2025 TRANSPORTATION CONFORMITY

Mobility 2050: The Metropolitan Transportation Plan for North Central Texas
2025-2028 Transportation Improvement Program for North Central Texas

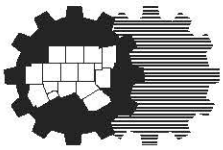
North Central Texas Council of Governments

What is NCTCOG?

The **North Central Texas Council of Governments** (NCTCOG) is a voluntary association of, by, and for **local governments** within the 16-county North Central Texas Region. The agency was established by state enabling legislation in 1966 to assist local governments in **planning** for common needs, **cooperating** for mutual benefit, and **coordinating** for sound regional development. Its purpose is to strengthen both the individual and collective power of local governments, and to help them recognize regional opportunities, resolve regional problems, eliminate unnecessary duplication, and make joint regional decisions – as well as to develop the means to implement those decisions.

North Central Texas is a 16-county **metropolitan region** centered around Dallas and Fort Worth. The region has a population of more than 8 million (which is larger than 38 states), and an area of approximately 12,800 square miles (which is larger than nine states). NCTCOG has 235 member governments, including all 16 counties, 170 cities, 20 independent school districts, and 29 special districts.

NCTCOG's **structure** is relatively simple. An elected or appointed public official from each member government makes up the **General Assembly** which annually elects NCTCOG's **Executive Board**. The Executive Board is composed of 17 locally elected officials and one ex-officio non-voting member of the legislature. The Executive Board is the policy-making body for all activities undertaken by NCTCOG, including program activities and decisions, regional plans, and fiscal and budgetary policies. The Board is supported by policy development, technical advisory and study **committees** – and a professional staff led by **Todd B. Little**, Executive Director.



NCTCOG's offices are located in Arlington in the Centerpoint Two Building at 616 Six Flags Drive (approximately one-half mile south of the main entrance to Six Flags Over Texas).

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NCTCOG's Department of Transportation

Since 1974 NCTCOG has served as the Metropolitan Planning Organization (MPO) for transportation for the Dallas-Fort Worth area. NCTCOG's Department of Transportation is responsible for the regional planning process for all modes of transportation. The department provides technical support and staff assistance to the Regional Transportation Council and its technical committees, which compose the MPO policy-making structure. In addition, the department provides technical assistance to the local governments of North Central Texas in planning, coordinating, and implementing transportation decisions.

Prepared in cooperation with the Texas Department of Transportation and the U.S. Department of Transportation, Federal Highway Administration, and Federal Transit Administration.

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2025-2026
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AERR	Air Emissions Reporting Requirements
APU	Auxiliary Power Unit
ATR	Automated Traffic Recorder
CAAA	Clean Air Act Amendments of 1990
CDB	MOVES County Database
CFR	Code of Federal Regulations
CMAQ	Congestion Mitigation and Air Quality Improvement Program
CO	Carbon Monoxide
CSJ	Control-Section-Job
DOE	Department of Energy
DOT	Department of Transportation
EI	Emissions Inventory
EPA	Environmental Protection Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
HC	Hydrocarbon
HPMS	Highway Performance Monitoring System
MoSERS	Mobile Source Emission Reduction Strategies
MOVES	MOtor Vehicle Emission Simulator
MPA	Metropolitan Planning Area
MPO	Metropolitan Planning Organization
MTP	Metropolitan Transportation Plan
MVEB	Motor Vehicle Emissions Budget
NAAQS	National Ambient Air Quality Standards
NOx	Nitrogen Oxides
OBD	On-Board diagnostics

OD	Origin-Destination
PACP	Pre-Analysis Consensus Plan
PM	Particulate Matter
RIF	Road Idle Fraction
RTP	Regional Transportation Plan
SHEI	Source Hours Extended Idling
SHO	Source Hours Operating
SHP	Source Hours Parked
SIP	State Implementation Plan
TAZ	Traffic Analysis Zone
TCEQ	Texas Commission on Environmental Quality
TCM	Transportation Control Measures
TDM	Travel Demand Model
TERM	Transportation Emission Reduction Measure
TDM	Travel Demand Model
TIP	Transportation Improvement Program
TTI	Texas A&M Transportation Institute
VHT	Vehicle Hours Traveled
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds

1. EXECUTIVE SUMMARY

1.1 CONFORMITY OVERVIEW

The Clean Air Act Amendments of 1990 (CAAA) require transportation plans, programs, and projects in nonattainment and maintenance areas, funded or approved by the Federal Highway Administration (FHWA) or the Federal Transit Administration (FTA), to conform to the Motor Vehicle Emissions Budgets (MVEBs) established in the State Implementation Plan (SIP) and deemed adequate or approved by the U.S. Environmental Protection Agency (EPA). Nonattainment areas with no MVEB must demonstrate conformity by satisfying an interim emissions test(s). Satisfying MVEBs (budgets) or interim emissions tests ensure transportation plans, programs, and projects do not produce new air quality violations, worsen existing violations, or delay the timely attainment of National Ambient Air Quality Standards (NAAQS). Section 176(c)(4) of the 1990 CAAA requires Metropolitan Planning Organizations (MPOs), for areas designated as nonattainment and/or maintenance for a NAAQS, to conduct an air quality conformity analysis to demonstrate that Metropolitan Transportation Plans (MTPs)/Regional Transportation Plans (RTP) and/or Transportation Improvement Programs (TIPs) are consistent with the region's air quality goals.

This conformity analysis requires MVEB test(s) which must demonstrate that the emission totals for the North Central Texas 10-county nonattainment area are less than or equal to the applicable SIP MVEB(s), which establish emissions ceilings for the regional transportation network.

As the Dallas Fort Worth region MPO, the NCTCOG is responsible for conducting the air quality conformity analysis to address the 2008 and 2015 8-hour Ozone NAAQS.

1.2 AIR QUALITY AND NONATTAINMENT AREA

1.2.1 Air Pollution

Pollutant(s) covered in this conformity analysis include the following.

> **Precursors to Ozone:** Volatile organic compounds (VOCs) and nitrogen oxides (NOx): "Ground-level ozone is a colorless compound formed when NOx and VOC chemically react in the presence of sunlight. It is not directly emitted into the air. Ground level ozone is known to trigger a variety of health problems and is particularly harmful to children, older adults, and people of all ages who have lung diseases, such as asthma" (source: EPA).

1.2.2 Nonattainment Area

Figure 1-1 shows the NCTCOG boundary map along with boundaries for the 2008 and 2015 8-hour ozone NAAQS.

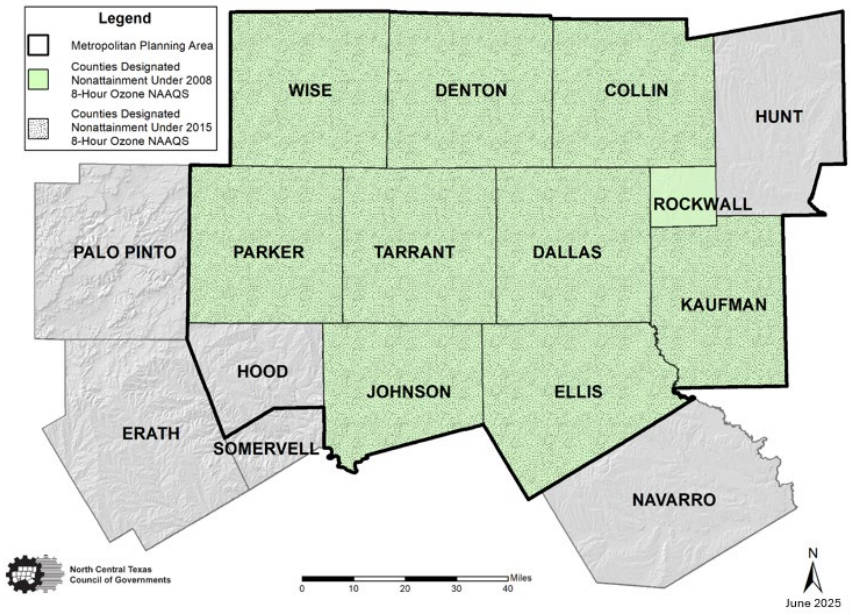

Figure 1-1. Dallas Fort Worth Nonattainment Boundaries

For the 2015 8-hour ozone standard designations: Effective August 3, 2018, the nine-county DFW area, encompassing Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Tarrant, and Wise, received a classification as marginal nonattainment for the 2015 8-Hour Ozone NAAQS. The DFW marginal nonattainment area had an attainment date set for August 3, 2021, referencing the 2020 attainment year. However, on October 7, 2022, the EPA reclassified the nine-county DFW area from marginal to moderate nonattainment. The new attainment date for moderate nonattainment areas was set for August 3, 2024, referencing the 2023 attainment year[1]. On June 20, 2024, the EPA reclassified the nine-county DFW nonattainment area from moderate to serious nonattainment, effective July 22, 2024. The attainment date is now set for August 2, 2027, referencing the 2026 attainment year.[2]

For the 2008 8-hour ozone standard designations: Effective July 20, 2012, the ten-county DFW area, encompassing Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, and Wise Counties, was designated as nonattainment, and classified as moderate under the 2008 eight-hour ozone NAAQS. Subsequently, on August 23, 2019, the EPA elevated the classification of the 10-county DFW area from moderate to serious nonattainment. The attainment date for serious nonattainment areas was set for July 20, 2021, referencing the 2020 attainment year. More recently, on October 7, 2022, the EPA further reclassified the 10-county DFW area from serious to severe nonattainment, extending the attainment date for severe nonattainment areas to July 20, 2027, with a 2026 attainment year.[3]

[1] Information on the 2015 8-hour ozone moderate nonattainment status, effective November 7, 2022, is available here: https://www.gpo.gov/fdsys/pkg/FR-2015-10-26/pdf/2015-26594.pdf.
[2] Information on the 2015 8-hour ozone serious nonattainment status, effective July 22, 2024 is available here: https://www.govinfo.gov/content/pkg/FR-2024-06-20/pdf/2024-13193.pdf#page=1
[3] Information on the 2008 8-hour ozone severe nonattainment status, effective November 7, 2022, is available here: https://www.govinfo.gov/content/pkg/FR-2022-10-07/pdf/2022-20458.pdf

1.3 MTP AND TIP

Table 1-1. MTP and TIP

Plan or Programs	Years Covered
Mobility 2050: The Metropolitan Transportation Plan for North Central Texas	2026 - 2050
2025–2028 Transportation Improvement Program for North Central Texas	2025 - 2028

A regionally significant project means a transportation project (other than projects that may be grouped in the TIP and/or Statewide Transportation Improvement Program or exempt projects as defined in EPA's transportation conformity regulation [40 CFR § part 93]) that is on a facility that serves regional transportation needs (e.g., access to and from the area outside the region; major activity centers in the region; major planned developments such as new retail malls, sports complexes, employment centers, or transportation terminals) and would normally be included in the modeling of the metropolitan area's transportation network. At a minimum, this includes all principal arterial highways and all fixed guided way transit facilities that offer a significant alternative to regional highway travel. A more comprehensive definition and set of criteria considered to determine regionally significant roadways can be provided upon request.

This conformity determination is being prepared to ensure that the Mobility 2050 and 2025-2028 Transportation Improvement Program meets the conformity-related requirements of the CAAA, SIP, and the final conformity rule (Title 40 Code of Federal Regulations (CFR), Parts 51 and 93).

Per 23 CFR§450.324 all projects are constrained by the financial resources estimated to be reasonably available within the transportation plan timeframe. A list of the projects in the Mobility 2050 and 2025-2028 Transportation Improvement Program that affect this conformity analysis is included in Appendix B – MTP of this conformity report.

1.4 ANALYSIS

This emissions analysis for determining conformity was performed under the Code of Federal Regulations Title 40, Part §93.109(c)(2)(ii)(B).

The analysis years for this conformity are 2026 (the attainment year both 2008 and 2015 8-Hour Ozone NAAQS), 2035, 2040, and 2050 (MTP horizon year).

Description and approval/justification of the MVEB used: The 2020 MVEBs[4] for the NCT 10-county nonattainment area will be used. Since the 2015 8-hour ozone nonattainment area covers a smaller geographic area within the 2008 8-hour ozone nonattainment area, the approved 2020 attainment demonstration SIP MVEBs may be used to determine conformity for the 2015 8-Hour Ozone NAAQS.

1.5 FINDINGS

The NOx and VOC vehicle summer weekday emission results shown below demonstrate the Dallas Fort Worth nonattainment region meets the regional air quality conformity requirements 2008 and 2015 8-hour ozone NAAQS.

Table 1-2. For nonattainment or maintenance areas with adequate or approved SIP MVEB(s)

Analysis Year	Vehicle Miles of Travel	NOx Budget (tons/day)	NOx Emissions (tons/day)	VOC Budget (tons/day)	VOC Emissions (tons/day)
2026	268,352,534	107.25	71.31	62.41	38.36
2035	323,931,317	107.25	64.86	62.41	32.54
2040	358,295,274	107.25	68.47	62.41	31.63
2050	426,898,352	107.25	93.27	62.41	35.82

The results of the conformity determination demonstrate that Mobility 2050 and 2025-2028 Transportation Improvement Program meets the requirements of the air quality SIP for the Dallas Fort Worth nonattainment area and are per the CAA (42 U.S.C. 7504, 7506 (c) and (d)), as amended on November 15, 1990, and the final conformity rule (40 CFR Parts 51 and 93).

[4] More information on 88 FR 24693 is available here: https://www.govinfo.gov/content/pkg/FR-2023-04-24/pdf/2023-08436.pdf

2. TRANSPORTATION CONFORMITY REQUIREMENTS

2.1 WHAT IS TRANSPORTATION CONFORMITY?

As mandated under CAAA Section 176(c), transportation conformity ensures that federally supported transportation activities align with and conform to the objectives outlined in a state's SIP. An SIP serves as the state air quality blueprint for meeting the NAAQS. The SIP consists of a compilation of legally enforceable rules and regulations crafted by a state or local air quality agency. The governor of the state submits this plan to EPA for approval. The primary goal of a SIP is to enhance air quality by achieving, progressing toward, or maintaining compliance with the NAAQS. Each SIP specifies emissions reductions for every pollutant or precursor, categorized by source type, including on-road motor vehicles, non-road equipment and vehicles, stationary sources, and area sources.

Before an RTP/MTP or TIP can be adopted, approved, or accepted in nonattainment areas, MPOs and the U.S. Department of Transportation (DOT) must make conformity determinations on these documents. As described in Section 176(c)(1) of the CAAA, transportation conformity is granted when the following conditions are met:

(A) Conformity to an implementation plan's purpose of eliminating or reducing the severity and number of violations of the national ambient air quality standards and achieving expeditious attainment of such standards.

(B) That such activities will not:
   i. Cause or contribute to any new violation of any standards in any area;
   ii. Increase the frequency or severity of any existing violation of any standard in any area; or
   iii. Delay timely attainment of any standard or any required interim emission reductions or other milestones in any area.

A new conformity determination must be performed any time an RTP/MTP is amended in a significant manner when a region or state's air quality goals change and/or every 4 years.

2.2 CONFORMITY REQUIREMENTS

The CAAA requires transportation plans, programs, and projects in nonattainment and maintenance areas, which are funded or approved by FHWA or FTA, to conform to the MVEBs established in the SIP, or to satisfy applicable interim emissions tests, absent MVEBs. A regional emissions analysis is the key analytic component of the transportation conformity process. It is conducted to demonstrate that:

- Regional emissions from on-road sources do not exceed the established MVEB or satisfy interim emissions test(s), absent an MVEB.
- Regional emissions from on-road sources do not cause or contribute to violations of EPA's NAAQS.
- Transportation activities are consistent with air quality goals identified in the SIP.

- As stipulated by the CAAA, requirements for conformity analysis include:

- Use of the latest planning assumptions (40 CFR 93.110).
- Analysis based on the latest emission estimation model available (40 CFR 93.111).
- Interagency consultation and a public involvement process, which must be conducted during the analysis (40 CFR 93.112).
- Timely implementation of transportation control measures (TCMs) (40 CFR 93.113).
- A transportation plan and TIP that are consistent with the MVEBs established in the applicable SIP (if there is an adequate or approved SIP budget) (40 CFR 93.118).

- Inclusion of all regionally significant projects expected in the nonattainment and maintenance area in the transportation plan and/or TIP (40 CFR 93.114 and 93.115).

The determination of the analysis is a two-step process in metropolitan areas. The first step is for the MPO to make the initial Transportation Conformity determination at the local level. For the Dallas Fort Worth region, the NCTCOG policy body makes this decision. The second step is for the FHWA and the FTA to make a joint Transportation Conformity determination at the federal level. Upon federal approval, a four-year window begins during which projects, programs, and policies identified in the RTP/MTP and TIP may move toward implementation.

2.3 Emission Analysis

A regional emissions analysis is the key analytic component of the transportation conformity process. The emissions analysis is conducted to demonstrate that:

- Regional emissions from on-road sources do not exceed the established MVEBs (or, if no MVEB exists for the area, analysis-year build emissions do not exceed analysis-year no-build emissions and do not exceed baseline-year emissions).
- Regional emissions from on-road sources do not cause or contribute to violations of the EPA NAAQS.
- Transportation activities are consistent with air quality goals identified in the SIP.

2.3.1 Regional Inventory

This conformity analysis of the Dallas Fort Worth nonattainment area accounts for emissions resulting from the nonattainment area's Mobility 2050 that includes all regionally significant projects located within the Dallas Fort Worth nonattainment area and the effects of emission control programs adopted by an enforcing jurisdiction.

2.3.2 Emissions Tests

Conformity determinations must demonstrate consistency between expected emissions from implementing the RTP/MTP and TIP with the MVEBs in the applicable implementation plan.

For nonattainment or maintenance areas with adequate or approved SIP MVEB(s):

This conformity analysis requires MVEB test(s) that must demonstrate that the total emissions for the nonattainment or maintenance area is less than or equal to the applicable SIP MVEB(s), which establish emissions ceilings for the regional transportation network.

As the Dallas Fort Worth nonattainment area's MPO, the NCTCOG is responsible for conducting the air quality conformity analysis to address 2008 8-hour ozone NAAQS. The MVEB for the Dallas Fort Worth region is summarized in Table 2-1.

Table 2-1. NAAQS and MVEB

NAAQS	Pollutant	MVEB (tons/day)
2008 8-Hour Ozone	VOC	62.41
2008 8-Hour Ozone	NOx	107.25

2.3.3 Analysis Years

For the emission budget test, according to the conformity rule, 40 CFR 93.106, the regional emission analysis years should be selected according to the following:

- Any years within the timeframe of the transportation plan, provided they are not more than ten years apart.
- Any year with an emission analysis budget.
- The attainment year.
- The transportation plan horizon year.

Table 2-2 shows the conformity analysis years and describes their corresponding requirements for calculations.

Table 2-2. Conformity Analysis Years

Requirements	Years
Conformity Base Year	N/A
Attainment Year	The existing 10 DFW nonattainment counties were reclassified as a severe nonattainment area for the 2008 8-hour Ozone NAAQS with an attainment date of July 20, 2027 (attainment year would be 2026) 9 of those 10 DFW nonattainment counties (excluding Rockwall County) were reclassified as a serious nonattainment area for the 2015 8-hour Ozone NAAQS with an attainment date of August 03, 2027 (attainment year would be 2026)
Last Year of Maintenance Plan	N/A
Analysis Years	2026, 2035, 2040, 2050
Other	N/A

2.4 CHECKLIST

Table 2-3 shows the checklist detailing information relevant to this conformity document.

Table 2-3. Checklist of Items Required in this Conformity Review

Item	Regulation Referenced	Item Format	Location within Report
Mobility 2050	Part 93 Subpart A	Independent self-supporting document (electronic file)	Link as listed in Appendix B - MTP and TIP
2025-2028 Transportation Improvement Program	Part 93 Subpart A	Independent self-supporting document (electronic file)	Link as listed in Appendix B - MTP and TIP

Item	Regulation Referenced	Item Format	Location within Report
2025 Transportation Conformity	Part 93 Subpart A	Independent self-supporting document (electronic file)	This document
Description of version of MOVES model being used	40 CFR 93.111	Discussion contained in conformity document	Chapter 5.1
MOVES input and output files		Electronic (ASCII or txt file format)	Appendix D.1 - MOVES Input and Output
MOVES emission factors		Electronic (ASCII or txt file format)	Appendix D.2 - MOVES Emission Factors
MOVES activity		Electronic (ASCII or txt file format)	Appendix D.3 - Activities
MOVES external reference files		Electronic (ASCII or txt file format)	Appendix D.1 - MOVES Input and Output
MOVES utilities		Electronic (ASCII or txt file format)	Appendix D.4 - Emissions Modeling Utilities
MoSERS Methodology		Electronic file	Appendix E.1 - MoSERS Methodology (Example Calculations)
TERMs		Electronic file	Appendix E.3 - TERMs
Highway Performance Monitoring System adjustment(s), factors, and approach	40 CFR 93.122(b)(3)	Discussion contained in conformity document	Chapter 4.5
Description of TDM validation, including validation year	40 CFR 93.106(a)(1)(ii)	Discussion contained in conformity document and Electronic file	Chapter 4.1 and Appendix Section C.1 Travel Model Validation
Vehicle miles of travel		Discussion contained in conformity document and Electronic file	Chapter 4.6 and Appendix Section D.5 VMT, Speed, and Emissions Summaries

Item	Regulation Referenced	Item Format	Location within Report
Average loaded speeds		Discussion contained in conformity document and Electronic file	Chapter 4.6 and Appendix Section D.5 VMT, Speed, and Emissions Summaries
Centerline mile summaries for each analysis year		Discussion contained in conformity document and Electronic file	Chapter 4.6 and Appendix Section C.2 Centerline and Lane Miles Summaries
Definition of regionally significant roadway system		Discussion contained in conformity document	Chapter 3.2
Link listing and Capacity and Roadway Network Files for each analysis year		Electronic files	Appendix Section C.3 Link Listing and Capacity Staging and Appendix Section C.4 Roadway Network Files
Files containing hourly distribution by county, roadway type, and vehicle type for vehicle miles of travel, vehicle hours, average operational speed, vehicle population, NO_x emissions, and VOC emissions		Electronic files in tab-delimited summary tables	Appendix Section D.5 VMT, Speed, and Emissions Summaries
TCMs in SIP		Discussion contained in conformity document and Electronic File	Chapter 6.2.2.1 and Appendix E.3 - TCMs
List of non-federal projects	In response to March 2, 1999, court ruling	Independent self-supporting document (electronic file)	Link as listed in Appendix B - MTP and TIP
List of exempt projects	40 CFR 93.105(c) 40 CFR 93.126 40 CFR 93.127 40 CFR 93.128	Independent self-supporting document (electronic file)	Link as listed in Appendix B - MTP and TIP

Item	Regulation Referenced	Item Format	Location within Report
Evidence of fiscal constraint	40 CFR 93.108	Independent self-supporting document (electronic file)	Link as listed in Appendix B - MTP and TIP
Evidence of MTP specifically describing the transportation system envisioned for each analysis year	40 CFR 93.106(a)	Independent self-supporting document (electronic file)	Link as listed in Appendix B - MTP and TIP
Evidence of public participation and response to comments	40 CFR 93.105	Discussion contained in conformity document and Electronic File	Chapter 5.1 and Appendix Section G.1 Meeting Information
Endorsements and/or resolutions		Electronic file	Appendix A - Resolution of Adoption
Applicable Federal Register notices and related documents		Discussion contained in conformity document	Throughout the conformity document and appendices
Interagency consultation		Electronic file	Appendix F- Interagency Consultation Process

3. MTP AND TIP

3.1 MOBILITY 2050 AND 2025-2028 TRANSPORTATION IMPROVEMENT PROGRAM

3.1.1 Overview

The NCTCOG serves as the Metropolitan Planning Organization (MPO) for 12 counties in the Dallas Fort Worth metropolitan area. This region includes the 2008 8-hour ozone 10-county nonattainment area, which covers Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, and Wise, as well as the 2015 8-hour ozone 9-county nonattainment area, which covers Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Tarrant, and Wise.

On June 13, 2024, the 2025-2028 Transportation Improvement Program, and on June 12, 2025, the Mobility 2050 Transportation Plan were adopted by the NCTCOG Policy Board. The Mobility 2050 covers a planning period of 2026 through 2050 and contains a list of projects fiscally constrained by estimates of reasonably available revenues. This update reflects the priorities for transportation investments within the NCTCOG metropolitan planning area (MPA). A complete listing of fiscally constrained projects, as proposed under this conformity determination, is provided in Appendix B.1 – MTP (pages E-97 - E-114 and E-118 - E-145, Appendix E, Mobility Options). This list denotes projects that are regionally significant or otherwise subject to transportation conformity and those projects that are exempt from transportation conformity, exempt from regional emissions analysis, or have been determined to be not regionally significant.

3.1.2 Submittal Frequency

Consistent with the requirements of Title 23 U.S.C. 134, the transportation plan and/or TIP are required to be updated every four years. Since Dallas Fort Worth is a nonattainment area for the 2008 and 2015 8-hour ozone NAAQS, every amendment or update to the transportation plan and/or TIP must show conformity to the air quality budgets coming from the latest revisions to the SIP. If more than four years elapse after DOT's Transportation Conformity determination for a plan update, a 12-month grace period shall be in force. At the end of this 12-month grace period, the existing DOT's Transportation Conformity determination will lapse.

A conformity determination for a transportation plan must be based on the transportation plan and all amendments. According to 40 CFR 93.104, each new transportation plan and/or TIP update or amendment must be demonstrated to conform before amendments are approved by the NCTCOG Policy Board or accepted by DOT unless the amendment merely adds or deletes exempt projects listed in 40 CFR 93.126, 93.127, or 93.128.

According to Title 42 U.S.C. 7506 I(2)(E), the MPO must re-determine conformity of existing transportation plans and programs not later than two years after the date on which the Administrator:

i. finds a motor vehicle emissions budget to be adequate per 40 CFR 93.118(e)(4) (as in effect on October 1, 2004);
ii. approves an implementation plan that establishes a motor vehicle emissions budget if that budget has not yet been determined to be adequate per clause (i); or
iii. promulgates an implementation plan that establishes or revises a motor vehicle emission budget.

3.1.3 Fiscal Constraints

All transportation plans prepared by the MPO are required to be fiscally constrained. Fiscal constraint is demonstrated by a financial plan that outlines reasonably available future revenues to implement the projects listed in the transportation plan.

- **Long-Range Financial Constraint:** The transportation plan's financial element must identify all sources of funds reasonably expected to be available and any innovative financial strategies that may be necessary to implement the transportation plan. The Mobility 2050 estimates $217.3 billion of revenue to be reasonably available to implement the recommendations. The Mobility 2050 update's total expenditure, not exceeding revenues, is estimated to be approximately $217.3 billion.
- **Short-Range Financial Constraint**: Financial constraint is also required for a conforming TIP, with funds programmed being equal to or less than the total funds available. The TIP comprises the first four years of transportation activities in the transportation plan. The 2025-2028 Transportation Improvement Program (August 2025 Modification Cycle) estimates $13.76 billion of revenue to be reasonably available to implement the recommendations. The 2025-2028 Transportation Improvement Program (August 2025 Modification Cycle) total programming expenditure is estimated to be approximately $10.81 billion.

3.2 Regionally Significant Travel Projects/Programs

Per 40 CFR 93.101, regionally significant projects are transportation projects (other than an exempt project) that are on a facility that serves regional transportation needs (such as access to and from the area outside of the region, major activity centers in the region, major planned developments such as new retail malls, sports complexes, etc., or transportation terminals as well as most terminals themselves) and would normally be included in the modeling of a metropolitan area's transportation network, including at a minimum all principal arterial highways and all fixed guideway transit facilities that offer an alternative to regional highway travel.

Regionally Significant Roadways include:

i. Freeways and tollways documented in the Metropolitan Transportation Plan
ii. Grade-separated interchange projects on regionally significant roadways where no access existed previously
iii. Regionally Significant Arterials, as defined by the following criteria:

Table 3-1. Regionally Significant Arterials

Criteria	Explanation
FFCS Principal	Roadways identified as principal arterials in the Federal Functional Classification System (FFCS)
NHS/Intermodal	Roadways and intermodal connectors included in the federally-adopted National Highway System (NHS)
Other Highways	Roads designated as SH or US routes
Community Connection	On-System roadways that provide direct, continuously-signed connections between nearby or adjacent census-defined urbanized areas, urban clusters, and population centers with more than 5000 people
Activity Center	Roadways that serve as primary regional connector to an otherwise unserved regional activity center.
Staged Facilities	Roadways serving regional transportation needs within a limited-access corridor until main lanes are constructed.
Route Completion	Extension of RSA with non-connecting termini to a nearby junction with a Regionally Significant Roadway, where feasible; or, extension over continuous roadway to population center or freeway

The designation of regionally significant facilities is the responsibility of NCTCOG, as the Metropolitan Planning Organization, and NCTCOG maintains a list and map of these critical facilities.

Roadway systems that meet the definition of regionally significant are available Appendix B.1 – MTP (pages E-67 and E-72, Appendix E, Mobility Options). These roads are subjected to transportation and project-level determinations.

3.3 Other Projects/Programs

3.3.1 Non-Federal Projects/Programs

Non-federal projects funded by sources such as local governments and local transportation authorities, such as signal improvements, intersection improvements, and local roadway widening, may be of insufficient scale or scope to require inclusion within a transportation conformity regional emissions analysis. These “non-regionally significant” projects that do not require any federal project approval actions (e.g., environmental clearance or permit approvals) are not individually listed within the transportation plan and/or TIP.

3.3.2 Exempt Projects/Programs

40 CFR 93.126 identifies several project types exempt from the requirement of a conformity determination. When a conforming transportation plan or TIP is revised by the addition or deletion of an exempt project, a new conformity determination is not required. Some of the exempt projects listed under 40 CFR 93.126 include the continuation of ridesharing and vanpooling promotion activities at current levels, bicycle and pedestrian facilities, railroad/highway crossing, fencing, shoulder improvements, purchasing replacement transit vehicles, and road landscaping. 40 CFR 93.127 identifies project types that are exempt from a regional emissions analysis, but that may require project-level conformity. These include intersection channelization projects, intersection signalization projects at individual intersections, interchange reconfiguration projects, changes in vertical and horizontal alignment, truck size and weight inspection stations, and bus terminals and transfer points. 40 CFR 93.128, exempts traffic signal synchronization projects; however, regionally significant traffic signal synchronization projects must be included in subsequent regional emissions analyses.

4. VEHICLE ACTIVITY ESTIMATION

4.1 Overview of the Travel Model

The NCTCOG Travel Demand Model (TDM) serves as the source for forecasting vehicle miles of travel (VMT) and other travel characteristics for Collin, Dallas, Denton, Ellis, Hood, Hunt, Johnson, Kaufman, Parker, Rockwall, Tarrant, and Wise counties. The TDM is executed in the TransCAD environment. The model base year is 2019 and the forecasted years are 2023, 2026, 2035, 2040, and 2050. The trip characteristics forecasted include the number of trips, trip origin-destination (OD) pairs, and travel mode. The model assigns all vehicle trips to the roadway network and produces traffic volume and speed at the link level for peak and off-peak periods. The assigned roadway network with forecasted VMT and speed is then processed by the emissions model for mobile emission analysis.

4.2 Transportation Modeling Process

The forecasting technique is based on a four-step sequential process designed to model travel behavior and predict the level of travel demand at regional, sub-area, and/or small-area levels. These four steps are trip generation, trip distribution, mode choice, and roadway assignment.

4.2.1 Trip Generation Model

Traffic basic geographic unit for the travel demand models is the traffic analysis zone (TAZ). The travel model covers 10,480 square miles and 13 counties. The included counties are Collin, Dallas, Denton, Ellis, Hood, Hunt, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise, and Hill; Hill County is included for modeling purposes only and will not be reported. The modeled area includes all nonattainment counties and contains 5352 TAZs, of which 5303 are internal zones and 49 are external zones or stations.

For this conformity analysis, the defined base year for the forecast is 2019. The demographic estimates and forecasts were developed by NCTCOG and reviewed by local governments. The demographic forecast process included U.S. government national data for residents and employment for 2015 and 2020, along with locally developed data sources for land use and zoning.

The function of the trip generation model is to convert demographic data into person trip productions and attractions for different purposes.

4.2.2 Trip Distribution Model

The trip distribution model determines the interaction between all zone pairs within the study area. The model connects trip ends estimated in the trip generation model, creating OD TAZ pairs and resulting in OD trip tables.

Trips production and attractions are distributed among zone pairs based on gravity models for each trip purpose. Then, a reasonableness check was performed to ensure that the modeled trip

information was consistent with observed trip length distribution from the household travel survey.

4.2.3 Mode Choice Model

Mode choice model subsequently determines the mode of travel selected by travelers. These decisions are based on the characteristics of:

- The trip maker (income and auto sufficiency).
- The trip (purpose, length, and orientation).
- The availability and utility of the competing transportation modes.

Table 4-1 shows the estimated coefficients for multinomial logit model for Home-Based Work trips for different market segments.

Table 4-1. Example of Mode Choices Modeled Table for Home-Based Work (HBW)

	Veh0, Inc1	Veh0, Inc>1	Veh < Worker, Inc 1	Veh< Worker, Inc 2	Veh< Worker, Inc 3	Veh< Worker, Inc 4	Veh≥ Worker, Inc 1	Veh≥ Worker, Inc 2	Veh≥ Worker, Inc 3	Veh≥ Worker, Inc 4
Drive Alone (ASC*)	-	-	-1	-1.3	-1.5	-0.8	2.9	2.6	2.6	2.6
SR2 (ASC)	-3.3	-2	-2.2	-2.3	-2	-3	-0.5	-0.5	-0.5	-0.3
SR3+ (ASC)	-3.3	-2	-3.2	-3.1	-3.1	-3.1	-0.7	-0.7	-1.5	-1
Walk Bus (ASC)	1	0.8	1.6	0.7	-0.4	-2	0.4	0.4	0.1	-1.4
Drive Bus (ASC)	-1.1	-1.9	0	-1.6	-1.9	-3.4	-0.1	0.1	0.1	-1.1
Walk Premium (ASC)	1	0.8	1.6	0.7	0.1	-1.4	1	1	0.7	-0.8
Drive Premium (ASC)	-1.1	-1.8	0	-1.6	-1.9	-3.4	-0.1	0.1	0.5	-0.9
Walk BP (ASC)	1	0.9	1.6	0.7	-0.4	-2	1	0.9	0.7	-0.9
Drive BP (ASC)	-1.1	-1.4	0	-1.6	-1.9	-3.4	-0.1	0.1	0.1	-1.1
IVTT	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03
OVTT	-0.06	-0.06	-0.06	-0.06	-0.06	-0.06	-0.045	-0.06	-0.06	-0.06
Parking_cost	-0.2	-0.1	-0.6	-0.5	-0.34	-0.2	-0.9	-0.34	-0.24	-0.16
Cost_Coeff	-0.1	-0.05	-0.3	-0.25	-0.17	-0.1	-0.45	-0.17	-0.12	-0.08
DallasCBD_DABP	1	1	1	1	1	1	1	1	1	1
DallasCBD_DAB	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
DallasCBD_DAP	1.2	1.2	1.2	1.2	1.2	1.2	1	1.2	1.2	1.2
DallasCBD_WABP	1	1	1	1	1	1	0.9	1	1	1
DallasCBD_WAB	0.9	0.9	0.9	0.9	0.9	0.9	1.2	0.9	0.9	0.9

4.2.4 Roadway Assignment Model

The Roadway Traffic Assignment Model loads the travel demand (trips) to the roadway network, calculates delay for congested links, and reassigns as necessary to achieve network equilibrium. This step is performed using a User Equilibrium traffic assignment model.

4.3 Speed Estimation Procedure

As part of the TDM calibration process, speeds for each roadway facility type are estimated and further categorized by area type. These input speeds reflect the average hourly travel speeds.

The roadway traffic assignment model produces speed as well as traffic volume for each roadway link for each time period: AM peak, PM peak, and off-peak. These periods are defined based on congestion level in the roadway network for each forecast year. Period traffic volume is broken into hourly volume for 24 hours. The final output is VMT and speed by each hour for each link.

4.4 Local Street VMT

The roadway network of the regional TDM does not contain details of local (residential) streets. However, a VMT estimate is possible based on data provided by the travel model. Local street VMT is calculated for each county by multiplying the number of intrazonal trips by the intrazonal trip length and then adding the VMT from the zone's centroid connectors. The temporal distribution is assumed to be the same as for non-local streets.

4.5 Model VMT Adjustments

An adjustment factor based on the Texas Department of Transportation's (TxDOT's) Highway Performance Monitoring System (HPMS) was applied to the TDM's VMT to ensure consistent reporting across the state. The HPMS adjustment factor is applied to the model estimated time-of-day VMT before the estimation of time-of-day speed. In this way, the time-of-day speeds used in the estimation of emissions are based on HPMS-adjusted VMT. This methodology is consistent with the procedures used by the Texas A&M Transportation Institute (TTI) in developing model adjustment factors for the rest of Texas.

4.5.1 HPMS Adjustments

The HPMS adjustment factor is applied to the model estimated time-of-day VMT prior to the estimation of time-of-day speed. In this way, the time-of-day speeds used in the estimation of emissions are based on the HPMS-adjusted VMT. The factor used to reconcile model-estimated regional VMT to HPMS-estimated regional VMT is calculated by dividing the HPMS-estimated average non-summer weekday VMT:

$$HPMS\ ANSWT = HPMS\ AADT\ \times AADT\_to\_ANSWT\ factor$$

$$HPMS\ factor = HPMS\ ANSWT / Model\_estimated\_ANSWT$$

Where:

HPMS ANSWT = HPMS-based average non-summer weekday travel.

As Table 4-2 shows, the HPMS adjustment factor was calculated based on these calculations.

Table 4-2. 2019 HPMS Factor

HPMS AADT VMT[1]	AADT-to-ASWT Factor	HPMS-Based ASWT VMT	TDM VMT[1]	HPMS Factor[2]
188,941,395	1.042	196,876,934	208,590,323	0.9438

[1] Non-Local Roads (Including Toll Roads). Total of the counties included. Counties included were Collin, Dallas, Denton, Ellis, Hood, Hunt, Johnson, Kaufman, Parker, Rockwall, Tarrant, and Wise counties
[2] Applied to all analysis years and areas in the TDM.

4.5.2 Seasonal and Daily Adjustments

Seasonal adjustment factors were applied to the TDM VMT to convert it to summer weekday VMT. These factors were derived from the 2022-2023 average data collected by TxDOT Permanent Automatic Traffic Recorder (ATR) stations. The core counties include Collin, Dallas, Denton, Rockwall, and Tarrant. For these counties, the applicable adjustment factor(s) are determined based on the area type of each TAZ (Traffic Analysis Zone), specifically, whether it is classified as Urban or Rural. For all remaining counties, a single set of perimeter factor(s) is applied.

Table 4-3. Seasonal Factors

County Type	Summer Weekday
Core Urban	1.10
Core Rural	1.01
Perimeter	1.01

4.5.3 Hourly Adjustments

The hourly factors in Table 4-4 are used to convert the TDM output into hourly VMT. Since the NCTCOG's TDM has the Peak Periods defined into half-hour intervals, these adjustments are initially applied at the half-hour level and the VMT is then aggregated to the hourly level. Additionally, for each County Type category, the fractional allocations for each period sum to 1;

as a result, the fractional allocations across the three time periods – AM Peak, PM Peak, and Off-Peak – sum to 3.

Table 4-4. Hourly Distribution Factors

Time Period	County Type		
	Core Urban	Core Rural	Perimeter
0:00	0.02	0.01	0.02
1:00	0.01	0.01	0.01
2:00	0.01	0.01	0.01
3:00	0.01	0.01	0.02
4:00	0.02	0.01	0.03
5:00	0.06	0.02	0.05
6:00	0.05	0.02	0.04
6:30	0.18	0.13	0.17
7:00	0.42	0.41	0.43
8:00	0.39	0.46	0.40
9:00	0.09	0.08	0.09
10:00	0.08	0.09	0.09
11:00	0.08	0.10	0.09
12:00	0.09	0.11	0.10
13:00	0.09	0.11	0.10
14:00	0.10	0.11	0.10
15:00	0.29	0.26	0.28
16:00	0.29	0.29	0.30
17:00	0.29	0.31	0.30
18:00	0.13	0.14	0.12
18:30	0.05	0.06	0.05
19:00	0.08	0.09	0.07
20:00	0.06	0.07	0.05
21:00	0.05	0.05	0.04
22:00	0.04	0.03	0.03
23:00	0.02	0.01	0.01

4.5.4 Non-Recurring Congestion

The delay caused by nonrecurring congestion is added to the freeway travel times and congestion delay due to bottlenecks to obtain an increased freeway travel time, which translates into reduced speed on freeway facilities. Arterial street emissions are not significantly affected by incidents because alternate routes on the arterial system are generally available; therefore, this factor is not applied to non-freeway type facilities.

4.6 Estimation of On-Network Activity

4.6.1 Roadway VMT

Roadway VMT is provided by hour, county, road type and area type. Appendix D.5 VMT, Speed, and Emissions Summaries contains all the network years with the final VMT estimates.

4.6.2 Average Loaded Speeds

Average loaded speeds are provided by hour, county, road type, and area type. The final average loaded speeds are listed in Appendix D.5 VMT, Speed, and Emissions Summaries.

4.6.3 Centerline and Lane Miles.

Centerline miles and lane miles are provided by functional class and area type for each analysis year and are listed in Appendix C.2 Links, Miles, Centerline, and Lane Miles Summaries.

4.6.4 Transit Systems

The transit trips are excluded from the highway assignment and are not considered in the calculation of roadway VMT.

4.7 Estimation of Off-Network Activity

County-level, hourly estimates of the Source Hour Parked (SHP) and starts activity were required for each vehicle type to estimate the off-network (or parked vehicle) emissions. Source Hours Extended Idling (SHEI) and Auxiliary Power Unit (APU) hours estimates were needed for combination long-haul trucks. For the estimation of the SHP and vehicle starts vehicle population estimates were also needed.

The vehicle population and hourly SHP, starts, SHI, and APU hours are available in Appendix D.3 – Activities.

4.7.1 Vehicle Populations

Vehicle population data were used to estimate SHP and vehicle starts off-network activity. The vehicle population estimates were derived from end of year 2021, county specific vehicle registration data provided by the TxDMV, TxDOT district level VMT mix data, and HPMS-reported county-level VMT totals.

The following steps were used to disaggregate the TxDMV vehicle registration data to vehicle population data by vehicle type.

1. VMT mix data was used to calculate the proportional representation of each MOVES vehicle type within each TxDMV aggregation class (first column of Table 4-6).

Table 4-5. Vehicle Registration Aggregations and Vehicle Types

Vehicle Registration[1] Aggregation	Associated Vehicle Type[2]
Motorcycles	MC_Gas
Passenger Cars (PC)	PC_Gas; PC_Diesel;
Trucks ≤ 8.5 K GVWR (pounds)	PT_Gas; PT_Diesel; LCT_Gas; LCT_Diesel;
Trucks > 8.5 and ≤ 19.5 K GVWR	RT_Gas; RT_Diesel; SUShT_Gas; SUShT_Diesel; MH_Gas; MH_Diesel; Obus_Gas; Obus_Diesel; TBus_Gas; TBus_Diesel; SBus_Gas; SBus_Diesel;
Trucks > 19.5 K GVWR	CShT_Gas; CShT_Diesel; CShT;
NA[1]	SULhT_Gas; SULhT_Diesel; CLhT_Gas; CLhT_Diesel;

[1] The four long-haul SUT/fuel type populations are estimated using a long-haul-to-short-haul weekday SUT VMT mix ratio applied to the short-haul SUT population estimate.

[2] The year-end TxDMV county registrations data extracts were used (i.e., the three-file data set consisting of: 1—light-duty cars, trucks, and motorcycles; 2—heavy-duty diesel trucks; and 3—heavy-duty gasoline trucks) for estimating the vehicle populations.

2. The proportional fractions calculated in Step 1 were multiplied by the total number of vehicles reported in each TxDMV vehicle registration category to obtain the estimated number of vehicles (populations) for each modeled MOVES vehicle type.

Analysis year vehicle type populations were then calculated by applying a vehicle types of population growth factor (VPGF). The VPGF was calculated using county-level HPMS reported total VMT for the registration data year 2021 and each analysis year.

4.7.2 Off-network Idling Hours

Off-network idling (ONI) is idling activity that occurs while a vehicle is idling in a parking lot, drive-through, driveway while waiting to pick up passengers or loading/unloading cargo. ONI applies to all MOVES source types.

TTI estimates ONI hours activity (i.e., source hours idling [SHI] off-network) for each hour of the day using the following formula.

$$ONI\ Hours = (SHO_{network} \times TIF - SHI_{network})/(1 - TIF)$$

Where:

$SHO_{network}$ is the source hours operating on each link. This is calculated by dividing the VMT associated with each link by the link's congested speed.

$SHI_{network}$ is the total source hours idling that occurs on the network (idling that occurs as a component of drive cycles) and is calculated by multiplying SHOnetwork by a road idle fraction (RIF). RIF is the proportion of idling (in units of time) that occurs within a drive-cycle at a specified operational speed. Default values for RIF were used as defined in the MOVES data table "roadidlefraction".

TIF is the total idle fraction or total idling time on and off-network divided by total SHO on and off-network: TIF = (SHInetwork + ONI) / (SHOnetwork+ ONI). Default values for TIF were used as defined in the MOVES data table "totalidlefraction".

4.7.3 Source Hours Parked

The first activity measure needed to estimate the off-network emissions is county-level estimates of SHP by hour and vehicle type. The SHP was estimated as a function of total hours (hours a vehicle exists) minus its hours of operation on roads (Source Hours Operating [SHO] is the same as Vehicle Hours Travel [VHT]).

The vehicle type SHP estimates were calculated for each hour of the day based on the link VMT and speeds, the VMT mix used in the link-based emissions analysis, and the vehicle population estimates.

The VMT mix was applied to the link VMT to produce VMT estimates by vehicle type. Link VMT was divided by the link speed to produce SHO estimates. SHO was aggregated across links and then subtracted from source hours (equal to vehicle population since source hours equal the number of hours in the period) resulting in SHP estimates by vehicle type. This was performed for each analysis year, county, and hour of day.

4.7.4 Starts

Vehicle starts were estimated using county-level vehicle type populations and data from MOVES representing the average number of vehicles starts per vehicle type per hour. The starts per vehicle were calculated using MOVES with data on the age distribution and fuel fractions of the local fleet.

The starts per vehicle were calculated using MOVES with data on the age distribution and fuel fractions of the local fleet. Texas A&M Transportation Institute (TTI) used local age distributions and fuel fractions inputs to MOVES combined with MOVES default parameters (startsageadjustment, startsmonthadjust [June through August average], and startspervehicle) to produce hourly starts per vehicle output representative of the June through August summer period. The output was then post-processed to produce the scenario-specific starts per vehicle for the summer (or non-school) period defined by the study scope.

MOVES was used to calculate starts per vehicle (i.e., the average number of starts per vehicle type per hour) for weekday day type for the June through August summer period. To produce the scenario-specific non-school period (10 June through 10 August), the MOVES output summer period starts per vehicle were multiplied by conversion factors based on period weighted average

MOVES default startsmonthadjust data. Using the startsmonthadjust default data, the non-school conversion factor is the ratio of non-school-period-to-average June through August summer period.

The local vehicle start activity estimates were calculated as the product of national default starts/vehicle and the local vehicle type population estimates. The weekday vehicle start estimates for each vehicle type were calculated by county, analysis year, and hour of day.

4.7.5 Hotelling: Source Hours Extended Idling and Auxiliary Power Unit Hours

Hotelling hours were calculated for heavy-duty, long-haul trucks only (i.e., SUT 62) in several steps. First total hotelling hours were calculated using information from a TCEQ extended idling study[5]. Scaling factors were then used to convert these base hotelling hours to those relevant to each analysis year, which were then allocated to each hour of the day. Estimations were then made of the proportions of hotelling hours that occur in each of the four hotelling categories: idling using the main engine (SHEI), diesel APU operation, electric APU operation, or main engine off and no auxiliary power[6].

4.7.5.1 Estimating 24-Hour Hotelling

County-level hotelling scaling factors were developed to transform base 2017 winter weekday total daily hotelling hours to daily hotelling hours for each conformity analysis year scenario. Scaling factors were calculated using the ratio of heavy-duty long haul VMT for each scenario relative to heavy-duty long haul VMT for a 2017 winter weekday (scenario SUT 62 VMT divided by 2017 winter weekday SUT 62 VMT).

Total daily hotelling for each county and scenario was calculated by multiplying the appropriate scaling factor by the total daily hotelling hours contained in the 2017 winter weekday total daily hotelling hours study.

4.7.5.2 Hotelling by Hour Estimation

Daily hotelling hours were allocated to each hour of the day as a function of the inverse of activity scenario hourly VHT fractions for SUT 62. The hourly VHT fractions were calculated using the hourly VHT from the SHP estimation process (VHT = SHO). The inverses of these hourly VHT fractions were calculated and then normalized across all hours to produce the county-level, hotelling hours hourly distribution.

If the hourly hotelling hours were greater than SHP (for SUT 62), the final hotelling hours estimate was set to the SHP.

4.7.5.3 SHEI and APU

County, analysis year, and summer weekday hotelling hours were first estimated using 24-hour weekday hotelling hour estimates for a 2017 baseline year (from the most recent TCEQ extended

[5] Heavy-Duty Vehicle Idle Activity Study, Final Report. Texas A&M Transportation Institute, Environment and Air Quality Division, July 2019.
[6] Only SHEI and APU diesel hoteling generate emissions. The other fractions are calculated for completeness.

idling study); baseline and analysis year scenario VMT, speeds, and VMT mix; and analysis year scenario SHP estimation data.

The baseline-year county hotelling hours estimates for a 24-hour weekday from the TCEQ study were scaled to each analysis scenario using the ratio of analysis-scenario-to-baseline combination long-haul truck 24-hour VMT (as truck VMT increases, so does hotelling activity).

The 24-hour hotelling estimates were then distributed to each hour of the day using the hotelling hours hourly distribution calculated for the analysis scenario as the inverse of the hourly distribution of VHT (or SHO, from the SHP calculation process) for combination long-haul trucks. Within each hour, SHP and hotelling hours were compared, and if hotelling hours exceeded the SHP, hotelling hours were set equal to the SHP.

SHEI and APU hours components of hotelling hours were then estimated for each hour using the hourly hotelling hours estimates, combination long-haul truck travel fractions (calculated from local age distributions and MOVES default relative mileage accumulation rates), and hotelling activity distributions for each model year.

The SHEI and APU hours activity distribution fractions (see Table 4 6) were each first multiplied by the travel distribution (model-year operating mode activity fraction multiplied by the associated mode-year travel fraction). The products of the SHEI fractions and travel fractions were then summed to produce the total SHEI fraction, and the same process was performed for APU hours to produce the total APU hours fraction. (The sum of the SHEI and APU hours fractions subtracted from 1.0 results in the fraction of hotelling hours with electric power or no power in use).

Table 4-6. Hotelling Activity Distribution by Model Year

Begin Model Year	End Model Year	200 Extended Idling	201 Hotelling Diesel Aux	203 Hotelling Battery AC	204 Hotelling APU Off
1960	2009	0.80	0.00	0.00	0.20
2010	2020	0.73	0.07	0.00	0.20
2021	2023	0.48	0.24	0.08	0.20
2024	2026	0.40	0.32	0.08	0.20
2027	2060	0.36	0.32	0.12	0.20

The total SHEI and APU hours fractions were then each multiplied by the hotelling hours for each hour of the day to produce the SHEI and APU hours estimates for each hour. This was performed for each analysis scenario (analysis-year summer weekday).

5. EMISSIONS FACTOR ESTIMATION

A regional emissions analysis must be conducted for multiple analysis years to satisfy the requirements of 40 CFR Part 93.109 of the conformity rule for ozone nonattainment areas. Specifically, the regional emissions analysis is used to conduct the emission budget test (or interim emission tests) and to determine any contributions to emission reductions. The procedures for determining regional transportation-related emissions are described in 40 CFR Part 93.118 of the conformity rule. The following sections discuss the analysis years, and a description of the modeling processes used to conduct the analysis.

5.1 EMISSIONS FACTOR ESTIMATION MODEL

According to 40 CFR 93.111 of the conformity rule, the determination must be based on the latest emission estimation model. The EPA released the new Motor Vehicle Emission Simulator (MOVES) model, MOVES3.1 that was released in 2021, with an effective date January 7, 2021. The grace period to use MOVES3 for conformity analysis ends on September 12, 2025.

As outlined in the Pre-Analysis Consensus Plan (PACP), included in Appendix F.1 – Approved PACP, the Interagency Consultation Partners approved the use of MOVES3.1 to develop 2026, 2035, 2040, and 2050 vehicle emission factors. Emission factors are one component to determine VOC and NOx emissions from the region's on-road vehicles.

MOVES3.1 input parameters are listed in Table 5-1 through Table 5-9 with the appropriate data source and/or methodology applied. The information listed applies to all counties and analysis years unless otherwise specified.

Table 5-1. MOVES Input Parameters and data source

Input Parameter Name	Description	Source
Source Type Population	Input the number of vehicles in the geographic area, which is to be modeled for each vehicle, and apply the appropriate growth factors for each analysis year.	End-of-year 2021 TxDMV registration data
Source Type Age Distribution	Input that provides the distribution of vehicle counts by age for each calendar year and vehicle type. TxDMV registration data is used to estimate the age distribution of vehicle types up to 31 years. The distribution of Age fractions should sum up to 1.0 for all vehicle types for each analysis year.	End-of-year 2021 TxDMV registration data; MOVES defaults for refuse trucks, motor homes, and buses
Vehicle Type VMT	County specific VMT is distributed to HPMS Vehicle types.	Travel Model Output
Average Speed Distribution	Input average speed data specific to vehicle type, road type, and time of day/type of day into 16 speed bins. The sum of speed distribution to all speed bins for each road type, vehicle type, and time/day type is 1.0.	Travel Model Output
Road Type Distribution (VMT Fractions)	Input County specific VMT by road type. VMT fraction is distributed between the road type and must sum to 1.0 for each source type.	Travel Model Output
Fuel Supply	Input to assign existing fuels to counties, months, and years, and to assign the associated market share for each fuel.	TTI, TCEQ, EPA Fuel Surveys and default MOVES input where local data unavailable
Fuel Formulation	Input county specific fuel properties in the MOVES database.	TTI, TCEQ, EPA Fuel Surveys and default MOVES input where local data unavailable
Meteorology	County specific data on temperature, relative humidity and barometric pressure.	Regional data from TCEQ

Input Parameter Name	Description	Source
Inspection and Maintenance (I/M) Coverage	Input I/M coverage record for each combination of pollutants, process, county, fuel type, regulatory class, and model year are specified using this input.	TCEQ
Fuel Engine Fraction/Diesel Fraction	Input fuel engine fractions (i.e. Gasoline vs. Diesel Engine types in the vehicle population) for all vehicle types.	End-of-year 2021 TxDMV registration data for particular source type diesel fractions; MOVES defaults for other source types (TTI provided the data. The evaluation year-specific local diesel fractions for the MOVES single unit and combination truck source use types were developed using the TxDMV data, for all analysis years, aggregated to the statewide level).

Table 5-2. Fuel Supply

Fuel Formulation ID	Market Share	Market Share CV[7]
2678	1	0
30600	1	0

Table 5-3. Fuel Properties

Fuel Type	Gasoline	Diesel
Fuel Formulation ID	2678	30600
Fuel Subtype ID	12	21
RVP	7.09	0
Sulfur Level	10	6
ETOH Volume	9.56	0
MTBE Volume	0	0
ETBE Volume	0	0
TAME Volume	0	0
Aromatic Content	16.98	0
Olefin Content	10.08	0
Benzene Content	0.37	0
e200	46.96	0
e300	85.00	0
Vol to Wt Percent Oxy	0.3653	0
BioDieselEster Volume	N/A	2.82
Cetane Index	N/A	N/A
PAH Content	N/A	N/A
T50	210.50	0
T90	325.10	0

Note: N/A = not applicable

[7] Market Share CV – the coefficient variation of the market share

Table 5-4. Meteorological Data (2011 Hourly Temperatures)

Hour	Collin	Dallas	Denton	Ellis	Johnson	Kaufman	Parker	Rockwall	Tarrant	Wise
12:00 AM	85.18	85.18	85.18	85.18	85.55	85.18	85.55	85.18	85.55	85.55
1:00 AM	84.01	84.01	84.01	84.01	84.40	84.01	84.40	84.01	84.40	84.40
2:00 AM	82.97	82.97	82.97	82.97	83.06	82.97	83.06	82.97	83.06	83.06
3:00 AM	81.91	81.91	81.91	81.91	81.82	81.91	81.82	81.91	81.82	81.82
4:00 AM	80.79	80.79	80.79	80.79	80.87	80.79	80.87	80.79	80.87	80.87
5:00 AM	79.73	79.73	79.73	79.73	79.56	79.73	79.56	79.73	79.56	79.56
6:00 AM	78.85	78.85	78.85	78.85	78.64	78.85	78.64	78.85	78.64	78.64
7:00 AM	80.01	80.01	80.01	80.01	79.29	80.01	79.29	80.01	79.29	79.29
8:00 AM	82.83	82.83	82.83	82.83	82.76	82.83	82.76	82.83	82.76	82.76
9:00 AM	86.30	86.30	86.30	86.30	86.59	86.30	86.59	86.30	86.59	86.59
10:00 AM	89.61	89.61	89.61	89.61	89.88	89.61	89.88	89.61	89.88	89.88
11:00 AM	92.62	92.62	92.62	92.62	93.30	92.62	93.30	92.62	93.30	93.30
12:00 PM	95.10	95.10	95.10	95.10	95.90	95.10	95.90	95.10	95.90	95.90
1:00 PM	97.02	97.02	97.02	97.02	97.72	97.02	97.72	97.02	97.72	97.72
2:00 PM	98.43	98.43	98.43	98.43	99.34	98.43	99.34	98.43	99.34	99.34
3:00 PM	99.36	99.36	99.36	99.36	100.26	99.36	100.26	99.36	100.26	100.26
4:00 PM	99.83	99.83	99.83	99.83	100.72	99.83	100.72	99.83	100.72	100.72
5:00 PM	99.57	99.57	99.57	99.57	100.42	99.57	100.42	99.57	100.42	100.42
6:00 PM	98.38	98.38	98.38	98.38	99.30	98.38	99.30	98.38	99.30	99.30
7:00 PM	96.03	96.03	96.03	96.03	97.18	96.03	97.18	96.03	97.18	97.18
8:00 PM	92.57	92.57	92.57	92.57	93.54	92.57	93.54	92.57	93.54	93.54
9:00 PM	89.93	89.93	89.93	89.93	90.73	89.93	90.73	89.93	90.73	90.73
10:00 PM	88.10	88.10	88.10	88.10	88.71	88.10	88.71	88.10	88.71	88.71
11:00 PM	86.49	86.49	86.49	86.49	86.90	86.49	86.90	86.49	86.90	86.90

Table 5-5. Meteorological Data (2011 Hourly Relative Humidity Data)

Hour	Collin	Dallas	Denton	Ellis	Johnson	Kaufman	Parker	Rockwall	Tarrant	Wise
12:00 AM	50.15	50.15	50.15	50.15	46.12	50.15	46.12	50.15	46.12	46.12
1:00 AM	52.90	52.90	52.90	52.90	49.02	52.90	49.02	52.90	49.02	49.02
2:00 AM	55.75	55.75	55.75	55.75	52.67	55.75	52.67	55.75	52.67	52.67
3:00 AM	58.76	58.76	58.76	58.76	56.13	58.76	56.13	58.76	56.13	56.13
4:00 AM	61.87	61.87	61.87	61.87	58.63	61.87	58.63	61.87	58.63	58.63
5:00 AM	64.62	64.62	64.62	64.62	61.78	64.62	61.78	64.62	61.78	61.78
6:00 AM	67.70	67.70	67.70	67.70	64.12	67.70	64.12	67.70	64.12	64.12
7:00 AM	66.62	66.62	66.62	66.62	63.75	66.62	63.75	66.62	63.75	63.75
8:00 AM	61.31	61.31	61.31	61.31	57.63	61.31	57.63	61.31	57.63	57.63
9:00 AM	54.11	54.11	54.11	54.11	50.25	54.11	50.25	54.11	50.25	50.25
10:00 AM	47.49	47.49	47.49	47.49	43.90	47.49	43.90	47.49	43.90	43.90
11:00 AM	41.71	41.71	41.71	41.71	37.73	41.71	37.73	41.71	37.73	37.73
12:00 PM	37.19	37.19	37.19	37.19	33.36	37.19	33.36	37.19	33.36	33.36
1:00 PM	33.77	33.77	33.77	33.77	30.55	33.77	30.55	33.77	30.55	30.55
2:00 PM	31.20	31.20	31.20	31.20	27.84	31.20	27.84	31.20	27.84	27.84
3:00 PM	29.42	29.42	29.42	29.42	26.27	29.42	26.27	29.42	26.27	26.27
4:00 PM	28.42	28.42	28.42	28.42	25.32	28.42	25.32	28.42	25.32	25.32
5:00 PM	28.30	28.30	28.30	28.30	25.17	28.30	25.17	28.30	25.17	25.17
6:00 PM	29.47	29.47	29.47	29.47	26.04	29.47	26.04	29.47	26.04	26.04
7:00 PM	32.42	32.42	32.42	32.42	28.45	32.42	28.45	32.42	28.45	28.45
8:00 PM	37.26	37.26	37.26	37.26	32.77	37.26	32.77	37.26	32.77	32.77
9:00 PM	41.36	41.36	41.36	41.36	36.64	41.36	36.64	41.36	36.64	36.64
10:00 PM	44.22	44.22	44.22	44.22	39.91	44.22	39.91	44.22	39.91	39.91
11:00 PM	47.42	47.42	47.42	47.42	43.27	47.42	43.27	47.42	43.27	43.27

Table 5-6. Meteorological Data (2011 Barometric Pressure Data)

County	Barometric Pressure
Collin	29.87
Dallas	29.87
Denton	29.87
Ellis	29.87
Johnson	29.85
Kaufman	29.87
Parker	29.85
Rockwall	29.87
Tarrant	29.85
Wise	29.85

Table 5-7. I/M Descriptive Inputs for Subject Counties

2026			
Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, and Tarrant I/M Data[8]			
I/M Program ID	20	24	Differentiates I/M programs
Pollutant Process ID	101, 102, 201, 202, 301, 302	112	Identifies the pollutant and vehicle process
Source Use Type	21, 31, 32	21, 31, 32	Identifies the vehicle type
Begin Model Year	2002	2002	Model year I/M Program begins
End Model Year	2024	2024	Model year I/M Program ends
Inspection Frequency	1	1	Annual testing; program specifications
Test Standards Description	Exhaust OBD Check	Evaporative Gas Cap and OBD Check	Identifies test type
Test Standards ID	51	45	Identifies test with MOVES3.1 database test standards IDs
I/M Compliance	93.90% for source type 21, 90.25% for source type 31, and 70.67% for source type 32		Expected compliance (%) - MOVES3.1 Default

Note: Begin Model Year and End Model Year define the range of vehicle model years covered by I/M program.

[8] Wise County does not have I/M program.

Table 5-7 (continued): I/M Descriptive Inputs for Subject Counties

2035			
Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, and Tarrant I/M Data			
I/M Program ID	20	24	Differentiates I/M programs
Pollutant Process ID	101, 102, 201, 202, 301, 302	112	Identifies the pollutant and vehicle process
Source Use Type	21, 31, 32	21, 31, 32	Identifies the vehicle type
Begin Model Year	2011	2011	Model year I/M Program begins
End Model Year	2033	2033	Model year I/M Program ends
Inspection Frequency	1	1	Annual testing; program specifications
Test Standards Description	Exhaust OBD Check	Evaporative Gas Cap and OBD Check	Identifies test type
Test Standards ID	51	45	Identifies test with MOVES3.1 database test standards IDs
I/M Compliance	93.90% for source type 21, 90.25% for source type 31, and 70.67% for source type 32		Expected compliance (%) - MOVES3.1 Default

Note: Begin Model Year and End Model Year define the range of vehicle model years covered by I/M program.

Table 5-7 (continued): I/M Descriptive Inputs for Subject Counties

2040			
Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, and Tarrant I/M Data			
I/M Program ID	20	24	Differentiates I/M programs
Pollutant Process ID	101, 102, 201, 202, 301, 302	112	Identifies the pollutant and vehicle process
Source Use Type	21, 31, 32	21, 31, 32	Identifies the vehicle type
Begin Model Year	2016	2016	Model year I/M Program begins
End Model Year	2038	2038	Model year I/M Program ends
Inspection Frequency	1	1	Annual testing; program specifications
Test Standards Description	Exhaust OBD Check	Evaporative Gas Cap and OBD Check	Identifies test type
Test Standards ID	51	45	Identifies test with MOVES3.1 database test standards IDs
I/M Compliance	93.90% for source type 21, 90.25% for source type 31, and 70.67% for source type 32		Expected compliance (%) - MOVES3.1 Default

Note: Begin Model Year and End Model Year define the range of vehicle model years covered by I/M program.

Table 5-7 (continued): I/M Descriptive Inputs for Subject Counties

2050			
Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, and Tarrant I/M Data			
I/M Program ID	20	24	Differentiates I/M programs
Pollutant Process ID	101, 102, 201, 202, 301, 302	112	Identifies the pollutant and vehicle process
Source Use Type	21, 31, 32	21, 31, 32	Identifies the vehicle type
Begin Model Year	2026	2026	Model year I/M Program begins
End Model Year	2048	2048	Model year I/M Program ends
Inspection Frequency	1	1	Annual testing; program specifications
Test Standards Description	Exhaust OBD Check	Evaporative Gas Cap and OBD Check	Identifies test type
Test Standards ID	51	45	Identifies test with MOVES3.1 database test standards IDs
I/M Compliance	93.90% for source type 21, 90.25% for source type 31, and 70.67% for source type 32		Expected compliance (%) - MOVES3.1 Default

Note: Begin Model Year and End Model Year define the range of vehicle model years covered by I/M program

Table 5-8. MOVES Emissions Factor Post-Processing to be Performed by County and Year

Strategy and Post-processing Result	Detail
Texas Low Emission Diesel Fuel (TxLED)	Not Applied[9] to all modeled counties

Table 5-9. Emission Controls Used for Conformity Credit

Emission Reduction Strategy and Years Covered	Modeling or Post-Processing Approach	Analysis Year
Intersection Improvements	Post Processed	2026
Transit Service	Modeled	All
High Occupancy Vehicle/Managed Lanes	Modeled	All
Park-n-Ride Lots	N/A	N/A
Vanpools	N/A	N/A
Grade Separations	Modeled	All
Traffic Signal Improvements	N/A	N/A
Intelligent Transportation Systems	Post Processed	2026
Clean Vehicle Commitments	N/A	N/A
Bicycle/Pedestrian Facilities	Post Processed	2026
Employer Trip Reduction Programs	N/A	N/A
Sustainable Development	N/A	N/A
Public Education/Ozone Season Fare Reduction	N/A	N/A

Note: N/A = not applicable

[9] NCTCOG will not apply TxLED since using EPA's recent guidance will yield negligible benefits

5.2 Modeled Emission Estimates

Modeled emission estimates are calculated using TTI emission inventory estimation utilities using moves: MOVES3Utils, developed by TTI for MOVES. This utility combines vehicle activity and emissions factors to create emission estimates at the link level.

5.2.1 Vehicle Registration Distribution

Vehicle registration (age) distributions were developed using the latest available TxDMV analysis year-specific county vehicle registration data. 2021 data was used for the analysis years 2026, 2035, 2040, and 2050. MOVES defaults were used where the required information was not available in the TxDMV data.

The input values for each vehicle class are 31 age fractions representing the fraction of vehicles by age for that vehicle class as of December of the evaluation year. These age fractions start with the evaluation year as the 1st age fraction and work back in annual increments to end with the 31st fraction, which represents the fraction of vehicles of age 30 years and older. The fractions are calculated as the model-year-specific registrations in a class divided by the total vehicles registered in that class.

5.2.2 Alternative Fuel Vehicle Technology

Alternative Fuel Vehicle Technology (AVFT) fractions were developed using the latest available TxDMV analysis year-specific county vehicle registration data. 2021 data was used for the analysis years 2026, 2035, 2040, and 2050. MOVES defaults were used where the required information was not available in the TxDMV data.

TTI developed the evaluation year-specific local diesel fractions for the MOVES single unit and combination truck source use types using the latest TxDMV data, for all analysis years, aggregated to the statewide level. For all source types, CNG and electricity fractions were set to zero and the gasoline/diesel/flex-fuel fractions were normalized (sum to 1.0) for each source type and model year. Fuel usage for flex-fuel vehicles was set to 100% gasoline (in the fuel usage fraction input table).

5.2.3 VMT Mix

VMT mix (or fractions) is very important to be able to estimate link emissions. The VMT mix is applied to the emission factors in a post-process methodology. The VMT mix enables the assignment of emission factors by vehicle type to VMT to calculate emissions on a specified roadway facility or functional class. VMT mix is estimated for four MOVES roadway types: Rural Restricted (rural freeways), Rural Unrestricted (rural arterials and collectors), Urban Restricted (urban freeways), and Urban Unrestricted (urban arterials and collectors) for daily time periods for each of the modeled counties. Each county's roadway sections are classified as rural or urban by the vehicle activity behavior and the demographics of the county. The VMT

mix methodology utilizes data, assumptions, and procedures from the TxDOT, TTI, and the Dallas Fort Worth region TDM.

Consistent with the prior analysis, the VMT mixes were produced in five-year increments and applied to analysis years as follows:

- 2015 VMT mix – for 2013 through 2017 analysis years,
- 2020 VMT mix – for 2018 through 2022 analysis years,
- 2025 VMT mix – for 2023 through 2027 analysis years, etc.

Using the latest available vehicle classification counts 2013-2021 and MOVES3.1 defaults, TTI estimated the time-of-day (AM Peak, Mid-Day, PM Peak, Overnight) VMT mixes by the four MOVES road types. No seasonal adjustments are made for VMT mix.

6. REGIONAL EMISSIONS DETERMINATION

To report final emission analysis results, it is necessary to account for modeled link level emission inventories, emission factor adjustments, and Mobile Source Emission Reduction Strategies (MoSERS) emission benefits.

6.1 MODELED EMISSIONS

Table 6-1. For nonattainment or maintenance areas with adequate or approved SIP MVEB(s)

Analysis Year	Vehicle Miles of Travel	NOx Budget (tons/day)	NOx Emissions (tons/day)	VOC Budget (tons/day)	VOC Emissions (tons/day)
2026	268,352,534	107.25	72.36	62.41	38.54
2035	323,931,317	107.25	64.86	62.41	32.54
2040	358,295,274	107.25	68.47	62.41	31.63
2050	426,898,352	107.25	93.27	62.41	35.82

6.2 IMPACTS FROM ADJUSTMENTS AND MOSERS

6.2.1 Adjustments to Emission Factors

Post-processing adjustments are applied to the emission factor post-process utility developed by TTI. These adjustments are applied either before or simultaneously with the emission calculation procedures to establish the model results. This process is listed in Chapter 5.

6.2.2 MoSERS Projects

MoSERS is a collection of transportation projects or related activities with identifiable emission reduction benefits. To meet the requirements of the SIP, nonattainment areas may make specific commitments in their SIP to implement MoSERS, called TCMs. Finally, a nonattainment area may include Transportation Emission Reduction Measures (TERMs) in transportation conformity analysis that are outside of commitments in their SIP.

6.2.2.1 TCM

TCMs are projects, programs, and related activities designed to achieve on-road mobile source emission reductions and are included as control measures in an applicable SIP. TCMs are strategies to reduce vehicle use or change traffic flow and/or congestion conditions to decrease vehicular emissions. TCMs are further defined in 40 CFR 93.101, as amended by 62 FR 43780. The CAAA required that TCMs be included in SIPs for regions designated as serious and above ozone nonattainment areas.

Section 93.113 of the conformity rule requires MPOs to verify the MTP and TIP provide for the timely implementation of TCMs in the applicable SIP. The MTP was reviewed to confirm the goals, directives, recommendations, and projects do not contradict specific requirements or commitments of the applicable SIP. The TIP was reviewed to confirm implementation and expected implementation of projects through federal, state, and local funding sources are on schedule.

6.2.2.2 TERM

TERMs are transportation projects and related activities that are designed to achieve on-road mobile source emission reductions but are not included as control measures in the SIP.

6.2.2.3 CMAQ

The Congestion Mitigation and Air Quality Improvement Program (CMAQ) is a major funding source for most MoSERS.

6.2.2.4 MoSERS Emission Reduction

Emission reductions from the sum of MoSERS are listed in Table 6-2.

Table 6-2. The Sum of MoSERS Benefits

Analysis Year	NOx (tons/day)	VOC (tons/day)
2026	1.05	0.18
2035	N/A	N/A
2040	N/A	N/A
2050	N/A	N/A

6.3 Final Analysis Results

Table 6-3 shows the final mobile emission results of this conformity analysis. These final emissions are below the maximum allowable level set forth by the MVEB for the Nitrogen Oxides (NOx) and the Volatile Organic Compounds (VOC) in the SIP.

Table 6-3. For nonattainment or maintenance areas with adequate or approved SIP MVEB(s)

Analysis Year	Vehicle Miles of Travel	NOx Budget (tons/day)	NOx Emissions (tons/day)	VOC Budget (tons/day)	VOC Emissions (tons/day)
2026	268,352,534	107.25	71.31	62.41	38.36
2035	323,931,317	107.25	64.86	62.41	32.54
2040	358,295,274	107.25	68.47	62.41	31.63
2050	426,898,352	107.25	93.27	62.41	35.82

7. INTERAGENCY CONSULTATION

7.1 INTERAGENCY CONSULTATION PROCESS

Regulation 40 CFR 93.112 of the conformity rule includes procedures for interagency consultation, resolution of conflict, and public consultation of the conformity analysis affecting the MTP and TIP. Local, state, and federal transportation and air quality agencies affected by this conformity analysis were consulted on the scope, methodologies, and products of the conformity finding. Conformity consultation partners composed of representatives from NCTCOG, TxDOT, TCEQ, TTI, FHWA, FTA,[10] and EPA reviewed and approved the Pre-Analysis Consensus Plan (PACP).

[10] FHWA acts as the executive agent for FTA.

8. PUBLIC INVOLVEMENT

8.1 PUBLIC INVOLVEMENT PROCESS

Public participation is recognized as an integral part of the planning process. The public participation process for Transportation Conformity and other transportation plans, projects, and policies includes timely public notice, full public access to technical and policy information, opportunities for early and continuing involvement, and explicit consideration and response to public input.

Public participation strategies and procedures are designed to inform the public about transportation and air quality issues, provide opportunities to involve the public in the decision-making process and seek public and stakeholder input. Additionally, this process builds support among the public who are stakeholders in transportation investments. Public views and opinions are included in the final RTP/MTP and TIP documents.

The public meeting presentation was recorded and made available on the MPO's website for public viewing and feedback. The public meeting date, location address, and link to the meeting's agenda/recording are provided in Table 8-1.

Table 8-1. Public Meeting Information

#	Meeting Date	Address	Link to meeting agenda/recording
1	Monday, May 12, 2025	616 Six Flags Drive, Arlington, TX 76011, USA	May 2025 Transportation Department Public Meeting - PublicInput

The public comment period began on Monday, May 12, 2025, and ended on Thursday, June 12, 2025. No comments were received. MPO's outreach material can be found in Appendix G.1 – Meeting information.

LIST OF APPENDICES