's state targets or set our own for the region
- **Penalty** –
 - No financial penalty or funding restriction
 - Additional scrutiny into the planning process during the quadrennial federal certification






Truck Travel Time Reliability Index




- Future levels of system reliability were forecasted using **predictive modeling**. The following data elements were used in the predictive model:
 - “Point Data” - Data used in Travel Demand model shows location for each establishment, school and home in the state.
 - Population Data
 - Loveland Pass Transit Data - Data used from the Travel Demand model, which looks at long distance travel in the state.
 - Historic System Reliability data from NPMRDS
- Lingering effects of COVID-19 on travel

Proposed travel time and freight reliability targets

Travel Time Reliability	Desired Trend	Baseline	4-Year Targets
Percent of the person-miles traveled on the interstate that are reliable		85.3%	79.0%
Percent of the person-miles traveled on the non-Interstate NHS that are reliable		94.7%	94.0%

Freight Reliability	Desired Trend	Baseline	4-Year Targets
Truck Travel Time Reliability Index (TTTR)		1.39	1.46

Performance targets schedule

- Transportation Advisory Committee: **Jan 23**
- Regional Transportation Committee: **Feb 14** 
- Board of Directors: **Feb 15**
- **Deadlines:**
 - **Feb 27** (Safety)
 - **Mar 30** (Infrastructure condition and reliability)
- **Mid-performance period:** Opportunity to re-evaluate and revise the 4-year targets if needed



The screenshot shows the DRCOG website interface. At the top left is the DRCOG logo with the tagline 'We make life better!' and 'DENVER REGIONAL COUNCIL OF GOVERNMENTS'. To the right is the word 'Resources'. Below this is a dark navigation bar with the DRCOG logo on the left and 'ACCOUNT MENU' with a right-pointing arrow on the right. A secondary navigation bar contains links: 'COVID-19 Update', 'About DRCOG', 'Planning a Great Region', 'Programs', 'Services and Resources', 'News and Events', and 'Contact DRCOG'. On the far right of this bar is a link 'I'm interested in...'. Below the navigation is a breadcrumb trail: 'Planning a Great Region / Transportation Planning / Performance Based Planning and Programming / Measuring Success'. The main content area features a large image of a laptop displaying various data charts (line graphs, bar charts, pie charts) with the title 'Measuring Success'. Below the image is the section title 'FHWA Performance Dashboard and Reports' followed by a paragraph: 'The Federal Highway Administration of the U.S. Department of Transportation has developed State Performance Dashboard and Reports® and Urbanized Area Congestion Reports® where visitors can find the latest available baseline values and performance targets for each state department of transportation and urbanized area.' To the right of the main content is a sidebar titled 'Planning a Great Region' containing a list of menu items: 'Metro Vision', 'Transportation Planning' (expanded), 'Advanced Mobility', 'Air Quality Planning', 'Bicycle and Pedestrian Planning', 'Community-Based Transportation Planning Pilot Program', 'Complete Streets', 'Congestion Management Process', 'Freight and Goods Movement', 'Performance Based Planning and Programming' (expanded), 'DRCOG's role', 'Safety Performance', 'Infrastructure Condition', 'System Performance, Freight and CMAQ', 'Transit Asset Management', 'Public Transportation Agency Safety Plan', 'Measuring Success', and 'Regional Traffic Count Program'. At the bottom right of the sidebar is a small icon of a person.

<https://drcog.org/planning-great-region/transportation-planning/performance-based-planning-and-programming/measuring>

Requested motion

Move to recommend that the Board of Directors establish the 2023 safety targets and four-year pavement condition, bridge condition, travel time reliability and freight reliability targets for the DRCOG MPO area as part of federal performance-based planning and programming requirements.





Thank you!
Questions?

Alvan-Bidal Sanchez, AICP
Program manager
direct: (720) 278-2341
email: asanchez@drcog.org



COLORADO

Department of Transportation

CDOT PM2 and PM3 Target Setting



Establishing Targets

PM2 - Infrastructure Condition

- CDOT staff uses infrastructure condition data and other assumptions (e.g., deterioration, treatment costs, inflation, etc.) to develop 10-year forecasts.
- Forecasts are generated through CDOT's Asset Investment Management System (AIMS), which is the Department's asset model. The forecasts incorporate the effects of recommended life-cycle investment strategies (i.e., a series of treatments, such as preventive maintenance, rehabilitations, and reconstructions) for both pavement and bridge.
- The Department generates forecasts based on anticipated budgets, as well as higher- and lower-than-expected budgets, to understand return on investment.
- Staff proposes infrastructure condition targets based on anticipated budgets and the resulting condition forecast to CDOT's Transportation Asset Management Oversight Committee.
- The targets are finalized through the approval of CDOT's Executive Director.
- MPOs must establish targets no later than 180 days after the State - March 30, 2023
 - agreeing to support the State target; *OR*
 - establishing their own targets



PM2 Performance and Targets

First Performance Period Results (2018-2021)

Pavement Condition	2021 Target	2021 Results
Percentage of pavements of the Interstate System in Good condition	40.0%	43.5%
Percentage of pavements of the Interstate System in Poor condition	5.0%	3.9%
Percentage of pavements of the non-Interstate NHS in Good condition	40.0%	39.3%
Percentage of pavements of the non-Interstate NHS in Poor condition	5.0%	3.1%

Second Performance Period Targets (2022-2025)

Pavement Condition (PM2)	2023 Target	2025 Target
Percentage of pavements of the Interstate System in Good condition	45.0%	47.0%
Percentage of pavements of the Interstate System in Poor condition	4.0%	3.5%
Percentage of pavements of the non-Interstate NHS in Good condition	42.0%	43.0%
Percentage of pavements of the non-Interstate NHS in Poor condition	3.5%	3.5%

Bridge Condition	2021 Target	2021 Results
Percentage of National Highway System Bridges, by Deck Area, Classified in Good Condition	44.0%	38.2%
Percentage of National Highway System Bridges, by Deck Area, Classified in Poor Condition	4.0%	3.4%

Bridge Condition (PM2)	2023 Target	2025 Target
Percentage of National Highway System Bridges, by Deck Area, Classified in Good Condition	36.0%	36.0%
Percentage of National Highway System Bridges, by Deck Area, Classified in Poor Condition	4.0%	4.0%



PM2 Significant Progress Determination

- The FHWA will determine that a State DOT has made significant progress toward the achievement of each 2- or 4-year applicable target if either:
 - The actual condition/performance level is better than the baseline condition/performance; or
 - The actual condition/performance level is equal to or better than the established target.
- If FHWA determines that a State DOT has not made significant progress
 - The State DOT shall include as part of the next performance target report, a description of the actions the State DOT will undertake to achieve the targets related to the measure in which significant progress was not achieved.
- Financial Restrictions
 - If more than 5 percent of Interstate pavements are classified as Poor.
 - if more than 10 percent of NHS bridge-deck area is classified as Poor



Interstate Pavement Performance

2021 Interstate Pavement Condition						
Region	Good	Trend		Poor	Trend	
CO	43.5%			3.9%		
DRCOG	35.9%			0.5%		
NFRMPO	55.0%			1.5%		
PPACG	52.9%			1.8%		
PACOG	44.2%			5.0%		
GVMPO	76.7%			0.0%		



Non-Interstate NHS Pavement Performance

2021 Non-Interstate NHS Pavement Condition

Region	Good	Trend	Poor	Trend
CO	39.3%		3.1%	
DRCOG	24.2%		4.6%	
NFRMPO	42.0%		2.3%	
PPACG	27.0%		5.4%	
PACOG	37.8%		0.8%	
GVMPO	20.5%		4.4%	



NHS Bridge Performance

2022 NHS Bridge-Deck Area Condition

Region	Good	Trend	Poor	Trend
CO	38.2%		3.4%	
DRCOG	41.7%		3.5%	
NFRMPO	45.2%		7.6%	
PPACG	39.5%		2.2%	
PACOG	44.1%		7.0%	
GVMPO	18.9%		0.7%	



Establishing Targets

PM3 - System Reliability

- Future levels of system reliability were forecasted using predictive modeling. The following data elements were used in the predictive model:
 - “Point Data” - Data used in Travel Demand model shows location for each establishment, school and home in the state.
 - Population Data
 - Loveland Pass Transit Data - Data used from the Travel Demand model, which looks at long distance travel in the state.
 - Historic System Reliability data from NPMRDS
- MPOs must establish targets no later than 180 days after the State establishes targets.
 - March 30, 2023.
 - agreeing to support the State target; *OR*
 - establishing their own four-year targets (if the DOT chooses to modify targets at the mid-year evaluation, the MPO has 180 day to keep or change the four-year target)

First Performance Period Results (2018-2021)

System Reliability	2021 Target	2021 Results
Percent of person-miles traveled on the Interstate that are reliable	81.0%	85.3%
Percent of person-miles traveled on the non-Interstate National Highway System (NHS) that are reliable	64.0%	94.7%
Truck Travel Time Reliability (TTTR) Index	1.50	1.39

Second Performance Period Targets (2022-2025)

System Reliability	2023 Target	2025 Target
Percent of person-miles traveled on the Interstate that are reliable	81.0%	79.0%
Percent of person-miles traveled on the non-Interstate National Highway System (NHS) that are reliable	93.0%	94.0%
Truck Travel Time Reliability (TTTR) Index	1.46	1.46



PM 3 Significant Progress Determination

- The FHWA will determine that a State DOT has made significant progress toward the achievement of each 2- or 4-year applicable target if either:
 - The actual condition/performance level is better than the baseline condition/performance; or
 - The actual condition/performance level is equal to or better than the established target.
- If FHWA determines that a State DOT has not made significant progress
 - The State DOT shall include as part of the next performance target report, a description of the actions the State DOT will undertake to achieve the targets related to the measure in which significant progress was not achieved.
- Financial Restrictions
 - N/A



Interstate LOTTR Performance

Interstate LOTTR						
Region	2021	2020	2019	2018	2017	Trend
Statewide	85.3%	91.5%	78.8%	77.8%	80.3%	
DRCOG	74.6%	85.7%	63.4%	61.0%	65.3%	
NFRMPO	100.0%	100.0%	93.7%	100.0%	100.00%	
PPACG	93.2%	97.2%	90.1%	90.6%	94.4%	
PACOG	98.5%	100.0%	100.0%	100.0%	100.0%	
GVMPO	100.0%	100.0%	100.0%	100.0%	100.0%	



Non-Interstate NHS LOTTR Performance

Non-Interstate NHS LOTTR						
Region	2021	2020	2019	2018	2017	Trend
Statewide	94.7%	94.3%	87.6%	86.5%	85.9%	
DRCOG	94.3%	94.1%	82.8%	81.2%	80.2%	
NFRMPO	98.8%	97.9%	97.8%	98.0%	97.8%	
PPACG	91.9%	88.2%	85.1%	84.7%	85.4%	
PACOG	96.0%	96.2%	95.1%	90.3%	93.0%	
GVMPO	96.9%	96.7%	96.8%	97.2%	94.1%	



Interstate TTTR Index Performance

Interstate TTTR Index						
Region	2021	2020	2019	2018	2017	Trend
Statewide	1.39	1.42	1.45	1.38	1.37	
DRCOG	1.84	1.71	2.01	1.94	1.93	
NFRMPO	1.54	1.35	1.69	1.48	1.53	
PPACG	1.44	1.30	1.46	1.41	1.36	
PACOG	1.20	1.16	1.24	1.22	1.18	
GVMPO	1.17	1.17	1.18	1.17	1.16	



- Federal Highway Administration (FHWA)
 - [FHWA TPM Website](#)
- Colorado Department of Transportation (CDOT)
 - [CDOT NPM Website](#)
- Asset Condition Performance Dashboards
 - [Bridge Condition Dashboard](#)
 - [Pavement Condition Dashboard](#)
- National Performance Management Research Data Set (NPMRDS)
 - [NPMRDS Analytics](#)



For questions or comments on this presentation, please contact:

William Johnson

Performance and Asset Management Branch Manger
Colorado Department of Transportation
Division of Transportation Development
will.johnson@state.co.us

Jacob Kershner

Performance Analyst
Colorado Department of Transportation
Division of Transportation Development
jacob.kershner@state.co.us

ATTACHE

ATTACHMENT E

To: Chair and Members of the Regional Transportation Committee
From: Ron Papsdorf, Director, Transportation Planning and Operations
303-480-6747 or rpapsdorf@drcog.org

Meeting Date	Agenda Category	Agenda Item #
February 14, 2023	Informational Briefing	7

SUBJECT

FY 2024- 2025 Unified Planning Work Program (UPWP) Update

PROPOSED ACTION/RECOMMENDATIONS

N/A

ACTION BY OTHERS

N/A

SUMMARY

Metropolitan Planning Organizations (MPOs) must adopt a *Unified Planning Work Program* (UPWP) that outlines and serves as the tool for scheduling, budgeting, and monitoring the metropolitan transportation planning tasks and activities of participating entities conducted within the region with federal transportation planning funds. The document also lists other major planning activities performed by local governments.

DRCOG staff has begun discussions around major activities to be conducted from October 1, 2023 through September 30, 2025 for the FY 2024-FY 2025 UPWP. Many activities will continue from the current [FY 2022-FY 2023 UPWP](#). Staff will discuss the federal context for the UPWP and required planning activities. DRCOG seeks RTC input on ideas and regional priorities that could be considered for 2024 and 2025.

PREVIOUS DISCUSSIONS/ACTIONS

N/A

PROPOSED MOTION

N/A

ATTACHMENT

1. Staff presentation

ADDITIONAL INFORMATION

If you need additional information, please contact Ron Papsdorf, Director, Transportation Planning and Operations Division at 303-480-6747 or rpapsdorf@drcog.org or Todd Cottrell, Project and Program Delivery Manager, Transportation Planning and Operations at 303-480-6737 or tcottrell@drcog.org.

FY 2024 & 2025 UNIFIED PLANNING WORK PLAN DEVELOPMENT

Regional Transportation Committee

February 14, 2023

Ron Papsdorf, Director, Transportation Planning & Operations

Todd Cottrell, Program Manager, Project & Program Delivery

Josh Schwenk, Transportation Planner

- MPO/Metropolitan Transportation Planning Overview
- UPWP Overview
- Menti Exercise
- Process/Next Steps for FY 2024 - FY 2025 UPWP Development

- **Purpose** – carry out a **continuing, cooperative, and comprehensive** performance-based **multimodal** transportation planning process, including the development of a **metropolitan transportation plan** and a **TIP**.
- **Interested parties, participation and consultation** – shall develop and use a documented participation plan that defines a process for providing interested parties with reasonable opportunities to be involved in the metropolitan transportation planning process.

- **Scope** – consider and implement projects, strategies, and services that address the following factors:
 - Economic vitality
 - Safety
 - Security
 - Accessibility and Mobility
 - Environment, energy conservation, quality of life, and consistency between transportation improvements and planned growth and E.D.
 - System and modal integration and connectivity
 - System management and operation
 - System preservation
 - Resiliency and reliability and reduce or mitigate stormwater impacts
 - Enhance travel and tourism
- provide for performance-based approach and support national goals
- be consistent with the development of regional ITS architectures
- prepare coordinated public transit-human services transportation plan

- **Scope** – identify and develop tasks addressing the current federal emphasis areas:
 - Help achieve national **GHG goals** and achieve climate resilience
 - Advance **racial equity** and support for **underserved and disadvantaged communities**
 - Plan for safe **Complete Streets**
 - Utilize meaningful, early, effective, and continuous **public involvement**
 - Coordinate with Dept. of Defense on the **Strategic Highway Network**
 - Coordinate with **Federal Land Management Agencies** on transportation on federal lands
 - Use **Planning and Environmental Linkages (PELs) studies** as part of the transportation planning process
 - Incorporate **data sharing principles and data management** into the transportation planning process

- **Congestion management process** – shall address congestion management that provides for safe and effective integrated management and operation of the multimodal system
- **Metropolitan transportation plan** – shall develop a 20-year transportation plan that considers the planning factors
 - Long-range and short-range strategies/actions
 - Review and update at least every 4 years
 - Coordinate with the process for developing TCMs in a SIP
- **Transportation Improvement Program (TIP) and Annual listing of obligated projects (ALOP)**

- **Unified Planning Work Program** – shall develop a UPWP that includes a discussion of the planning priorities facing the metropolitan planning area.
 - Identify work proposed for the next 1- or 2-year period **with federal planning funds** by major activity and task, including activities that address the federal planning factors:
 - Who will perform work
 - Schedule for completing the work
 - Resulting products
 - Proposed funding by activity/task
 - Summary of total amounts and sources of federal and matching funds

- Regional Data
- Land use modeling
- Transportation modeling/local area planning/project support
- Technical assistance
- Scenario planning
- Local transportation plan support
- Traffic Operations Program: signal coordination
- Transportation Demand Management Program
- Regional Traffic Count Program Database

- Corridor planning
- Community-based transportation plans
- Greenhouse Gas Emissions and RTP Review
- Housing coordination process/plan
- Local agency TIP project support and monitoring
- Vision Zero/Safety initiatives
- IIJA Programs
 - Congestion Relief
 - Healthy Streets – AQ/heat islands
 - Reconnecting Communities
 - Safe Streets & Roads for All
 - SMART - technology
- Local transportation/land use best practices
 - Transit-Oriented Development
 - Transit design standards

CONTINUING, EMERGING, & FUTURE ISSUES

- Growing population and employment
- Aging population
- Equity and inclusion
- Leveraging transportation and land use for better outcomes
- Transportation technology
- Transit system optimization/future of mobility
- Mobility as a service
- Greenhouse gas emissions/air quality
- Complete streets & multimodal safety
- Micromobility
- Future of TDM and telework
- 2020 census and TMA/UZA boundaries
- Funding limitations

Seven Objectives:

- 1. Program Administration and Coordination**
- 2. Planning Coordination and Outreach**
- 3. Long Range and Multimodal Planning**
- 4. Project Programming**
- 5. Transportation Systems Operations**
- 6. Public Transportation Planning**
- 7. Planning Data and Modeling**

1.0 - Program Administration and Coordination

Administer the core Metropolitan Planning Organization (MPO) transportation planning program.

- Facilitate staff development and training
- Maintain and update the UPWP
- Ensure compliance with state and federal laws and regulations

2.0 - Planning Coordination and Outreach

Increase participation and support of the public in the planning process and engage with the transportation planning activities of partner agencies to address the transportation and development issues of the region and ensure outcomes that are consistent with Metro Vision goals and policies.

- Implement the Public Engagement Plan to engage the public
- Coordinate with federal, state, and local partners

3.0 - Long Range and Multimodal Planning

Develop, refine, and implement the region's long-range plans – Metro Vision and the Metro Vision Regional Transportation Plan – as well as the various modal plans which help to implement their principles, to enhance and improve the quality of life in the DRCOG region

- Maintain, update, and implement Metro Vision
- Maintain, update and implement the MVRTP
- Conduct active transportation and TDM planning
- Conduct freight planning
- Conduct corridor and community-based transportation planning
- Conduct Complete Streets planning

4.0 - Project Programming

Identify and implement priorities within the metropolitan area by effectively developing and managing the Transportation Improvement Program.

- Maintain and update the TIP, including holding calls for projects for the TIP and set-asides

5.0 - Transportation Systems Operations

Implement regional priorities through strategies to improve the safety and effectiveness of the existing transportation system, explore innovative solutions, and protect air quality.

- Administer the Congestion Management Process
- Conduct ITS planning and deployment
- Conduct security planning
- Conduct safety planning
- Conduct innovative mobility planning

6.0 - Public Transportation Planning

Plan and operate rapid transit corridors, the regional bus network, and transit facilities.

- Conduct RTD-led transit facility and service planning
- Conduct DRCOG-led transit-related planning (Coordinated Transit Plan, FTA Section 5310 Program)

7.0 – Planning Data and Modeling

Acquire and maintain critical data and forecasting tools to support the region's transportation and land use planning activities.

- Conduct travel and land use modeling
- Maintain and update the Regional Data Catalog
- Collect traffic counts
- Develop data products for partners

- Menti exercise

- March 27: Update to TAC on major anticipated activities and draft list of tasks and deliverables in 2024-2025
- June 14-July 14: Public comment period on draft 2024-2025 UPWP
- July 24: TAC recommendation
- August 15: RTC recommendation
- August 16: Board action



THANK YOU!
QUESTIONS?

Ron Papsdorf

**Director, Transportation Planning &
Operations**

rpapsdorf@drcog.org

303-480-6747

ATTACH F

ATTACHMENT F

To: Chair and Members of the Regional Transportation Committee

From: Zachary Feldman, Manager, Data Science and Analytics

Meeting Date	Agenda Category	Agenda Item #
February 14, 2023	Informational Briefing	8

SUBJECT

Population cohort and household type forecast: a brief summary of the next 30 years

PROPOSED ACTION/RECOMMENDATIONS

N/A

ACTION BY OTHERS

N/A

SUMMARY

Among other things, changes in population and households over time impact the region's estimates of, and approaches to, future travel demands and patterns. Forecasts for the region begin with population and household forecasts from the Colorado State Demography Office.

Staff will present information about available data sources, forecasted changes in population growth with emphasis on variation by age cohort, forecasted changes in household growth with emphasis on variation by household type, and the implications for the Denver region.

Key takeaways:

1. The Denver region is not in free fall. We are not going to see a decrease in population.
2. Growth will be drastically slower over the next three decades than over the past three decades.
3. The Denver region and Colorado will continue to see population growth faster than the national average.
4. The Denver region will see no growth in children over the next three decades.
5. Expect continued fast growth among older adults with 65+ population growing over seven times faster than the under 65 population (99% vs 13%)
6. Most forecasted household growth will be among older adults and households without children.

PREVIOUS DISCUSSIONS/ACTIONS

N/A

PROPOSED MOTION

N/A

ATTACHMENTS

1. Staff presentation

ADDITIONAL INFORMATION

If you need additional information, please contact Zachary Feldman, Manager Data Science and Analytics, at 303 480-6790 or zfeldman@drcog.org.

POPULATION COHORT AND HOUSEHOLD TYPE FORECAST

A brief summary of the next 30 years

Regional Transportation Committee | Feb. 14th,
2023

Zachary Feldman, PhD

Manager, Data Science and Analytics

OUTLINE

- Data Sources
- Forecasted changes in **population growth**
 - Variation by age
- Forecasted changes in **household growth**
 - Variation by household type
- Implications for the Denver region



Colorado State Demography Office:

<https://demography.dola.colorado.gov/index.html>

Population forecasts by county through 2050

- Stratified by sex and age

Household forecasts by county through 2050

- Stratified by age of household head
- Stratified by household type
 1. One adult with no children
 2. One adult with children
 3. More than one adult with no children
 4. More than one adult with children

DRCOG data briefs

- [Household growth and housing demand \(May 2019\)](#)
- [Regional growth deceleration \(October 2020\)](#)

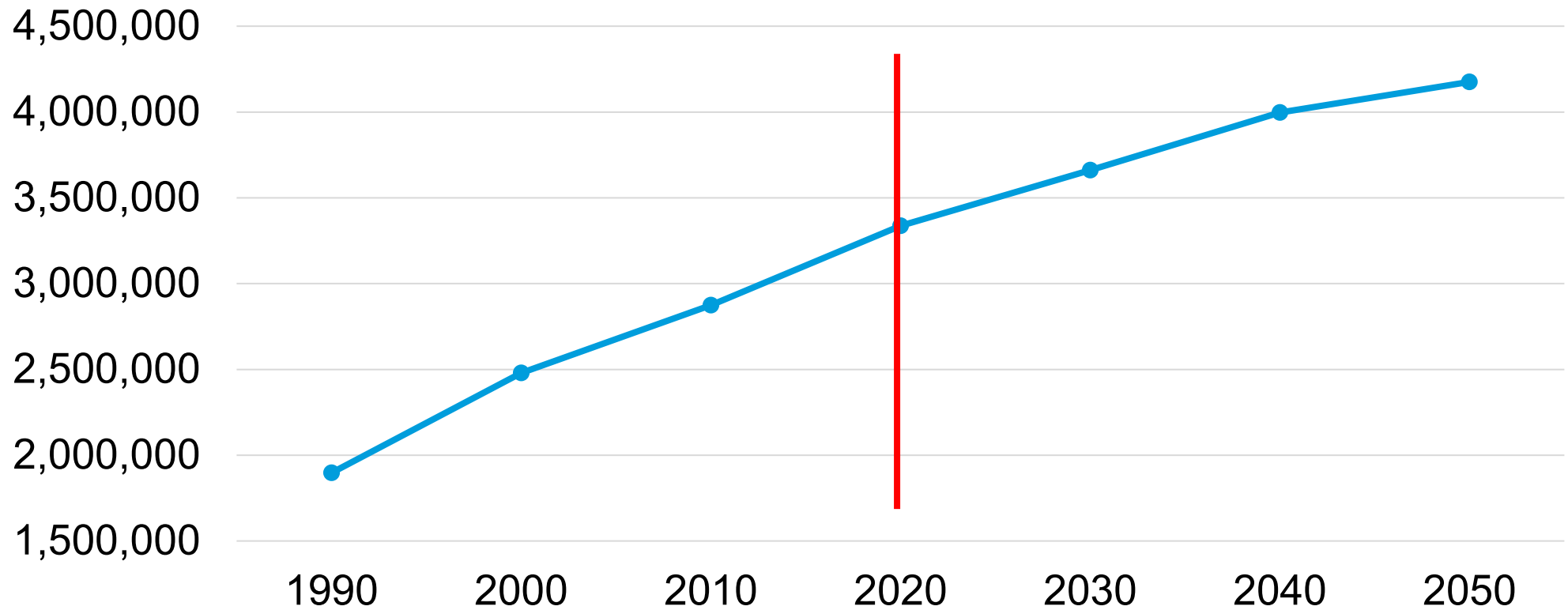
State Demography Office

- [Colorado's Population and Economic Trends](#)

POPULATION GROWTH



DRCOG Region



Data source:
State Demography Office

POPULATION GROWTH



	1990-2000	2000-2010	2010-2020	2020-2030	2030-2040	2040-2050
DRCOG Region	31%	16%	16%	10%	9%	4%
Colorado	31%	16%	15%	11%	10%	6%
Nation	13%	10%	8%	7%	5%	4%

Data sources:
State Demography Office
Census Bureau data.census.gov

POPULATION GROWTH



	1990-2020	2020-2050	1990-2020	2020-2050
DRCOG Region	1,439,907	837,832	76%	25%
Colorado	2,480,275	1,702,183	75%	29%
Nation	83,334,387	56,877,740	34%	17%

Data sources:
State Demography Office
Census Bureau data.census.gov

POPULATION GROWTH BY AGE COHORT



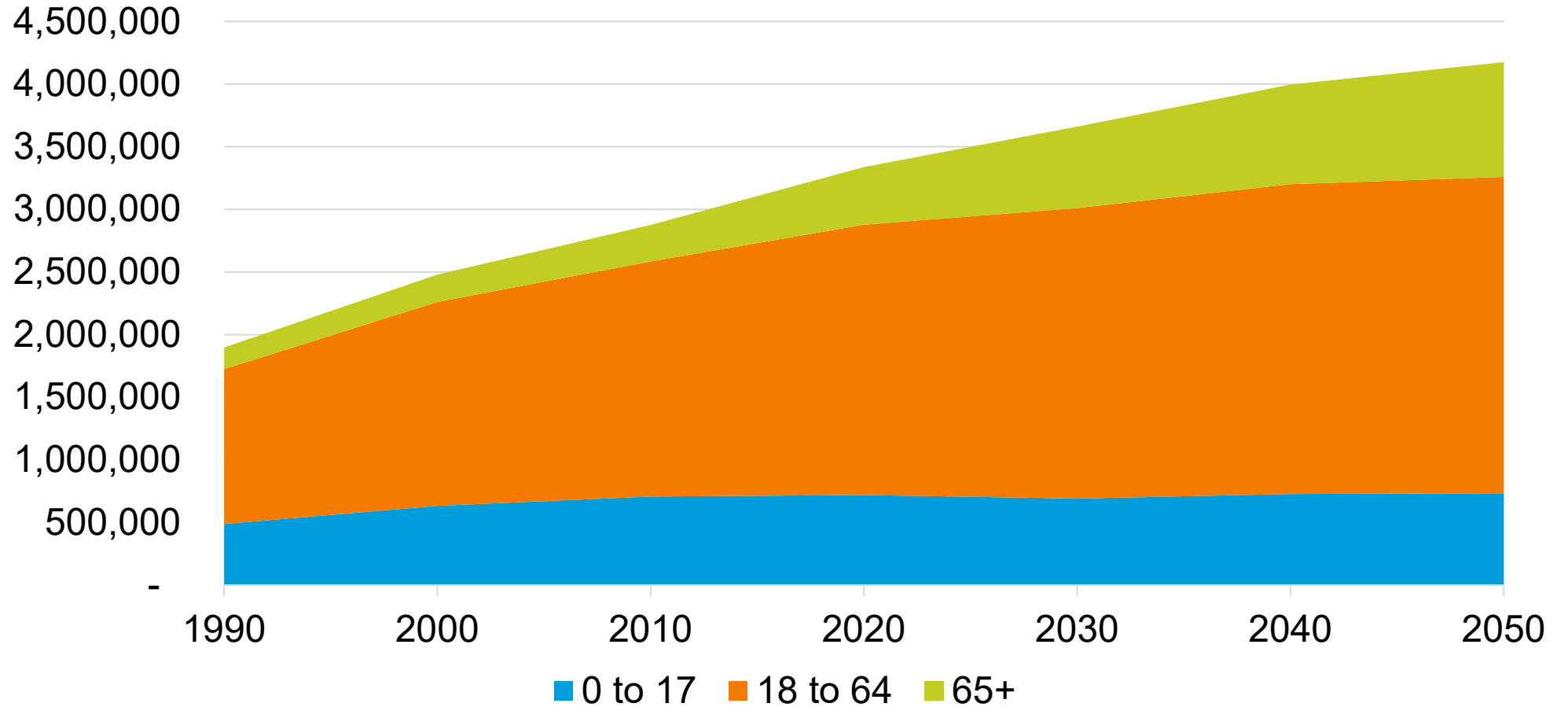
DRCOG Region	1990-2020	2020-2050
0 to 17	47%	2%
18 to 64	75%	17%
65 plus	166%	99%
Total	76%	25%

Data source:
State Demography Office

POPULATION GROWTH BY AGE COHORT



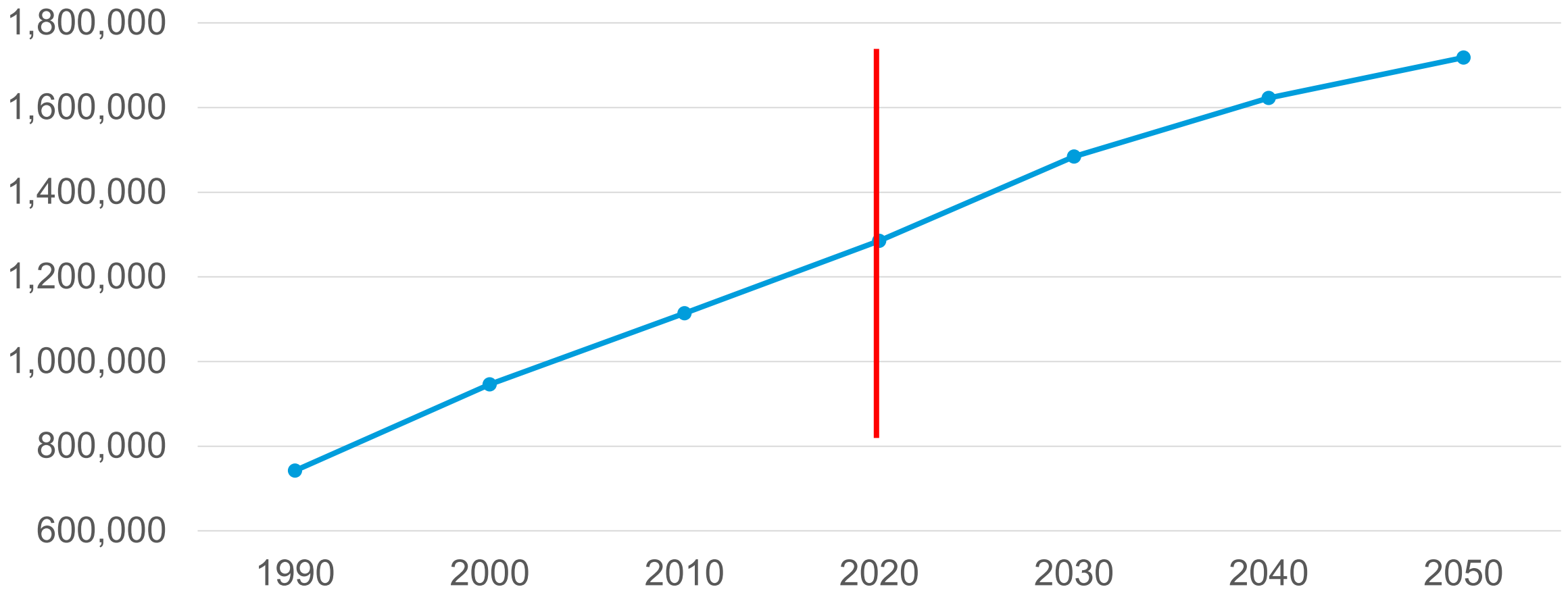
DRCOG Region



Data source:
State Demography Office

HOUSEHOLD GROWTH

Households in DRCOG region



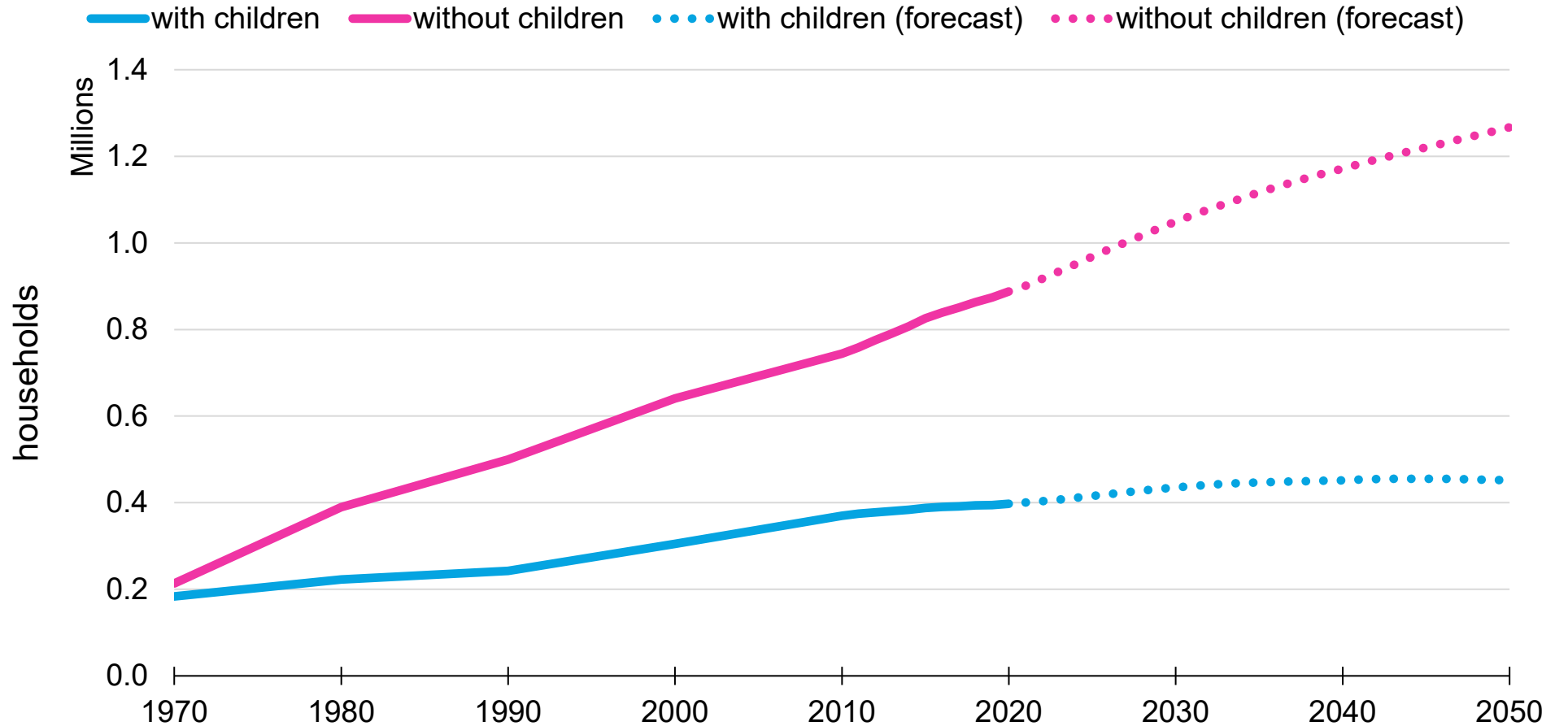
Data sources:
State Demography Office
IPUMS NHGIS, University of Minnesota, www.nhgis.org

HOUSEHOLD GROWTH BY TYPE

2020-2050 HHs	18-24	25-44	45-64	65+	Total
More than one adult with children	-3,230	7,226	37,832	10,836	52,664
More than one adult with no children	-2,287	11,514	73,676	155,273	238,177
One adult with children	-841	1,585	6,052	1,273	8,068
One adult with no children	-5,758	4,179	40,132	122,818	161,372
Total	-12,116	24,504	157,692	290,201	460,281

HOUSEHOLD GROWTH BY PRESENCE OF CHILDREN

Denver region households by presence of children



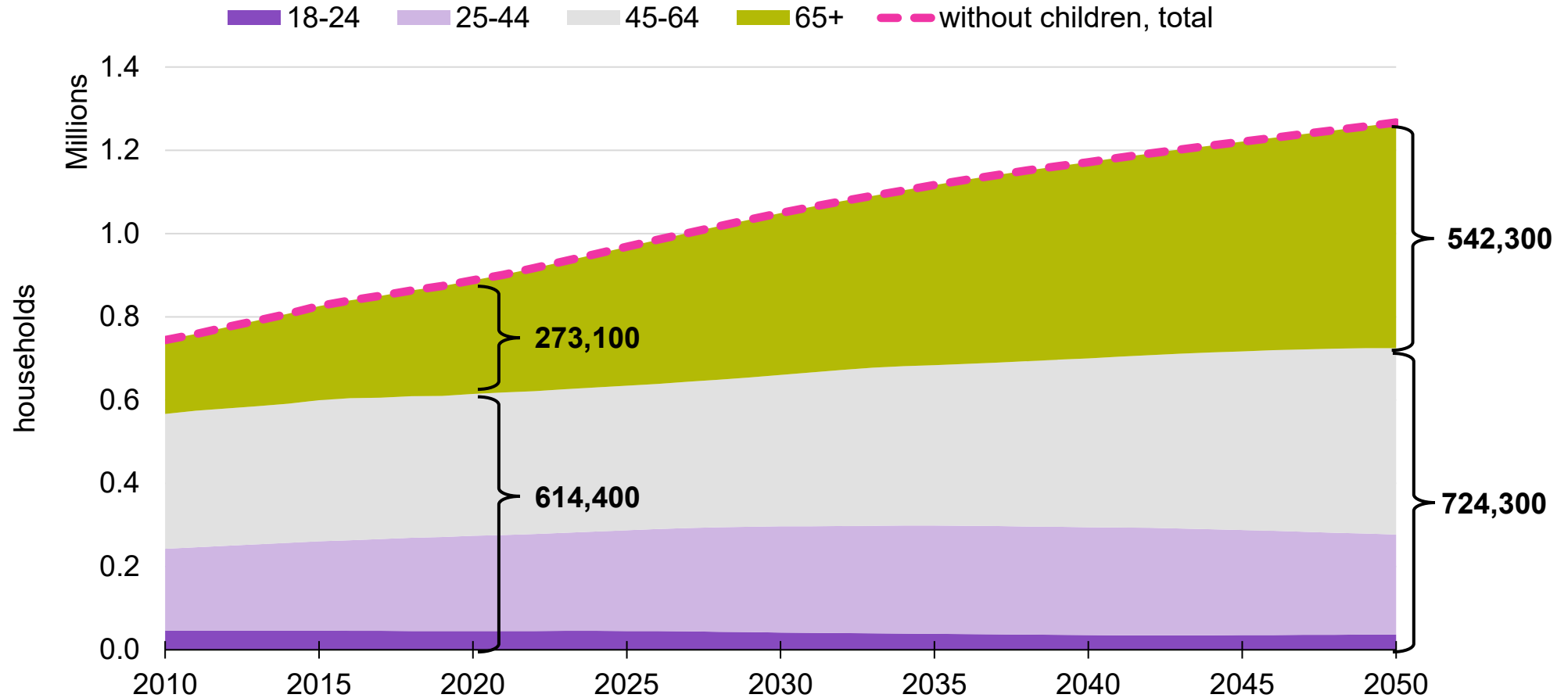
Data sources:
State Demography
Office

IPUMS NHGIS,
University of
Minnesota,
www.nhgis.org



VARIETY OF HOUSEHOLDS AND DEMAND

Denver region households without children by age of head



Data source:
State Demography
Office



WHAT DOES THIS MEAN FOR THE REGION?

1. The Denver region is not in free fall. We are not going to see a decrease in population.
2. BUT...population growth will be significantly slower over the next three decades than over the past three decades.
3. The Denver region and Colorado will continue to see population growth faster than the national average.
4. The Denver region will see **no growth** in children over the next three decades.



WHAT DOES THIS MEAN FOR THE REGION?

5. Expect continued fast growth among older adults with age 65+ population growing over **seven times faster** than the under 65 population (99% vs 13%)
6. **Most** forecasted household growth will be among older adults and households without children.
7. The region will face new transportation demands as older adults require increased mobility services and employment increases in home aid and health care sectors.





THANK YOU!
QUESTIONS?

Zachary Feldman
Manager Data and Analytics, Regional Planning and Development
zfeldman@drcog.org
303-480-5637