

2024-2027 Transportation Improvement Program Greenhouse Gas Transportation Report

Summary

The Colorado Department of Transportation’s Regulation Governing Statewide Transportation Planning Process and Transportation Planning Regions (2 CCR 601-22, known as the [Greenhouse Gas Transportation Planning Standard](#) or greenhouse gas rule), adopted in December 2021, requires the Denver region to reduce surface transportation greenhouse gas emissions through the transportation planning process. Through its updated [2050 Metro Vision Regional Transportation Plan](#) (2050 RTP) and associated Transportation Greenhouse Gas Report (adopted September 2022), the DRCOG region meets the greenhouse gas emission reduction requirements for all staging years defined by the rule.

The greenhouse gas rule also requires this Greenhouse Gas Transportation Report for the 2024-2027 Transportation Improvement Program (2024-2027 TIP), as the TIP is defined as an applicable planning document under the rule. Per federal requirements, the TIP implements the RTP through its major project and funding investments. More specifically, the major multimodal projects included in the 2024-2027 TIP that are regionally significant from a federal air quality conformity perspective must first be included in the 2050 RTP to be eligible for funding within the 2024-2027 TIP. There are no “new” regionally significant projects in the TIP that are not already in the RTP, per federal requirements.

Accordingly, the regionally significant projects in the 2024-2027 TIP have already been evaluated through the 2050 RTP for federal air quality conformity and state transportation greenhouse gas emission requirements. The air quality conformity determinations conducted for the 2050 RTP jointly apply to the 2024-2027 TIP; air quality conformity is not evaluated or determined separately for the TIP. Similarly, the 2050 RTP’s greenhouse gas emissions compliance also applies to the 2024-2027 TIP as shown in the text and Table 1 below.

The regulation (2 CCR 601-22, Section 8.02.6) establishes greenhouse gas emission reduction levels from an established baseline for four analysis years: 2025, 2030, 2040, and 2050. For the 2024-2027 TIP, the rule also requires (Section 8.02.1) “When adopting a TIP that is included in the definition of an Applicable Planning Document, the required emissions analysis will apply to one year corresponding with the last year of the TIP, using interpolation between Table 1 [required reduction levels by analysis year] years if the last year of the TIP does not correspond to a designated year in Table 1.”

For the Denver region, baseline greenhouse gas values are established based on the defined transportation investments and planning assumptions identified in the 2050 RTP originally adopted in

April 2021. The target greenhouse gas emissions are determined by subtracting the rule’s greenhouse gas emission reduction levels from the total baseline emissions for each analysis year.

As shown in Table 1, DRCOG meets or exceeds the required greenhouse gas reduction levels in each staging year required by the rule, including the interpolated final TIP year of 2027, demonstrating compliance with the greenhouse gas planning standard for the 2024-2027 TIP.

TABLE 1. GREENHOUSE GAS EMISSION REDUCTION RESULTS, MILLION METRIC TONS PER YEAR

	2025	2027	2030	2040	2050
2050 RTP update modeling (Network updates, programmatic funding and observed data)	0.68	0.68	0.68	0.57	0.35
Additional programmatic transportation investments (Active transportation, complete street retrofits, signal timing, and CDOT Bustang)	N/A	0.03	0.07	0.05	0.03
Mitigation Action Plan (Commitment to further action in Appendix A)	N/A	0.04	0.10	0.12	0.08
Total greenhouse gas reductions	0.68	0.75	0.85	0.74	0.46
Reduction level requirement from Table 1 of the greenhouse gas rule (2 CCR 601-22, Section 8.02.6)	0.27	0.49	0.82	0.63	0.37
Reduction level achieved	Yes	Yes	Yes	Yes	Yes

2024-2027 TIP Overview

The TIP identifies all state and federally funded surface transportation projects planned in the Denver region during a four-year period. DRCOG, serving as the region’s metropolitan planning organization, develops the TIP in concert with our federal, state, and local government partners through a competitive performance-driven process. The 2024-2027 TIP allocates funding approved through the Infrastructure Investment and Jobs Act. Below is a snapshot of the DRCOG-selected projects in the FY 2024-2027 TIP.

Funding Breakdown

- \$114.1 million in federal Congestion Mitigation/Air Quality funds allocated to 42 projects
- \$24 million in federal Carbon Reduction Program funds allocated to 14 projects
- \$123.9 million in state Multimodal Transportation and Mitigation Options Funds (which includes \$38.1 million in federal American Rescue Plan funds) allocated to 61 projects
- \$131.1 million in federal Surface Transportation Block Grant funds allocated to 31 projects
- \$20.7 million in federal Transportation Alternatives funds allocated to 16 projects

Note that most projects receive more than one type of funding.

Project Types

DRCOG expects all project applications from local governments to include multimodal elements and provide transportation options for all users of the region's transportation system. For example, a roadway project likely will include bike lanes, sidewalks, or a shared-use path. Similarly, a Complete Streets improvement primarily including facilities for bikes and pedestrians is also likely to include upgrades to transit facilities. In general, the percentage breakdown of funding based on broad project type (though most projects do not entirely fit within a single project type) and what that type will result in is the following:

- 62% of the funding will result in 95 miles of active transportation improvements
- 23% of the funding will result in 97 miles of transit improvements, including two BRT corridors
- 14% of the funding will result in 64 miles of roadway improvements

Anticipated Outcomes

The ultimate goal of funding transportation improvements is to improve the quality of life of the region's residents by advancing safety, access, and mobility options. Below are a few of the expected outcomes of the projects in the TIP, based on data provided by applicants.

- 73% of projects are on the region's High-Injury Network, helping to reduce crashes. Specifically, applicants estimate a combined reduction of over 50 fatalities and over 300 serious injuries.
- 34 studies set up future projects to continue advancing the region's transportation system.
- 26 projects improve freight operations, improving the reliability of goods movement.
- 64% of projects impact a defined urban center, prioritizing planned growth areas.

Conclusion

This Greenhouse Gas Transportation Report demonstrates the 2024-2027 Transportation Improvement Program's compliance with the state Greenhouse Gas Transportation Planning Standard. It relies on and incorporates by reference the modeling, analysis, strategies, and other components used to demonstrate compliance for the 2050 Metro Vision Regional Transportation Plan (adopted September 2022) as documented in the Plan's [Greenhouse Gas Transportation Report](#).