

2021 Call for Projects Guidebook

Project Selection for the NFRMPO CMAQ, STBG, and TA Programs in FY2024 and FY2025

10/8/2021



North Front Range
Metropolitan
Planning
Organization

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Introduction

The North Front Range Metropolitan Planning Organization (NFRMPO) will release a Call for Projects in the fall of 2021 for funding in FY2024 and FY2025. The Call includes funding in the Congestion Mitigation and Air Quality (CMAQ), Surface Transportation Block Grant (STBG), and Transportation Alternatives (TA) programs. The funded projects will be included in the FY2023-2026 Transportation Improvement Program (TIP).

This Guidebook provides information to assist project sponsors in completing project applications. **Section 1** provides information pertinent to all three funding categories. **Sections 2-4** provide program-specific eligibility, requirements, and scoring information. **Section 5** provides reference material on performance measures and eligible roadways.

Section 1: Call Overview

1.1 Available Funding

A total of \$20.9 Million in federal funding is estimated to be available in FY2024 and FY2025, as shown in **Table 1**. The funding estimates will be updated, as necessary, based on current estimates of available funds.

In January 2021, the NFRMPO was allocated approximately \$4.3M in stimulus funds for highway infrastructure programs through the Consolidated Appropriations Act of 2021. The NFRMPO Planning Council agreed to swap the stimulus funds for STBG and TA funded projects programmed in FY2021. In July 2021, the NFRMPO Planning Council allocated the unprogrammed STBG funds to partially funded and waitlisted projects from the FY2020-2021 Call for Projects and agreed the remaining unprogrammed STBG and TA funds would be rolled into the FY2024-2025 Call for Projects. The additional funding can be awarded to projects in FY2024, FY2025, or an earlier year if a local agency has a need.

The NFRMPO Planning Council has agreed to two funding set-asides in the FY2024-2025 Call for Projects. In 2018, the Planning Council agreed to set aside \$25,000 in STBG funding per year for four years, totaling \$50,000 from the FY2022-2023 Call for Projects and \$50,000 from the FY2024-2025 Call for Projects, to the Regional Air Quality Council (RAQC) for ozone modeling. In July 2020 the Planning Council agreed to set aside \$5,000,000 FY2025 CMAQ funding for North I-25. These totals are reflected in the Set-Aside column of **Table 1**. The total funding available during the FY2024-2025 Call for Projects including the additional funds available from 2021 and excluding the funds being set aside are reflected in the Funding Available for Allocation column of **Table 1**.

Table 1. Estimated Federal Funding for the 2021 Call for Projects

Program	Rolled Funding	FY2024	FY2025	Federal Funding Total	Set-Asides	Funding Available for Allocation
CMAQ	\$0	\$5,038,797	\$5,038,943	\$10,077,740	\$5,000,000	\$5,077,740
STBG	\$2,276,057	\$3,911,925	\$3,932,558	\$10,120,540	\$50,000	\$10,070,540
TA	\$85,264	\$258,536	\$259,824	\$603,624	\$0	\$603,624

1.2 Schedule

The Call for Projects schedule is designed to allow Planning Council Action on the recommended projects in March 2022. Following Planning Council approval of the projects, the FY2023-2026 TIP and associated air quality conformity will be completed in March through May 2022. See **Table 2** for milestones for the 2021 Call for Projects. The key dates highlighted in gray include the opening and closing dates of the Call and the dates of the scoring meetings.

Highlighted in orange are additional due dates for specific project types. CMAQ applications have additional due dates to allow for the calculation of air quality benefits. Intelligent Transportation System (ITS) applications, regardless of the requested funding source, must submit a project description by October 29, 2021 to ensure the project conforms to the Regional ITS Architecture as required by 23 CFR 940¹. Applicants with projects that touch a state highway must submit a mini-application to CDOT by October 29, 2021 and submit a CDOT letter of support with their final application to the NFRMPO. Applicants for all other projects that, if awarded, would complete an Intergovernmental Agreement (IGA) with CDOT may choose to submit a mini-application to CDOT to receive feedback on the proposal.

¹ 23 CFR 940, <https://www.ecfr.gov/cgi-bin/text-idx?SID=20c6d31dad7a8f9fb5a9244f6b9c7f85&mc=true&node=pt23.1.940&rgn=div5>, 2001.

Table 2. 2021 Call for Projects Schedule

Activity	Date
TAC Discussion on Call for Projects Process	Wednesday, August 18, 2021
Planning Council Discussion on Call for Projects Process	Thursday, September 2, 2021
TAC Action on Call for Projects Process	Wednesday, September 15, 2021
Planning Council Action on Call for Projects Process	Thursday, October 7, 2021
Call for Projects Opens	Friday, October 8, 2021
TAC Call for Projects Application Presentation	Wednesday, October 20, 2021
CMAQ Project Descriptions and ITS Descriptions Due	Friday, October 29, 2021
Mini-Applications Due to CDOT	Friday, October 29, 2021
NFR Creates and Send AQ Data forms to Applicants	Wednesday, November 3, 2021
CDOT provides review to applicants	Friday, November 12, 2021
CMAQ Air Quality Data Due	Wednesday, November 17, 2021
NFR Completes Emissions calculations and sends to applicants	Wednesday, December 1, 2021
Applicants notify NFR of Concerns with Emissions Calculations	Friday, December 10, 2021
CMAQ, STBG, and TA Applications Due	Friday, December 10, 2021
CMAQ and STBG Scoring Committee	December 15-18, 2021 or January 4-7, 2022
Non-Motorized TA Project Scoring Meeting by NoCo Bike and Ped	December 15-18, 2021 or January 4-7, 2022
NFRMPO Develops Project Funding Phasing Plan	Wednesday, January 12, 2022
TAC Discussion of Recommended Projects – Staff Presentation	Wednesday, January 19, 2022
Council Discussion of Recommended Projects – Applicant Presentations	Thursday, February 3, 2022
TAC Action on Recommended Projects	Wednesday, February 16, 2022
Council Action on Recommended Projects	Thursday, March 3, 2022

NFRMPO staff is available for technical assistance prior to Friday December 2, 2021.

1.3 Requirements for all Projects

NFRMPO staff is available for technical assistance prior to December 2, 2021

Project applications must demonstrate how the project is consistent with current NFRMPO planning documents. Roadway projects must be on a federal-aid eligible portion of a Regionally Significant

Corridor (RSC) identified in the *2045 Regional Transportation Plan (RTP)*² and must be consistent with the 2045 RTP corridor vision. Bicycle and pedestrian trail projects must impact a Regional Active Transportation Corridor (RATC) identified in the *2021 Active Transportation Plan*. For maps of RSCs by federal-aid eligibility and RATCs, see **Figures 2-4** in **Section 5** (pages 30-32). All projects must be consistent with other local, state, and regional plans, as applicable.

The project must also support the 2045 Goals, Objectives, Performance Measures, and Targets (GOPMT). Due to federal regulations requiring the TIP to be designed to allow the region to make progress toward achieving the federally required performance measures, all CMAQ and STBG applications must identify at least one federally required performance measure impacted by the project. Since the federally required measures are not generally applicable to the TA program, TA applications must support either an MPO-specific performance measure and/or a federally required performance measure. See **Section 5** for more information on performance measures.

Each project application must identify the required local match. The required local match for CMAQ, STBG, and TA is typically 17.21 percent of the combined local and federal request. The local match is **not** calculated based on the total project cost as the project may have local overmatch or additional funding sources that do not require a local match.

To calculate local match based on the federal request, use the following formula:

- For CMAQ, STBG, and TA projects (17.21 percent match):

$$\text{Local Match} = \frac{\text{Federal Request} * 0.1721}{0.8279}$$

Due to the suspension of the Buy America waiver process, eligible projects must not require the issuance of a vehicle Buy America waiver for implementation.

In anticipation of the CDOT rulemaking on Greenhouse Gas (GHG) emission budgets as proposed in the *Colorado Greenhouse Gas Pollution Reduction Roadmap*³, all selected projects may be required to submit data inputs for GHG emissions analysis to be completed by NFRMPO staff.

1.4 Scoring Committees

TA applications related to active transportation infrastructure will be scored by the NoCo Bike and Ped Collaborative (NoCo) at a separate scoring meeting. Applications for CMAQ, STBG, and any environmental or historic TA project will be scored by a separate scoring committee and then presented to the TAC as a whole. Each local government applying for funding is required to have a representative

² *2045 RTP*: Chapter 3, Section 2 - Vision plans, <https://nfrmpo.org/wp-content/uploads/2045-rtp-chapter-3-section-2.pdf>, 2019

³ *Colorado Greenhouse Gas Pollution Reduction Roadmap*, https://drive.google.com/file/d/1jzLvFcrDryhhs9ZkT_UXkQM_0LiiYZfq/view,pp.65-66, January 14, 2021.

on the scoring committee. Submitted applications will be sent to committee members to review and score prior to the scoring meeting. The scoring committee consists of both voting and non-voting members (each community may only have one voting member):

- Voting members of the scoring committee include NFR member local governments. Each NFR member local government has one vote.
- Non-voting members of the scoring committee include NFRMPO staff, representatives from agencies other than local governments, and any additional scoring committee members from a particular NFR member local government.

Applicants are encouraged to include subject matter experts from their community on the scoring committee such as experts from the non-motorized, transit, mobility, and public health domains. Applicants are also encouraged to consult their local community and county-level subject matter experts during application development.

Section 2: Congestion Mitigation and Air Quality (CMAQ)

2.1 Available Funding

Table 3: Available CMAQ Funding

Program	Rolled Funding	FY2024	FY2025	Federal Funding Subtotal	Set-Aside	Funding Available for Allocation
CMAQ	\$0	\$5,038,797	\$5,038,943	\$10,077,740	\$5,000,000	\$5,077,740

2.2 Eligible Applications

Eligible applicants include Metropolitan Planning Organizations (MPOs), State or local transportation departments, transit providers, and any other organization that can accept Federal transportation funds. Non-profits and private sector entities may partner with an eligible applicant to complete a project.⁴

2.3 Eligible Project Types

Funds may be used for a transportation project or program that is likely to contribute to the attainment or maintenance of a national ambient air quality standard, with a high level of effectiveness in reducing air pollution. As noted in **Section 1.3**, projects must not require the issuance of a vehicle Buy America waiver for implementation. Eligible project types may include:

- Diesel engine retrofits
- Diesel vehicle repower
- Idle reduction strategies
- Park and ride lot construction
- Incident management
- Alternative fuel or electric vehicle/bus/station⁵
- Transit service expansion
- Transit amenity improvements
- Extreme-temperature cold start technologies
- Bicycle and pedestrian facilities and programs
- Employee transit benefits

⁴ “Public-Private Partnerships”, **FHWA-HEP-18-017**, https://www.fhwa.dot.gov/Environment/air_quality/cmaq/reference/public-private_partnerships/, 2017

⁵ Eligible electric vehicle project types for CMAQ funding can be found in the following report: *Federal Funding is Available for Electric Vehicle Charging on the National Highway System*, FHWA, https://www.fhwa.dot.gov/environment/alternative_fuel_corridors/resources/ev_funding_report_2021.pdf. April 22, 2021

- Intermodal freight
- Intersection improvements
- Traffic signal synchronization
- Roundabouts
- Intelligent Transportation Systems (ITS), including Vehicle-to-Infrastructure (V2I)
- Congestion pricing
- Carpooling / vanpooling
- Carsharing
- Ridesharing
- Bikesharing
- Subsidized transit fares
- Travel Demand Management (TDM) strategies and outreach

2.4 Project Requirements

All CMAQ project submissions must include a complete application, air quality data request form, air quality benefit worksheet, project location map, environmental justice (EJ) analysis worksheet, detailed cost estimate, and resolutions of support and letters of approval.

All applications must meet the following requirements:

- ☐ If project touches a state highway, sponsor must submit a CDOT letter of support even if CDOT does not provide funding.
- ☐ Infrastructure projects must be on a Regionally Significant Corridor (RSC) (roadway) or Regional Transit Corridor (RTC)(transit) as identified in the *2045 RTP* or Regional Active Transportation Corridor (RATC)(bike/ped/trail) as identified in the *2021 Active Transportation Plan (ATP)* (see **Section 5**)
- ☐ Roadway projects must be on a federal-aid eligible roadway (See **Section 5**). Eligible roads include the National Highway System, the Interstate System, and all other public roads not classified by CDOT as local roads or rural minor collectors, as defined in 23 CFR 470.⁶
- ☐ Local match of 17.21 percent (*exceptions noted on page 9*)
- ☐ Address at least one federally required Performance Measure (see **Section 5**)
- ☐ Consistent with the *2045 RTP* Corridor Visions
- ☐ Project is within the NFRMPO Boundary (attach project location map to application)
- ☐ Comply with applicable local land use plans or current corridor studies
- ☐ Complete a construction or implementation phase
- ☐ Demonstrate an air quality benefit for the North Front Range region
- ☐ Sponsors can apply for up to \$2,538,870, which is 50 percent of the CMAQ funding available (\$5,077,740)

⁶ 23 CFR 470, https://www.ecfr.gov/cgi-bin/text-idx?rgn=div5&node=23:1.0.1.5.13#se23.1.470_1103, 1997.

- ❑ **Sponsors must submit a project description to the NFRMPO no later than October 29, 2021 to receive CMAQ Emission Worksheets**
- ❑ **Project does not require the issuance of a vehicle Buy America waiver**
- ❑ ITS projects must conform to the Statewide ITS Architecture⁷ and Region 4 ITS Plan⁸ as required by 23 CFR 940⁹ and the CDOT Region 4 Smart Mobility Regional Plan¹⁰.

CMAQ funds cannot be used for:

- **Transit operations beyond a five-year start-up (step down approach), maintenance, or roadway capacity projects.**

For additional information on the CMAQ program, view the FAST Act CMAQ Fact sheet at <https://www.fhwa.dot.gov/fastact/factsheets/cmaqfs.cfm>.

Local Match Exceptions

The Federal share payable for projects on the Interstate System including a project to add high occupancy vehicle (HOV) lanes or auxiliary lanes, but excluding projects to add any other lanes, may, at the discretion of the State, be up to 91.4 percent.

Certain safety improvements as listed in 23 U.S.C. 120(c)(1) (traffic control signalization, maintaining minimum levels of retro-reflectivity of highway signs or pavement markings, traffic circles/roundabouts, safety rest areas, pavement marking, shoulder and centerline rumble strips and stripes, commuter carpooling and vanpooling, rail-highway crossing closure, and installation of traffic signs, traffic lights, guardrails, impact attenuators, concrete barrier end treatments, breakaway utility poles, or priority control systems for emergency vehicles or transit vehicles at signalized intersections) may have a Federal share of 100 percent, but this provision is limited to 10 percent of the total funds apportioned to a State under 23 U.S.C. 104.

⁷ CDOT Statewide ITS Architecture, <https://nfrmpo.org/wp-content/uploads/2019-SW-ITS-Architecture-FINAL.pdf>, 2019.

⁸ CDOT Region 4 ITS Plan, <https://nfrmpo.org/wp-content/uploads/Final-Region-4-ITS-Plan-Update-061120.pdf>, June 2020.

⁹ 23 CFR 940, <https://www.ecfr.gov/cgi-bin/text-idx?SID=20c6d31dad7a8f9fb5a9244f6b9c7f85&mc=true&node=pt23.1.940&rgn=div5>, 2001

¹⁰ CDOT Region 4 Smart Mobility Regional Plan, <https://nfrmpo.org/wp-content/uploads/CDOT-Smart-Mobility-Plan-Region.pdf>, April 2019.

2.5 Project Scoring

Table 4. Congestion Mitigation and Air Quality (CMAQ) Scoring

Scoring Criteria	Scoring Guidelines	Possible Points
Cost Effectiveness*:		
Cost of project divided by total emissions benefit during the life of the project		60
	<i>\$Lowest Cost/ton</i>	<i>60</i>
<i>or</i>	<i>\$/ton</i>	<i>50</i>
<i>or</i>	<i>\$/ton</i>	<i>40</i>
<i>or</i>	<i>\$/ton</i>	<i>30</i>
<i>or</i>	<i>\$ /ton</i>	<i>20</i>
<i>or</i>	<i>\$ Highest Cost/ton</i>	<i>10</i>
Contribution to Achievement of Targets:		
Project will contribute to the achievement of targets for Federally Required Performance Measures (see Table 13)		30
	<i>Project will moderately contribute to the achievement of three or more targets OR project will substantially contribute to the achievement of one or more targets.</i>	<i>30</i>
<i>or</i>	<i>Project will moderately contribute to the achievement of <u>two</u> targets. The project may also minimally contribute to one or more targets.</i>	<i>20</i>
<i>or</i>	<i>Project will moderately contribute to the achievement of <u>one</u> target. The project may also minimally contribute to one or more targets.</i>	<i>10</i>
<i>or</i>	<i>Project will minimally contribute to the achievement of one or more targets.</i>	<i>5</i>
Congestion Management Process (CMP) Strategy¹²		10
<i>or</i>	<i>Includes CMP Strategies Tier 1-4</i>	<i>10</i>
<i>or</i>	<i>Includes CMP Strategies Tier 5-6</i>	<i>5</i>
TOTAL		100

*Cost effectiveness scoring thresholds will be calculated based on cost effectiveness of submitted projects.

¹² 2019 Congestion Management Process, <https://nfrmpo.org/wp-content/uploads/2019-cmp.pdf>, July 2019.

2.6 CMAQ Emission Calculations

The Colorado Department of Transportation (CDOT) has developed the Congestion Mitigation and Air Quality (CMAQ) Guidebook for Air Quality Benefits Reporting which was updated in September 2020. The document describes the recommended process for calculating air quality benefits of projects funded with CMAQ federal funds. The Guidebook was developed in coordination with the Denver Regional Council of Governments (DRCOG), the Upper Front Range Transportation Planning Region (UFRTPR), the NFRMPO, and CDOT. The purpose of the document is to provide information required for consistent air quality benefits calculations needed by CDOT, the Planning Regions, and CMAQ project applicants.

The Guidebook outlines the tools to use for each of the different project types which are eligible for CMAQ funding as shown in **Table 5**. The full Guidebook for Air Quality Benefits Reporting which includes example calculations and input details is available upon request.

Table 5: Recommended Tools by Project Type

FHWA CMAQ Tools	Mobility Lab TDM ROI Calculator	GREET/AFLEET	EPA Diesel Emissions Quantifier
<ul style="list-style-type: none">• Bicycle and Pedestrian Facilities• Transit Bus Service and Fleet Expansion• Transit Bus Replacement/Retrofit• Carpooling/Vanpooling• Intersection Improvements• Traffic Signal Synchronization• Roundabouts	<ul style="list-style-type: none">• Travel Demand Management Programs (Combined with AFLEET)	<ul style="list-style-type: none">• Travel Demand Management Programs (Combined with TDM ROI Calculator)• Alternative Fuels• Idle Reduction• Truck Stop Electrification	<ul style="list-style-type: none">• Engine Replacements• Engine Retrofits• Nonroad, Locomotive, and Marine Engine Projects

Section 3: Surface Transportation Block Grant (STBG)

3.1 Available Funding

Table 6: Available STBG Funding

Program	Rolled Funding	FY2024	FY2025	Federal Funding Total	Set-Aside	Funding Available for Allocation
STBG	\$2,276,057	\$3,911,925	\$3,932,558	\$10,120,540	\$50,000	\$10,070,540

3.2 Eligible Applications

Federal regulations do not specify eligible project sponsors for the STBG program. For the NFRMPO Call for Projects, eligible sponsors include local, regional, and state governments and agencies responsible for transportation improvements.

3.3 Eligible Project Types

STBG is the most flexible funding source among all Federal-aid highway programs. In general, projects must be located on federal-aid eligible roadways; however, see 23 U.S.C.133 for exceptions.

Eligible project types include:

- Construction of:
 - highways, bridges, tunnels;
 - transit capital projects eligible for assistance under Chapter 53 of Title 49;
 - infrastructure-based ITS capital improvements, including the installation of vehicle-to-infrastructure (V2I) communication equipment; and
 - truck parking facilities eligible for funding under Section 1401 of MAP-21 (23 U.S.C. 137 note).
- Operational improvements and capital and operating costs for traffic monitoring, management, and control facilities and programs.
- Environmental measures eligible under Sections 119(g), 328, and 329 and transportation control measures listed in Section 108(f)(1)(A) (other than clause (xvi) of that Section) of the Clean Air Act (42 U.S.C. 7408(f)(1)(A)).
- Highway and transit safety infrastructure improvements and programs, including railway-highway grade crossings.
- Fringe and corridor parking facilities and programs in accordance with Section 137 and carpool projects in accordance with Section 146.
- Recreational trails projects eligible for funding under Section 206, pedestrian, and bicycle projects in accordance with Section 217 (including modifications to comply with accessibility requirements under the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.)), and the Safe Routes to School program under Section 1404 of SAFETEA-LU (23 U.S.C. 402 note).

- Planning, design, or construction of boulevards and other roadways largely in the right-of-way of former Interstate System routes or other divided highways.
- Protection (including painting, scour countermeasures, seismic retrofits, impact protection measures, security countermeasures, and protection against extreme events) for bridges (including approaches to bridges and other elevated structures) and tunnels on public roads, and inspection and evaluation of bridges and tunnels and other highway assets.
- Projects and strategies designed to support congestion pricing, including electronic toll collection and travel demand management strategies and programs.
- Any type of project eligible under 23 U.S.C. 133 as in effect on the day before the date of enactment of the FAST Act, including projects described under Section 101(a)(29) as in effect on such day.
- Electric vehicles and infrastructure¹³ including:
 - Construction and installation of electric vehicle (EV) charging infrastructure including parking facilities and utilities
 - Workforce development and training related to EV infrastructure
 - Planning for EV charging infrastructure and related projects
 - Construction and installation of EV charging infrastructure to support operational, resilience, national energy security, environmental, and community goals for freight transportation
 - Installation of EV charging infrastructure as part of transit capital projects eligible under Chapter 53 of Title 49, United States Code

3.4 Project Requirements

All STBG project submissions must include a complete application, project location map, detailed cost estimate, and resolutions of support and letters of approval.

All applications must meet the following requirements:

- ☐ If project touches a state highway, sponsor must submit a CDOT letter of support even if CDOT does not provide funding
- ☐ Infrastructure projects must be on a Regionally Significant Corridor (RSC) (roadway), or Regional Transit Corridor (RTC)(transit) as identified in the 2045 RTP or Regional Active Transportation Corridor (RATC)(bike/ped/trail) as identified in the 2021 Active Transportation Plan (ATP) (see **Section 5**)
- ☐ Consistent with the *2045 RTP Visions*

¹³ *Federal Funding is Available for Electric Vehicle Charging on the National Highway System*, FHWA, https://www.fhwa.dot.gov/environment/alternative_fuel_corridors/resources/ev_funding_report_2021.pdf. April 22, 2021.

- ☐ Addresses at least one federally required Performance Measure (See **Section 5**)
- ☐ Roadway projects must be on a federal-aid eligible roadway (See **Section 5**). Eligible roads include the National Highway System, the Interstate System, and all other public roads not classified by CDOT as local roads or rural minor collectors, as defined in 23 CFR 470.¹⁴
- ☐ Local match of 17.21 percent (exceptions noted on page 14)
- ☐ Complies with applicable local land use plans or current corridor studies
- ☐ Project is within the NFRMPO Boundary (attach project location map to application)
- ☐ Project must complete a construction or an implementation phase
- ☐ **Federal request cannot be less than \$100K**
- ☐ Sponsors can only apply for projects equal to the funding shown on the Community Targets Table (see **Table 8**)
- ☐ **Project does not require the issuance of a vehicle Buy America waiver**

For additional information on the STBG program, view the FAST Act STBG Fact sheet at <https://www.fhwa.dot.gov/fastact/factsheets/stbgfs.cfm>.

Local Match Exceptions

The Federal share payable for projects on the Interstate System including a project to add high occupancy vehicle (HOV) lanes or auxiliary lanes, but excluding projects to add any other lanes, may, at the discretion of the State, be up to 91.4 percent.

Certain safety improvements as listed in 23 U.S.C. 120(c)(1) (traffic control signalization, maintaining minimum levels of retro-reflectivity of highway signs or pavement markings, traffic circles/roundabouts, safety rest areas, pavement marking, shoulder and centerline rumble strips and stripes, commuter carpooling and vanpooling, rail-highway crossing closure, and installation of traffic signs, traffic lights, guardrails, impact attenuators, concrete barrier end treatments, breakaway utility poles, or priority control systems for emergency vehicles or transit vehicles at signalized intersections) may have a Federal share of 100 percent, but this provision is limited to 10 percent of the total funds apportioned to a State under 23 U.S.C. 104.

For STBG projects, the Federal share payable on any project, program, or activity with innovative project delivery methods, including those to improve work zone safety, improve the quality of or decrease maintenance costs of highways and bridges, accelerate project delivery, or reduce congestion related to highway congestion may, at the discretion of the State, be up to 100 percent. The authority of the State

¹⁴ 23 CFR 470, https://www.ecfr.gov/cgi-bin/text-idx?rgn=div5&node=23:1.0.1.5.13#se23.1.470_1103, 1997.

to increase the federal share for innovative project delivery methods is limited to 10 percent of the combined apportionments for programs identified in 23 U.S.C.120(c)(3)(C)(ii).

3.5 Project Scoring

The weights for each scoring criteria in the STBG program vary by community size. Small communities are defined as communities with a population of 50,000 or less. Large communities are defined as communities with a population over 50,000. Applications submitted by CDOT would be scored using the large community scoring weights. The STBG application contains sections for each scoring criteria for the applicant to explain the project's impact with qualitative and/or quantitative data.

Table 7 outlines the scoring criteria with corresponding subcriteria or scoring guidelines. The point value for each criterion, indicated in bold, add up to the total points possible. Subcriteria (points which cumulatively add up to the criterion value) and scoring guidelines (levels of scoring options) are indicated in italics. During the scoring process of applications, the scoring guidelines are intended to be used as listed in the table. The scoring subcriteria are up to the discretion of the scoring committee where scores are allowed to be up to the indicated value.

Table 7: Surface Transportation Block Grant (STBG) Scoring

STBG Scoring Criteria	Scoring Guidelines or Subcriteria	Small Communities	Large Communities
Safety: Project achieves a reduction in traffic fatalities and serious injuries		35	35
	<i>The project scope's primary intent is to address the most prevalent crash types resulting in fatalities or serious injuries by implementing countermeasures that proven to reduce the indicated crash type</i>	35	35
or	<i>The project scope includes elements that will likely reduce crashes resulting in fatalities or serious injuries but does not include proven countermeasures</i>	25	25
or	<i>The project scope includes countermeasures proven to reduce the most prevalent crash type causing Property Damage only crashes.</i>	15	15
or	<i>The project may help reduce crashes but does not include countermeasures to specifically reduce crash types causing fatalities, serious injuries, or property damage only crashes.</i>	10	10
or	<i>The project has no intention to improve the safety of the transportation system.</i>	0	0
Mobility: Project improves the multi-modal system and/or addresses congestion, reliability, and continuity.		20	25
	<i>Project increases the share of people using active transportation or adds to active transportation facilities in accordance with strategies and guidance within the Active Transportation Plan</i>	6	5
	<i>Project increases the share of people using transit by investing in projects that improves existing transit facilities or adding new transit facilities</i>	2	5
	<i>Project improves efficiency through ITS or operational improvements (contributes to Regional Performance Measure: Miles of Fiber for Connected Roadways)</i>	2	3
	<i>Project contributes to the achievement of Regional Performance Measures: Non-motorized facility miles, percent of Non-Single Occupant Vehicle Miles, Daily VMT Per Capita, travel time index on RSCs, Fixed Route Revenue Hours per Capita within Service Areas</i>	3	4
	<i>Project contributes to PM 3: System Performance</i>	3	4
	<i>Includes CMP Strategies Tier 1-4</i>	3	3
	<i>Includes CMP Strategies Tier 5-6</i>	1	1

STBG Scoring Criteria	Scoring Guidelines or Subcriteria	Small Communities	Large Communities
System Preservation: Project maintains the current system based on current pavement and bridge condition or contributes to state of good repair targets for transit		15	10
	<i>Project contributes to PM 2: Pavement and Bridge Condition on NHS</i>	0	5
	<i>Project contributes to maintaining or increasing the pavement or bridge condition on non-NHS roads</i>	15	0
	<i>Project contributes to Transit Asset Management Targets</i>	0	5
Partnerships: Project sponsored by at least two agencies contributing at least 10% of Federal funding request plus local match (excluding local overmatch)		15	15
	<i>Partnerships meet or exceed the 10% requirement</i>	15	15
	<i>Project includes partnerships that are below the 10% requirement</i>	5	5
Environmental Justice: Project includes significant benefits or does not include significant burdens to EJ populations and additional communities of concern.		7	7
	<i>Project demonstrates an analysis of the benefits and burdens as illustrated within the Environmental Justice Impact Analysis Worksheet.</i>	Up to 7	Up to 7
Economic Development: Project leads to improvements for businesses and the freight network		8	8
	<i>Project located/addresses congestion on Colorado Freight Corridors (CFCs)</i>	2	2
	<i>Project addresses top segments for truck delay in the state (See Freight Northern Colorado (FNC))</i>	2	2
	<i>Project leads to access to or improvements for businesses or activity centers</i>	4	4
Total		100	100

3.6 Funding Targets

The STBG program will include a set-aside for the Regional Air Quality Council (RAQC) to conduct ozone modeling for the region. The set-aside is for \$25,000 per year for four years from FY2022 through FY2025. For the 2021 Call, which provides funding for two years, the total set-aside is \$50,000.

Funding targets for each NFRMPO member community are presented in **Table 8**. Each community may apply for STBG federal funding up to the maximum federal request identified in the Table. The overall target for small communities is \$3,419,087 and the overall target for large communities is \$6,651,453. For all other eligible entities, the maximum request limit is the pool total (\$10,120,540) and there is no funding target.

Table 8. STBG Community Targets

STBG Community Targets							
Community		2019 Population (DOLA)	Percent of Total Population	Percent of Large Communities Population	Population-based Target	Allowable Additional 30%	Maximum Federal Request
Small Communities	Berthoud	8,939	1.7%	-	\$171,023	-	\$171,023
	Eaton	5,707	1.1%	-	\$109,187	-	\$109,187
	Evans	21,104	4.0%	-	\$403,766	-	\$403,766
	Garden City	248	0.0%	-	\$4,745	-	\$4,745
	Johnstown	15,106	2.9%	-	\$289,011	-	\$289,011
	LaSalle	2,337	0.4%	-	\$44,712	-	\$44,712
	Milliken	8,113	1.5%	-	\$155,220	-	\$155,220
	Severance	6,235	1.2%	-	\$119,289	-	\$119,289
	Timnath	4,915	0.9%	-	\$94,035	-	\$94,035
	Weld County	14,620	2.8%	-	\$279,713	-	\$279,713
	Windsor	31,815	6.0%	-	\$608,691	-	\$608,691
	<i>Small Community Set-Aside Fund</i>						\$1,139,696
	Small Community Total	119,139	22.6%	-	\$2,279,391	-	\$3,419,087
Large Communities	Fort Collins	170,318	32.4%	41.8%	\$2,781,894	\$834,568	\$3,616,462
	Greeley	108,633	20.6%	26.7%	\$1,774,360	\$532,308	\$2,306,668
	Loveland	77,553	14.7%	19.0%	\$1,266,714	\$380,014	\$1,646,728
	Larimer County	50,723	9.6%	12.5%	\$828,485	\$248,546	\$1,077,031
	Large Community Total	407,227	77.4%	100.0%	\$6,651,453	\$1,995,436	\$8,646,889
Total		526,366	100.0%	-	\$8,930,844	-	\$12,065,976
Small communities (those with a population of 50,000 or less) may apply for the small community set-aside fund in addition to their population-based target. The fund is equal to 50 percent of the cumulative population-based small community targets. Small communities may also apply to partner with large communities. The overall target for small communities is the sum of their population-based targets and the set-aside fund.					Small Communities Overall Target		\$3,419,087
					STBG Funding Percent		34.0%
					Population Percent		22.6%
Large communities (those with a population over 50,000) may apply for up to thirty percent additional funding beyond their population-based target. The overall target for large communities is the sum of their population-based targets.					Large Communities Overall Target		\$6,651,453
					STBG Funding Percent		66.0%
					Population Percent		77.4%
					RAQC Ozone Modeling Set-Aside		\$50,000
					Total STBG Funding Available		\$10,120,540

Section 4: Transportation Alternatives (TA)

4.1 Available Funding

Table 9: Available TA Funding

Program	Rolled Funding	FY2024	FY2025	Federal Funding Total	Set-Aside	Funding Available for Allocation
TA	\$85,264	\$258,536	\$259,824	\$603,624	\$0	\$603,624

4.2 Eligible Applicants

As specified by the Fixing America's Surface Transportation (FAST) Act, entities eligible to receive TA funds include:

- local governments;
- transit agencies;
- natural resource or public land agencies;
- school districts, local education agencies, or schools;
- nonprofit entities responsible for the administration of local transportation safety programs; and
- any other local or regional governmental entity with responsibility for oversight of transportation or recreational trails (other than an MPO or a State agency) that the State determines to be eligible, consistent with the goals of subsection (c) of Section 213 of Title 23.

Other than the specific type of nonprofit entities identified above, nonprofits are not eligible as direct grant recipients of the funds. However, nonprofits are eligible to partner with any eligible entity on an eligible TA project.

4.3 Eligible Project Types

TA funds may be used for the following project types:

- Pedestrian and Bicycle / Non-Motorized Transportation
 - Bicycle and pedestrian / non-motorized transportation facilities
 - Infrastructure-related projects to provide safe routes for non-drivers
 - Conversion of abandoned railway corridors to trails
- Historic / Scenic Transportation Activities
 - Construction of turnouts, overlooks, and viewing areas
 - Control and/ or removal of outdoor advertising
 - Historic preservation and rehabilitation of transportation facilities
- Environmental Mitigation
 - Mitigation of water pollution due to highway runoff
 - Reduction of vehicle-caused wildlife mortality

- Vegetation management practices
- Archaeological activities relating to impacts from a transportation project

4.4 Project Requirements

All TA project submissions must include a complete application, including description and benefits of proposed project, maps, plans and photographs; evidence of eligibility by project category; environmental review; detailed cost estimates; letters of approval or resolutions of support; and performance measure impact and environmental justice analysis worksheets. If the environmental review has not yet taken place, applicants must specify when the environmental review will occur.

All applications must meet the following requirements:

- ☐ If project touches a state highway, sponsor must get a CDOT letter of support even if CDOT does not provide funding
- ☐ If project is related to active transportation facilities, it must impact a Regional Active Transportation Corridor from the *2021 NFRMPO Active Transportation Plan (ATP)*
- ☐ Local match of 17.21 percent
- ☐ Address at least one 2045 RTP Performance Measure
- ☐ If project is related to active transportation facilities, it must be consistent with the corridor visions from the *2021 ATP*
- ☐ Project must be within the NFRMPO Boundary
- ☐ Comply with applicable local land use, bike, or current corridor studies, if available
- ☐ Project completes a construction or an implementation phase
- ☐ Sponsors can apply for the total funding amount available: \$603,624
- ☐ **Federal request cannot be less than \$50K**

For additional information on the TA program, view the FAST Act TA Fact sheet at <https://www.fhwa.dot.gov/fastact/factsheets/transportationalternativesfs.cfm>.

4.5 Project Scoring

Non-motorized TA applications will be scored according to the criteria, subcriteria, and weighting in **Table 10**. These criteria were reviewed by the NoCo Bike and Ped Collaborative and are based on the criteria from the 2018 NFRMPO Call for Projects and the FY2021-FY2023 CDOT Transportation Alternatives Program (TAP) scoring system.¹⁵

Historic/Scenic transportation activities and environmental mitigation projects will be scored according to the criteria and weighting used in the FY2021-FY2023 CDOT TAP Call, as shown in **Table 11** and **Table 12**, respectively.

¹⁵ Transportation Alternatives Program Guidelines and Application <https://www.codot.gov/programs/planning/assets/grants/tap/TAP-guidelines.pdf>, 2019.

Table 10. Transportation Alternatives (TA) Scoring for Non-Motorized Projects

TA Evaluation Criterion – Non-Motorized Projects	Possible Points
Enhance Safety	20
Provides a shared use path or enhanced separation from motorized vehicles <i>(12-foot paved path, protected bike lane = 8 points, 10-foot paved path = 6 points; less than 10-foot = 4 points)</i>	8
Provides safe crossing at railroad, roadway or waterway	6
Eliminates or mitigates roadway hazards (drainage system, pavement edge drop, etc.)	6
<i>NFRMPO Staff will work with the project sponsor to analyze bicycle and pedestrian crash data in the project area from 2011-2019 for consideration in the scoring process.</i>	
Maximize Transportation Investment / Network Connectivity Improvement	20
Closes gap between two existing facilities or extends existing facility	6
Project will include installation, maintenance, and monitoring of bike/ped counting device consistent with regional and state counting systems. Project sponsor will share data regularly with the NFRMPO and CDOT for the benefit of the region.	4
Increases access to school, or existing activity center such as a park, library, transit station, park and ride, etc.	6
Enhances wayfinding; i.e. signage or systems used to convey location and directions to non-motorized transportation users	4
Improve State and Regional Economy	10
Provides better access to employment locations	5
Supports tourism activities	5

TA Evaluation Criterion – Non-Motorized Projects - Continued	Possible Points
Expand Recreational Opportunities, Enhance Quality of Life, and Improve Public Health	12
Provides access to public lands (land owned by a government entity)	3
Project connects to or is within a ½ mile of a downtown or "Main Street" area	3
Project is located within a ½ mile of a Census Tract with an active transportation (bike or walk) commute mode share below the NFRMPO regional average	6
<i>NFRMPO Staff will work with the project sponsor to identify and analyze current health data in the project area for consideration in the scoring process.</i>	
Provide Transportation Equity	12
Project is located within a ½ mile of an EJ Low Income AND Minority Block Group (Yes = 3, No = 0)	3
Project is located within a ½ mile of an EJ Low Income OR Minority Block Group (Yes = 3, No = 0)	3
Project is located within a ½ mile of a designated Community of Concern (Yes = 2, No = 0)	2
This project is compliant with the Americans with Disabilities Act of 1990 (42 USC 12101 et seq.) (Yes = 4, No = 0)	4
Project Readiness	6
To ensure expenditure of TA funds between FY2024 and FY2025, the project sponsor has identified additional local or non-local funds necessary to complete the project, and/or the project can be phased	6
Integration with Plans and Community Documented Support	20
Project is consistent with the Regional Active Transportation Corridor Visions in Chapter 4 of the 2021 Regional Active Transportation Plan (ATP) (including preferred and alternative alignments, key local connection needs, crossing needs, etc.)	10
Project is consistent with local plans	10
<i>The project sponsor should list all local, regional, and state plans in which the project is identified in the application materials.</i>	
TOTAL	100

Table 11. Transportation Alternatives (TA) Scoring for Historic/Scenic Projects

TA Evaluation Criterion – Historic/Scenic Projects	Possible Points
Enhance Safety	24
Community Aesthetics, Quality of Life, or Cultural Understanding	24
Provide Transportation Equity	8
Project Readiness	20
Integration with Plans and Community Documented Support	24
TOTAL	100

Table 12. Transportation Alternatives (TA) Scoring for Environmental Projects

TA Evaluation Criterion – Environmental Projects	Possible Points
Enhance Safety	24
Environmental Sensitivity	24
Provide Transportation Equity	8
Project Readiness	20
Integration with Plans and Community Documented Support	24
TOTAL	100

Section 5: References

5.1 2045 Goals and Performance Measures

All STBG and CMAQ project applications must identify at least one federally required performance measure for which the project would contribute toward target achievement. **Table 13** identifies the federally required performance measures for the North Front Range region and the applicable coverage area. For example, under the highway safety performance area, any project on a public road that is expected to reduce the rate of serious injury crashes would contribute toward target achievement of a federally required measure. For other performance areas, such as pavement condition, the project would need to be on the National Highway System (NHS) to contribute toward target achievement of a federally required measure.

The NHS system within the NFRMPO region includes I-25, US287, US85, US85 Business, US34, portions of US34 Business, and SH14, as shown on **Figure 1**.

Table 13. Federally Required Performance Measures

Performance Area	Performance Measure	Coverage
Highway Safety	Number of Fatalities	All Public Roads
	Rate of Fatalities per 100M Vehicle Miles Traveled (VMT)	
	Number of Serious Injuries	
	Rate of Serious Injuries per 100M VMT	
	Number of Non-motorized Fatalities and Serious Injuries	
Pavement Condition	Percentage of pavement on the Interstate System in Good condition ¹⁶	NHS
	Percentage of pavement on the Interstate System in Poor Condition	
	Percentage of pavement on the non-Interstate NHS in Good Condition	
	Percentage of pavement on the non-interstate NHS in Poor Condition	
Bridge Condition	Percentage of NHS bridges classified as in Good Condition ¹⁷	NHS

¹⁶ Good and poor pavement conditions are based on the International Roughness Index (IRI), Cracking, Rutting, Faulting, and/or Present Serviceability Rating (RSC) as described in [23 CFR Part 490 Subpart C](#).

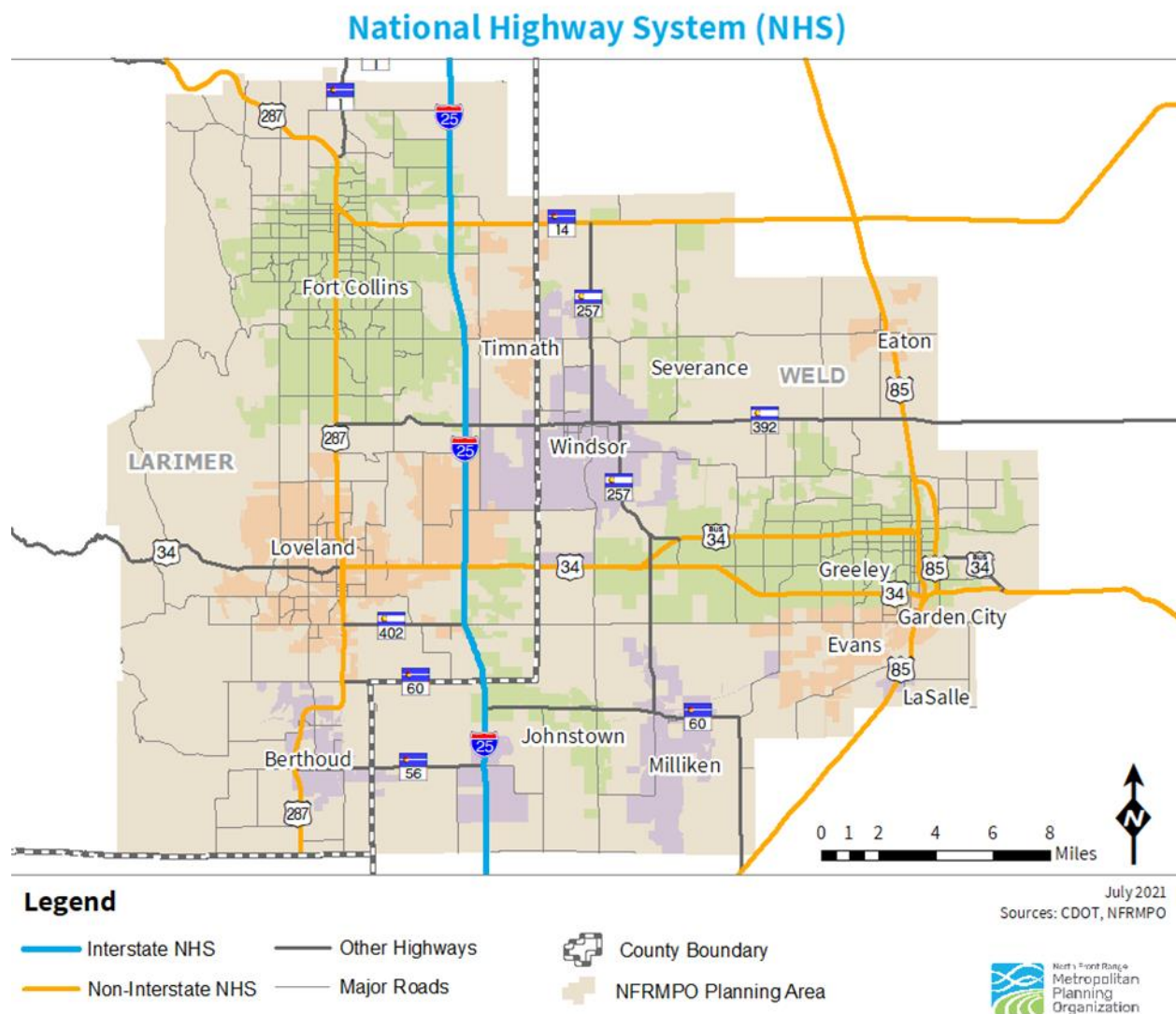
¹⁷ Good and poor bridge conditions are assessed based on the National Bridge Inventory (NBI) condition ratings as described in [23 CFR Part 490 Subpart D](#).

Performance Area	Performance Measure	Coverage
	Percentage of NHS bridges classified as in Poor Condition	
System Reliability	Percent of person-miles traveled on the Interstate System that are reliable ¹⁸	NHS
	Percent of person-miles traveled on the non-Interstate NHS that are reliable	
Freight Movement	Truck Travel Time Reliability Index ¹⁹	Interstate
CMAQ Emissions	VOC Reduction	Non-attainment areas
	Carbon Monoxide Reduction	
	Nitrogen Oxides Reduction	
Transit Asset Management	Percentage of non-revenue vehicles that have met or exceeded their Useful Life Benchmark (ULB)	System-wide
	Percentage of revenue vehicles within a particular asset class that have met or exceeded their ULB	
	Percentage of assets with condition rating below 3.0 on FTA TERM Scale	
Transit Safety	Number of reportable fatalities by mode	System-wide
	Rate of reportable fatalities per total vehicle revenue miles (TVRM) by mode	
	Number of reportable injuries by mode	
	Rate of reportable injuries per TVRM by mode	
	Number of reportable safety events by mode	
	Rate of reportable safety events per TVRM by mode	
	Mean distance between major mechanical failures by mode	

¹⁸A segment is considered reliable if its Level of Travel Time Reliability (LOTTR) is less than 1.5. LOTTR is a comparison, expressed as a ratio, of the 80th percentile travel time of a reporting segment to the “normal” (50th percentile) travel time of a reporting segment occurring throughout a full calendar year.

¹⁹ The Truck Travel Time Reliability (TTTR) Index measures the 95th percentile truck travel time against the 50th percentile truck travel time.

Figure 1. National Highway System (NHS)



In addition to the federally required performance measures, the NFRMPO Planning Council adopted eight MPO-specific performance measures and targets on October 4, 2018. TA applications must support either an MPO-specific performance measure and/or a federally required performance measure. Project applications for CMAQ and STBG funding may indicate if the project would contribute toward achievement of any of the MPO-specific targets. The MPO-specific performance measures and targets are identified in **Table 14**.

Table 14. 2045 RTP MPO-Specific Measures and Targets

Performance Measure	Target
Population within Publicly-Operated paratransit and demand response service area within the NFRMPO Boundary	At least 75%
Fixed-route revenue hours per capita within service areas	Increase by 10%
Non-motorized facility miles	Increase by 50%
Percent of non-single occupant vehicle commute trips	At least 25%
Daily VMT per capita	Daily VMT per capita ≤ 24
Federally-funded projects within the NFRMPO boundary reported as financially inactive for more than three quarters	0
Travel Time Index on RSCs	90% of RSCs have a $TTI \leq 1.5$
Miles of fiber for connected roadways	250 miles

To better integrate the performance measure impact into the Call for Projects and to prepare the scoring committee to assign scores relating to performance measures, applicants must complete a Performance Measure Impact Analysis with their application. **Table 15** for the Performance Measure Impact Worksheet.

Table 15: Performance Measure Impact Analysis Worksheet

Performance Measure	Level of Impact (Substantial, Moderate, Minimal)	Impact Description (Quantitative or Qualitative)
Highway Safety (all public roads)		
Number of Fatalities		
Rate of Fatalities per 100M Vehicle Miles Traveled (VMT)		
Number of Serious Injuries		
Rate of Serious Injuries per 100M VMT		
Number of Non-motorized Fatalities and Serious Injuries		
Pavement Condition (NHS)		
Percentage of pavement on the Interstate System in Good Condition		
Percentage of pavement on the Interstate System in Poor Condition		
Percentage of pavement on the non-Interstate NHS in Good Condition		
Percentage of pavement on the non-interstate NHS in Poor Condition		
Bridge Condition (NHS)		
Percentage of NHS bridges classified as in Good Condition		
Percentage of NHS bridges classified as in Poor Condition		
System Reliability (NHS)		
Percent of person-miles traveled on the Interstate System that are reliable		
Percent of person-miles traveled on the non-Interstate NHS that are reliable		
Freight Movement (Interstate)		
Truck Travel Time Reliability Index		
CMAQ Emissions (Non-attainment areas)		
VOC Reduction		
Carbon Monoxide Reduction		
Nitrogen Oxides Reduction		

Performance Measure	Level of Impact(Substantial, Moderate, Minimal)	Impact Description (Quantitative or Qualitative)
Transit Asset Management (System-wide)		
Percentage of non-revenue vehicles that have met or exceeded their Useful Life Benchmark (ULB)		
Percentage of revenue vehicles within a particular asset class that have met or exceeded their ULB		
Percentage of assets with condition rating below 3.0 on FTA TERM Scale		
Transit Safety (system-wide)		
Number of reportable fatalities by mode		
Rate of reportable fatalities per total vehicle revenue miles (TVRM) by mode		
Number of reportable injuries by mode		
Rate of reportable injuries per TVRM by mode		
Number of reportable safety events by mode		
Rate of reportable safety events per TVRM by mode		
Mean distance between major mechanical failures by mode		
Regional		
Population within Publicly-Operated paratransit and demand response service area within the NFRMPO Boundary		
Fixed-route revenue hours per capita within service areas		
Non-motorized facility miles		
Percent of non-single occupant vehicle commute trips		
Daily VMT per capita		
Federally-funded projects within the NFRMPO boundary reported as financially inactive for more than three quarters		
Travel Time Index on Regionally Significant Corridors		
Miles of fiber for connected roadways		

CMAQ and STBG project applications must also identify one or more 2045 RTP goals supported by the project in the project application. The 2045 RTP goals include:

- **Economic Development / Quality of Life:** Foster a transportation system that supports economic development and improves residents' quality of life
- **Mobility:** Provide a transportation system that moves people and goods safely, efficiently, and reliably
- **Multi-Modal:** Provide a multi-modal system that improves accessibility and transportation system continuity
- **Operations:** Optimize operations of transportation facilities

5.2 Federal-Aid Eligible 2045 Regionally Significant Corridors (RSCs)

Roadway projects must be on a federal-aid eligible portion of an RSC identified in the *2045 RTP*. Federal-aid eligible roads include the National Highway System, the Interstate System, and all other public roads not classified by CDOT as local roads or rural minor collectors, as defined in 23 CFR 470.²⁰

Figure 2 identifies the federal-aid eligible RSCs in black. For proposed roadways, shown in orange, please contact FHWA for eligibility.

²⁰ 23 CFR 470, https://www.ecfr.gov/cgi-bin/text-idx?rgn=div5&node=23:1.0.1.5.13#se23.1.470_1103, 1997.

Figure 2. 2045 Regionally Significant Corridor (RSC) Federal-Aid Eligibility

2045 Regionally Significant Corridor (RSC) Federal-Aid Eligibility

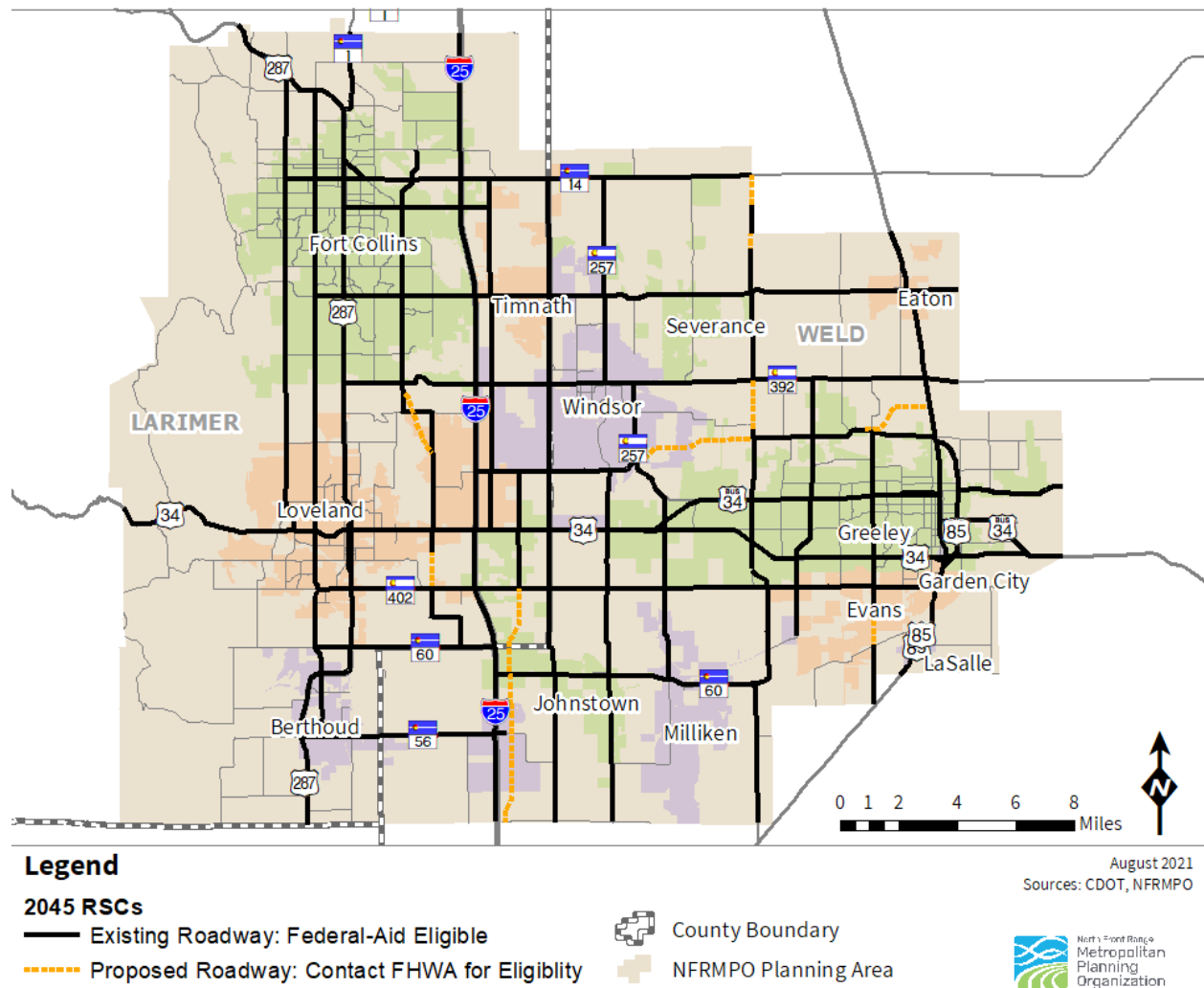


Figure 3. 2045 Regional Transit Corridors (RTCs)

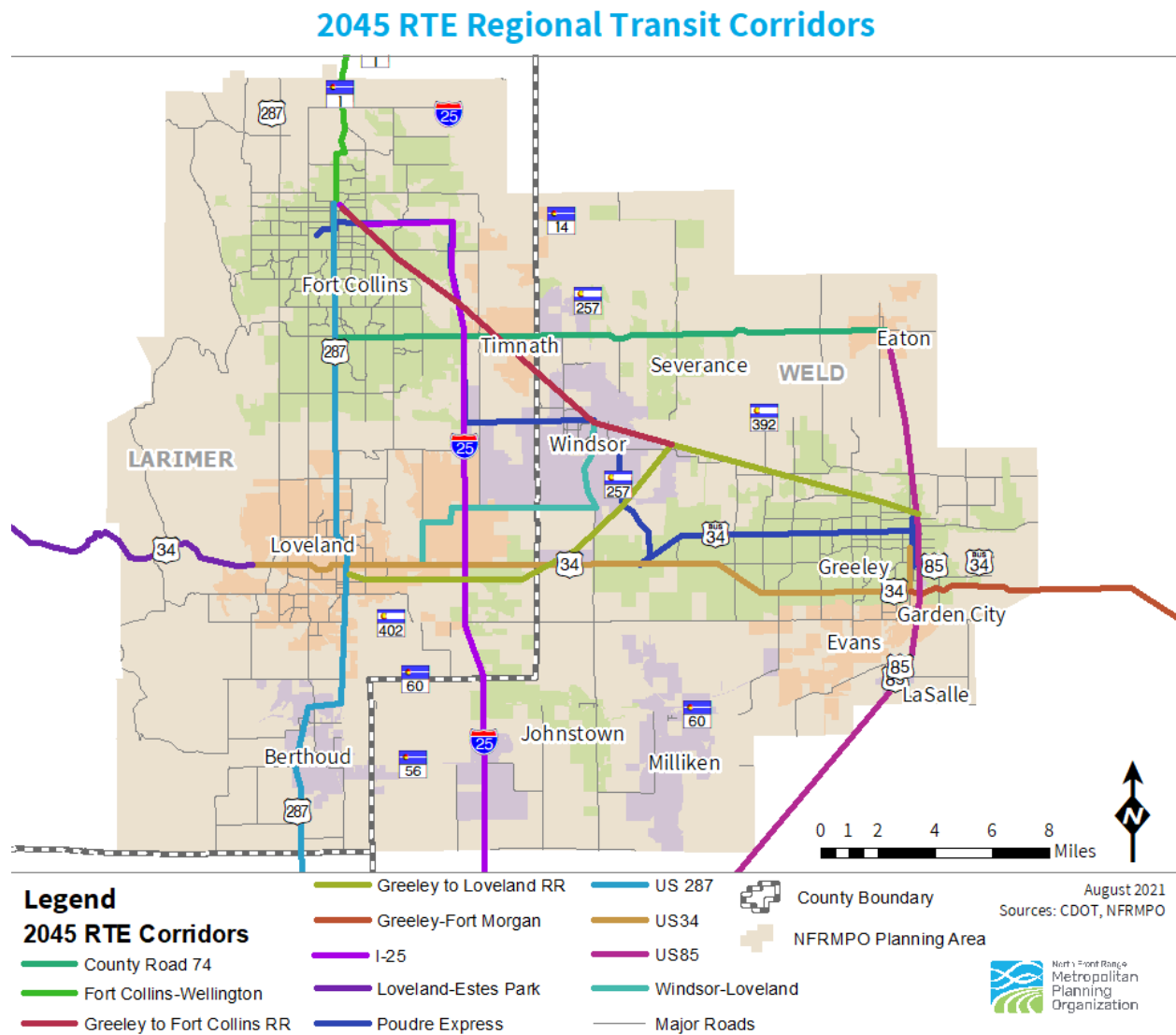
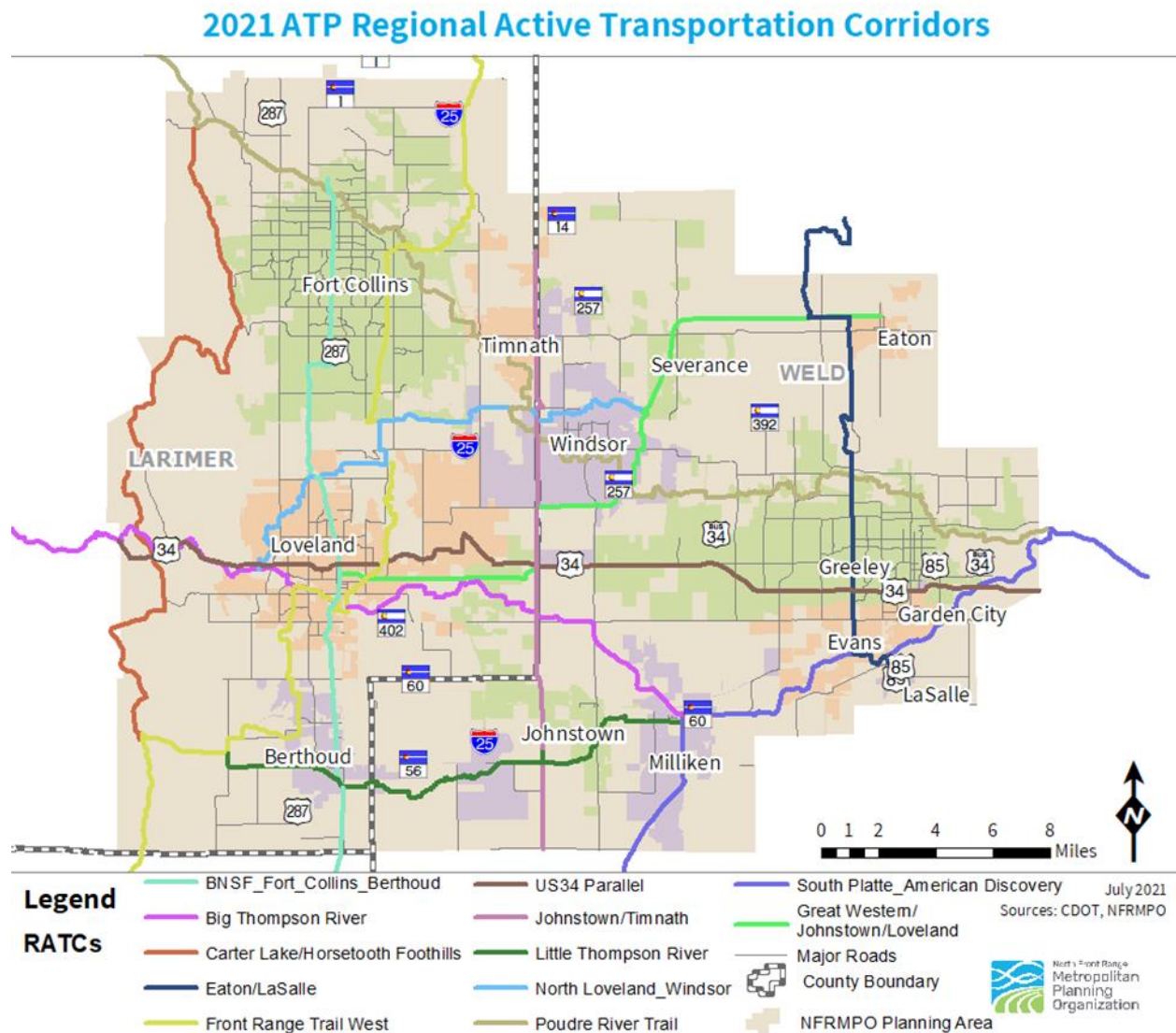


Figure 4. Regional Active Transportation Corridors (RATCs)



5.3 Safety

2020-2023 Colorado Strategic Transportation Safety Plan

The Colorado Department of Transportation (CDOT) adopted the *2020-2023 Colorado Strategic Transportation Safety Plan*²¹ in April 2020. This plan outlines the vision and mission for transportation safety in the state and identifies strategies and countermeasures which have the highest potential to save lives and prevent injuries. Two of the strategies identified in the Plan are Prioritize and Promote Proven Safety Toolbox Strategies and Implement Systemic Infrastructure Safety Improvement Strategies. Among these strategies are the Federal Highway Administration (FHWA) Proven Safety Countermeasures.

The FHWA developed a list of infrastructure-oriented safety treatments and strategies which can be implemented by local agencies to reduce serious injuries and fatalities on American roadways. These treatments and strategies were chosen based on proven effectiveness and benefits and have been designated by FHWA as Proven Safety Countermeasures. The 20 treatments and strategies, listed below with links to details about each Countermeasure, address roadway departure, intersection, and pedestrian and bicycle crashes.

²¹ *2020-2023 Colorado Strategic Transportation Safety Plan*,
<https://www.codot.gov/safety/safetydata/safetyplanning/assets/strategictransportationsafetyplan.pdf>, 2020

Table 16: FHWA Proven Safety Countermeasures

Roadway Departure	Enhanced Delineation and Friction for Horizontal Curves
	Longitudinal Rumble Strips and Stripes
	SafetyEdgeSM
	Roadside Design Improvements at Curves
	Median Barriers
Intersections	Backplates with Retroreflective Borders
	Corridor Access Management
	Left-and Right-Turn Lanes at Two-Way Stop-Controlled Intersections
	Reduced Left-Turn Conflict Intersections
	Roundabouts
	Backplates with Retroreflective Borders
	Systemic Application of Multiple Low-Cost Countermeasures at Stop-Controlled Intersections
	Yellow Change Intervals
Pedestrians/ Bicycles	Leading Pedestrian Intervals
	Medians and Pedestrian Crossing Islands in Urban and Suburban Areas
	Pedestrian Hybrid Beacons
	Road Diets/Reconfigurations
	Walkways
Crosscutting	Local Road Safety Plans
	Road Safety Audits
	USLIMITS2

5.4 Project Life Effectiveness

During previous NFRMPO Calls for Projects, CMAQ emissions benefits have been calculated and scored based on short-term benefits (emissions benefits in the first year of the project) and long-term benefits (emissions benefits over years two through five of the project). This approach is being replaced in the 2021 Call for Projects as a result of discussions held by TAC, Planning Council, and the NoCo Bike and Ped Collaborative. **Table 17** outlines the effectiveness timeline of individual project types based on guidance outlined by FHWA²², research conducted by other planning agencies in the United States²³, and NFRMPO Staff and has been reviewed for accuracy by TAC. Projects with multiple categories will use the project effectiveness life for each component.

Table 17: Project Life Effectiveness

Category*	Project Effectiveness Life (Years)
Traffic Flow Improvements - Infrastructure (intersection improvements, roundabouts, etc.)	20
Traffic Signal Coordination	5
ITS Improvements	5
Bicycle/Pedestrian – On-or Off-Street Facilities	20
Bicycle/Pedestrian – Underpass/Overpass	50
Transit – Cleaner heavy-duty transit/urban bus	12
Transit – Electric Bus/ Charging Infrastructure	18
Transit Improvements – Operational/Amenities	1-2
Diesel retrofits/Diesel Anti-Idling	5
Programming (ridesharing, car/vanpooling, TDM, etc.)	Varies, based on number of years being funded

*Other project types not identified in the table will be determined through consultation with applicants and Staff

²² *Congestion Mitigation and Air Quality Improvement (CMAQ) Program 2020 Cost-Effectiveness Tables Update*, https://www.fhwa.dot.gov/ENVIRONMENT/air_quality/cmaq/reference/cost_effectiveness_tables/fhwahep20039.pdf, 2020

²³ *Methodologies for Evaluating Congestion Mitigation and Air Quality Improvement Projects*, Maricopa Association of Governments, https://www.azmag.gov/Portals/0/Documents/MagContent/MAG_Methodologies_Final_V11_02_26_2021.pdf?ver=2021-04-01-160113-300, 2021

Methods to Find the Cost-Effectiveness of Funding Air Quality Projects For Evaluating Motor Vehicle Registration Fee Projects and Congestion Mitigation and Air Quality Improvement (CMAQ) Projects, CALTRANS, https://ww2.arb.ca.gov/sites/default/files/2020-06/Congestion_Mitigation_Air%20Quality_Improvement_Program_cost-effectiveness_methods_may2005.pdf, 2005

5.5 Environmental Justice

In April 2021, the NFRMPO Planning Council adopted the first *Environmental Justice (EJ) Plan*. The *EJ Plan* identifies the areas within the region having Census Block Groups with a higher percentage than the regional average of low income and/or minority residents. **Figure 5** identifies these areas.

The *EJ Plan* identified additional populations which have been historically disadvantaged, vulnerable, or faced hardships related to transportation. These Communities of Concern (COC) include limited English proficiency (LEP), older adults and youths, populations with a disability, female-headed households, the homeless and unhoused populations, and zero-car households. Although they are not considered EJ populations, the *EJ Plan* recommended these additional COC should be analyzed and considered alongside the minority and low income EJ categories as part of the Call for Project. **Figure 6** identifies the location and density of the COC in the NFRMPO region. More information on the COCs can be found within Section III: Demographic Analysis of the *EJ Plan*²⁴.

In June 2021, the State of Colorado passed two bills into law: House Bill 21-1266 (Environmental Justice Disproportionate Impacted (DI) Community) and Senate Bill 21-260 (Sustainability of the Transportation System). HB-1266 addresses efforts to redress the effects of environmental injustice on DI communities and defines a DI community as “a community that is in a census block group where the proportion of households that are low income, identify as minority, or that are housing cost-burdened is greater than 40 percent.”²⁵ SB21-260 seeks to improve transportation infrastructure and mitigate environmental and health impacts of the transportation system²⁶. Figure 7 illustrates NFRMPO Staff interpretation of DI communities.

The NFRMPO *Transportation Improvement Program* (TIP) includes an Environmental Justice Analysis performed by staff on all location specific projects included in the TIP. To better integrate EJ analysis into the Call for Projects and the TIP, the *EJ Plan* recommended including an EJ analysis in the Call for Projects Application process. In this Call for Projects, applicants must complete an EJ analysis identifying benefits, burdens, a description of outreach conducted to identify the project, and any mitigation strategies to offset undue burdens. See **Table 18** for the EJ Analysis Worksheet.

It is important to identify where significant numbers of minority and low-income households are located within the region to comply with the requirements of Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations*, and DOT Order 5610.2(a). These Orders were enacted to ensure the full and fair participation of potentially affected communities in transportation decisions. The intent of EJ is to avoid, minimize, or mitigate disproportionately high and

²⁴ *Environmental Justice (EJ) Plan*, NFRMPO, <https://nfrmpo.org/wp-content/uploads/2021-environmental-justice-plan.pdf>, 2021

²⁵ <https://leg.colorado.gov/bills/hb21-1266>

²⁶ <https://leg.colorado.gov/bills/sb21-260>

adverse impacts on minority populations and low income populations. **Figures 5-7** are provided to project applicants as a resource in identifying what projects may impact EJ and DI communities.

Figure 5. Environmental Justice (EJ) Areas

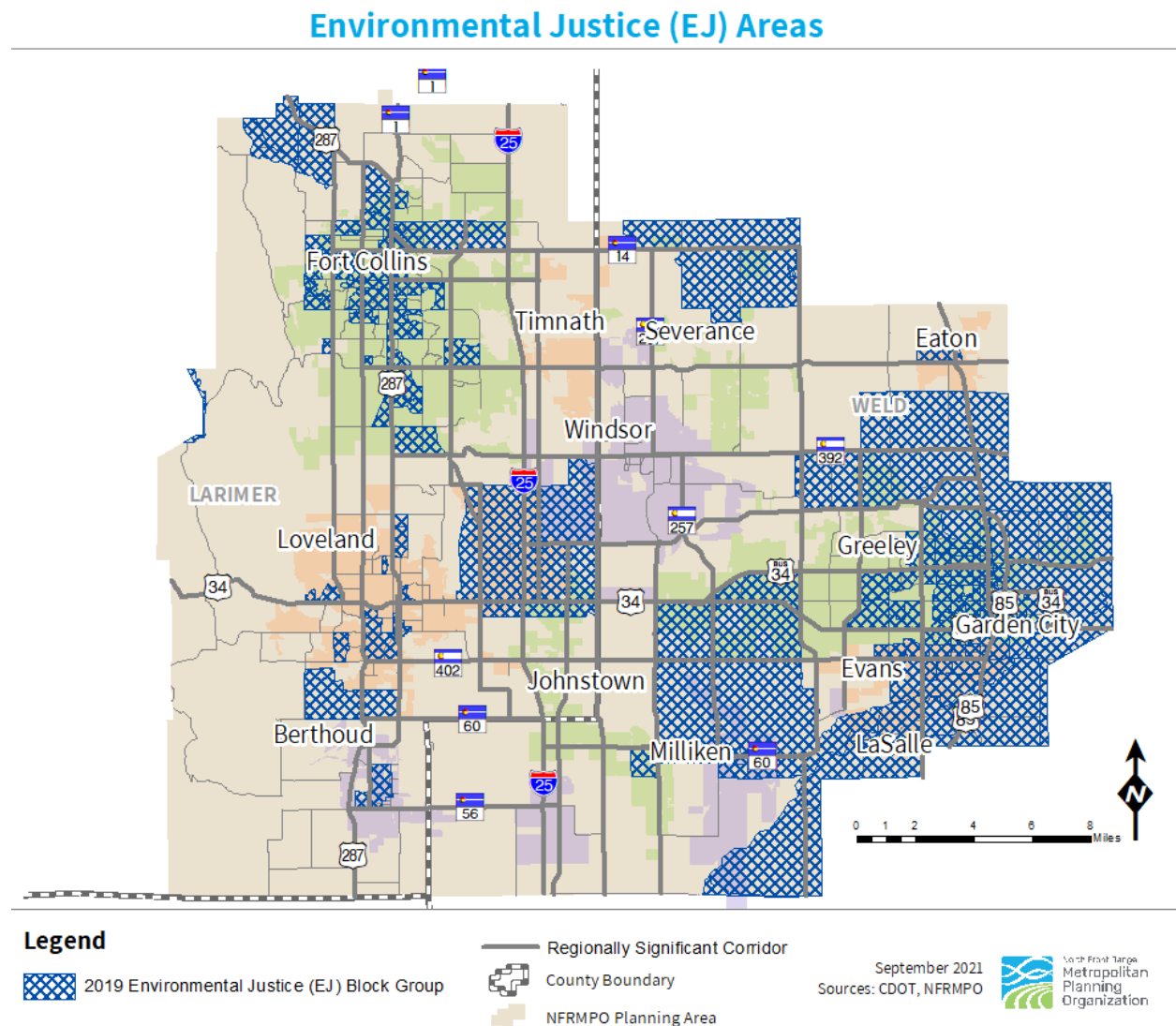


Figure 6. Communities of Concern (COCs)

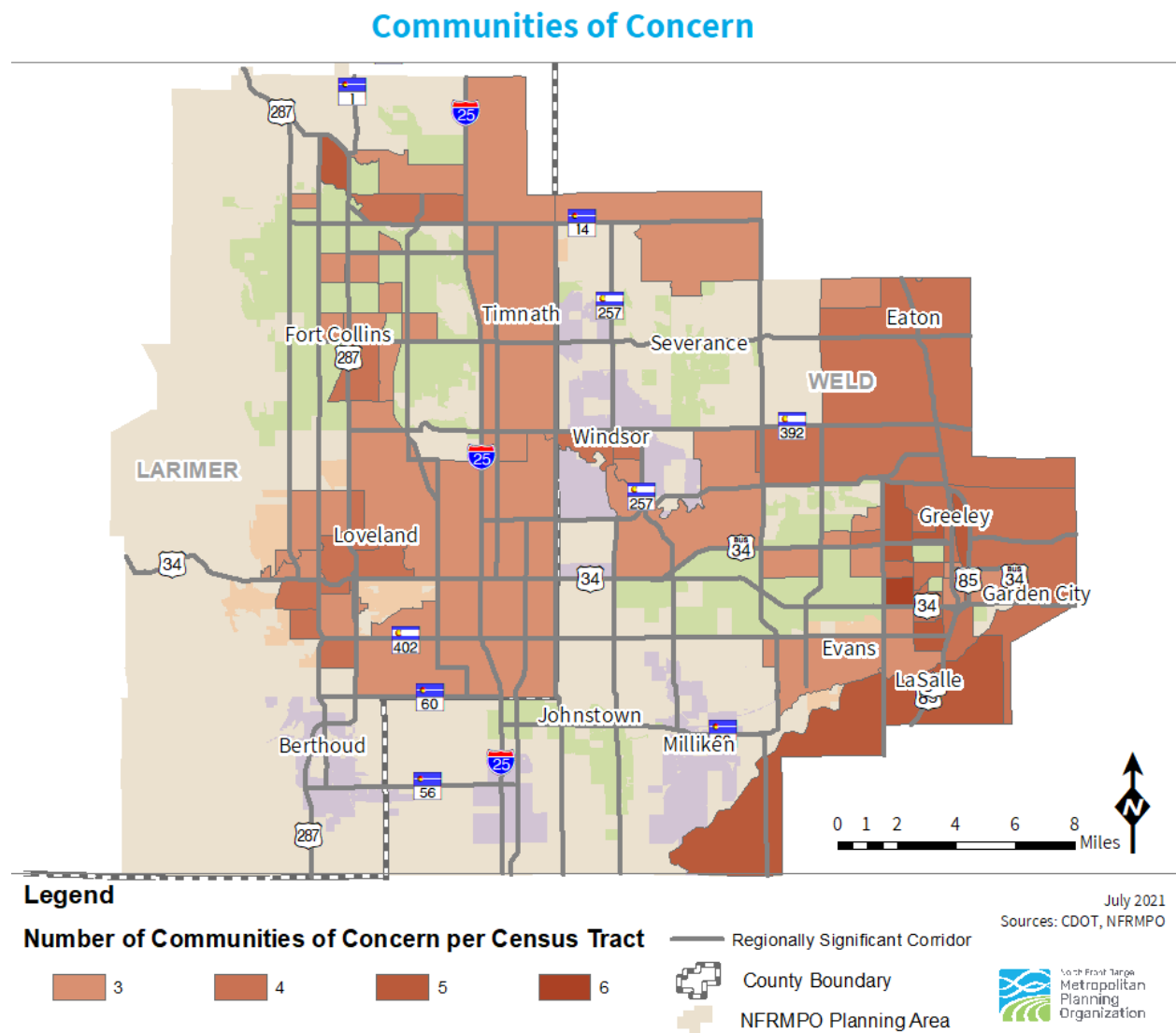
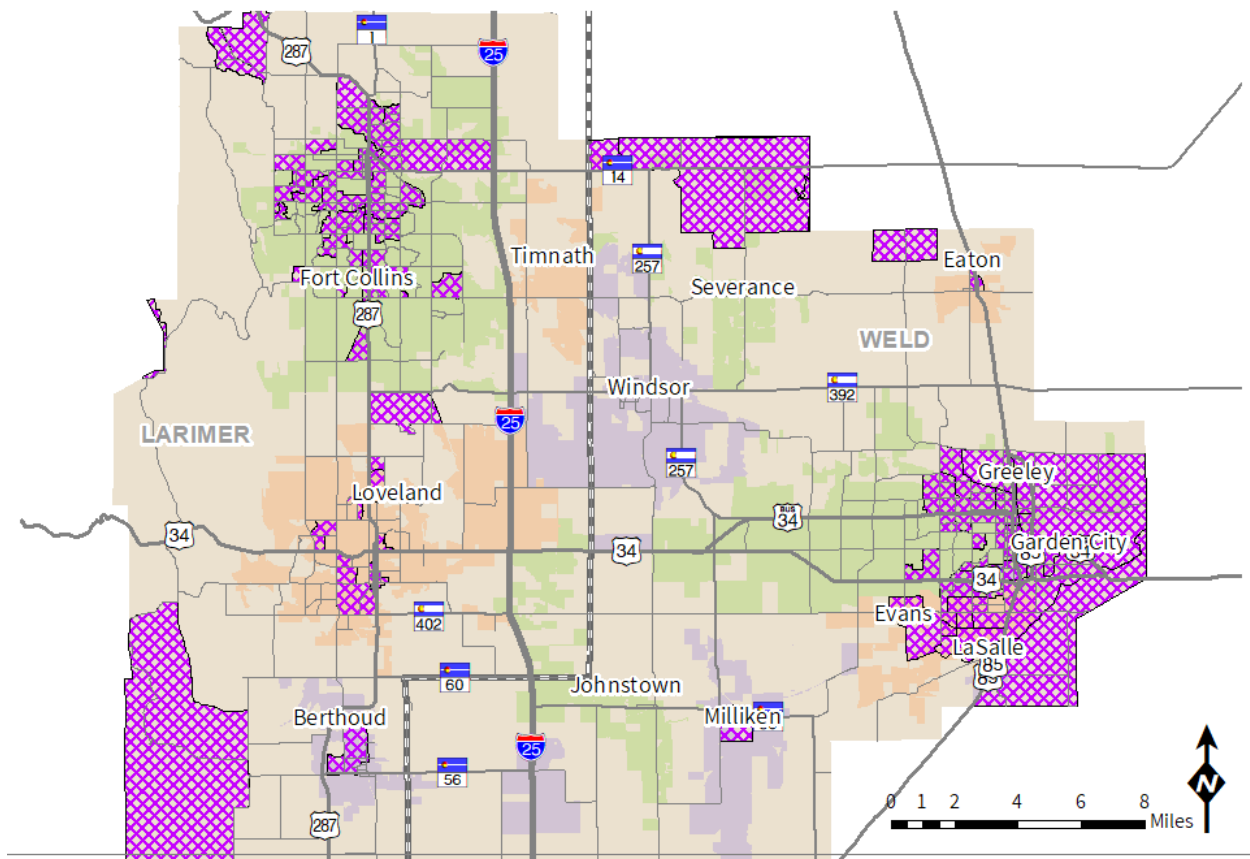


Figure 7: Draft Disproportionately Impacted (DI) Communities

Draft Disproportionately Impacted (DI) Communities



September 2021
Sources: CDOT, NFRMPO

Legend




-  HB1266 Disproportionately Impacted Communities
-  NFRMPO Planning Area
-  County Boundary



Table 18: Environmental Justice Worksheet

Project Information	Yes/No
EJ Project: Project located in an EJ Area or within 1/4 mile of an EJ Area	
Anticipated Project Burdens	
Bodily impairment, infirmity, illness, or death	
Air, noise, and water pollution and soil contamination	
Destruction or disruption of man-made or natural resources, aesthetic values, or availability of public and private facilities and services	
Adverse impacts on community cohesion or economic vitality	
Noise and vibration	
Increased traffic congestion, isolation, exclusion, or separation	
Please describe any other additional anticipated burdens.	
Anticipated Project Benefits	
Decrease in travel time	
Improved air quality	
Expanded access to employment opportunities	
Improved access to transit options and alternative modes of transportation (walking and bicycling)	
Please describe any other additional anticipated benefits.	
Outreach	
Please briefly describe the outreach or public involvement that went into choosing this project and/or any planned outreach	

5.6 Data

The NFRMPO will provide the following data to aid local communities on the application process. For additional data or further technical assistance please contact NFRMPO Staff. Technical assistance is available up to December 2, 2021.

The following shapefiles can be downloaded from the [GIS Data Download](#) section of the NFRMPO website:

- Fatal and Serious Injury Crash Data 2011-2019
- Environmental Justice (EJ) Areas
- Communities of Concern (COC)
- Regionally Significant Corridors
- Regional Active Transportation Corridors
- Regional Transit Corridors