

Appendix

A

Air Quality Conformity



The transportation programs, plans and projects within the air quality nonattainment and maintenance areas in the North Front Range region must meet air quality conformity requirements for two pollutants: carbon monoxide (CO) and ozone. Portions of the region were previously in violation of federal standards for CO and the region is currently in violation of federal standards for ozone. A positive conformity determination certifies transportation plans, programs, and projects do not:

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

The air quality analysis of the 2045 RTP was conducted in compliance with federal regulations and found the RTP meets all air quality conformity requirements. The positive air quality conformity determination is documented in the Denver-North Front Range (Northern Subarea) 8-Hour Ozone and Fort Collins and Greeley Carbon Monoxide (CO) Maintenance Areas Conformity Determination report, adopted by the North Front Range Transportation & Air Quality Council (NFRT&AQPC) on September 5, 2019.¹

The two CO maintenance areas and the ozone nonattainment area within the North Front Range region are displayed in **Figure A-1**. As of May 2019, the Greeley CO Maintenance area no

longer requires a conformity determination due to the expiration of the second 10-year maintenance period. The Fort Collins CO Maintenance area requires a conformity determination; however, a quantitative assessment of regional emissions is not required due to the low level of emissions in the area. Instead, conformity is determined through meeting all federal planning requirements.

A quantitative assessment of regional emissions is required for the 8-hour Ozone Nonattainment Area that covers the North Front Range metropolitan planning area. The assessment tests the two precursors to ozone: nitrogen oxides (NOx) and volatile organic compounds (VOC). The State Implementation Plan (SIP) for ozone identifies the maximum amount of each precursor which can be generated and still meet federal requirements.

An emissions analysis was performed using the latest transportation planning assumptions and the latest mobile emissions model released by the Environmental Protection Agency (EPA). The NFRMPO 2015 Base Year Regional Travel Demand Model (RTDM) provided the necessary inputs of vehicle miles of travel (VMT), travel speed by area type and time of day, and roadway functional class, while the EPA's Motor Vehicle Emissions Simulator 2014b (MOVES2014b) calculated the emissions outputs.

Based on the quantitative emissions analyses, the 2045 RTP demonstrates conformity with the SIP budgets for NOx and VOC, as demonstrated in **Table A-1**.

¹ CO and Ozone Conformity Determination, September 5, 2019, <https://nfrmpo.org/air-quality/>

Figure A-1: 8-Hour Ozone Nonattainment Area and Carbon Monoxide Maintenance Areas

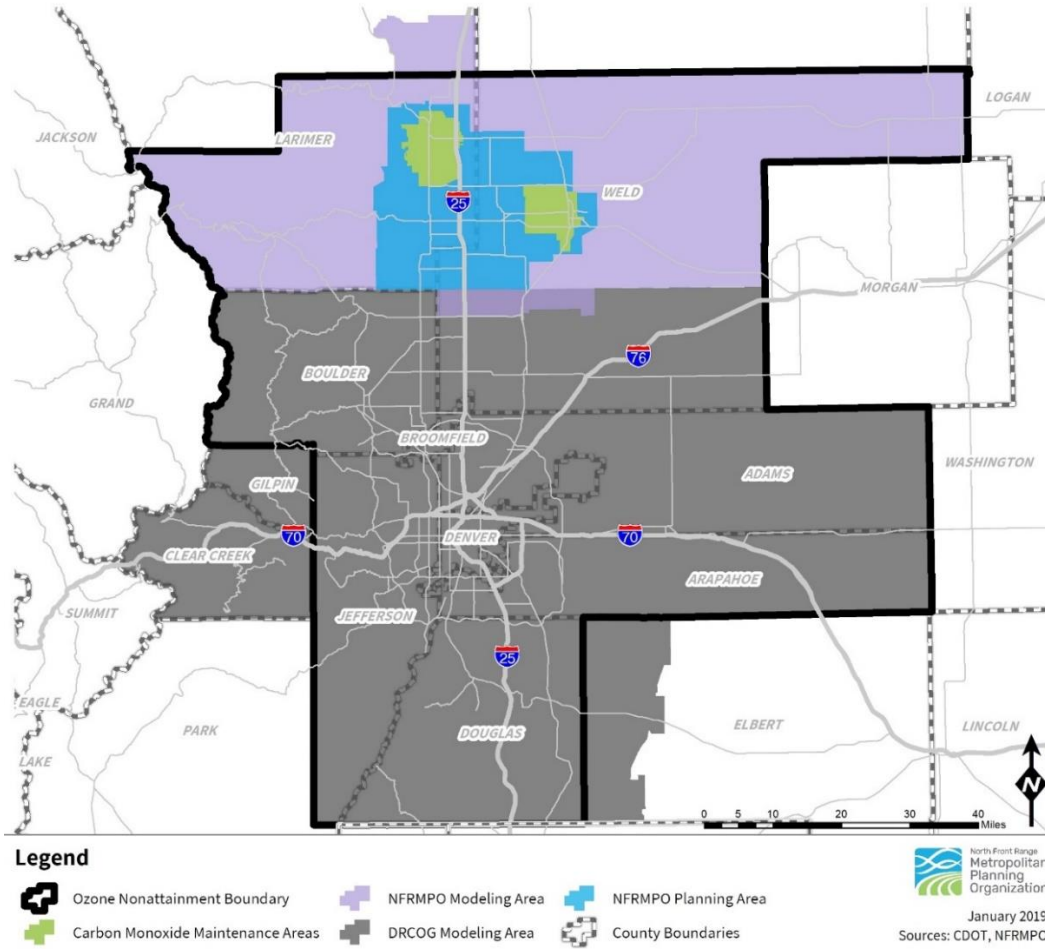


Table A-1: 8-Hour Ozone Conformity for Denver-North Front Range Northern Subarea

	2008 SIP Budgets	2020	2030	2040	2045	Pass/Fail
Volatile Organic Compounds (VOC)	8	8	6	5	5	PASS
Oxides of Nitrogen (NOx)	12	10	6	4	4	PASS