Transportation Conformity Pre-Analysis Consensus Plan

EL PASO METROPOLITAN PLANNING ORGANIZATION

Regional Mobility Strategy (RMS) 2052

Consensus by:	Date:
EPA	
FHWA/FTA	
TCEQ	
TxDOT	

Parameter	Preparer's input
MPO	El Paso MPO
RTP//MTP	**2052 Regional Mobility Strategy (RMS) MTP**
RTP//MTP Years Covered	**2026-2052**
TIP	**RMS 2027-2030 Transportation Improvement Program (TIP)**
TIP Years Covered	**2027-2030**
Baseline Year	**2017[1]**
Analysis Years	**2027[2], 2032, 2042 & 2052**

[1]Since there are no adequate or approved budgets for the Doña Ana County ozone nonattainment area, a baseline year of 2017 has been included to satisfy the conformity rule's interim emissions test requirements 40 CFR 93.119.

[2]2027 analysis year will be solely for the Sunland Park 2015 Ozone NAAQS interim emissions test, which would satisfy the first analysis year requirement of 40 CFR 93.119(g)(1).

Update Log:

This table documents the updates to this template since the last release.

Date	Updates
September 2025	Updated default MOVES version from MOVES3.1 to MOVES4 following the end of the MOVES4 grace period.
October 2025	Updated based on comments from HGAC 1. Added "land use" for table 7. 2. Added footnote to Table 15 Fuel Formulation for better clarity 3. The meteorology table (Table 16) was split into temperature, relative humidity, and barometric pressure (Tables 16, 17, and 18, respectively)
October 2025	Updated based on comments from NCTCOG 1. The "Lapse of Conformity for MTP and TIP" in Table 2 is replaced with "Transportation Conformity Lapse Grace Period begins (4-year clock ends)" 2. Added "all conventional gasoline, diesel, and electricity source-use type combinations available in MOVES" in the VMT Mix section in Table 12.

PACP Submission Information

Prepared by	El Paso Metropolitan Planning Organization
Meeting Date	**Purpose of Meeting**
11/20/2025	Present to the Consultation Partners the Pre-Consensus Plan for Review

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1. THE PURPOSE OF TRANSPORTATION CONFORMITY EMISSIONS ANALYSIS

Table 1. Reasons for the Transportation Conformity Emissions Analysis (40 CFR § 93.104)

Check Box	Reasons	Years Covered
x	**a. New Metropolitan/Regional Transportation Plan (demographics, horizon year, etc.)**	2026-2052
	b. Modify Existing Metropolitan/Regional Transportation Plan (interim year adjustments)	
X	**c. New or Amended Transportation Improvement Program**	2027-2030 RMS TIP
	d. State Implementation Plan (SIP) Requirements	
	e. Newly Designated Non-Attainment Area	
	f. Other	

Explanation:

a. New Metropolitan/Regional Transportation Plan

A new Metropolitan Transportation Plan (MTP) and Transportation Improvement Program (TIP) are being developed. Development of the RMS 2052 MTP will incorporate new analysis years, demographic projections, regionally significant projects and fiscal/financial forecast.

c. New or Amended Transportation Improvement Program

The TIP is a short-range program of transportation improvements for EPMPO's planning area. Federal regulations require that the TIP shall cover a period of not less than four years, and be updated at least every four years. The inclusion of a project in the TIP reflects a consensus of priority needs among the citizens living in the MPO planning area, locally-elected officials, local transportation agency representatives, transit providers, and representatives of TxDOT and NMDOT. The TIP is, in effect, a listing of transportation priorities, estimated costs and recommended implementation dates. The TIP may be amended as transportation needs and/or funding levels change.

The current TIP in effect is the *Regional Mobility Strategy (RMS) 2025 – 2028 TIP*. It is consistent with the current MTP, which is the *Amended RMS 2050 MTP*. The new *RMS 2027 – 2030 TIP*, which covers fiscal years 2027-2030, is currently under review by TxDOT and NMDOT, and it is anticipated to be approved in late 2026. It contains projects that are consistent with the current *Amended RMS 2050 MTP*, as federally required. However, upon adoption and approval of the new *RMS 2052 MTP* and its corresponding Transportation Conformity determination, projects can be programmed into the RMS 2027-2030 TIP as necessary and as long as they are consistent with the new MTP.

The City of El Paso (1991 city limits) is in non-attainment for particulate matter of 10 microns (effective on January 6, 1991), and a portion of Doña Ana County near Sunland Park, New Mexico, is marginal non-attainment for 2015 Ozone NAAQS (effective on June 4, 2018).

Effective December 30, 2021, EPA expanded the Sunland Park 2015 Ozone NAAQS marginal non-attainment area to include El Paso County. On June 30, 2023, the U.S. Court of Appeals for the District of Columbia Circuit ("D.C. Circuit") issued a decision that reversed EPA's designation of El Paso County as marginal non-attainment for the 2015 Ozone NAAQS. Currently, EPA is evaluating response options to this D.C. Circuit decision. The interagency partners have elected to evaluate El Paso County NOx and VOC emissions as part of this conformity analysis in case EPA issues a nonattainment designation for El Paso County in response to the D.C. Circuit decision before completion of this conformity process.

For this conformity determination, regional emissions analysis for carbon monoxide (CO) will not be conducted based upon the U.S. Environmental Protection Agency (EPA) approval of the El Paso CO Limited Maintenance Plan (LMP) in September 2017. In accordance with CO LMPs, a regional emissions analysis for analysis years beyond 2020 is not required. The TDM has a validation year of 2022 and was used to develop the analysis years of 2027, 2032, 2042 and 2052. Since there are no adequate or approved budgets for the Doña Ana County ozone nonattainment area, an interim emissions test will be used. A baseline year 2017 has been included to satisfy the conformity rule's interim emissions test requirements (40 CFR 93.119). Furthermore, the baseline year emissions need to be modeled rather than interpolated, based on the latest planning assumptions, latest emissions model and appropriate methods for estimating travel and speeds. 2027 analysis year will be solely for the Sunland Park 2015 Ozone NAAQS interim emissions test, which would satisfy the first analysis year requirement of 40 CFR 93.119(g)(1).

EPMPO demographics control total projections, for both Texas and New Mexico portions, have been provided by the Texas Demographic Center for the stated analysis years (Table 7) and spatially distributed from region level to traffic analysis zone level using the UrbanSim land use model. The TIP will cover the Fiscal Years (FYs) 2027-2030.

2. TIMELINE FOR THE TRANSPORTATION CONFORMITY DOCUMENT DEVELOPMENT

Table 2. Anticipated Transportation Conformity Timeline

#	Task Items	Timeframe
1	Pre-Analysis Consensus Plan Review and Approval	11/01/2025–5/22/2026
2	Travel Model Networks Development and Emissions Analysis	10/01/2025–03/29/2026
3	Regional Technical and Policy Board Information	01/12/2026–05/22/2026
4	Public Meetings and Comment Period	03/18/2026–05/17/2026
5	Consultative Partner Review Period	06/05/2026–10/13/2026
6	U.S. Department of Transportation Air Quality Conformity Determination Anticipated	10/13/2026–11/04/2026
7	Transportation Conformity Lapse Grace Period begins (4-year clock ends)”1	11/04/2026

3. METROPOLITAN TRANSPORTATION PLAN OR REGIONAL TRANSPORTATION PLAN (RTP)/TRANSPORTATION IMPROVEMENT PROGRAM

Table 3. MTP or RTP/TIP

Plan/Program Name	Years Covered	Fiscally Constrained
Regional Mobility Strategy (RMS) 2052 MTP	2026-2052	Yes
2027-2030 RMS Transportation Improvement Program	2027-2030	Yes

The determination of regionally significant projects comes from the "Regionally Significant Project" definition found in 40 CFR Section 93.101. The definition is as follows:

> "Regionally significant project means a transportation project (other than an exempt project) that is on a facility which 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."

The networks used in the TDM consist of existing and planned future roadways. Functionally classified roadways (minor arterial and above) or projects seeking federal funding are considered regionally significant. Most of the roadways contained in the model networks are regionally significant. Some roadways are included that are not regionally significant but are necessary to define the traffic analysis zone (TAZ) structure used in the TDM, facilitating TDM performance (e.g., provide access and/or connectivity to the network from/to smaller urban TAZs or rural TAZs that are not bordered by regionally significant roadways).

4. APPLICABLE STATE IMPLEMENTATION PLAN, RELATED EMISSIONS BUDGET, AND TRANSPORTATION CONTROL MEASURES (TCM)

Table 4. Applicable SIP and Emissions Budget(s)

SIP	Attainment Year	Area Boundary	Pollutant	Emission Budget (TPD)
1987 PM10 SIP	1994	El Paso (1991 city limits)	PM_{10}	12.05
1-hour Ozone SIP[1]	1999	El Paso County	VOC	36.23
1-hour Ozone SIP[1]	1999	El Paso County	NO_x	39.76
N/A[2]	N/A	Sunland Park (a portion of Doña Ana County near Sunland Park, NM)	VOC	N/A
N/A[2]	N/A	Sunland Park (a portion of Doña Ana County near Sunland Park, NM)	NO_x	N/A

[1] The interagency partners have elected to evaluate El Paso County NOx and VOC emissions as part of this conformity analysis in case EPA issues a nonattainment designation for El Paso County in response to the D.C. Circuit decision before completion of this conformity process. The VOC and NOx budget is based on the 1996 one-hour ozone SUPER SIP.

[2] Since there are no adequate or approved budgets for the Doña Ana County ozone nonattainment area, an interim emissions test will be used.

Table 5. TCM Strategies (if applicable).

#	TCM	Strategies	Effective Date
1	TCM	N/A	N/A

Note: N/A = not applicable.

Currently there no TCMs that the El Paso MPO region can take credit for. The 1996 one-hour ozone Super SIP contained three TCMs (projects) with a useful life of 5 to 20 years. Given that it has been more than 20 years, these TCMs are considered anymore.

5. CONFORMITY ANALYSIS YEARS

Per CFR § 93.106(a)(1)(i), analysis years cannot be more than 10 years apart.

Table 6. Conformity Analysis Years

Variable	Information
Baseline Conformity Year (if applicable)[1]	2017[1]
Attainment Year	N/A
Analysis Years	2027[2], 2032, 2042 and 2052
TIP Year(s)	2027-2030
Last Year of Maintenance Plan (if applicable)	N/A
Other	N/A

N/A = not applicable.

[1]Since there are no adequate or approved budgets for the Doña Ana County ozone nonattainment area, a baseline year 2017 has been included to satisfied the conformity rule's interim emissions test requirements 40 CFR 93.119.

[2]2027 would satisfy the first analysis year requirement of 40 CFR 93.119(g)(1).

6. DEMOGRAPHIC USED IN CONFORMITY ANALYSIS

Demographics control totals for the EPMPO area (both Texas and New Mexico portions, have been provided by the Texas Demographic Center projections for the stated analysis years, and spatially distributed from region level to traffic analysis zone level using the UrbanSim land use model.

Table 7. Demographics

Variables	Forecasting method
Population	• Control totals for the EPMPO area (both Texas and New Mexico portions) have been provided by for Texas State Demographer Office. • Utilized the latest U.S. Census and ACS datasets for base year (2027) and forecast year (2052). • Supplemented with synthetic microdata generated and calibrated using UrbanSim's agent-based modeling framework. • Allocated data at parcel, block, block group, and TAZ levels, integrating parcel and zoning data to reflect local land use constraints.
Employment	• Control totals for the EPMPO area (both Texas and New Mexico portions) have been provided by the Texas State Demographer Office. • Sourced employment data from updated commercial datasets (e.g., InfoUSA), LEHD, and BEA records. • Applied UrbanSim modeling for synthetic data generation and calibration, ensuring spatial accuracy. • Aggregated employment to TAZ and parcel levels, with locational review and adjustment.
Land Use	• Sourced from various datasets including municipalities and synthesized for the remainder of the region to approximate developable capacity. • Applied UrbanSim modeling for synthetic data generation and calibration. • Modeled different land use scenarios based on feedback about potential growth patterns. • Engaged stakeholders through Delphi Process and scenario workshops for local expertise and scenario refinement.
Socioeconomic	• Developed socioeconomic forecasts in line with Texas Demographic Center guidelines and control totals. • Incorporated standardized zoning categories, land availability, and development density. • Engaged stakeholders through Delphi Process and scenario workshops for local expertise and scenario refinement.
Other	• All scenario modeling and forecasting conducted using UrbanSim's agent-based modeling platform, supporting robust, year-to-year simulation and scenario analysis.

7. TRAVEL DEMAND MODEL

Table 8. Land-Use Model

Model Factor	Detail and Methodology
Study Area (sq-mi)	1,235
Traffic Analysis Zones	848
Counties	El Paso, Doña Ana, Otero

Table 9. Travel Demand Model

Model Factor	Detail and Methodology
Model Validation Year	2022
Software	TransCAD
Vehicle Miles of Travel (VMT) Highway Performance Monitoring System (HPMS) Factor	1.100005[1]
Mode Split Method	Multinomial logit model
Countries Covered by Model	El Paso County, Southern Doña Ana County, and a portion of Otero County
Other	N/A

[1]The HPMS factor is calculated based on the 2022 El Paso County TDM VMT and 2022 El Paso County HPMS annual non-summer weekday (ANSWT) VMT. HPMS Factor = 2022 ANSWT HPMS VMT/2022 TDM VMT.

Table 10. Seasonal Factor

Factor	Information	
Base Data	Texas Department of Transportation (TxDOT) El Paso County automated traffic recorder (ATR) data	
Year of the Base Data	**2014 to 2023**	
Season	**Summer**	**Winter**
Seasonal Period	June, July, August	December, January, February
Future Years Adjustment Factor[1]	0.967696	1.031014
Historical Years Adjustment Factor[2]	1.02925	1.096595

[1]The future years adjustment factor converts annual non-summer weekday to seasonal weekday (ANSWT to swkd, and ANSWT to wwkd), which are calculated from the 2014- 2023 El Paso County ATR station traffic recorder data.
[2]The Historical years adjustment factors convert annual average daily traffic to seasonal weekday (AADT to swkd and AADT to wwkd), which are calculated from the 2014- 2023 El Paso County ATR station traffic recorder data.

Table 11. Hourly Distribution Factors

Factor	Information	
Season	Summer	Winter
Hour	**Hourly Factor[2]**	
00:00–1:00	0.010846	0.009563
1:00–2:00	0.007215	0.006561
2:00–3:00	0.005870	0.005561
3:00–4:00	0.005968	0.005750
4:00–5:00	0.008663	0.008215
5:00–6:00	0.019998	0.018170
6:00–7:00	0.037990	0.038030
7:00–8:00	0.061414	0.063998
8:00–9:00	0.062268	0.063625
9:00–10:00	0.055349	0.055606
10:00–11:00	0.053289	0.053845
11:00–12:00	0.055258	0.056193
12:00–13:00	0.058304	0.059301
13:00–14:00	0.059668	0.061020
14:00–15:00	0.062166	0.063698
15:00–16:00	0.066269	0.069345
16:00–17:00	0.070171	0.073709
17:00–18:00	0.071267	0.073076
18:00–19:00	0.061898	0.062129
19:00–20:00	0.048916	0.047166
20:00–21:00	0.039984	0.036542
21:00–22:00	0.032893	0.029697
22:00–23:00	0.025890	0.022994
23:00–24:00	0.018446	0.016206
Total[1]	1.000000	1.000000

Note: The hourly factors for the summer and winter weekday scenarios were calculated based on the 2014 to 2023 Texas Department of Transportation El Paso County data.

[1]The sum of hourly factors over the 24-hour period must add up to 1.

[2]The hourly factors will be applied to distribute vehicle activities including VMT, starts. The inverse of the hourly factors will be applied to distribute the extended idling activity.

8. EMISSION MODELING

Table 12. Emission Modeling

Pollutants Reported		
Pollutants	PM_{10}, volatile organic compound (VOC), and nitrogen oxides (NOx)	PM_{10}
Emission Factor Development		
Emission Model Version[1]	MOVES4	MOVES4
Years Modeled	Analysis Years 2027[3],2032,2042,2052 and 2017[2]	Analysis Years 2032,2042, and 2052.
Time periods	Summer Weekday	Winter Weekday
Functional Class	Urban restricted, rural restricted, urban unrestricted, rural unrestricted	Urban restricted, rural restricted, urban unrestricted, rural unrestricted
VMT Mix	Four-period, time-of-day VMT mixes for all conventional gasoline, diesel, and electricity source-use type combinations available in MOVES by functional class will be estimated using latest vehicle classification count (2014–2023) and associated 2023 mid-year registration data. No seasonal adjustments are made for VMT mix.	Four-period, time-of-day VMT mixes for all conventional gasoline, diesel, and electricity source-use type combinations available in MOVES will be estimated using latest vehicle classification count (2014–2023) and associated 2023 mid-year registration data. No seasonal adjustments are made for VMT mix.
Speed	MOVES county scale/emission rates mode will be used to model urban and rural, restricted, and unrestricted access functional class emissions factors for each of the 16 speed bin average speeds (i.e., 2.5 and 5 through 75 at 5 mph increments).	MOVES county scale/emission rates mode will be used to model urban and rural, restricted, and unrestricted access functional class emissions factors for each of the 16 speed bin average speeds (i.e., 2.5 and 5 through 75 at 5 mph increments).
Vehicle Registration	The mid-year 2021 registration data will be used to calculate age distribution for the analysis of 2017. The latest registration data (mid-year 2023) will be used to calculate the age distribution for the rest of the future analysis years.	The mid-year 2021 registration data will be used to calculate age distribution for the analysis of 2017. The latest registration data (mid-year 2023) will be used to calculate the age distribution for the rest of the future analysis years.
MOVES External Condition		
Baseline Year, If Applicable	2017[2]	
Other Years	2027[3], 2032, 2042, and 2052	2027[3], 2032, 2042, and 2052
Evaluation Month	July	January

[1]The default emission model used is EPA's Motor Vehicle Emission Simulator (MOVES) 4. The latest version of MOVES is MOVES5 (refer to as just MOVES in this document), which was released on December 11,2024. A 2-year conformity grace period is in effect with the release and ends on December 11, 2026. After this date, MOVES5 must be used for new transportation conformity analyses. The federal register notifying this release is available at: https://www.govinfo.gov/content/pkg/FR-2024-12-11/pdf/2024-29073.pdf.

[2] Since there are no adequate or approved budgets for the Doña Ana County ozone nonattainment area, a baseline year 2017 has been included to satisfied the conformity rule's interim emissions test requirements 40 CFR 93.119.
[3]2027 analysis year will be solely for the Sunland Park 2015 Ozone NAAQS interim emissions test to satisfy the first analysis year requirement of 40 CFR 93.119(g)(1).

9. MOVES INPUT

Table 13. MOVES Input Parameters and Data Source

Input Parameter	Description	Base Data Source	Notes
Vehicle Population by Source Type	Input the number of vehicles in the geographic area to be modeled for each vehicle.	Texas Department of Motor Vehicles (TxDMV) data (mid-year 2023, mid-year 2021), MOVES defaults for rates runs.	• Local gasoline, diesel, and electricity source type populations by analysis year are estimated for use external to MOVES in the estimation of county level vehicle starts and source-hours-parked, and needed in the external emissions calculations, per the Texas A&M Transportation Institute's (TTI's) rates-per-activity, TDM-based method. • Populations by source use type (SUT) and fuel type are a function of TxDMV mid-year vehicle registration data and VMT mix, and in the case of base and future years, population scaling factors. • Since no 2017 registration data are available for use with the 2017 baseline, the 2021 mid-year TxDMV data will be used to scale for the 2017 analysis year. • The 2023 mid-year TxDMV data will be used to scale for all the rest of the future analysis years.
Fleet Age Distribution by Source Type	Input that provides the distribution of vehicle counts by age for each calendar year and vehicle type. TxDMV registration data are used to estimate the age distribution	TxDMV data (mid-year 2023, , mid-year 2021), MOVES defaults for motor homes, and buses.	• Age distributions will be developed using TxDMV registration data aggregated at the county level for all source types except the single-unit and combination long-haul source types, which will be statewide level. • Since no 2017 registration data are available for use with the 2017 baseline, the 2021 mid-year TxDMV data will be used for the 2017 baseline.

Input Parameter	Description	Base Data Source	Notes
	of vehicle types up to 31 years.		• The 2023 mid-year TxDMV data will be used for all the rest of the future analysis years. • The distribution of age fractions should sum up to 1.0 for each source use type for each analysis year.
Fleet VMT by HPMS Vehicle Type	County specific VMT is distributed to six HPMS vehicle types.	MOVES defaults for rates runs.	• Local activity estimates are applied in emissions calculations external to MOVES.
Road Type VMT Distributions	Fractions of VMT across the four MOVES road types, for each source type.	MOVES defaults for rates runs.	• Local activity estimates are applied in emissions calculations external to MOVES. • VMT fraction is distributed between the road type and must sum to 1.0 for each source type.
Average Speed Distribution	Input average speed data specific to vehicle type, road type, and time of day/type of day into 16 speed bins.	MOVES defaults for rates runs.	• Local activity estimates are applied in emissions calculations external to MOVES. • The sum of speed distribution to all speed bins for each road type, vehicle type, and time/day type would be 1.0.
Fuel Supply (Table 14**)**	Input to assign existing fuels to counties, months, and years, and to assign the associated market share for each fuel.	Combination of MOVES defaults and local information.	• For each analysis year and season, the local fuel supply will consist of one conventional gasoline formulation and one biodiesel formulation and one electricity formulation. (Although only the predominant fuels, gasoline and diesel, and electricity, will be modeled, the other MOVES fuel type formulations will be input as required to run the MOVES model.)
Fuel Formulation (Table 15**)**	Input county-specific fuel properties in the MOVES database.	El Paso fuel survey data from TCEQ fuel study, Department of Energy (DOE) state-	• Conventional gasoline (CG) formulations based on the Texas Commission on Environmental Quality's (TCEQ's) summer 2017 and summer 2023 (latest available) fuel survey samples from El Paso County.

Input Parameter	Description	Base Data Source	Notes
		level biodiesel (BD) consumption estimates, and MOVES defaults for parameters.	○ The 2017 CG properties are actual 2017 averages (fuel grade averages weighted by relative sales volumes). ○ The future years (2024+) CG properties are the latest available actual 2023 averages except with Reid vapor pressure (RVP), average sulfur level, and average benzene content set to the expected values (MOVES4 defaults, consistent with the pertinent regulatory standards). • The 2017 diesel sulfur level is the statewide average from TCEQ's 2017 survey. • Future years diesel sulfur was set to the current expected future year value (6 ppm), which is conservative and consistent with the statewide diesel sulfur average from TCEQ's latest (2023) survey. • The BD ester volume percentages were based on 2017 for 2017 analysis year and 2023 for all future years from the latest available DOE state-level transportation sector BD consumption estimates. • Fuel subtype IDs 12 and 21 are 10% ethanol-blend gasoline and biodiesel, respectively.
Fuel Engine Fraction/Diesel/Electricity Fraction	Input fuel engine fractions (i.e., gasoline vs. diesel vs. electricity engine types in the vehicle population) for all vehicle types.	TxDMV mid-year 2023, and mid-year 2021 registration data for particular source type diesel fractions; MOVES defaults for other source types.	• Locality-specific/MOVES default (renormalized with setting compressed natural gas [CNG] fractions to zero). • TTI developed the evaluation year-specific local diesel and electricity fractions for the MOVES single unit and combination truck source use types using the 2021 TxDMV data for 2017 analysis year, and 2023 mid-year TxDMV data for all 2023 and beyond analysis years, aggregated to the TxDOT-El Paso District level.

Input Parameter	Description	Base Data Source	Notes
Meteorology (Table 17, and Table 18**)**	County-specific data on temperature and humidity.	Average hourly from weather stations within El Paso County.	• The summer and winter season temperature and humidity data are the same values used in the previous RMS 2050 MTP emissions analysis. • These inputs were based on 2017 El Paso County weather station data, provided by TCEQ, and are consistent with TCEQ's latest (2017) El Paso periodic emissions inventory submittal to EPA required under the Air Emissions Reporting Rule.
Inspection and Maintenance (I/M) Coverage[1] (Table 19)	Input I/M coverage record for each combination of pollutants, process, county, fuel type, regulatory class, and model year.	See notes.	• Begin and end model year (X, Y) define the range of model years covered, where X and Y, respectively, are calculated as YearID–24 and YearID–2. • I/M compliance factor estimates were calculated by TTI using TCEQ 2017 statewide compliance data and MOVES4 I/M compliance factor equation in MOVES4 Technical Guidance, El Paso I/M-program-specific I/M waiver rates and failure rates, and statewide average I/M compliance rates in combination with MOVES4 regulatory class coverage adjustments for 2017 analysis year. • I/M compliance factor estimates were calculated by TTI using TCEQ 2023 statewide compliance data and MOVES4 I/M compliance factor equation in MOVES4 Technical Guidance, El Paso I/M-program-specific I/M waiver rates and failure rates, and statewide average I/M compliance rates in combination with MOVES4 regulatory class coverage adjustments for future analysis years (2023 and beyond). • The model processes/pollutants affected are start and running exhaust hydrocarbon (HC), CO,

Input Parameter	Description	Base Data Source	Notes
			NOx, and tank vapor venting HC; fuel type is gasoline; frequency is annual.

[1]Source: Email from Mobile Source Programs Team, values confirmed January 11, 2023, based on calendar year 2021 I/M Program Data.
Note: N/A = not applicable.

Table 14. Fuel Supply

Fuel Type	Fuel Formulation ID	Market Share	Market Share CV[1]
Gasoline	17103, 17703, 2313, 2473	1.0	N/A
Diesel	30176, 30600	1.0	N/A
Electricity	90	1.0	N/A

Note: MOVES default IDs will be used for electricity, E85, and CNG. The E85 and CNG supplies will be included, per MOVES4 requirement, to run the model.
[1]Market Share CV—the coefficient variation of the market share.

Table 15. Fuel Properties

fuelFormulationID	17103	17703	2313	2473	30176	30600	90
Fuel Type	Gasoline	Gasoline	Gasoline	Gasoline	Diesel	Diesel	Electricity
fuelSubtypeID	12	12	12	12	21	21	90
Analysis Year	2017	2017	2024+	2024+	2017	2024+	2017+
Season	Winter	Summer	Winter	Summer	Summer and Winter	Summer and Winter	Summer and Winter
RVP	11.5	6.94	11.5	7	0	0	N/A
sulfurLevel	25.0304	19.56	8.12	7.15	6.37	6	0
ETOHVolume	10	9.6	10	9.89	0	0	N/A
MTBEVolume	0	0	0	0	0	0	N/A
ETBEVolume	0	0	0	0	0	0	N/A
TAMEVolume	0	0	0	0	0	0	N/A
aromaticContent	20.8537	26.67	20.6335	27.1	0	0	N/A
olefinContent	9.73041	5.5	9.38928	5.62	0	0	N/A
benzeneContent	0.612097	1.13	0.617	0.689	0	0	N/A
e200	49.7981	48.74	50.0065	45.96	0	0	N/A
e300	84.8353	87.84	85.7324	85.8	0	0	N/A
volToWtPercentOxy	0.3653	0.3653	0.3653	0.3653	0	0	0
BioDieselEsterVolume	N/A	N/A	N/A	N/A	4.68	3.38	N/A
CetaneIndex	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PAHContent	N/A	N/A	N/A	N/A	N/A	N/A	N/A
T50	199.738	206.12	198.832	207.76	0	0	N/A
T90	321.949	306.72	318.167	315.98	0	0	0

[1] Summer conventional gasoline (CG) - TTI based the CG formulations on TCEQ's summer 2017 and summer 2023 (latest available) fuel survey samples from El Paso County. The 2017 CG properties are actual 2017 averages (fuel grade averages weighted by relative sales volumes). Future Years (2024+) CG properties are latest available actual 2023 averages except with RVP, average sulfur level, and average benzene content set to the "expected" values (MOVES4 defaults, consistent with the pertinent regulatory standards). Winter CG – MOVES defaults.

[2] The 2017 diesel sulfur level is the statewide average from TCEQ's 2017 survey. Future years (2024+) diesel sulfur was set to the current expected future year value (6 ppm), which is conservative and consistent with the statewide diesel sulfur average from TCEQ's latest (2023) survey. The biodiesel (BD) ester volume percentages for 2017and 2024+ future years

were based on 2017 and the latest available (2023) DOE state-level transportation sector BD consumption estimates. Fuel subtype IDs 12 and 21 are 10% ethanol-blend gasoline and biodiesel, respectively. The 2017 calculation is used for the 2017 BioDieselEsterVolume, and the latest available calculation is used for 2024+ future years.

Table 16. Hourly Outdoor Temperature (ºF)

Factor	Information	
County/Area(s)	El Paso[1]	El Paso[1]
Season	Summer	Winter
Hour	**Temperature (ºF)[1]**	
00:00–1:00	79.77	48.57
1:00–2:00	78.51	47.44
2:00–3:00	77.31	46.44
3:00–4:00	76.27	45.46
4:00–5:00	75.38	44.62
5:00–6:00	74.47	43.71
6:00–7:00	73.96	43.08
7:00–8:00	75.19	43.39
8:00–9:00	77.54	45.76
9:00–10:00	80.13	48.91
10:00–11:00	82.81	52.31
11:00–12:00	85.38	55.29
12:00–13:00	87.54	57.39
13:00–14:00	89.27	59.07
14:00–15:00	90.68	60.29
15:00–16:00	91.85	60.83
16:00–17:00	92.09	60.37
17:00–18:00	91.62	58.77
18:00–19:00	90.74	56.88
19:00–20:00	89.02	55.16
20:00–21:00	86.68	53.66
21:00–22:00	84.78	52.16
22:00–23:00	82.97	50.77
23:00–24:00	81.28	49.58

[1] The temperature information is based on the TCEQ 2017 meteorology data for the El Paso County, Texas. Since El Paso is the only county modeled for emission rates, the values are assumed to be the same for Doña Ana Area and Otero County, New Mexico.

Table 17. Hourly Relative Humidity (%)

Factor	Information	
County/Area(s)	El Paso[1]	El Paso[1]
Season	Summer	Winter
Hour	**Relative Humidity (%)**	
00:00–1:00	42.73	45.01
1:00–2:00	45.05	46.81

2:00–3:00	47.11	48.65
3:00–4:00	49.05	50.32
4:00–5:00	50.63	51.63
5:00–6:00	52.45	53.29
6:00–7:00	53.51	54.26
7:00–8:00	51.26	52.85
8:00–9:00	46.95	48.11
9:00–10:00	42.42	43.16
10:00–11:00	37.98	38.25
11:00–12:00	33.88	34.22
12:00–13:00	30.66	31.80
13:00–14:00	28.03	29.61
14:00–15:00	25.90	27.94
15:00–16:00	24.01	27.40
16:00–17:00	24.18	28.06
17:00–18:00	24.77	30.20
18:00–19:00	25.75	32.70
19:00–20:00	28.24	35.17
20:00–21:00	32.05	37.07
21:00–22:00	34.61	39.26
22:00–23:00	37.00	41.34
23:00–24:00	40.04	42.97

[1] The relative humidity information is based on the TCEQ 2017 meteorology data for the El Paso County, Texas. Since El Paso is the only county modeled for rates, the values are assumed to be the same for Doña Ana Area and Otero County, New Mexico.

Table 18. County Barometric Pressure (inHg)

County	Barometric Pressure (inHg)
El Paso[1]	26.169

[1] The barometric pressure information is based on the TCEQ 2017 meteorology data for the El Paso County, Texas. Since El Paso is the only county modeled for rates, the values are the assumed to be the same for Doña Ana Area and Otero County, New Mexico.

Table 19. I/M Inputs

Factor	I/M Information			
Test Standards Description	Two-Mode, 2500 RPM/Idle Test	Evaporative Gas Cap Check	Exhaust Onboard Diagnostics (OBD) Check	Evaporative Gas Cap and OBD Check
Test Standards ID	12	41	51	45
Year ID	2017	2017	2017, 2032, 2042, 2052	2017, 2032, 2042, 2052
I/M Program ID[2]	21, 221	51, 251	40, 240	60, 260
Pollutant Process ID[2]	101, 102, 201, 202, 301, 302	112	101, 102, 201, 202, 301, 302	112
Source Use Type	21, 31, 32	21, 31, 32	21, 31, 32	21, 31, 32
Begin Model Year	X	X	X	X
End Model Year	1995[1]	1995[1]	Y	Y
I/M Compliance	21–95.20% 31–92.56% 32–73.27%	21–95.20% 31–92.56% 32–73.27%	2017: 21–95.20% 31–92.56% 32–73.27% 2023 and beyond: 21–94.40% 31–91.78% 32–72.66%	2017: 21–95.20% 31–92.56% 32–73.27% 2023 and beyond: 21–94.40% 31–91.78% 32–72.66%

Source use type: 21—Passenger Car, 31—Passenger Truck, 32—Light Commercial Truck.
[1] End model year is based on the MOVES4 default database imcoverage table by the sourceTypeID, yearID and test standards ID.
[2] The I/M program IDs and pollutant process IDs are based on the MOVE4 default database by the test standards IDs and year IDs.
N/A = not applicable.

Table 20. MOVES Emissions Factor Post-Processing to Be Performed by County and Year

Strategy and Post-processing Result	Analysis Year	Counties
Texas Low Emission Diesel Fuel	N/A	N/A

Note: N/A = not applicable.

Table 21. Emission Controls Used for Conformity Credit

Emission Reduction Strategy and Years Covered	Modeling or Post-Processing Approach	Analysis Year
Intersection Improvements	N/A	N/A
Transit Service	N/A	N/A
High Occupancy Vehicle/Managed Lanes	N/A	N/A

Emission Reduction Strategy and Years Covered	Modeling or Post-Processing Approach	Analysis Year
Park-n-Ride Lots	N/A	N/A
Vanpools	N/A	N/A
Grade Separations	N/A	N/A
Traffic Signal Improvements	N/A	N/A
Intelligent Transportation Systems	N/A	N/A
Clean Vehicle Commitments	N/A	N/A
Bicycle/Pedestrian Facilities	N/A	N/A
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.