

Denver Metro/North Front Range (Northern Subarea) 8-Hour Ozone Nonattainment Area and Fort Collins Carbon Monoxide (CO) Maintenance Area Conformity Determination

for the

North Front Range Metropolitan Planning Area

2050 Regional Transportation Plan Update

and for the

FY2024-2027 Transportation Improvement Program

and for the

Northern Subarea of the Upper Front Range Transportation Planning Region

2050 Regional Transportation Plan

and for the

Northern Subarea of the Upper Front Range Transportation Planning Region

portion of the

Colorado FY2024-2027 Statewide Transportation Improvement Program

The North Front Range Metropolitan Planning Organization

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September 7, 2023

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LIST OF ACRONYMS

Acronym	Meaning/Context
APCD	Air Pollution Control Division
AQCC	Air Quality Control Commission
BRT	Bus Rapid Transit
BY	Base Year
CAA	Clean Air Act
CDOT	Colorado Department of Transportation
CDPHE	Colorado Department of Public Health and Environment
CFR	Code of Federal Regulation
CO	Carbon Monoxide
COLT	City of Loveland Transit
CSU	Colorado State University
DRCOG	Denver Regional Council of Governments
EE	External-External
EI	External-Internal
EPA	Environmental Protection Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GET	Greeley Evans Transit
HBO	Home-Based Other
HBS	Home-Based Shopping
HBSc	Home-Based School
HBU	Home-Based University
HBW	Home-Based Work
HTRK	Heavy Truck

Acronym	Meaning/Context
ICG	Air Quality Interagency Consultation Group
IE	Internal-External
I/M	Inspection and Maintenance Program
LBO	Lodging-Based Other
LUAM	Land Use Allocation Model
MOA	Memorandum of Agreement
MOVES3	EPA's Motor Vehicle Emission Simulator Model
MPO	Metropolitan Planning Organization
MTRK	Medium-Heavy Truck
MVEB	Motor Vehicle Emissions Budget
NAAQS	National Ambient Air Quality Standards
NFRMPO	North Front Range Metropolitan Planning Organization
NFRT&AQPC	North Front Range Transportation and Air Quality Planning Council
NOx	Nitrogen Oxides
OBO	Other-Based Other
PIP	Public Involvement Plan
PPM	Parts per Million
RAQC	Regional Air Quality Council
RMSE	Root Mean Square Error
RSC	Regionally Significant Corridor
RTC	Regional Transit Corridor
RTDM	Regional Travel Demand Model
RTP	Regional Transportation Plan
RVP	Reid Vapor Pressure
SDO	Colorado State Demography Office

Acronym	Meaning/Context
SIP	State Implementation Plan
STIP	Statewide Transportation Improvement Program
TAC	Technical Advisory Committee
TAZ	Traffic Analysis Zone
TCM	Transportation Control Measures
TIP	Transportation Improvement Program
TMA	Transportation Management Area
TPR	Transportation Planning Region
UFR	Upper Front Range Transportation Planning Region
UNC	University of Northern Colorado
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds
WBO	Work-Based Other
YOE	Year of Expenditure

CHAPTER 1: INTRODUCTION

Purpose

This report demonstrates the transportation programs and plans in the Northern Subarea of the Denver Metro/North Front Range (DM/NFR) Nonattainment area (NAA) and Fort Collins Maintenance area meet air quality requirements per the federally prescribed transportation conformity process. Specifically, the programs and plans meet the requirements for the 2008 8-Hour Ozone National Ambient Air Quality Standard (NAAQS), the 2015 8-Hour Ozone NAAQS, and the 1971 Carbon Monoxide (CO) NAAQS.

This demonstration is based on the regionally significant projects in the 2050 Regional Transportation Plan (RTP), with which the FY2024-2027 Transportation Improvement Program (TIP) projects are consistent, along with the regionally significant projects in the 2045 RTP for the Upper Front Range (UFR), and the FY2024-2027 Statewide TIP (STIP).

Background

The NFRMPO is the lead planning agency for Carbon Monoxide (CO) within the North Front Range and is responsible for conducting conformity determinations for all NAAQS pollutants for which the region is not in attainment.

The NFRMPO conducts air quality conformity determinations on transportation plans and programs to determine conformance with the applicable Colorado State Implementation Plans (SIP) and in compliance with the Clean Air Act (CAA),¹ the Transportation Conformity Regulation,² the Statewide and Metropolitan Planning Regulation,³ and other applicable federal and state requirements. The conformity determination ensures that transportation plans, programs, and projects do not:

- Create new violations of the NAAQS;
- Increase the frequency or severity of NAAQS violations; or
- Delay timely attainment of the NAAQS or achievement of any interim milestone.

¹ 42 U.S.C. Chapter 85, Clean Air Act, Requirements and History, <https://www.govinfo.gov/content/pkg/USCODE-2017-title42/html/USCODE-2017-title42-chap85.htm>.

² 40 CFR 93 Subpart A, Conformity to State or Federal Implementation Plans of Transportation Plans, Programs, and Projects Developed, Funded or Approved Under Title 23 U.S.C. or the Federal Transit Laws, https://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40cfr93_main_02.tpl.

³ 23 CFR 450, Planning Assistance and Standards, https://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title23/23cfr450_main_02.tpl.

Nonattainment Areas and Emissions Budgets

There are three nonattainment areas partially or wholly within the NFRMPO region. These include the Fort Collins Maintenance area for the 1971 CO NAAQS, the Greeley Maintenance area for the 1971 CO NAAQS, and the DM/NFR NAA for the 2008 Ozone NAAQS and 2015 Ozone NAAQS.

Carbon Monoxide Maintenance Areas

Portions of the cities of Fort Collins and Greeley and their immediate vicinities are designated as maintenance areas for CO, shown in Figure 1.

The Fort Collins area was designated by the U.S. Environmental Protection Agency (EPA) as nonattainment for CO in 1979. The last violation of the CO standard in Fort Collins was in 1991. The EPA redesignated Fort Collins as an attainment/maintenance area in 2003 with the approval of the first 10-year maintenance plan.⁴ The second 10-year maintenance plan was approved by the EPA in 2013 and demonstrates continued attainment through September 22, 2023.⁵

The second 10-year maintenance plan for the Fort Collins Maintenance Area meets the requirements and provisions of EPA's limited maintenance plan option. To qualify for this option, the maintenance plan demonstrated CO levels at or below 85 percent of the 8-hour standard of 9 parts per million (ppm) for eight consecutive quarters. Transportation plans and improvement programs in CO limited maintenance plan areas are presumed to automatically satisfy the emissions budget test requirement, and no regional emissions analysis is required.

The Greeley area was designated by the EPA as nonattainment for CO in 1977. The last violation of the CO standard in Greeley was in 1988. The EPA redesignated Greeley as an attainment/maintenance area in 1999 with the approval of the first 10-year maintenance plan.⁶ The second 10-year maintenance plan was approved by the EPA in 2013 and demonstrated continued attainment through May 10, 2019.⁷ While the Greeley CO Maintenance area has not yet been redesignated as an attainment area, conformity requirements no longer apply due to the expiration of the second 10-year maintenance plan.

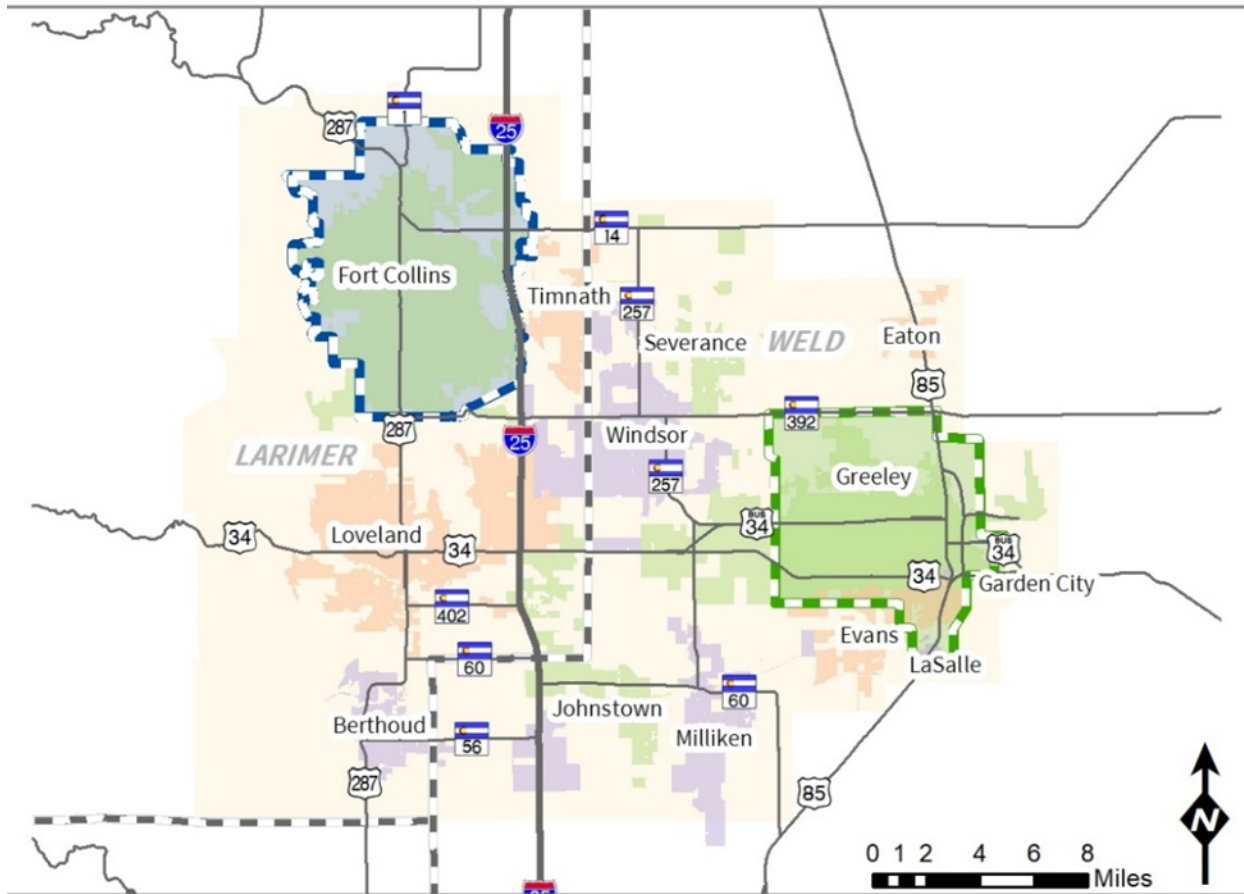
⁴ 68 FR 43316, <https://federalregister.gov/a/03-18303>, 2003

⁵ 78 FR 56164, <https://federalregister.gov/a/2013-21987>, 2013

⁶ 64 FR 11775, <https://federalregister.gov/a/99-5661>, 1999

⁷ 78 FR 46816, <https://federalregister.gov/a/2013-18439>, 2013

Figure 1: Fort Collins and Greeley CO Maintenance Area Boundaries



Legend

-  Fort Collins Maintenance Area
-  Greeley Maintenance Area
-  NFRMPO Planning Area
-  County Boundaries

April 2019
Sources: CDOT, NFRMPO

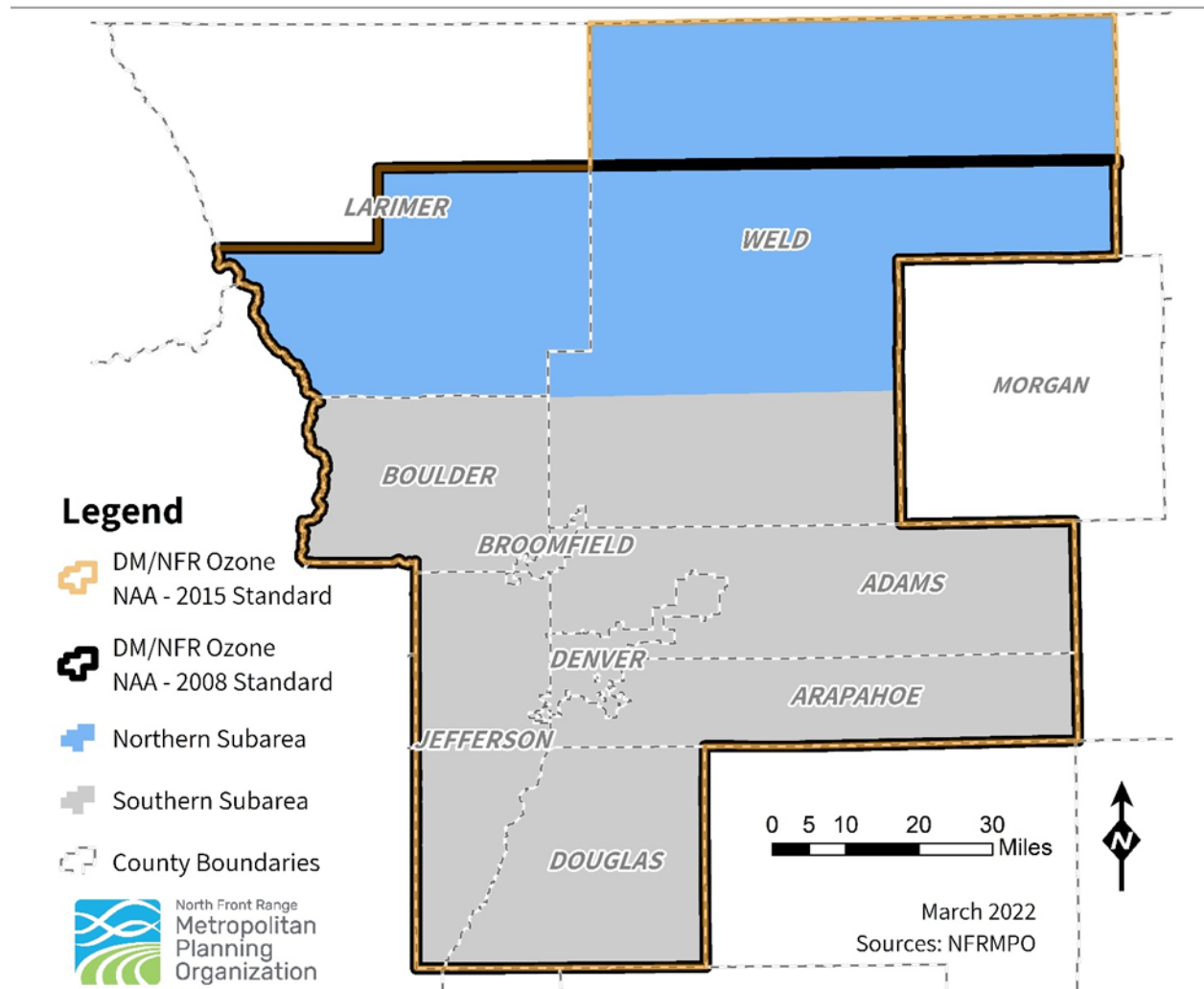


Ozone Nonattainment Area

The NFRMPO region is within the nine-county Denver Metro/North Front Range (DM/NFR) Nonattainment Area (NAA) for the 2008 8-hour Ozone NAAQS and 2015 8-hour ozone NAAQS. The NAA for the 2008 8-hour ozone NAAQS covers the full counties of Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, Jefferson, and portions of Larimer and Weld counties. The same area was designated as nonattainment for the 2015 8-Hour ozone NAAQS. Subsequently, the EPA expanded the boundary of the DM/NFR NAA for the 2015 8-hour ozone NAAQS to include the entirety of Weld County. Figure 2 shows the boundaries of the DM/NFR NAA for both the 2008 and 2015 NAAQS and shows its two subareas, Northern and Southern.

The boundary between the two subareas is the Boulder/Larimer County line, extended at the same latitude eastward through southern Weld County to the Morgan County line. The NFRMPO conducts conformity determinations for the Northern Subarea.

Figure 2: Denver Metro/North Front Range 8-Hour Ozone Nonattainment Areas and Subareas



The nine-county DM/NFR area was originally designated as a nonattainment area for ozone under the 1997 8-hour ozone NAAQS of 0.08 ppm established by the EPA. A SIP was developed to demonstrate how the region would attain the 1997 8-hour ozone standard by 2010. For the purposes of transportation conformity, Motor Vehicle Emission Budgets (MVEBs) were established as part of the SIP for each subarea of the NAA for the two ozone precursors: Nitrogen Oxides (NOx) and Volatile Organic Compounds (VOC). EPA found the NOx and VOC

MVEBs adequate for transportation conformity purposes⁸ and approved the budgets with the final rule to approve the Denver Metro Area & North Front Range Ozone Action Plan which included revisions to the SIP for the 1997 8-hour ozone NAAQS.⁹

On March 27, 2008,¹⁰ the EPA lowered the NAAQS for ground-level ozone to 0.075 ppm. The same nine-county DM/NFR NAA under the 1997 standard was designated as Marginal Nonattainment by the EPA under the 2008 standard on May 21, 2012.¹¹ As a Marginal Nonattainment area, the deadline to attain the 2008 ozone NAAQS was by the end of the 2014 ozone season and a new SIP was not required. The DM/NFR NAA failed to attain the NAAQS based on the three-year average of ozone data from 2012 to 2014 and on May 4, 2016, EPA reclassified the area from Marginal to Moderate, extending the attainment year to 2017.¹² Due to the reclassification, the State of Colorado developed the Moderate Area Ozone SIP to demonstrate how the area will comply with the federal CAA for the 2008 ozone NAAQS and set new MVEBs for each subarea of the Nonattainment area. The MVEBs were deemed adequate for conformity determinations by the EPA on March 16, 2018.¹³ The region failed to attain the NAAQS based on the three-year average of ozone data from 2015 to 2017, but due to a clean data year in 2017 the State of Colorado requested a one-year extension on the attainment deadline. The State later withdrew the request, and the EPA reclassified the area from Moderate to Serious on December 26, 2019, with an attainment year of 2020.¹⁴ The Air Quality Control Commission (AQCC) adopted the Serious Area SIP including new MVEBs on December 18, 2020. Until the new MVEBs are approved or deemed adequate by EPA, the MVEBs in the Moderate Area Ozone SIP continue to be the applicable budgets. On April 13, 2022, the EPA announced a proposed rule to reclassify the region to Severe for the 2008 NAAQS, which has attainment year of 2027. Effective date was October 7, 2022.

The EPA lowered the ozone NAAQS to 0.070 ppm on December 28, 2015.¹⁵ The nine-county DM/NFR area was designated as a Marginal Nonattainment area by the EPA on August 3, 2018.¹⁶ As noted previously, EPA subsequently designated the entirety of Weld County as

⁸ 75 FR 9893, <https://federalregister.gov/a/2010-4551>, 2010

⁹ 76 FR 47443, <https://federalregister.gov/a/2011-19807>, 2011

¹⁰ 73 FR 16436, <https://federalregister.gov/a/E8-5645>, 2008

¹¹ 77 FR 30098, <https://federalregister.gov/a/2012-11618>, 2012

¹² 81 FR 26697, <https://federalregister.gov/a/2016-09729>, 2016

¹³ 83 FR 11751, <https://federalregister.gov/a/2018-05406>, 2018

¹⁴ 84 FR 70897, <https://federalregister.gov/a/2019-27485>, 2018

¹⁵ 80 FR 65291, <https://federalregister.gov/a/2015-26594>, 2015

¹⁶ 83 FR 25776, <https://federalregister.gov/a/2018-11838>, 2018

nonattainment for the 2015 ozone standard, with an effective date of December 30, 2021¹⁷, thus expanding the boundary of the DM/NFR NAA for the 2015 ozone standard. A conformity determination for the Northern Subarea including northern Weld County must be made by the end of the one-year grace period, which concludes on December 30, 2022. This conformity determination includes northern Weld County and demonstrates conformity, thus meeting the federal requirements.

A SIP is currently under development for the 2015 ozone NAAQS. Until new MVEBs are approved and become effective, the DM/NFRNAA, including the entirety of Weld County, demonstrates conformity to the 2015 ozone NAAQS by meeting the approved Moderate SIP MVEB tests for the 2008 ozone NAAQS ([40 CFR 93.109\(c\)\(2\)\(i\)](#)). On April 13, 2022, the EPA announced proposed rule to reclassify to the region as moderate for the 2015 NAAQS, which has an attainment year of 2023. Effective date is anticipated in fall 2022.

Planning Organizations and Memorandum of Agreements (MOAs)

The NFRMPO is the MPO for the Fort Collins Transportation Management Area (TMA), which includes Berthoud, Fort Collins, Loveland, and portions of Johnstown, Timnath, and Windsor. The NFRMPO has 15 local government members, including 13 municipalities and portions of Larimer and Weld counties.

The UFR covers the remainder of the Northern Subarea of the 8-Hour Ozone Nonattainment Area. Located in north-central Colorado, the UFR is comprised of portions of Larimer and Weld counties and Morgan County and excludes the portion of southwestern Weld County included in the Denver Regional Council of Governments (DRCOG) metropolitan planning area. Figure 3 illustrates the Northern Subarea boundaries for the 2008 ozone NAAQS and the 2015 ozone NAAQS as well as the NFRMPO and UFR planning regions.

The Regional Air Quality Council (RAQC) is the lead air quality planning agency for the entire DM/NFR 8-Hour Ozone Nonattainment Area.¹⁸ DRCOG is the MPO for the Denver TMA and is responsible for conformity determinations for the Southern Subarea.

An MOA was signed in 2008 by the Air Pollution Control Division (APCD) of the Colorado Department of Public Health and Environment (CDPHE), Colorado Department of Transportation (CDOT), RAQC, UFR, NFRMPO, and DRCOG per federal transportation

¹⁷ 86 FR 67864, <https://federalregister.gov/a/2021-25451>, 2021

¹⁸ *Executive Order B 2013 007*, https://www.colorado.gov/governor/sites/default/files/executive_orders/b_2013-007.pdf, 2013

regulations,¹⁹ and is included in Appendix A. The MOA allows the option to establish subarea emissions budgets for VOC and NOx based on the subareas defined in Figure 2. The MOA stipulates DRCOG will conduct conformity determinations for the Southern Subarea of the 8-Hour Ozone Nonattainment Area, while the NFRMPO will conduct conformity determinations for the Northern Subarea. It states the course of action to be pursued if one (or both) Subareas fail a conformity test or exceed emissions budgets. An updated MOA was signed in 2015 signed by the NFRMPO, CDPHE, RAQC, and DRCOG, replacing an MOA signed in 1998 by the NFRMPO and CDPHE and a similar MOA between DRCOG and CDPHE.

In 2022, an MOA was signed by the NFRMPO, CDPHE, RAQC, and DRCOG, replacing the 2015 MOA. The MOA, included in Appendix B, identifies the specific roles and responsibilities in conformity evaluations and findings for each agency, including allowing for routine conformity determinations to be performed and approved through the APCD, rather than through a public meeting with the State of Colorado's AQCC.

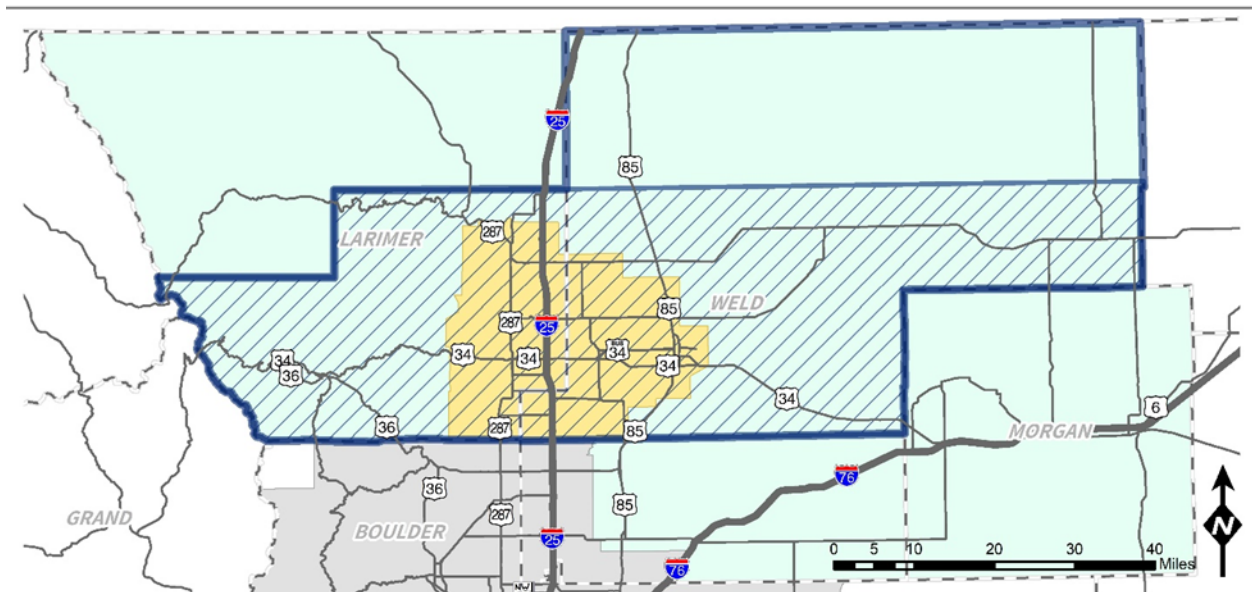
Conformity Determination Process

The NFRMPO and DRCOG worked cooperatively with the Air Quality Interagency Consultation Group (ICG) which includes membership from the Federal Highway Administration (FHWA), Federal Transit Administration (FTA), EPA, CDOT, RAQC, UFR, and APCD to review the conformity documentation and planning assumptions for this report. Furthermore, members of the NFRMPO's Technical Advisory Committee (TAC), or their representatives, served as the review team for the North Front Range Socio-economic Data and NFRMPO 2015 Base Year (BY) Regional Travel Demand Model (RTDM) assumptions, pursuant to the AQCC's Regulation Number 10.²⁰







¹⁹ 23 CFR 450.314(c), https://www.ecfr.gov/cgi-bin/text-idx?SID=cb8fc2bb654e58e1c70363164784595b&mc=true&node=se23.1.450_1314&rgn=div8, 2017

²⁰ 5 CCR 1001-12, <https://www.sos.state.co.us/CCR/GenerateRulePdf.do?ruleVersionId=4498&fileName=5%20CCR%201001-12>, 2012

Figure 3: Northern Subareas



Legend

-  Northern Subarea, 2008 NAAQS
-  Northern Subarea, 2015 NAAQS
-  NFRMPO
-  Upper Front Range TPR
-  DRCOG
-  County Boundaries

July 2022
Sources: CDOT, NFRMPO



Public Participation

The 2022 Public Involvement Plan (PIP) guides the NFRMPO’s public participation activities for all plans and programs.²¹ The NFRMPO released the 2050 Regional Transportation Plan (2050 RTP) for public comment on July 10, 2023, ending August 9, 2023. The NFRMPO is holding a 30-day public comment period on the FY2024-2027 Transportation Improvement Program (TIP) and this conformity determination beginning on August 4, 2023 and ending on September 3, 2023. The documents will be available on the NFRMPO website at <https://nfrmpo.org/public-comment/> and at the NFRMPO Office as a print copy. The public comment period ends at 5:00 p.m. on August 9, 2023.

The North Front Range Air Quality and Transportation Planning Council (NFRT&AQPC) will hold a public hearing regarding this conformity determination prior to their regular monthly meeting on September 7, 2023. The NFRT&AQPC will entertain adoption of the 2050 RTP, the

²¹ NFRMPO, “2019 Public Involvement Plan”, accessed on 7/6/2022 at <https://nfrmpo.org/wp-content/uploads/2019-public-involvement-plan.pdf>.

GHG Transportation Report, and this conformity determination at their regular monthly meeting on September 7, 2023. All public comments submitted during the public comment period will be presented and the public is encouraged to attend. Minutes of the NFRMPO Planning Council's meeting will be available on the NFRMPO website at <https://nfrmpo.org/meeting-materials/> and at the NFRMPO Office as a print copy.

CHAPTER 2: IMPLEMENTATION OF CONTROL MEASURES

For this conformity determination no new transportation control measures (TCMs) are identified for timely completion or implementation as part of the applicable state implementation plans. The Moderate Area Ozone SIP adopted by the AQCC in 2016 and approved by the EPA on August 2, 2018 did not include any TCMs, nor are there commitments to TCMs in the Fort Collins Carbon Monoxide Maintenance Plan.

CHAPTER 3: EMISSIONS TESTS

Background

The transportation plan and program must pass a series of emissions tests to demonstrate conformity. The plan and program must not exceed the MVEBs in the applicable SIP. Satisfying these tests involves demonstrating relevant emissions in future years are less than or equal to the emissions budget established in the approved SIP.

CO Emissions Test

As stated in Chapter 1, a conformity determination is no longer required for the Greeley CO Maintenance area. In addition, the second 10-year maintenance plan for the Fort Collins CO Maintenance Area meets the requirements and provisions of EPA's limited maintenance plan option. Transportation plans and improvement programs in carbon monoxide limited maintenance plan areas are presumed to automatically satisfy the emissions budget test requirement, and no regional emissions analysis is required.

8-Hour Ozone Emissions Tests

The 8-Hour Ozone emissions test is required for the Northern Subareas of the DM/NFR NAA. The emissions test is for the two ozone precursors, NO_x and VOC. The EPA found the MVEBs for NO_x and VOCs contained in the Moderate Area Ozone SIP adequate for transportation conformity purposes on March 16, 2018 and approved these MVEBs on August 2, 2018. As a result, the NFRMPO is required to use these budgets for subsequent transportation conformity determinations.

MVEBs have not been established for the DM/NFR NAA designated as nonattainment under the 2015 ozone NAAQS, which is a larger area than the DM/NFR NAA designated under the 2008 ozone NAAQS. The emission test in this conformity determination uses the MVEBs established for the Northern Subarea for the 2008 ozone NAAQS to determine conformity for the Northern Subarea for the 2015 ozone NAAQS, as permitted by 40 CFR 93.109(c)(2)(iii)(B).

Budgets Analysis Years

In accordance with EPA regulations,²² the ICG agreed on the following staging years for determining 8-hour ozone conformity:

²² 40 CFR 93.118, <http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=1&SID=4c2888da2e1fb443b24ff76fcd7cfc84&ty=HTML&h=L&mc=true&r=PART&n=pt40.20.93>

- **2023** – the first horizon year (no more than 10 years from the 2019 base year of the travel demand model), the attainment year for the 2015 ozone NAAQS, and the attainment year for the 2008 ozone NAAQS
- **2030** – an intermediate modeling year
- **2040** – an intermediate modeling year
- **2050** – the last year (horizon) of the 2050 RTP

These attainment years are anticipated once the Moderate and Severe classifications are effective.

Technical Process

The technical process used to estimate future pollutant emission levels is based on the latest planning assumptions in effect at the time of this conformity determination. Assumptions behind the analysis were derived from estimates of current and future population, employment, travel, and congestion. The MOA stipulates the emissions estimates for the Northern Subarea portion of the 8-Hour Ozone Nonattainment Area are to be performed by the APCD.

The NFRMPO 2010 BY Land Use Allocation Model (LUAM) and the 2019 BY RTDM, developed for input to the emissions model, covers the Northern Subarea of the 8-Hour Ozone Nonattainment Area. Appendix C and Appendix D describe the modeling structure for the RTDM in more detail.

Demographic Assumptions

Table 1 presents the demographic assumptions for the Northern Subarea developed using the 2010 LUAM. The 2020 estimated population for the Northern Subarea is 579,427. The population forecast for the Northern Subarea in 2050 is 927,879, an increase of 60.1 percent. Employment is forecast to be approximately 490,155 in 2050 compared to the year 2020 estimate of 311,202, an increase of 57.5 percent. Growth in population and employment will be the principal factors for the increased demand on the region's transportation facilities and services.

Table 1: Population and Employment Forecasts – Northern Subareas

Northern Subarea	Statistic	2026	2030	2040	2050
2008 Ozone NAAQS	Population	632,571	700,072	876,410	927,879
	Employment	362,590	386,437	411,525	490,155
2015 Ozone NAAQS	Population	632,571	700,072	876,410	927,879
	Employment	362,590	386,437	411,525	490,155

Transportation Assumptions

To complete the emissions tests, the applicable staging years (2026, 2030, 2040, and 2050) and transportation networks were defined for the NFRMPO boundary and the UFR area within the Northern Subarea. The RTDM includes all capacity improvements (widening) and regionally significant projects for the Northern Subarea for the respective staging years. Appendix E contains the list and map of regionally significant transportation improvement projects coded in the RTDM on regionally significant corridors (RSCs) and regional transit corridors (RTCs).

Air Quality Modeling Assumptions

APCD estimated air pollution emissions shown in this report using the most recent EPA Motor Vehicle Emissions Simulation (MOVES3) model.

Emission Test Results – Northern Subarea

The results of the Northern Subarea emissions tests by year are reported in Table 2. APCD generated the emissions estimates using the transportation inputs from the 2019 RTDM and the MOVES3 emissions model. APCD performed the 8-hour ozone conformity analysis for the years 2026, 2030, 2040, and 2050, which meet the EPA staging year requirements.²³

²³ 40 CFR 93.118, <http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=1&SID=c9ad38a0577544cc1bd184aaa325cb6a&ty=HTML&h=L&mc=true&r=PART&n=pt40.20.93>, 2013

Table 2: 8-Hour Ozone Conformity for Denver Metro-North Front Range Northern Subarea (Emission Tops per Day)

Northern Subarea	Ozone Precursor	Moderate SIP Budgets (2008 Ozone Standard)	2026	2030	2040	2050	Pass/Fail
2008 Ozone NAAQS	Volatile Organic Compounds (VOC)	8	4	3	3	4	PASS
	Oxides of Nitrogen (NOx)	10	3	2	2	2	PASS
2015 Ozone NAAQS	Volatile Organic Compounds (VOC)	8	4	3	3	4	PASS
	Oxides of Nitrogen (NOx)	10	3	2	2	2	PASS

Summary of 8-hour Ozone Conformity Findings

Based on the quantitative conformity analysis, NFRMPO staff has determined the NFRMPO 2050 RTP, the FY2024-2027 TIP, the UFR 2050 RTP, and the northern subarea of the FY2024-2027 STIP demonstrate conformity for the 2008 and 2015 8-Hour Ozone NAAQS using the 8-hour ozone emissions budgets for the Northern Subarea. In addition, the NFRMPO 2050 RTP met all planning requirements identified in 23 CFR 450. Appendix C includes more information on the transportation and demographic assumptions used in the 8-hour ozone emissions analysis.

**APPENDIX A: MEMORANDUM OF AGREEMENT –
TRANSPORTATION CONFORMITY EVALUATIONS CONDUCTED
UNDER THE 8-HOUR OZONE STANDARD (2008)**

MEMORANDUM OF AGREEMENT

FOR

TRANSPORTATION CONFORMIMTY EVALUATIONS
CONDUCTED UNDER THE 8-HOUR OZONE STANDARD

BY AND BETWEEN

THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT,
THE DENVER REGIONAL AIR QUALITY COUNCIL,
THE COLORADO DEPARTMENT OF TRANSPORTATION,
THE UPPER FRONT RANGE TRANSPORTATION AND AIR QUALITY
PLANNING COUNCIL (a.k.a. the North Front Range MPO),
AND THE DENVER REGIONAL COUNCIL OF GOVERNMENTS

March 14, 2008

Abbreviations Guide

APCD – Air Pollution Control Division
AQCC – Air Quality Control Commission, (“the Commission”)
CDPHE – Colorado Department of Public Health and Environment
CDOT – Colorado Department of Transportation
DRCOG – Denver Regional Council of Governments
MOA – Memorandum of Agreement
MPA – Metropolitan Planning Area
MPO – Metropolitan Planning Organization
NFR – North Front Range
NFRT& AQPC – North Front Range Transportation & Air Quality Planning Council (the NFR MPO)
NO_x – Nitrogen Oxides
RAQC – (Denver) Regional Air Quality Council
SIP – State Implementation Plan
UFR – Upper Front Range
TIP – Transportation Improvement Program
TPR - Transportation Planning Region
USDOT – United States Department of Transportation
USEPA – United States Environmental Protection Agency
VOC – Volatile Organic Compounds

Terminology

Consulting parties – Those agency parties involved in data and document review for the purposes making or commenting on a Conformity Determination. Includes the Air Quality Control Commission, USDOT and USEPA, who are not signatory parties to this MOA.

Signatories/Signatory parties – The parties signatory to this document. This group of six agencies does not include USDOT or USEPA.

On-road motor vehicle – Refers to cars, trucks, buses, motorcycles, vans and other motorized vehicles that use public highways, streets and roadways; to be distinguished from motor vehicles that may be designed for off-road use, e.g., all-terrain vehicles, and from agricultural and construction equipment.

A. Background and Purpose

The U.S. Environmental Protection Agency (USEPA) has designated an area (See map, Attachment A) inclusive of the Denver Metro Area and portions of both the North Front Range Metropolitan Planning area and the Upper Front Range Transportation Planning Region as nonattainment under the 8-hour ozone standard. The nonattainment designation became effective November 20, 2007. The Upper Front Range TPR is not represented by a Metropolitan Planning Organization as it comprises a largely rural area. Furthermore, the TPR lacks the expertise and wherewithal to provide or purchase transportation and modeling forecasts as part of the Conformity Determination process for the 8-hour ozone area.

Federal Transportation Regulations at 23CFR 450.314(b) state that where a metropolitan planning area does not include an entire nonattainment area or maintenance area, “there shall be written agreement among the State Department of Transportation, State air quality agency, affected local agencies, and the MPO describing the process for cooperative planning and analysis of all projects outside the MPA within the nonattainment or maintenance area. The agreement must also indicate how the total transportation-related emissions for the nonattainment or maintenance area, including areas outside the MPA, will be treated for the purposes of determining conformity in accordance with EPA’s transportation conformity rule (40 CFR Part 93). The agreement shall address policy mechanisms for resolving conflicts concerning transportation-related emissions...**(and)** (c): In nonattainment or maintenance areas, if the MPO is not the designated agency for air quality planning...there shall be a written agreement between the MPO and the designated air quality planning agency describing their respective roles and responsibilities for air quality related transportation planning. (d) If more than one MPO has been designated to serve an urbanized area, there shall be written agreement among the MPOs, the State(s), and the public transportation operator(s) describing how the metropolitan transportation planning processes will be coordinated to assure the development of consistent metropolitan transportation plans and TIPs across the MPA boundaries...”

Similarly, EPA regulations at 40 CFR 93.105€ and 51.390 require states to create consultation procedures in the SIP whereby MPO representatives, state and local air quality planning agencies, state and local transportation agencies and other organizations must consult with each other and with U.S. Environmental Protection Agency (USEPA) and U.S. Department of Transportation (USDOT) regarding development of State Implementation Plans (SIPs), transportation plans, transportation improvement programs (TIPs), and Conformity Determinations.

This Memorandum of Agreement (MOA) is designed to allow for and to guide cooperative transportation planning in conformance with State air quality plans, and related review and analysis in the pursuit of transportation Conformity Determinations associated with the 8-hour ozone State Implementation Plan (SIP).

B. Conformity Determinations Prior to/In Lieu of the Establishment of On-Road Motor Vehicle Emission Budgets

The first Conformity Determination for the area of concern is due November 20, 2008, as required by the federal Conformity Rule at 40 CFR 93.102(d). Since adequate or approved motor

vehicle emission budgets will not be available until late 2009, one or more Conformity Determinations for the nonattainment area or maintenance area of concern must follow the procedures at 40 CFR 93.109(e)(2)(iii).

The Denver Regional Council of Governments and the North Front Range MPO shall perform transportation emissions forecasting for the respective areas described in Section C.1 and C.2 for Conformity Determinations, regardless of whether emission budgets have been established, and regardless of whether overall nonattainment-or maintenance area emission budgets or sub-area emission budgets are used.

C. Motor Vehicle Emission Budgets for the 8-Hour Ozone Nonattainment (or Maintenance) Area and Sub-Areas

In the SIP development process, the Air Pollution Control Division (APCD), the North Front Range Metropolitan Planning Organization (NFRMPO), and the Regional Air Quality Council (RAQC) shall work together to propose overall area motor vehicle emission budgets for volatile organic compounds (VOC) and nitrogen oxides (NOx) for the 8-hour ozone nonattainment or maintenance area. Said budgets must be adopted by the Commission and affirmed via USEPA adequacy determinations in order to become viable for use in Conformity Determinations.

Sub-area emission budgets for ozone precursors under the 8-hour ozone standard may also be proposed to the AQCC for the following two sub-areas:

1. The combined areas of the Denver Metro Region and the southern portion of the Upper Front Range Transportation Planning Region (TPR) as designated nonattainment by the USEPA, i.e., the area south of the north line of Township 3 north of the 6th Principal Meridian; said line is the southern boundary of the North Front Range MPO extended to the east line of Weld County. For this sub-area, the budgets for NOx and VOC shall be proposed during SIP development for the federal 8-hour ozone standard by the RAQC with input from the APCD, CDOT, DRCOG, and UFR to be considered for adoption by the Commission.
2. The combined areas of the North Front Range MPO area and the northern portion of the Upper Front Range TPR, as designated nonattainment by USEPA, i.e., the area north of the north line of Township 3 north of the 6th Principal Meridian; said line is the southern boundary of the North Front Range MPO extended to the east line of Weld County. For this sub-area, the budgets for NOx and VOC shall be proposed determined during SIP development for under the federal 8-hour ozone standard by the NFR MPO in consultation with the APCD and the RAQC, with input from CDOT and UFR, to be considered for adoption by the Commission.

Sub-area budgets, agreed to by the signatories and approved by the Commission, may be used to measure the conformity of plans and programs for the respective areas, once determined adequate by the USEPA.

Sub-areas as described above and Conformity procedures described in this document shall remain the same when and if the 8-Hour Nonattainment Area is re-designated an Attainment/Maintenance Area.

D. Granting of Authority, Responsibilities

The Upper Front Range TPR lacks the expertise and wherewithal to provide or purchase transportation and modeling forecasts as part of the Conformity Determination process for the 8-hour ozone area. By this Agreement:

1. The DRCOG agrees to provide transportation forecasts and make Conformity Determination for the area described in Section C.1 above. The area includes the DRCOG MPO area and other 8-hour ozone nonattainment areas within the DRCOG TPR, as well as a portion of the nonattainment area of the Upper Front Range TPR.
2. The North Front Range MPO agrees to provide transportation forecasts and make Conformity Determinations for an area described in Section C.2 above. The area includes North Front Range MPO 8-hour ozone nonattainment areas as well as portions of the Upper Front Range TPR nonattainment area.
3. The Upper Front Range TPR authorizes the DRCOG and the NFR MPO to prepare transportation forecasts and make Conformity Determinations for the relevant nonattainment areas of the Upper Front Range as described in Section C of this document.
4. The agreed-upon transportation forecasting authorities shall continue for the 8-Hour Ozone Area after it is re-designated "Attainment/Maintenance" status by USEPA.

E. Compensation to MPOs for Additional Responsibilities

It is anticipated that over the next one-to-four years, funding will be needed for enhanced transportation forecasting and to perform Conformity Determination for the Upper Front Range areas of concern. The CDOT has the responsibility to fund required Conformity Determinations and associated transportation modeling efforts for areas outside of the MPOs.

As forecasting and modeling work for the UFR will extend beyond the MPO boundaries, the CDOT will provide necessary funding to DRCOG and NFR based upon a mutually agreeable course of action delineating tasks, schedule, and costs among the signatory agencies. The signatory agencies will look to the USEPA and USDOT to assure consistency with federal requirements regarding tasks. The CDOT will execute separate intergovernmental agreements with the NFRMPO and DRCOG detailing the specific work that will be done for the agreed-to compensation.

F. Conformity Review – Procedural

The agencies shall follow the interagency consultation process and procedures identified in the Colorado Air Quality Control Commission Regulation No. 10 for sharing information and conducting review of transportation data, projections, and determining Transportation Conformity to the State Implementation Plan under the 8-hour ozone standard, and generally the process outlined in memoranda of agreement for Transportation Conformity evaluations by and between the CDPHE and the Denver Regional Council of Governments (1998) and with the North Front Range Transportation and Air Quality Planning Council (2003).

The DRCOG and NFR MPO shall provide forecasts for their respective areas as described in Section C.1 and C.2. In cases where one Conformity finding is to be made for the overall 8-Hour Ozone Nonattainment (or Attainment/Maintenance) Area, and no sub-area emission budgets are to be used, the MPOs, in consultation with the other signatory parties and with USEPA and USDOT, shall sum the ozone precursor emissions from their respective areas for overall-Area totals of VOC and NO_x, to determine whether forecasted emissions meet the appropriate Conformity test(s). In such cases, the MPOs jointly shall produce one Conformity Determination document for the overall 8-Hour Ozone Nonattainment (or Attainment/Maintenance) Area.

The APCD will perform independent emission budget tests and other applicable analyses for the overall Nonattainment (or Attainment/Maintenance) region and, as well as for the sub-areas described in C.1 and C.2 if sub-areas budgets are to be used, within 30 days of receiving the final submittal of transportation data, although such data will be submitted to the APCD as early in the process as possible. The APCD may also assist with enhanced emissions forecasting for the Upper Front Range area, or provide other in-kind assistance to emissions forecasting efforts.

Assuming the APCD agrees with a Conformity Determination, it will recommend that the Air Commission comment formally via letter to the relevant MPO and to CDOT regarding its concurrence.

In the event that future sub-area emissions exceed a Conformity test or emission budget, the sub-area MPO shall immediately and diligently pursue actions, e.g., transportation plan and/or TIP amendment, that would bring projected emissions under budget (or in line with the Conformity test being used) and thus to conform to the SIP (and/or not threaten to increase the severity of the

8-Hour Area's nonattainment status). Such endeavor would be pursued as part of standard interagency process. If the sub-area were to fail to meet a Conformity Determination, all parties to this MOA shall confer on an emergency basis to review emission budgets and to consider the merits of the following actions, which may be needed to achieve or to re-establish Conformity:

- Potential revisions to transportation plans and/or transportation programs
- Potential modeling (by both MPO's) of the entire nonattainment (or Attainment/Maintenance) Area for a Conformity Determination, if allowed by the SIP
- Potential appeal (via the SIP process) for emission budget revisions
- Potential additional SIP revisions

A course of action employing one or more of the above-listed actions shall be determined by the parties to this agreement. Parties may appeal to the USDOT and USEPA for guidance in establishing Conformity.


G. Dispute Resolution

Any protracted disagreements between consulting parties reviewing a Conformity Determination shall be elevated to the Commission, per the provisions in AQCC Regulation No. 10. Any continuing dispute that devolves or threatens to devolve into a situation of official non-conformance of transportation plans with the State Implementation Plan may be elevated to the Governor, just as a disputed Conformity Determination may be elevated to the Governor, as provided in AQCC Regulation No. 10 and at CFR Section 93.105(d).


H. Termination of Agreement

This agreement shall be binding upon the signatory parties-until the 8-hour ozone area has achieved attainment status and maintains said status for a period of at least 20 years, unless the undersigned agencies revise or replace this MOA via unanimous, written agreement.

The undersigned hereby agree to the delegations, responsibilities and procedures described above.



Paul Tourangeau, Director, Air Pollution Control Division, CDPHE Date 3/14/08



Jennifer Finch, Director, Transportation Development Division, CDOT Date 3/14/08




Kenneth H. Lloyd, Executive Director, Regional Air Quality Council Date 3/14/08



Robert D. Masden, Weld County Commissioner,
Chairman, Upper Front Range TPR Date 3/24/08

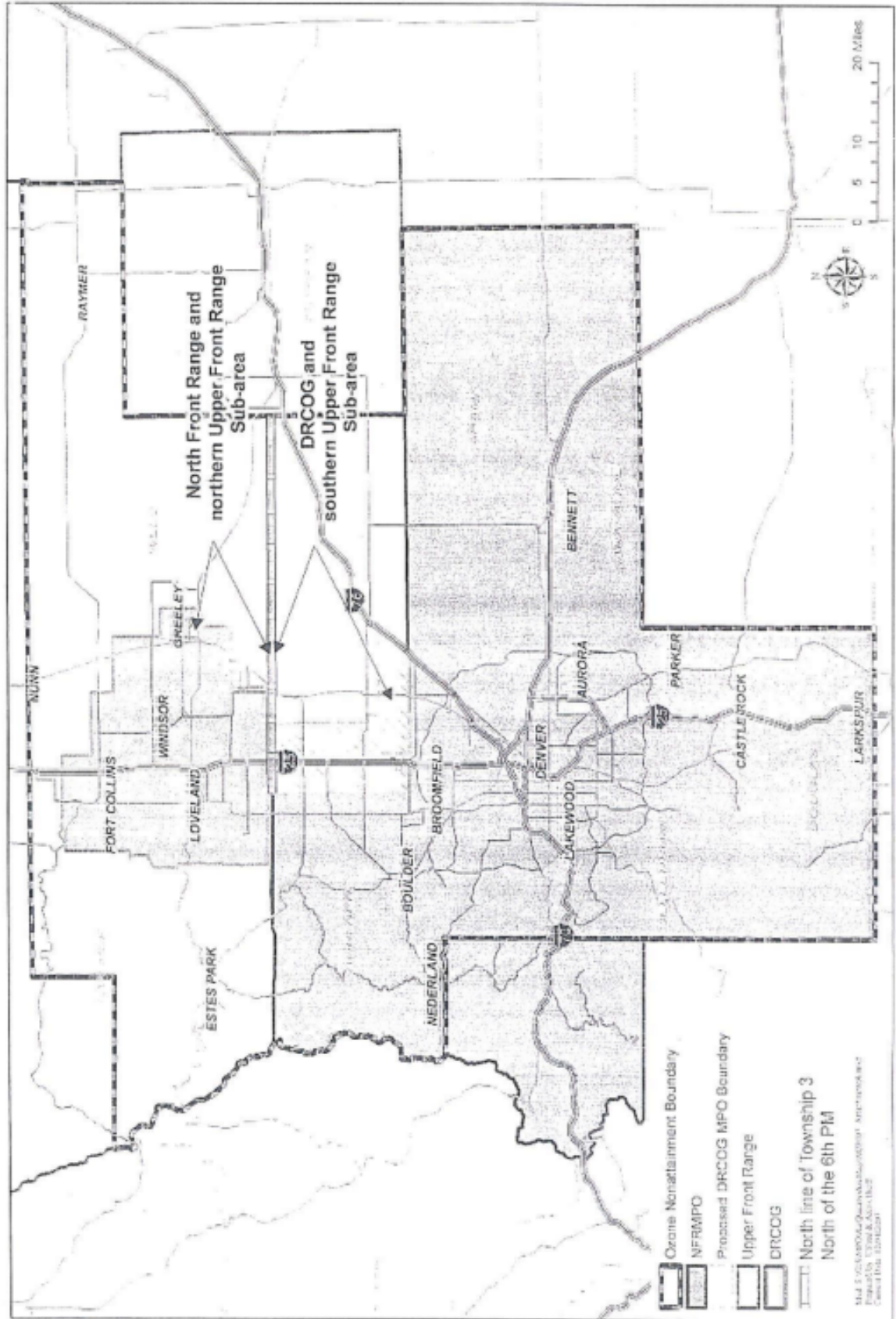


Cliff Davidson, Executive Director, North Front Range MPO Date 3/20/08



Jennifer Schaufele, Executive Director,
Denver Regional Council of Governments Date 3/14/08

**Attachment A:
8-Hour Ozone Nonattainment Area
and Sub-areas**



**APPENDIX B: MEMORANDUM OF AGREEMENT –
TRANSPORTATION CONFORMITY EVALUATIONS (2022)**

MEMORANDUM OF AGREEMENT

FOR

TRANSPORTATION CONFORMITY EVALUATIONS
CONDUCTED UNDER THE 8-HOUR OZONE
STANDARDS

BY AND BETWEEN

THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT,
THE DENVER REGIONAL AIR QUALITY COUNCIL,
THE COLORADO DEPARTMENT OF TRANSPORTATION,
THE UPPER FRONT RANGE TRANSPORTATION PLANNING REGION,
THE NORTH FRONT RANGE TRANSPORTATION AND AIR QUALITY
PLANNING COUNCIL (a.k.a. the North Front Range MPO), AND
THE DENVER REGIONAL COUNCIL OF GOVERNMENTS

September 22, 2022

Abbreviations Guide

APCD – Air Pollution Control Division
AQCC – Air Quality Control Commission
CDPHE – Colorado Department of Public Health and Environment
CDOT – Colorado Department of Transportation
DRCOG – Denver Regional Council of Governments
MOA – Memorandum of Agreement
MPA – Metropolitan Planning Area
MPO – Metropolitan Planning Organization
NFR – North Front Range
NFRT& AQPC – North Front Range Transportation & Air Quality Planning Council (NFRMPO)
NO_x – Nitrogen Oxides
RAQC – Regional Air Quality Council SIP – State
Implementation Plan
UFR – Upper Front Range
TIP – Transportation Improvement Program
TPR – Transportation Planning Region
USDOT – United States Department of Transportation
USEPA – United States Environmental Protection Agency
VOC – Volatile Organic Compounds

Terminology

Consulting parties – Those agency parties involved in data and document review for the purposes of making or commenting on a Conformity Determination. Includes the Air Quality Control Commission, USDOT and USEPA, who are not signatory parties to this MOA.

Signatories/Signatory parties – The parties signatory to this document. This group of six agencies does not include USDOT or USEPA.

On-road motor vehicle – Refers to cars, trucks, buses, motorcycles, vans, and other motorized vehicles that use public highways, streets, and roadways; to be distinguished from motor vehicles that may be designed for off-road use, e.g., all-terrain vehicles, and from agricultural and construction equipment.

A. Background and Purpose

The U.S. Environmental Protection Agency (USEPA) has designated two areas (*See map, Attachment A*) inclusive of the Denver Metro Area and portions of both the North Front Range Metropolitan Planning area and the Upper Front Range (UFR) Transportation Planning Region (TPR) as nonattainment under both the 2008 and 2015 8-hour ozone standards. The nonattainment designation became effective November 20, 2007 under the 1997 8-Hour ozone standard. On May 21, 2012, the same area was designated nonattainment for the 2008 8-Hour ozone standard. On August 3, 2018, the same area was designated nonattainment under the 2015 8-Hour ozone standard, with the remaining portion of Weld County being designated as nonattainment and added to the area under the 2015 8-hour ozone standard effective December 30, 2021. The UFR TPR is not represented by a Metropolitan Planning Organization (MPO) as it comprises a largely rural area. Furthermore, the UFR TPR lacks the expertise and wherewithal to provide or purchase transportation and modeling forecasts as part of the Conformity Determination process for the 8-Hour ozone area.

Federal Transportation Regulations at 23 CFR 450.314 (c) state that where a metropolitan planning area does not include an entire nonattainment area or maintenance area:

“there shall be a written agreement among the State Department of Transportation, State air quality agency, affected local agencies, and the MPO describing the process for cooperative planning and analysis of all projects outside the MPA within the nonattainment or maintenance area. The agreement must also indicate how the total transportation-related emissions for the nonattainment or maintenance area, including areas outside the MPA, will be treated for the purposes of determining conformity in accordance with EPA’s transportation conformity rule (40 CFR Part 93, Subpart A). The agreement shall address policy mechanisms for resolving conflicts concerning transportation-related emissions...(and) (d): In nonattainment or maintenance areas, if the MPO is not the designated agency for air quality planning...there shall be a written agreement between the MPO and the designated air quality planning agency describing their respective roles and responsibilities for air quality related transportation planning. (e) If more than one MPO has been designated to serve an urbanized area there shall be written agreement among the MPOs, the State(s), and the public transportation operator(s) describing how the metropolitan transportation planning processes will be coordinated to assure the development of consistent metropolitan transportation plans and TIPs across the MPA boundaries....”

Similarly, USEPA regulations at 40 CFR 93.105 and 51.390 require states to create consultation procedures in the State Implementation Plan (SIP) whereby MPO representatives, state and local air quality planning agencies, state and local transportation agencies and other organizations must consult with each other and with USEPA and U.S. Department of Transportation (USDOT) regarding development of (SIPs, transportation plans, transportation improvement programs (TIPs), and Conformity Determinations.

This Memorandum of Agreement (MOA) is designed to allow for and to guide cooperative transportation planning in conformance with State air quality plans, and related review and analysis in the pursuit of transportation Conformity Determinations associated with the 8- Hour ozone SIP(s).

This MOA supersedes the prior agreement between the parties dated March 14, 2008.

B. Conformity Determinations Prior to/In Lieu of the Establishment of On-Road Motor Vehicle Emission Budgets

For any conformity determination that must be completed prior to the establishment of onroad motor vehicle emission budgets for the applicable standard and nonattainment area, one or more Conformity Determinations for the nonattainment or maintenance area of concern must follow the procedures at 40 CFR 93.109(c)(2).

The Denver Regional Council of Governments (DRCOG) and the North Front Range MPO (NFRMPO) shall perform transportation emissions forecasting for the respective areas described in Section C.1 and C.2 for Conformity Determinations, regardless of whether emission budgets have been established, and regardless of whether overall nonattainment or maintenance area emission budgets or sub-area emission budgets are used.

C. Motor Vehicle Emission Budgets for the 8-Hour Ozone Nonattainment (or Maintenance) Area and Sub-Areas

In the SIP development process, the Air Pollution Control Division (APCD), the NFRMPO, DRCOG, and the Regional Air Quality Council (RAQC) shall work together to propose overall area motor vehicle emission budgets (MVEBs) for volatile organic compounds (VOC) and nitrogen oxides (NO_x) for the 8-hour ozone nonattainment or maintenance area(s). Said budgets must be adopted by the Air Quality Control Commission (AQCC) and affirmed via USEPA adequacy determinations to become viable for use in Conformity Determinations.

Sub-area emission budgets for ozone precursors under the 8-Hour ozone standards may also be proposed to the AQCC for the following two sub-areas:

1. The combined areas of the Denver Metro Region and the southern portion of the UFR TPR as designated nonattainment by USEPA (see Figure 1), i.e., the area south of the north line of Township 3 north of the 6th Principal Meridian; said line is the southern boundary of the North Front Range MPO extended to the east line of Weld County. For this sub-area, the budgets for NO_x and VOC shall be proposed during SIP development for the federal 8-Hour ozone standards, as appropriate, by the RAQC with input from the APCD, CDOT, DRCOG, and UFR TPR to be considered for adoption by the AQCC.
2. The combined areas of the North Front Range MPO area and the northern portion of the UFR TPR, as designated nonattainment by USEPA, i.e., the area north of the north line of Township 3 north of the 6th Principal Meridian; said line is the southern boundary of the North Front Range MPO extended to the east line of Weld County. This sub-area has two

delineations: one for the 2008 8-Hour ozone standard and another for the 2015 8-Hour ozone standard; however, the preceding description applies to both delineations. For this subarea, the budgets for NO_x and VOC shall be proposed during SIP development for the federal 8-Hour ozone standards by the RAQC, with input the APCD, CDOT, NFRMPO and UFR TPR, to be considered for adoption by the AQCC.

Sub-area budgets, agreed to by the signatories and approved by the AQCC, may be used to measure the conformity of plans and programs for the respective areas, once determined adequate by the USEPA.

Sub-areas as described above, and Conformity procedures described in this document shall remain the same when and if either or both 8-Hour Nonattainment Areas are re-designated an “Attainment/Maintenance Area”.

D. Granting of Authority, Responsibilities

The UFR TPR lacks the expertise and wherewithal to provide or purchase transportation and modeling forecasts as part of the Conformity Determination process for the 8-Hour ozone area. By this agreement:

1. DRCOG agrees to provide transportation forecasts and make Conformity Determinations for the area described in Section C.1 above. The area includes the DRCOG MPO area and other 8-Hour ozone nonattainment areas within the DRCOG TPR, as well as a portion of the nonattainment areas of the UFR TPR.
2. NFRMPO agrees to provide transportation forecasts and make Conformity Determinations for an area described in Section C.2 above. The area includes NFRMPO 8-Hour ozone nonattainment areas as well as portions of the nonattainment areas of the UFR TPR.
3. The UFR TPR authorizes DRCOG and the NFRMPO to prepare transportation forecasts and make Conformity Determinations for the relevant nonattainment areas of the UFR TPR as described in Section C of this document.
4. The agreed-upon transportation forecasting authorities shall continue for the 8- Hour Ozone Area after it is re-designated “Attainment/Maintenance” status by USEPA.

E. Compensation to MPOs for Additional Responsibilities

Funding will be needed for transportation forecasting and to perform Conformity Determinations for the UFR TPR areas of concern. CDOT has the responsibility to fund required Conformity Determinations and associated transportation modeling efforts for areas outside of the MPOs.

As forecasting and modeling work for the UFR TPR will extend beyond the MPO boundaries, CDOT will provide necessary funding to DRCOG and NFRMPO based upon a mutually agreeable course of action delineating tasks, schedule, and costs among the signatory agencies. The signatory

agencies will look to the USEPA and USDOT to assure consistency with federal requirements regarding tasks. CDOT will execute separate intergovernmental agreements (IGAs) with the NFRMPO and with DRCOG detailing the specific work that will be done for the agreed-to compensation.

F. Conformity Review – Procedural

The agencies shall follow the interagency consultation process and procedures identified in Colorado AQCC Regulation No. 10 for sharing information and conducting review of transportation data, projections, and determining Transportation Conformity to the SIPs under the 8-Hour ozone standards, and generally the process outlined in the MOA for Transportation Conformity Evaluations by and between the CDPHE, RAQC, DRCOG, and NFRMPO, which was executed in 2015.

DRCOG and NFRMPO shall provide forecasts for their respective areas as described in Section C. 1 and C.2. In cases where one Conformity finding is to be made for the overall 8-Hour Ozone Nonattainment (or Attainment/Maintenance) Area, and no sub-area emission budgets are to be used, the MPOs, in consultation with the other signatory parties and with USEPA and USDOT, shall sum the ozone precursor emissions from their respective areas for overall-Area totals of VOC and NO_x, to determine whether forecasted emissions meet the appropriate Conformity test(s). In such cases, the MPOs shall jointly produce one Conformity Determination document for the overall 8-Hour Ozone Nonattainment (or Attainment/Maintenance) Areas.

The APCD will perform independent emission budget tests and other applicable analyses for the overall Nonattainment (or Attainment/Maintenance) region and, as well as for the subareas described in C.1 and C.2, if sub-area budgets are to be used, within 30 days of receiving the final submittal of transportation data, although such data will be submitted to the APCD as early in the process as possible. The APCD may also assist with enhanced emissions forecasting for the UFR TPR area or provide other in-kind assistance to emissions forecasting efforts.

Assuming the APCD agrees with a Conformity Determination, it will recommend that the AQCC comment formally via letter to the relevant MPO and to CDOT regarding its concurrence.

In the event future sub-area emissions exceed a Conformity test or emissions budget, the subarea MPO shall immediately and diligently pursue actions, e.g., transportation plan and/or TIP amendment, that would bring projected emissions under budget (or in line with the Conformity test being used) and thus to conform to the SIP (and/or not threaten to increase the severity of the 8-Hour Area's nonattainment status). Such endeavor would be pursued as part of standard interagency process. If the sub-area were to fail to meet a Conformity test/make a positive Conformity Determination, all parties to this MOA shall confer on an emergency basis to review emission budgets and to consider the merits of the following actions, which may be needed to achieve or to re-establish Conformity:

1. Potential revisions to transportation plans and/or transportation programs;

2. Potential modeling (by both MPOs) of the entire nonattainment (or Attainment/Maintenance, once it is re-designated) Area for a Conformity Determination, if allowed by the SIP;
3. Potential appeal (via the SIP process) for emission budget revisions; and/or
4. Potential additional SIP revisions.

A course of action employing one or more of the above-listed actions shall be determined by the parties to this agreement. Parties may appeal to the USDOT and USEPA for guidance in establishing Conformity.

G. Dispute Resolution


Any protracted disagreements between consulting parties reviewing a Conformity Determination shall be elevated to the AQCC, per the provisions in AQCC Regulation No. 10. Any continuing dispute that devolves or threatens to devolve into a situation of official non-conformance of transportation plans with the SIP may be elevated to the Governor, just as a disputed Conformity Determination may be elevated to the Governor, as provided in AQCC Regulation No. 10 and at 40 CFR Section 93.105(d).

H. Termination of Agreement

This agreement shall be binding upon the signatory parties until the 8-Hour ozone area has achieved attainment status and maintains said status for a period of at least 20 years, unless the undersigned agencies revise or replace this MOA via unanimous, written agreement. The undersigned parties hereby agree to the responsibilities and procedures described above.


The undersigned parties hereby agree to the responsibilities and procedures described above.

Lisa McGovern

 Digitally signed by Lisa McGovern
Date: 2022.09.30 10:51:51 -06'00'


Lisa McGovern, Director, Procurement and Contracts, CDPHE Date

Rebecca White

 Digitally signed by Rebecca White
Date: 2022.10.05 10:28:40 -06'00'


Rebecca White, Director, Transportation Development Division, CDOT Date

Michael Silverstein

 Digitally signed by Michael Silverstein
Date: 2022.10.06 15:39:33-06'00'


Mike Silverstein, Executive Director, RAQC Date

Scott James

 Digitally signed by Scott James
Date: 2022.12.06 10:15:23 -07'00'


Scott James, Chair, UFR TPR Date

Douglas W. Rex

 Digitally signed by Douglas W. Rex
Date: 2022.10.11 12:22:02 -06'00'

Doug Rex, Executive Director, DRCOG Date

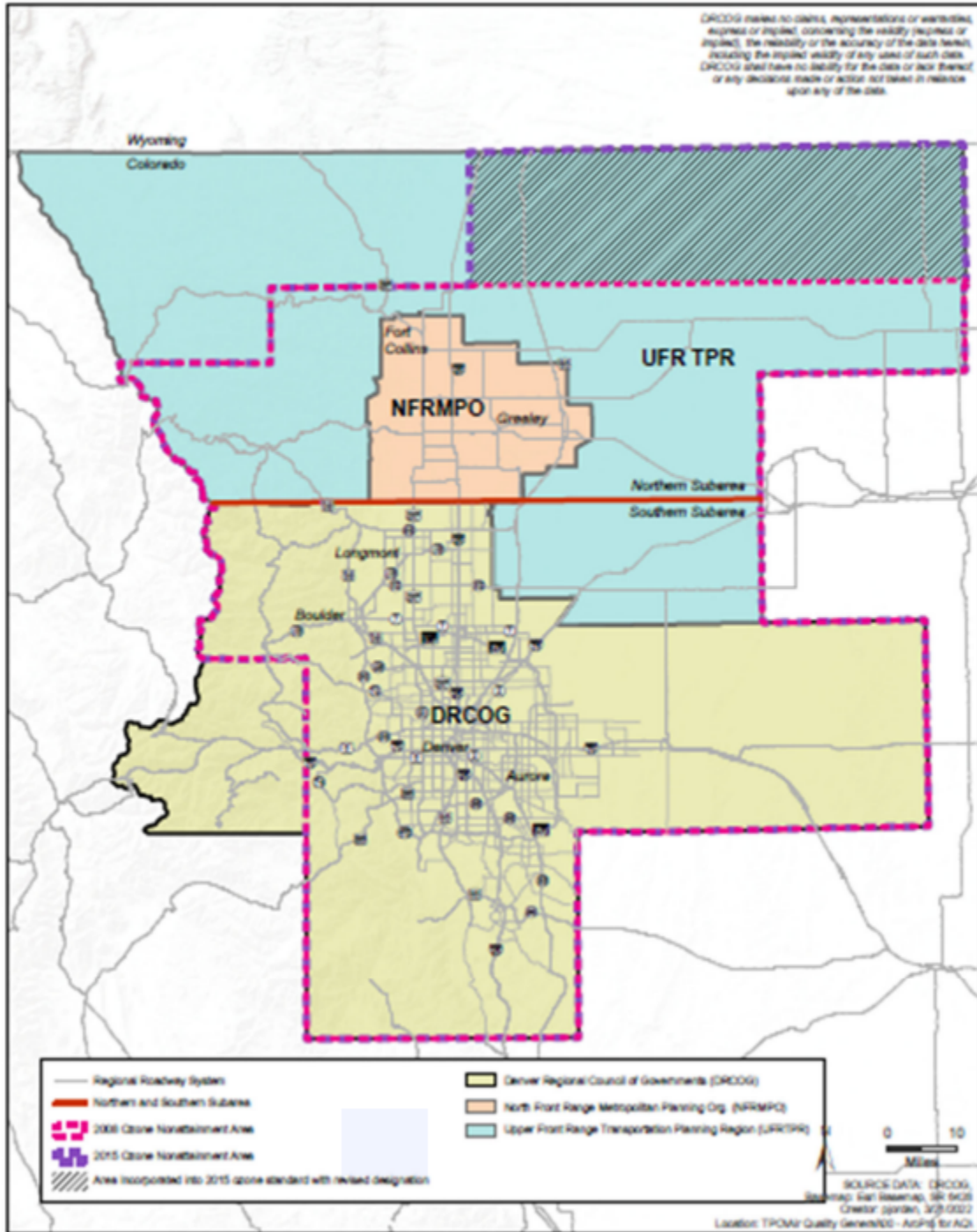
Suzette Mallette

 Digitally signed by Suzette Mallette
Date: 2022.09.30 14:27:57 -06'00'

Suzette Mallette, Executive Director, NFRMPO Date

Attachment A

Figure 1. Planning Organizations Involved in Denver Metro/North Front Range 8-Hour Ozone Nonattainment Areas



**APPENDIX C: NFRMPO 2019 BASE YEAR REGIONAL TRAVEL
DEMAND MODEL DESCRIPTION**

Introduction

The NFRMPO 2019 Base Year (BY) Regional Travel Demand Model (RTDM) is a four-step travel model incorporating trip generation, trip distribution, mode choice, and trip assignment. The model was updated in 2019 to incorporate updated traffic counts, freight data, land use data, and various modeling improvements. The 2019 BY RTDM replaces the 2019 BY RTDM developed in 2019.

The 2019 BY RTDM was calibrated using data from the *NFRMPO Household Survey*, 2010 and the *NFRMPO On-Board Transit Survey*, 2009. The household survey was used to develop the trip generation rates, trip length frequency distributions, and auto occupancy rates. The on-board survey was used in combination with the household survey to produce mode share targets. Detailed information on the modeling process, inputs, and procedures will be documented in the soon-to-be-released North Front Range 2019 Base Year Regional Travel Model Documentation which will be available at <https://nfrmpo.org/modeling/>.

Roadway volumes were validated using traffic count data collected between 2015 and 2019. Transit ridership was calibrated to match boarding counts on the transit systems in the region at the system level.

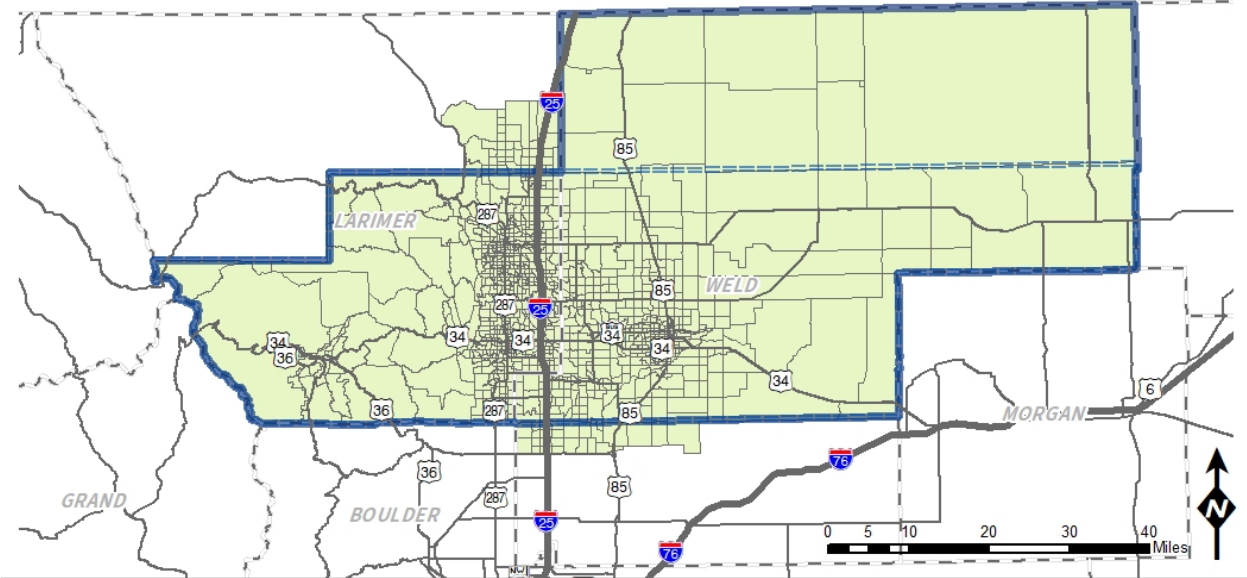
To facilitate modeling of the entire ozone nonattainment area, the model was expanded to cover additional portions of Larimer and Weld counties not within the NFRMPO boundary. The majority of this additional area is very sparsely populated. The expanded area includes the Estes Park area, which is heavily influenced by seasonal tourist activity. To best reflect the unique nature of the Estes Park area, an additional lodging-based trip purpose was included. In addition, the Estes Park area was modeled to represent summer conditions rather than school-season conditions due to the heavily seasonal nature of the area. The remainder of the modeling area remains reflective of an average weekday when school is in session.

The model incorporates a traffic analysis zone (TAZ) structure developed based on existing land use and roadway conditions, future land use, and staff comments from member governments. For the Northern Subarea, the TAZ structure includes 1,238 internal zones and 20 external stations. Figure 4 depicts the complete TAZ structure, slightly larger than the 8-Hour Ozone Nonattainment Northern Subarea. The RTDM has a base year of 2019 and forecast years of 2026, 2030, 2040, and 2050.





Demographic Development Estimation

Socio-economic data is the input activity-based information that provides the foundation for trip-making in the RTDM. Data is recorded for basic, retail, medical, and service employment types and for households by income groups and household sizes. Data for the Estes Park area also includes lodging information to better represent tourist/visitor trips. Employment data is used in the RTDM primarily as generators of trip attractions. Household data is used in the RTDM primarily as a generator of trip productions. The NFRMPO develops and maintains a Census Block-based land use allocation model (LUAM) which distributes total households and employment at the Block level, which then aggregates to the TAZ level. The LUAM uses the household and employment control totals for the region developed by the Colorado State Demography Office (SDO).

Figure 4: TAZ Structure



Legend

-  Northern Subarea, 2008 NAAQS
-  Northern Subarea, 2015 NAAQS
-  Traffic Analysis Zones (TAZs)
-  County Boundaries

July 2023
Sources: CDOT, NFRMPO



Roadway and Transit System

Roadway and transit networks contain basic input information for use in the model and represents real-world conditions to the greatest extent possible. The roadway network contains over 8,400 links defined according to facility type, area type, speeds, capacities, etc. The roadway network is used to distribute trips and route transit and automobile trips. The roadway network was prepared based on data from the NFRMPO and from scheduling/phasing of projects in the RTP and TIP. The NFRMPO also collaborated with local jurisdictions as necessary to verify construction and opening dates. The model contains base year, interim year, and forecast year transit route systems based on information provided by Transfort, City of Loveland Transit (COLT), Greeley Evans Transit (GET), and CDOT. Transit networks are categorized into local, express, and Bus Rapid Transit (BRT) service.

Trip Generation

The trip generation module estimates trip productions and attractions based on zonal attributes (e.g. population, households, income, employment, etc.). Productions and attractions are generated for each TAZ and balanced by trip purpose at the regional level. Cross-classified trip rates are applied in the model to represent trip-making characteristics that vary by household size and income. Generally, trip rates increase as household size and income increase. The model includes the following trip purposes:

- **Home-Based Work (HBW):** Commute trips between home and work.
- **Home-Based University (HBU):** Trips between home and university locations (e.g., CSU, UNC) for school related purposes by people not employed by the university.
- **Home-Based Shop (HBS):** Trips between home and retail locations for the purpose of shopping.
- **Home-Based School (HBSc):** Trips between home and K-12 school locations for students in these schools.
- **Home-Based Other (HBO):** All other trips with one end at home.
- **Work-Based Other (WBO):** Work-related trips without an end at home.
- **Other-Based Other (OBO):** Trips with neither an end at home nor a work-related purpose.
- **Lodging-Based Other (LBO):** Trips made by visitors, based at a lodging establishment (Estes Park area only, not included in the household travel survey).
- **Medium Truck (MTRK):** Medium-heavy truck trips (FHWA Vehicle classes 5-7).
- **Heavy Truck (HTRK):** Heavy truck trips (FHWA Vehicle classes 8-12).

Some TAZs have unique land uses and generate a significantly different number of trips in comparison to the model's estimation. For these locations, special generator values are applied in the model to define the number of trips produced and attracted to the locations. The main Colorado State University (CSU) campus in Fort Collins and the University of Northern Colorado (UNC) campus in Greeley are the two University special generators used in the NFRMPO model area. Additionally, Rocky Mountain National Park is treated as a special generator in the expanded model area.

The model represents two types of external travel. Through trips are represented by the EE trip purpose and were estimated using traffic count data and information from the Statewide Travel Model developed by CDOT. Trips with one end inside the modeling area and another outside of the modeling area are referred to as Internal-External/External-Internal (IE/EI) trips. These trips are included in the primary model trip purposes described previously. At external stations, the number of IE/EI trips by purpose is based on traffic count data and analysis of the *NFRMPO Household Travel Survey* data.

Trip Distribution

Trip distribution is the process used to apportion person trip productions and attractions from the trip generation model among all zone pairs by trip purpose. The resulting trip table matrix contains both intrazonal trips (trips that do not leave the zone) on the diagonal and interzonal trips in all other zone interchange cells. The NFRMPO model uses a destination choice model for most trip purposes and a standard gravity model for HBU and HBSc trip purposes. The trip distribution model is validated to average trip lengths and trip length frequency distributions observed in the *NFRMPO Household Travel Survey*.

Mode Choice

The RTDM uses a nested logit model to determine travel modes. The first step in the mode analysis process is the split among primary modes: auto, transit, and non-motorized. The second step provides a choice between drive alone and shared ride 2 and shared ride 3+. The next model provides a choice between walk and drive access to transit, followed by a choice between walk or drive access and then local, express, and BRT. The drive access mode only considers express and BRT transit, as on-board data shows that drive access to local transit is minimal in the region. Lastly, the model provides a choice between walk and bike.

Traffic Assignment/Time-of-Day Analysis

The traffic assignment module loads vehicle trips onto the roadway network to estimate link-specific traffic volumes. This is done for three time periods which cover the entire day: the PM peak period, AM peak period, and off-peak. Each of these trip tables is assigned to the roadway network using a capacity constrained equilibrium assignment procedure. The resulting traffic volumes from the four assignments are summed to estimate a 24-hour volume for each link in the network.

As part of the RTDM's 2019 base year development using the household survey and traffic count data, additional time-of-day parameters were developed to represent the variation of travel patterns throughout the day. The time-of-day assignment process uses the vehicle trip table in production/attraction format for the three time periods and divides it into eight time periods: AM peak, one AM shoulder hour, midday peak period, PM peak, three PM shoulder hours, and an off-peak period representing the remainder of the day. The mid-day and off-peak periods may be further divided into hourly volumes using percentages identified in the model documentation.

Model Validation

Validation involves testing the RTDM's predictive capabilities. Validation tests include quantifying the model's ability to replicate observed conditions and performing sensitivity tests.

The base year validation effort was conducted by comparing model results to observed traffic count data representative of 2019 (collected between 2015 and 2019). Transit ridership was validated to boarding counts on the transit systems in the region at the system level. The overall sum of model volumes is within two percent of the traffic counts on the same links. Model volume totals by facility type are within eight percent of the sum of traffic counts for arterials and freeways and within 23 percent for collectors. The overall percent root mean square error (percent RMSE) is within 40 percent. Additional detail on model validation is available in Section 12 of the RTDM Technical Report.

Speed Feedback

A speed feedback loop is incorporated into the modeling process to ensure consistency of speeds. This corrects a fundamental problem with travel demand models when estimated speeds used in the trip distribution process are not the same as those which result from the traffic assignment/speed estimation process.

Air Quality Modeling

The Air Pollution Control Division (APCD) conducts the air pollutant emissions modeling using the Environmental Protection Agency (EPA) Motor Vehicle Emissions Simulator (MOVES) computer software, MOVES2014b. The NFRMPO, APCD, and other agencies work together in this effort, both to develop the modeling techniques, assumptions, and parameters, and reviewing the executed model runs. The RTDM outputs are one of the principal inputs to the air pollutant emissions model. The air pollutant emissions model estimates the amount of emissions of Volatile Organic Compounds (VOCs) and Nitrogen Oxides (NOx) generated by motor vehicles. The results are then combined with numerous assumptions concerning meteorology and atmospheric chemical reactions to produce air pollutant concentration estimates. No dispersion modeling was conducted for this analysis; only emission estimates were calculated.

Inputs included the link vehicle miles traveled (VMT) and speeds from the transportation networks, vehicle fleet mix estimates from the Colorado Department of Transportation (CDOT) automatic traffic counters, maximum and minimum temperature, the ethanol content, and Reid Vapor Pressure (RVP) of the gasoline. The emissions model included adjustments for emission reduction credits from the federally approved Inspection and Maintenance (I/M) program.²⁴ For the Northern Subarea the RVP was 7.8 psi and 10-15 percent by volume ethanol in all gasoline. The results reflect recent vehicle age distribution and mileage accumulation rates from the Mobile Sources program.

²⁴ 40 CFR 93.122(a)(3)(i), <http://www.gpo.gov/fdsys/pkg/CFR-2012-title40-vol21/pdf/CFR-2012-title40-vol21-sec93-122.pdf>, 2012

**APPENDIX D: 8-HOUR OZONE NORTHERN SUBAREA
MODELING SUMMARY**

Table 3: 8-Hour Ozone Northern Subarea Modeling Summary

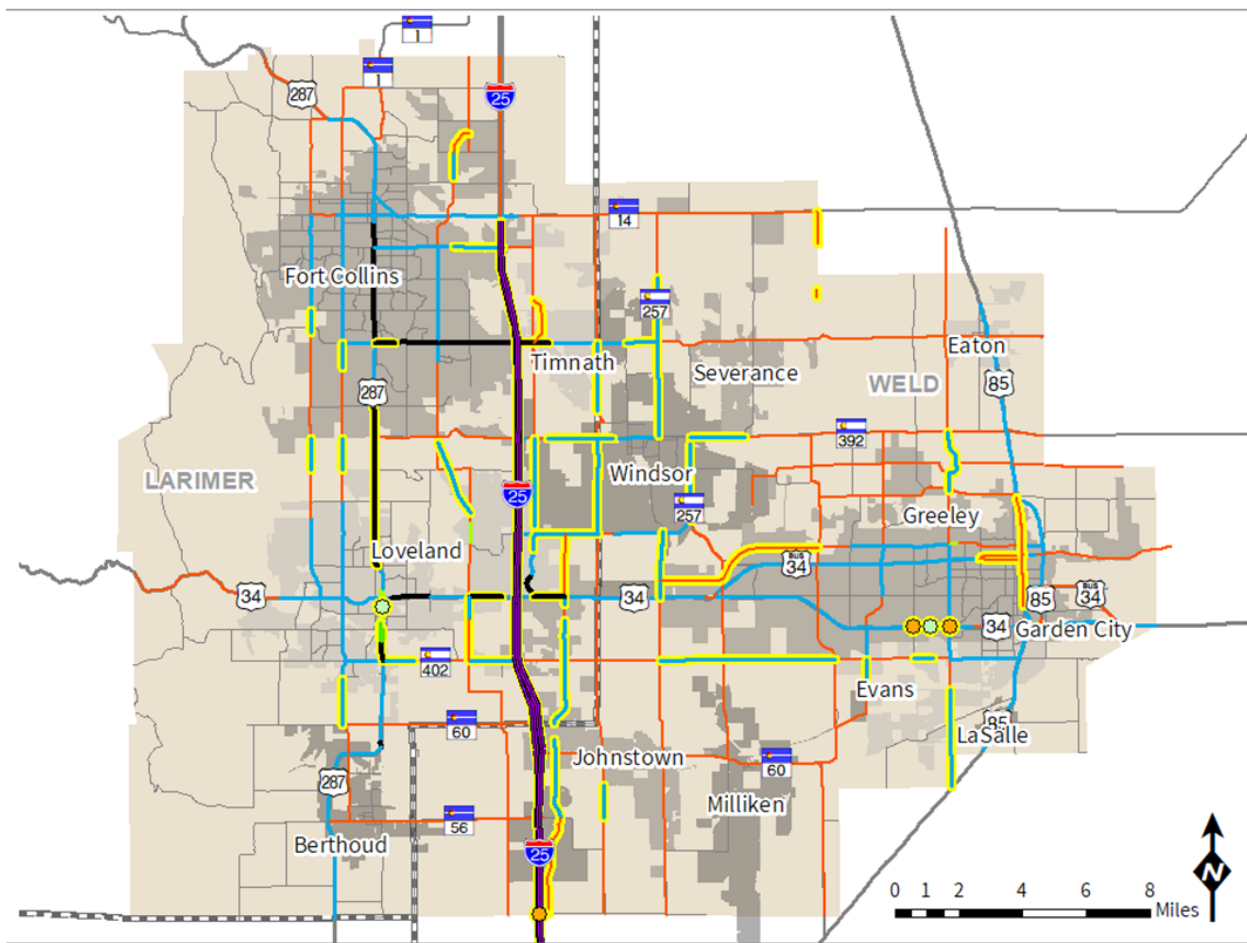
	2026 (1 st Horizon Year)	2050 (Last Horizon Year)
Socioeconomic Data		
Population	632,571	927,879
Employment	362,590	490,155
VMT-Weighted Speed by Roadway Type		
Interstate	75	75
Expressway	57	57
Principal Arterial	41	41
Minor Arterial	45	46
Collector	38	37
Ramp	51	48
Frontage Road	48	47
Centroid Connector	32	32
<i>Average</i>	<i>53</i>	<i>53</i>
Daily VMT		
Interstate	4,475,836	6,373,012
Expressway	2,456,213	3,412,875
Principal Arterial	4,722,773	6,713,216
Minor Arterial	3,711,974	5,768,076
Collector	1,671,132	2,626,978
Ramp	133,620	188,464
Frontage Road	129,363	217,574
Centroid Connector	2,006,294	2,955,547
<i>Total</i>	<i>19,307,205</i>	<i>28,255,742</i>
Lane Miles by Roadway Type		
Interstate	323	356
Expressway	456	456
Principal Arterial	965	1,045
Minor Arterial	1,235	1,333
Collector	2,529	2,569
Ramp	24	25
Frontage Road	87	87
Centroid Connector	2,796	2,794
<i>Total</i>	<i>8,415</i>	<i>8,665</i>

Source: NFRMPO 2019 Regional Travel Demand Model, 2010 Land Use Allocation Model

Note: Data is based on the Northern Subarea, including the additional area in Weld County

**APPENDIX E: NORTHERN SUBAREA REGIONAL TRAVEL
DEMAND MODEL PROJECTS**

Figure 5: Fiscally Constrained Roadway Capacity and Infrastructure Projects



Legend

- 2 Lanes
- 3 Lanes
- 4 Lanes
- 6 Lanes
- 2 General Purpose, 1 Express Lane (each direction)
- Interchanges
- PNR/Mobility Hub
- Fiscally Constrained Project
- County Boundary
- NFRMPO Planning Area

June 2023
Sources: CDOT, NFRMPO



Table 4: Fiscally Constrained RSC Capacity Projects, Staging Period A: 2024-2026

Map ID	RSC	Project Name	Project Limits	Improvement Type
A1	1	I-25 Express Lane Segment 7&8	SH14 to SH402	Add tolled express lane in each direction and interchange reconstructions
A2	1	I-25 Express Lane Segment 6	SH402 to SH56	Add tolled express lane in each direction and interchange reconstructions
A3	2	US 34 Widening	Boyd Lake Ave. to Rocky Mountain Ave.	Widen from 4 lanes to 6 lanes
A4	3	10th St Mobility Enhancements	E of 23rd Ave to 10th Ave	Convert to Two-Way
A5	3	9th St Mobility Enhancements	E of 23rd Ave to 8th Ave	Convert to Two-Way
A6	12	SH-392 Widening	Highland Meadows Pkwy to Colorado Blvd	Widen from 2 lanes to 4 lanes
A7	13	SH 402 Widening	St. Louis to Boise	Widen from 2 lanes to 4 lanes
A8	13	WCR-54 / 37th St Widening	47th Ave to Stampede Dr	Widen from 2 lanes to 4 lanes
A9	14	LCR 3 Paving	US 34 to Crossroads Blvd	Paving Unpaved Road
A10	14	High Plains Blvd New Road	2500 ft N of LCR14 to LCR14	New 4 lane road
A11	14	High Plains Blvd Widening	Juniper to SH60	Widen from 2 lanes to 4 lanes
A12	14	High Plains Blvd New Road	SH60 to 2500 ft S of SH 60	New 4 lane road

Map ID	RSC	Project Name	Project Limits	Improvement Type
A13	16	Timberline New Road 1	Giddings to Mountain Vista	New 2 lane road
A14	18	Taft Hill Widening	Harmony to Brixton	Widen from 2 lanes to 4 lanes
A15	23	Harmony Road Widening	WCR-15 to SH-257	Widen from 2 lanes to 4 lanes
A16	26	Crossroads Blvd Widening	Centerra to LCR 3	Widen from 2 lanes to 4 lanes
A17	2	US 34 Widening	Centerra Pkwy. to LCR 3	Widen from 4 lanes to 6 lanes
A18	28	Prospect Widening	Summit View to I-25	Widen from 2 lanes to 4 lanes
A19	28	Prospect Widening	Sharp Point to Summit View	Widen from 2 lanes to 4 lanes

Table 5: Fiscally Constrained RSC Capacity Projects, Staging Period B: 2027-2030

Map ID	RS C	Project Name	Project Limits	Improvement Type
B1	1	I-25 Express Lane Segment 5	SH56 to WCR 38	Add tolled express lane in each direction and interchange reconstructions
B2	1	I-25 and WCR-38 Interchange	WCR-38 to WCR-38	New Interchange
B3	2	US 34 and 47th Interchange	47th Ave to 47th Ave	New interchange
B4	2	US 34 and 35th Interchange	35th Ave to 35th Ave	New interchange

Map ID	RS C	Project Name	Project Limits	Improvement Type
B5	2	US 34 Mobility Hub at Centerplace	N/A	PNR
B6	5	8th Avenue / US 85 Business Mobility Enhancements	O Street to 24th Street	Reduce from 4 lanes to 2 lanes
B7	11	SH-257 Widening	Walnut St to Eastman Park Dr.	Widen from 2 lanes to 4 lanes
B8	12	SH 392 Widening	WCR-19 to WCR-21	Widen from 2 lanes to 4 lanes
B9	12	SH-392 Widening	WCR-21 to WCR-23	Widen from 2 lanes to 4 lanes
B10	12	SH-392 Widening	Colorado Blvd to 17th Street	
B11	13	SH 402 Widening	Boyd Lake Ave to I-25	Widen from 2 lanes to 4 lanes
B12	14	High Plains Blvd Widening	US 34 to Ronald Reagan	Widen from 2 lanes to 4 lanes
B13	14	High Plains Blvd New Road	LCR20C to LCR18	Widen from 2 lanes to 4 lanes
B14	14	High Plains Blvd New Road	LCR16 to 2500 ft N of LCR14	New 4 lane road
B15	14	WCR-9.5 New Road	WCR 44 / SH 56 to WCR32	New 2 lane road
B16	15	Centerra Parkway Widening	Crossroads Blvd to 0.5 miles south	Widen from 2 lanes to 4 lanes
B17	15	LCR 5 Widening	LCR 30 to SH 392	Widen from 2 lanes to 4 lanes

Map ID	RSC	Project Name	Project Limits	Improvement Type
B18	16	Boyd Lake Extension	SH 402 to LCR 20C	New 2 lane road
B19	19	LCR 1 Widening	Harmony Rd to South GMA	Widen from 2 lanes to 4 lanes
B20	23	Harmony Road Widening	College to Boardwalk	Widen from 4 lanes to 6 lanes
B21	23	Harmony Widening	I-25 to LCR-1	Widen from 4 lanes to 6 lanes
B22	25	65th Avenue Widening	WCR-54/37th St to 49th St	Widen from 2 lanes to 4 lanes
B23	26	Crossroads Widening	LCR 3 to WCR 13	Widen from 2 lanes to 4 lanes

Table 6: Fiscally Constrained RSC Capacity Projects, Staging Period C: 2031-2040

Map ID	RSC	Project Name	Project Limits	Improvement Type
C1	6	US 287 / College Widening	Trilby to Carpenter / LCR 32	Widen from 4 lanes to 6 lanes
C2	6	US 287 Widening	29th St. to 71st St.	Widen from 4 lanes to 6 lanes
C3	6	US 287 Widening	LCR 32 / SH392 to LCR 30	Widen from 4 lanes to 6 lanes
C4	6	US 287 Widening	1st St / 2nd St to SH 402	Widen from 4 lanes to 6 lanes
C5	11	SH-257 Widening	Eastman Park Dr. to Crossroads	Widen from 2 lanes to 4 lanes
C6	11	SH-257 Widening	WCR-78 to WCR-74	Widen from 2 lanes to 4 lanes
C7	11	SH-257 Widening	WCR-74 to SH-392	Widen from 2 lanes to 4 lanes
C8	13	SH 402 Widening	US 287 to St. Louis	Widen from 2 lanes to 4 lanes

Map ID	RSC	Project Name	Project Limits	Improvement Type
C9	13	WCR-54 / 37th St Widening	WCR 17 to SH257	Widen from 2 lanes to 4 lanes
C10	14	High Plains Blvd New Road	LCR18 to LCR16	New 4 lane road
C11	14	High Plains Blvd New Road	2500 ft S of SH 60 to WCR46	New 4 lane road
C12	15	N Fairgrounds Ave Widening	Rodeo Rd. to 71st St. (CR 30)	Widen from 2 lanes to 4 lanes
C13	15	Timnath Bypass/Parkway New Road	N of LCR 40 to LCR 38	New 2 lane road
C14	16	Boyd Lake Widening 3	LCR 20C to US 34	Widen from 2 lanes to 4 lanes
C15	16	Timberline Widening 3	Mountain Vista to N of Vine	Widen from 2 lanes to 4 lanes
C16	17	LCR 17 Widening	LCR 32 to LCR 30	Widen from 2 lanes to 4 lanes
C17	17	LCR 17 Widening	CR 16/28th St SW to CR 14/SH 60	Widen from 2 lanes to 4 lanes
C18	17	Shields Widening	Harmony to Hilldale	Widen from 2 lanes to 4 lanes
C19	17	Taft Ave Widening 2	23rd St. SW to 28th St SW / LCR 16	Widen from 2 lanes to 4 lanes
C20	18	LCR 19 Widening	LCR 32 to LCR 30	Widen from 2 lanes to 4 lanes
C21	19	WCR-13 Widening	Kaplan Dr to Crossroads	Widen from 2 lanes to 4 lanes
C22	19	WCR-13 Widening	SH-392 to Kaplan Dr	Widen from 2 lanes to 4 lanes
C23	20	WCR-17 Widening	WCR-62 / Crossroads to US-34	Widen from 2 lanes to 4 lanes

Map ID	RSC	Project Name	Project Limits	Improvement Type
C24	21	WCR 27 New Road	SH 14 to WCR 74	New 2 lane road
C25	22	35th Ave New Road	49th Street to WCR 35 / WCR 394	New 4 lane road
C26	22	35th Ave Widening	WCR-394 to US-85	Widen from 2 lanes to 4 lanes
C27	29	4th St New Road	WCR 17 to 83rd Ave.	New 2 lane road
C28	22, 26	WCR-35 (35th Ave) Widening	SH 392 to O Street	Widen from 2 lanes to 4 lanes

Table 7: Fiscally Constrained RSC Capacity Projects, Staging Period C: 2031-2040

Map ID	RSC	Project Name	Project Limits	Improvement Type
D1	6	11th and US 287 Park and ride	N/A	PNR
D2	13	WCR-54 / 37th St Widening	SH 257 to 77th Ave / 83rd Ave/ Two Rivers Parkway	Widen from 2 lanes to 4 lanes
D3	14	High Plains Blvd New Road	WCR46 to WCR44	New 4 lane road
D4	16	New Road UP: LCR 11 to LCR 9	LCR 11 south of SH 392 to LCR 9 north of Valley Oak Dr	New 4 lane road
D5	19	WCR-13 Widening	WCR 46 to WCR 44	Widen from 2 lanes to 4 lanes

**APPENDIX F: RESOLUTION 2023-15 NORTH FRONT RANGE
TRANSPORTATION & AIR QUALITY PLANNING COUNCIL
(NFRT&AQPC) ADOPTION**



RESOLUTION NO. 2023-15

**OF THE NORTH FRONT RANGE TRANSPORTATION & AIR QUALITY PLANNING COUNCIL
ADOPTING CONFORMITY DETERMINATIONS FOR THE NORTH FRONT RANGE METROPOLITAN PLANNING
AREA FY2024-2027 TRANSPORTATION IMPROVEMENT PROGRAM (TIP) AND THE FISCALLY
CONSTRAINED 2050 REGIONAL TRANSPORTATION PLAN (RTP) AND FOR THE NORTHERN SUBAREA OF
THE UPPER FRONT RANGE TRANSPORTATION PLANNING REGION 2045 RTP AND THE TY2024-2027
STATEWIDE TRANSPORTATION IMPROVEMENT PROGRAM (STIP)**

WHEREAS, 23 CFR §450 requires the development of a fiscally constrained Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP) for Metropolitan Planning Organizations (MPOs) through a continuing, cooperative, and comprehensive (“3C”) multimodal transportation planning process; and

WHEREAS, the Planning Council as the MPO is the agency responsible for developing and amending the RTP and TIP; and

WHEREAS, a portion of the City of Fort Collins is currently designated as a maintenance area for carbon monoxide (CO) for which the Planning Council performs conformity determinations; and

WHEREAS, the Planning Council through a Memorandum of Agreement (MOA) (2008) has agreed to perform ozone conformity determinations for the Northern Subarea of the Denver Metro-North Front Range 8-hour ozone nonattainment area which includes the North Front Range metropolitan planning area and portions of Larimer and Weld counties outside the NFRMPO boundary, but are contained within the Upper Front Range Transportation Planning Region (UFRTPR); and

WHEREAS, the Northern Subarea of the Denver Metro-North Front Range 8-hour ozone nonattainment area was expanded in December 2021 to include all of Weld County to the state line; and

WHEREAS, the NFRMPO is required to update the 2050 RTP to be in compliance with the State of Colorado GHG Planning Standard; and

WHEREAS, the Planning Council received no public comment opposing the finding of conformity during the public comment period or during the public hearing.

NOW, THEREFORE, BE IT RESOLVED the North Front Range Transportation & Air Quality Planning Council determines the FY2024-2027 TIP, and 2050 RTP, a portion of the Upper Front Range 2045 RTP, and a portion of the Colorado FY2024-2027 STIP conform to the State Implementation Plan (SIP) demonstrating positive air quality conformity determinations.

Passed and adopted at the regular meeting of the North Front Range Transportation & Air Quality Planning Council held this 7th day of September 2023.


Scott K James (Sep 8, 2023 12:25 MDT)

Scott James, Chair

ATTEST:


Suzette Mallette (Sep 8, 2023 13:10 MDT)

Suzette Mallette, Executive Director

APPENDIX G: APCD CONFORMITY CONCURRENCE



COLORADO
Air Quality Control Commission
Department of Public Health & Environment

August 28, 2023

Ms. Suzette Mallette, Executive Director
North Front Range Metropolitan Planning Organization
419 Canyon Avenue, Suite 300
Fort Collins, CO 80521

The Colorado Air Quality Control Commission has reviewed the North Front Range Metropolitan Planning Organization's conformity determination conducted for the following transportation plans and programs: the North Front Range Metropolitan Planning Area 2050 Regional Transportation Plan Update, the FY2024-2027 Transportation Improvement Program, the Northern Subarea of the Upper Front Range Transportation Planning Region 2050 Regional Transportation Plan, and for the Northern Subarea of the Upper Front Range Transportation Planning Region portion of the Colorado FY2024-2027 Statewide Transportation Improvement Program. The Air Quality Control Commission agrees that these plans and programs conform to the State Implementation Plan and emissions budgets for ozone precursors.

North Front Range Metropolitan Planning Organization's and the Air Pollution Control Division's analyses indicate that emissions budgets for these pollutants will not be exceeded in any of the conformity staging or reporting years. Therefore, the Air Quality Control Commission concurs with this conformity determination. We understand that the North Front Range Metropolitan Planning Organization Planning Council plans to formally adopt these plans and programs on September 7, 2023. Barring any substantive changes in the interim, our concurrence with the positive conformity determination will apply to the final version of these plans and programs.

Should you have any questions regarding the Air Quality Control Commission's action, please contact Rick Coffin at 303-692-3127 or at richard.coffin@state.co.us.

Sincerely,

A handwritten signature in black ink, appearing to read "Elise Jones".

Elise Jones, Chair
Colorado Air Quality Control Commission

Cc: Greg Lohrke, U.S. EPA, Region 8
Bill Haas, FHWA
Doug Rex, DRCOG
Becky Karasko, NFRMPO
Chris LaPlante, CDOT
Jojo La, CDPHE
Rick Coffin, CDPHE

**APPENDIX H: U.S. DEPARTMENT OF TRANSPORTATION
CONFORMITY FINDING**



Colorado Division

12300 W. Dakota Ave., Suite #180
Lakewood, Colorado 80228
720-963-3000

October 11, 2023

Suzette Mallette
Executive Director, NFRMPO
419 Canyon Avenue, Suite 300
Fort Collins, CO 80521

Subject: Conformity Determination for the NFRMPO 2050 Regional Transportation Plan

Dear Ms. Mallette:

In accordance with the Clean Air Act of 1990, as amended, and 23 CFR 450, the U.S. Department of Transportation (US DOT) is required to make an air quality conformity determination for Regional Transportation Plans (RTP) and Transportation Improvement Programs (TIP) in non-attainment and maintenance areas. Consistent with the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) Region 8 Memorandum of Agreement (MOA) for Transportation Planning Oversight, the FHWA Colorado Division office signs the letter on behalf of FTA Region 8.

On September 7, 2023, the North Front Range Planning Organization (NFRMPO) adopted an air quality conformity determination for the Denver Metro/North Front Range (Northern Subarea) 8-hour Ozone nonattainment area and for the Fort Collins Carbon Monoxide (CO) maintenance area for the North Front Range Metropolitan Planning Area 2050 RTP, the FY24-27 NFRMPO TIP, the Northern Subarea of the Upper Front Range Transportation Planning Region (UFR TPR) 2045 RTP, and for the Northern Subarea of the UFR TPR portion of the FY24-27 Statewide Transportation Improvement Program (STIP). The NFRMPO adopted the conformity determination in its capacity as the Metropolitan Planning Organization.

Based on our evaluation of the NFRMPO conformity determination, in coordination with the Environmental Protection Agency (EPA) Region 8, the Denver Regional Council of Governments (DRCOG), the NFRMPO, the Colorado Air Quality Control Commission (AQCC), the Regional Air Quality Council (RAQC), and the Colorado Department of Transportation (CDOT), we have determined that the requirements of 40 CFR 51 and 93, 23 CFR 450, and 49 CFR 613 along with FHWA/FTA policies and guidance have been met. Furthermore, the conformity determination is consistent with the 2008 and 2015 DRCOG/NFRMPO 8-hour Ozone MOA.

A conformity determination for the NFRMPO 2050 RTP is hereby made. We are also making a conformity determination for the Northern Subarea of the UFR TPR 2045 RTP and UFR TPR portion of the FY24-27 of the STIP. The FHWA Colorado Division Office will make a conformity determination for NFRMPO's FY24-27 TIP following the approval of the TIP by the Governor. This conformity determination does restart the clock for conformity for the NFRMPO 2050 RTP. Our action is consistent with the FHWA/FTA Transportation Planning MOA. 2

If you have any questions, please contact William Keenan of this office at william.keenan@dot.gov or (720) 963-3019.

Sincerely,

**JOHN MARTIN
CATER**

Digitally signed by JOHN
MARTIN CATER
Date: 2023.10.11 15:52:55 -06'00'

John M. Cater, P.E.

Division Administrator

CC:

Mr. Doug Rex, DRCOG (drex@drcog.org)

Mr. Scott James, UFR TPR (sjames@weld.gov)

Mr. Rick Coffin, APCD (richard.coffin@state.co.us)

Ms. Marissa Gaughan, CDOT (marissa.gaughan@state.co.us)

Ms. Becky Karasko, NFRMPO (rkarasko@nfrmpo.org)

Ms. Tracey MacDonald, FTA (tracey.macdonald@dot.gov)

Mr. Gregory Lohrke, EPA (lohrke.gregory@epa.gov)