

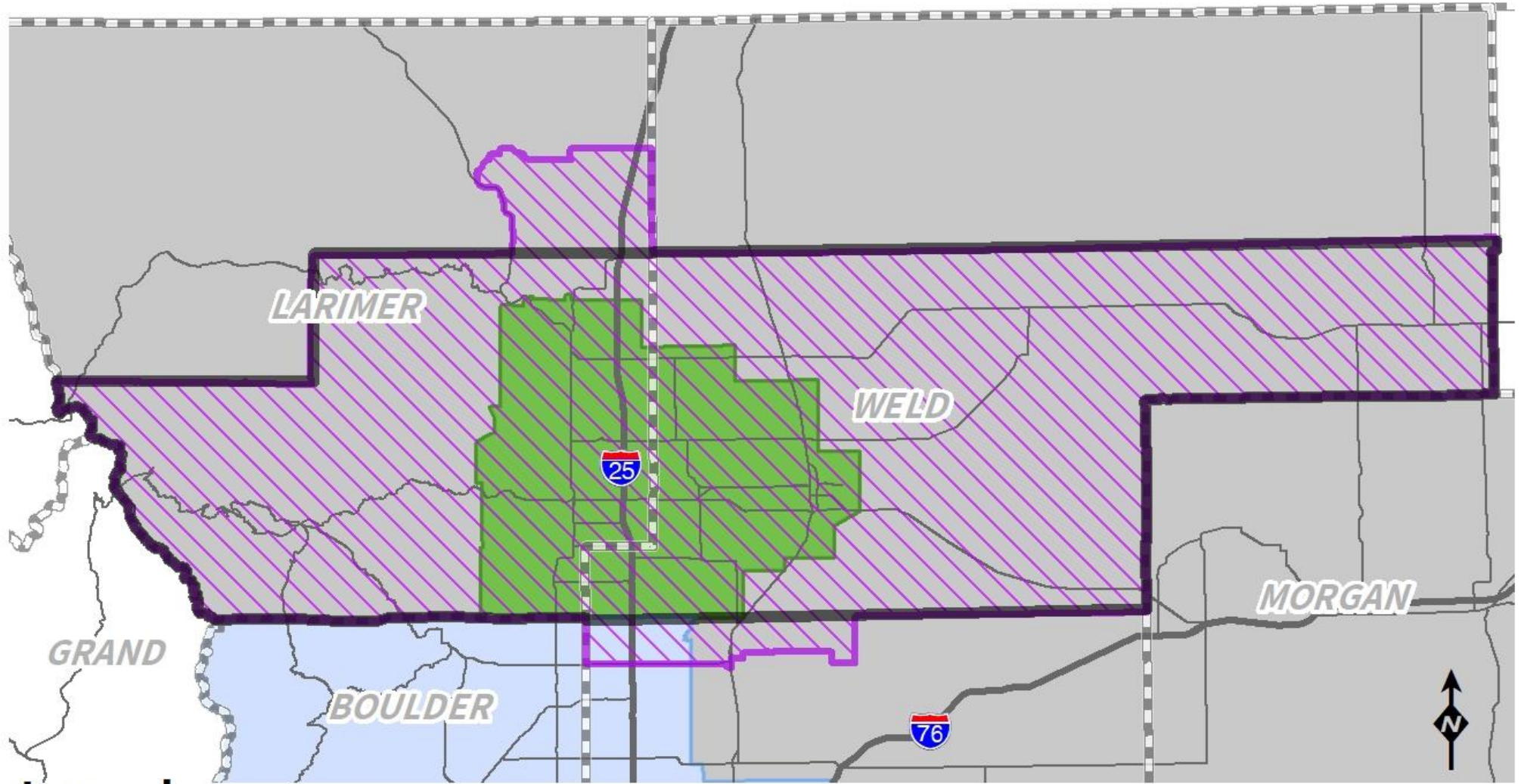
NFRMPO Transportation GHG Trends

CDOT's Region 4 GHG Transportation Stakeholder Meeting



North Front Range
Metropolitan
Planning
Organization

February 16, 2021

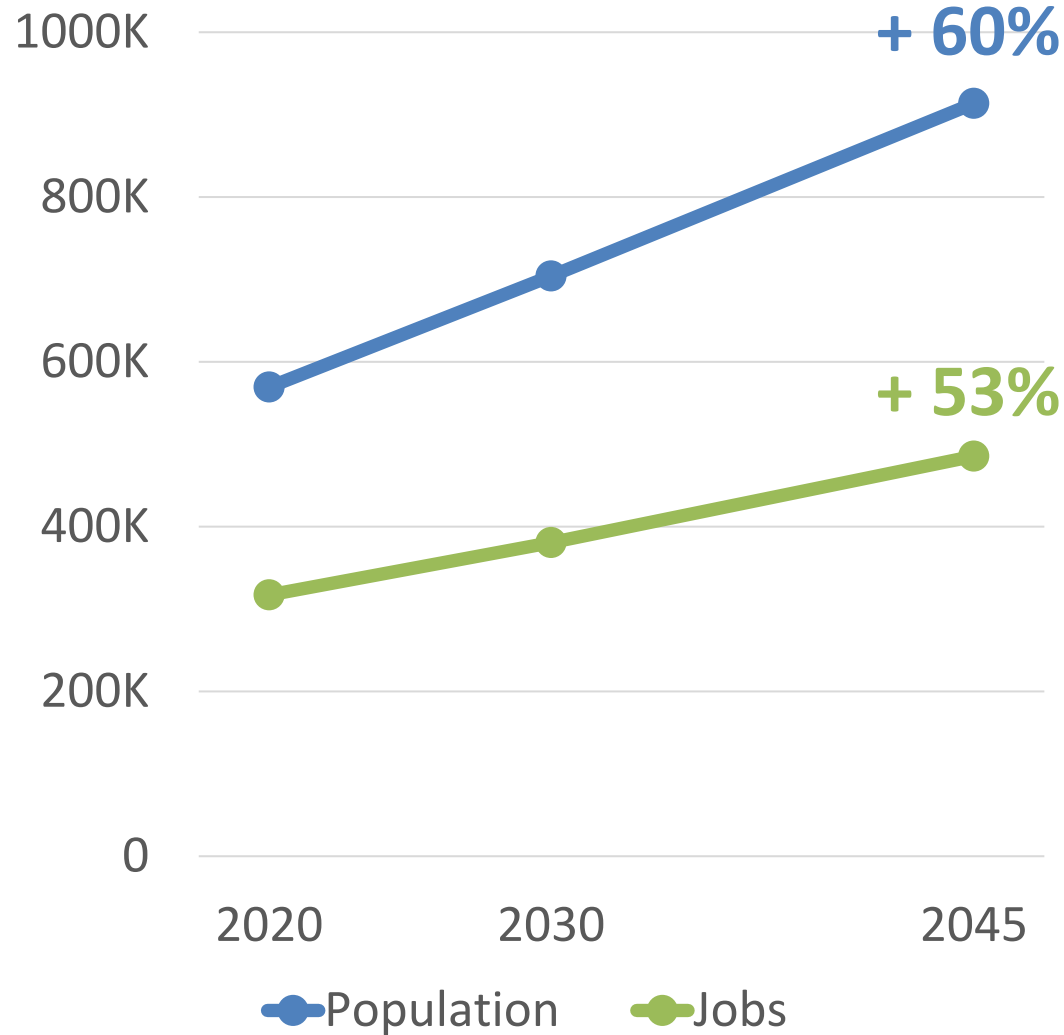


Legend

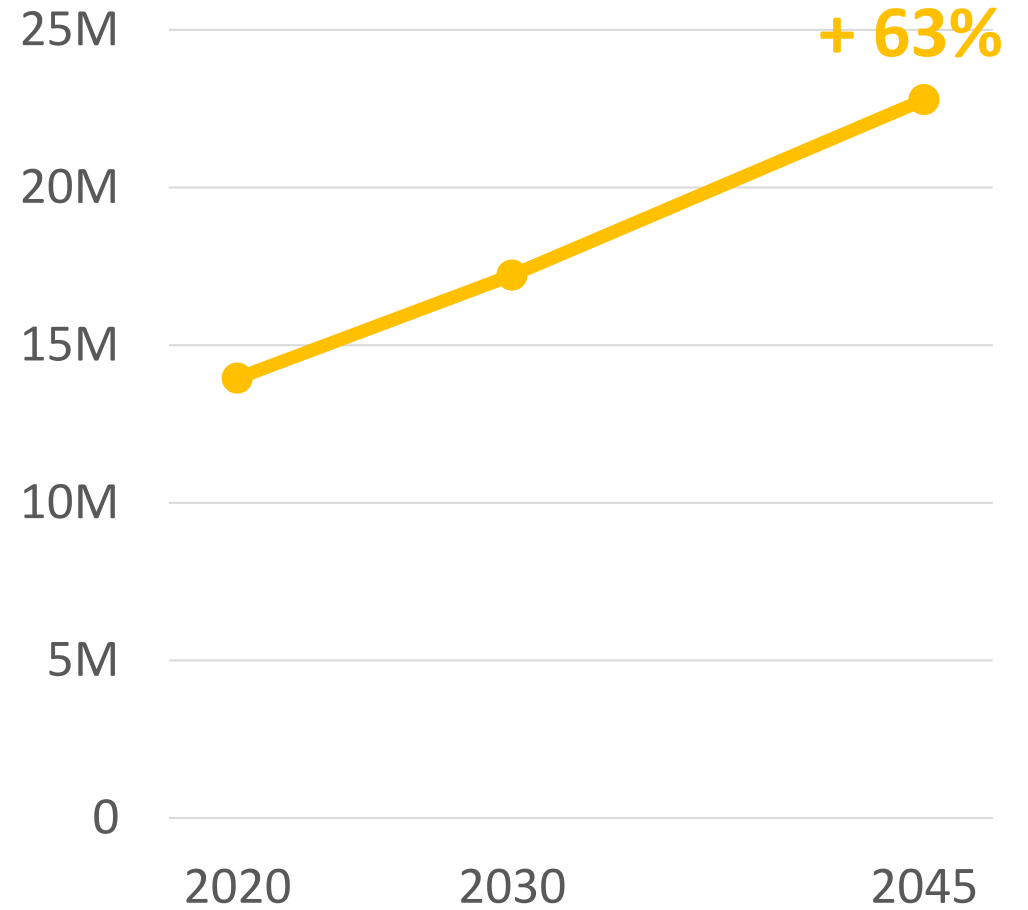
- Northern Subarea
- Counties
- NFRMPO
- UFRTPR
- DRCOG
- NFRMPO Modeling Area

November 2020
Sources: NFRMPO, DRCOG

Population and Jobs

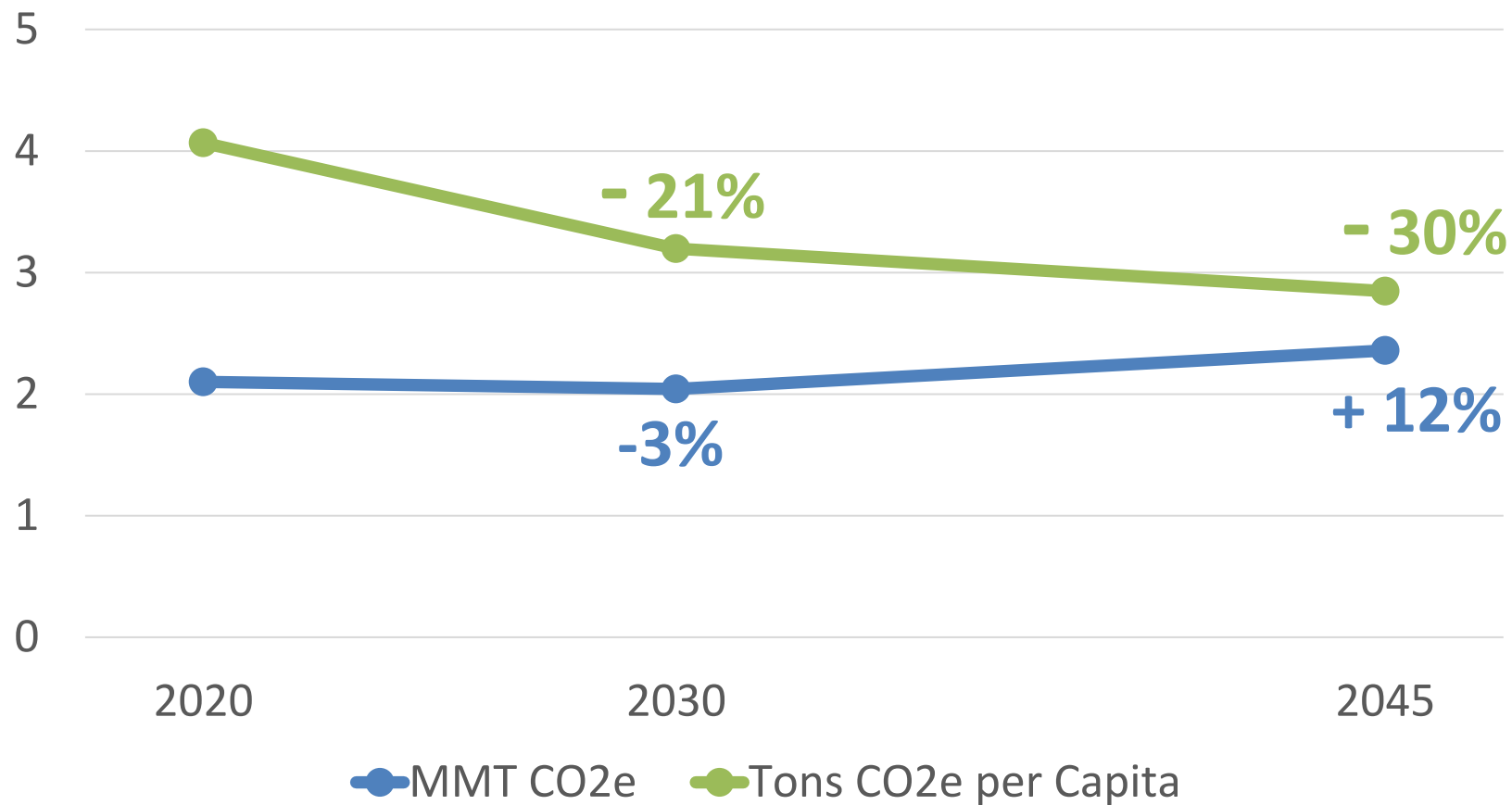


Daily Vehicle Miles Traveled (VMT)



Sources: NFRMPO 2010 Land Use Allocation Model (LUAM) and NFRMPO 2015 Regional Travel Demand Model (RTDM)

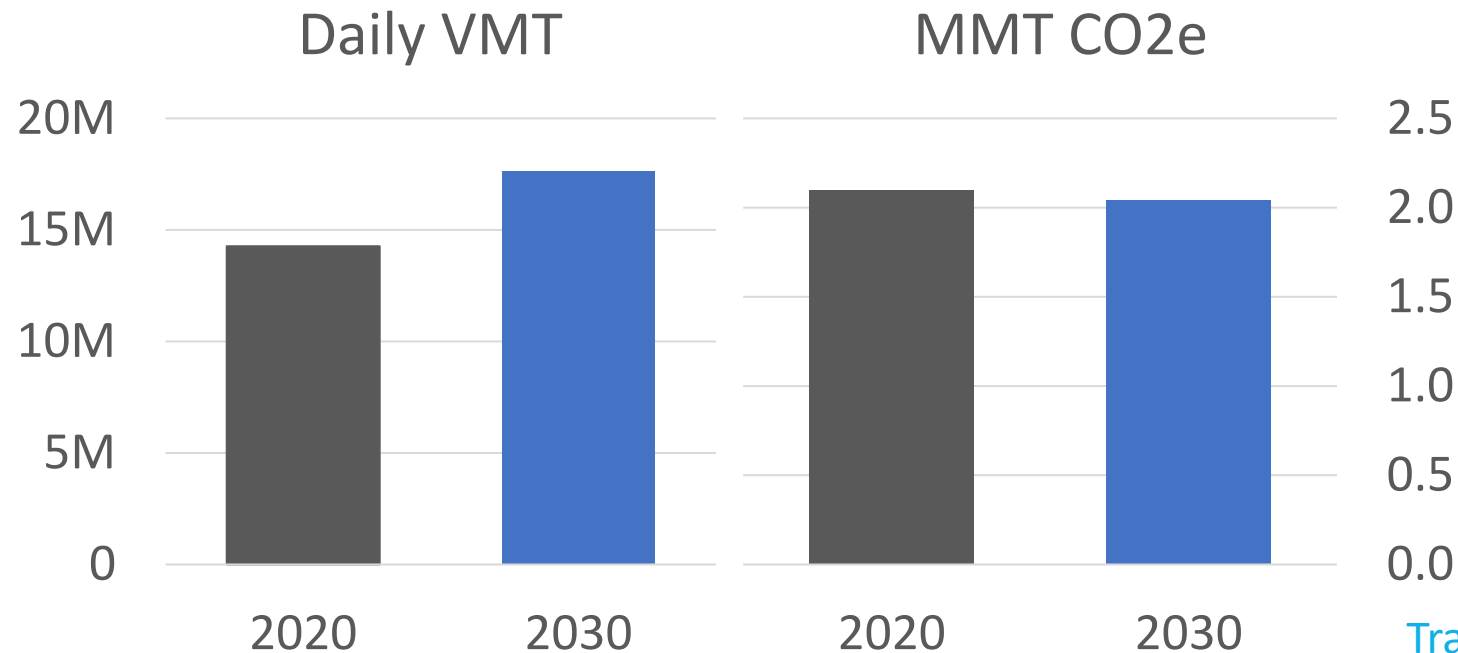
Annual On-Road Transportation GHG Emissions



Note: **Preliminary** results from EPA MOVES 2014b;
does not account for current or forecasted EV share

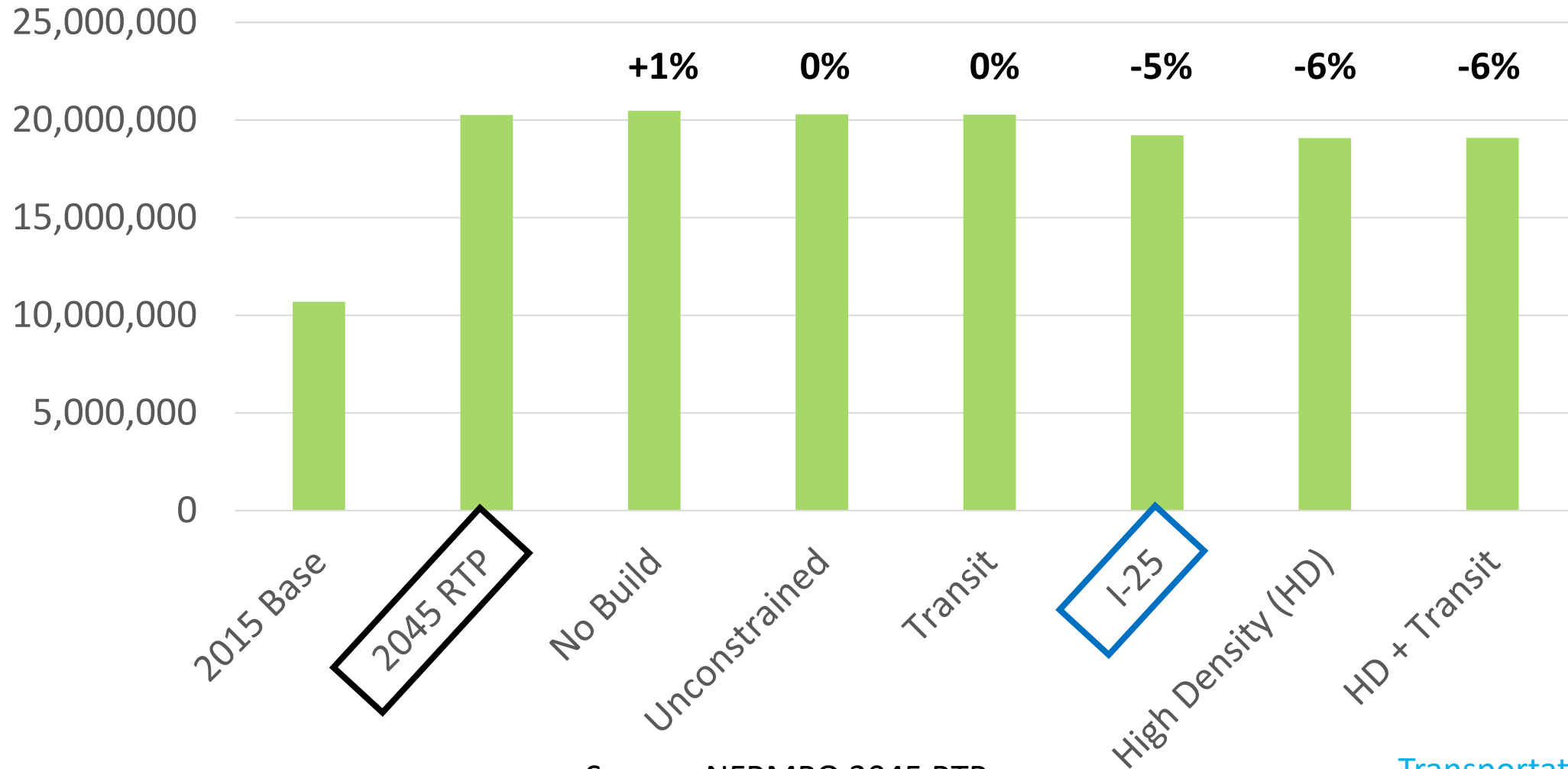
VMT \neq GHG

- Based on MOVES2014b, GHG emissions are forecasted to decline from 2020 to 2030 despite an increase in VMT
- Some GHG emissions tools use VMT and fleet mix to estimate GHG
- More accurate tools consider additional factors, such as speed, idling, ambient temperature, and fuel type



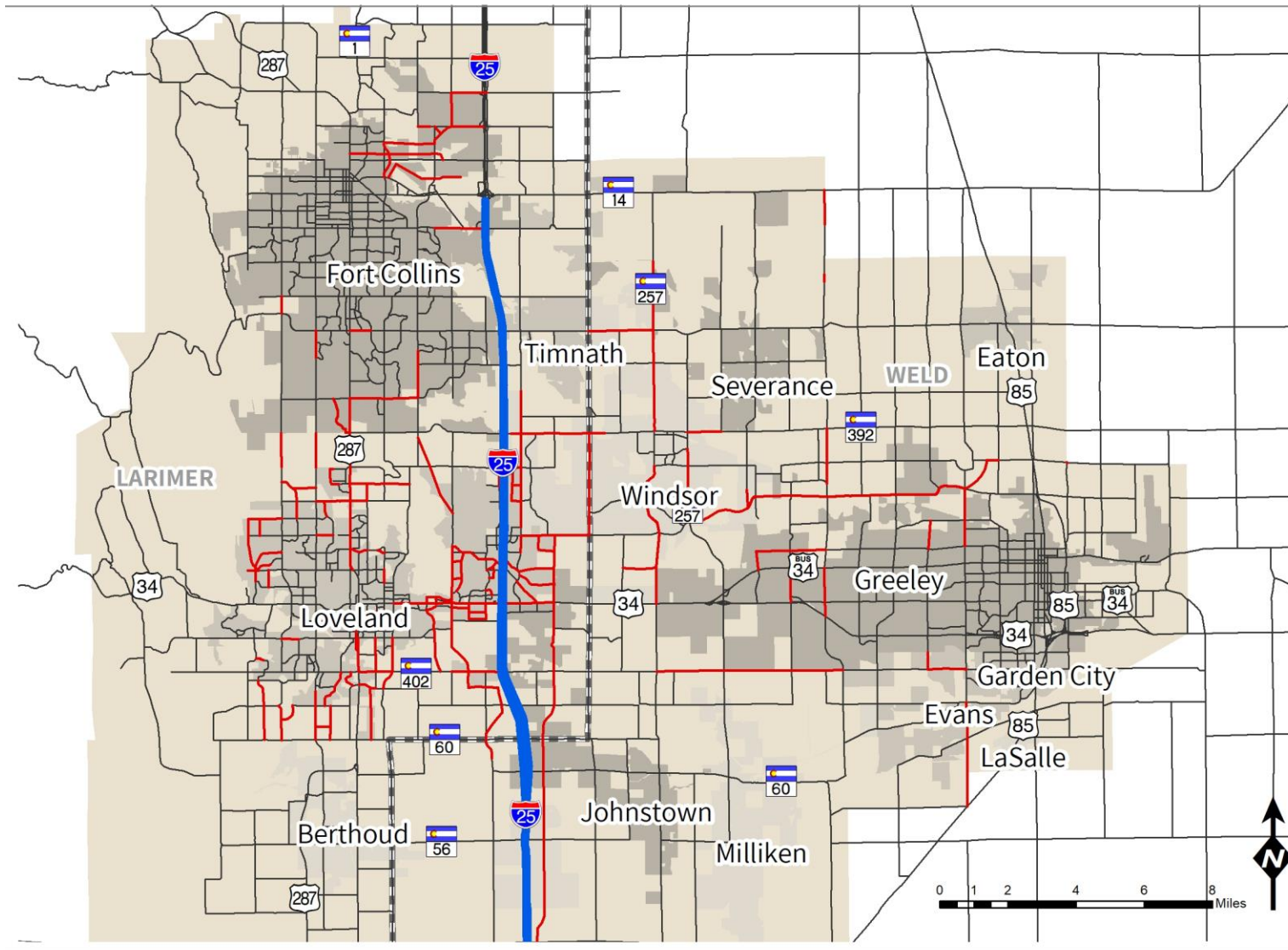
VMT by Scenario

Daily VMT








Source: NFRMPO 2045 RTP

I-25 Scenario



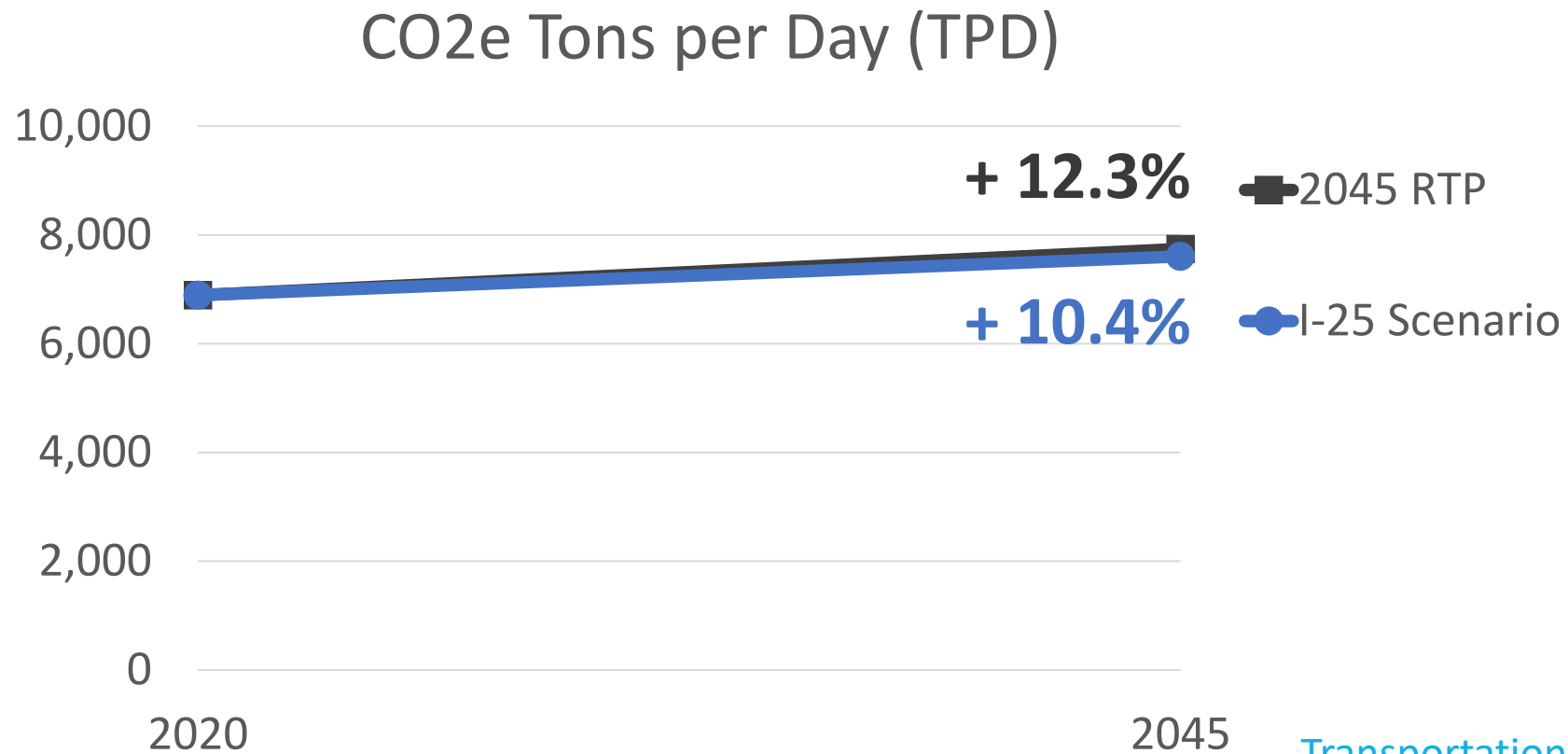
Legend

-  Added Project (3 General Purpose + 1 Express Lane in each direction)
-  Removed Projects
-  Roadway Network
-  County Boundary
-  NFRMPO Boundary

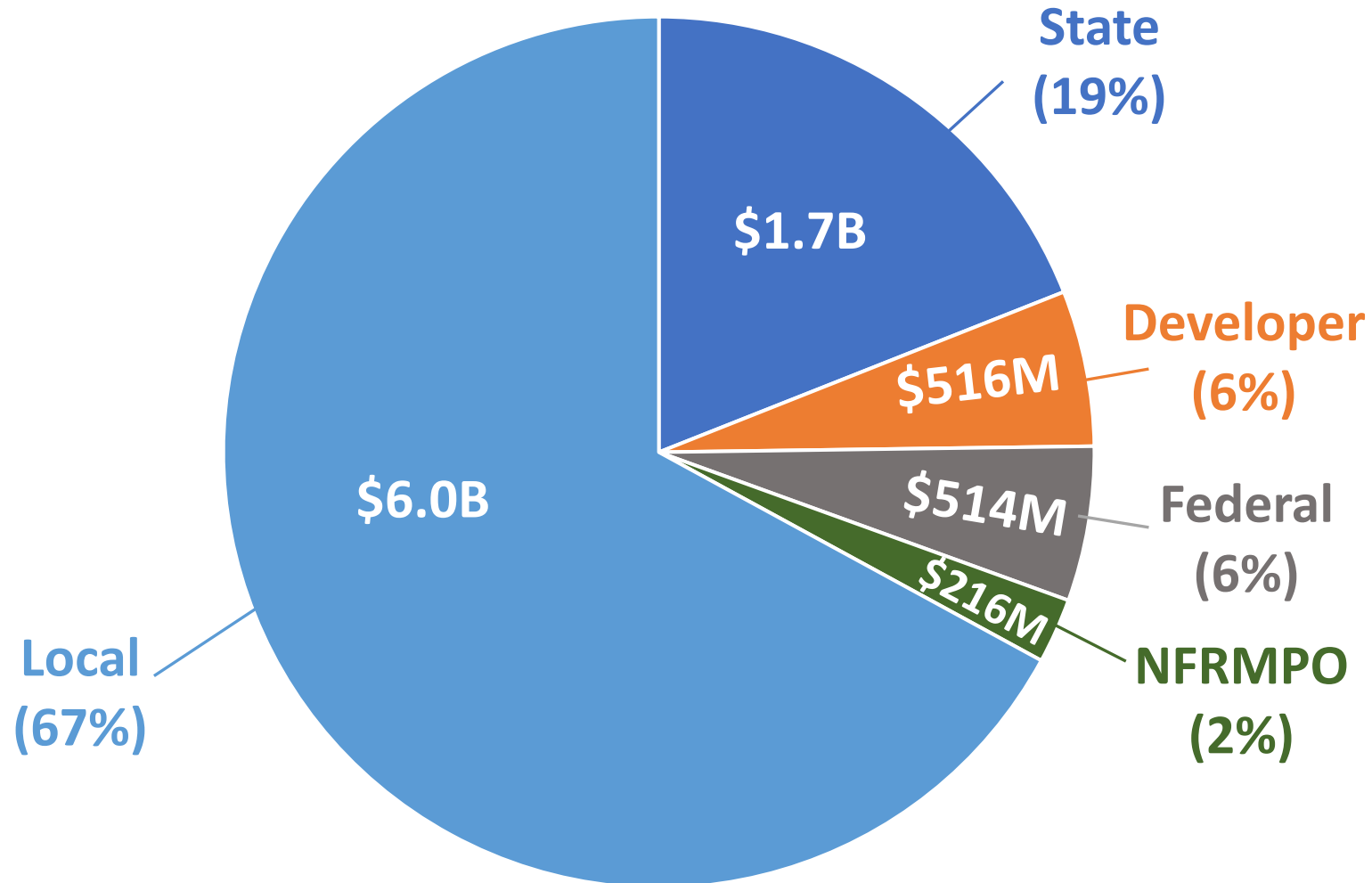
July 2019
Sources: CDOT, NFRMPO



	2045 RTP	2045 I-25 Scenario	Change
Daily VMT	23.3M	22.2M	-5.0%
CO2e TPD	7,743	7,606	-1.8%



Revenue Forecast by Controlling Entity, 2020-2045



Source: NFRMPO 2045 RTP

GHG Drivers and MPO Authorities

Transportation Sector GHG Driver	MPO Authority
Forecasted demographics	None
Land use	None (Information sharing)
Cost of travel by mode	None (Information sharing)
Operations	None (Information sharing)
Fleet mix / emissions standards	None (Information sharing)
Fuel type	None (Information sharing)
Project selection	2% (Information sharing)

GHG Budget Recommendations

- GHG budgets should be required statewide to provide a comprehensive approach to addressing on road GHG emissions
- GHG budgets should account for anticipated population growth (e.g. GHG per capita)
- Due to federal requirements to forecast land use based on latest assumptions, budgets should be voluntary and/or should allow for an alternative demonstration
- GHG budgets should not be set based on VMT reductions, as this fails to consider non-VMT-based reductions (e.g. operations improvements, alternative work schedules, anti-idling programs, etc.)
- Resources are needed for additional modeling work

Questions?



Medora Bornhoft
Transportation Planner II
mbornhoft@nfrmpo.org
(970) 289-8283