MOVE 2050

Appendix #6

Capital Region Planning Commission



Technical Report #6

Air Quality Conformity Report

November 2026

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Capital Regional Planning Commission

2050 Metropolitan Transportation Plan
MOVE 2050

This Plan was prepared as a cooperative effort of the U.S. Department of Transportation (USDOT), Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Louisiana Department of Transportation and Development (LA DOTD), and local governments in partial fulfillment of requirements in Title 23 USC 134 and 135, amended by the IIJA, Sections 11201 and 11525, November 1, 2021. The contents of this document do not necessarily reflect the official views or policies of the USDOT.

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1.0 Executive Summary

This report presents the air quality analysis for the five-parish maintenance area of Ascension, East Baton Rouge, Iberville, Livingston, and West Baton Rouge Parishes. It summarizes the methodology used by the Capital Region Planning Commission (CRPC), Louisiana Department of Transportation and Development (LADOTD), and Neel-Schaffer, Inc. to demonstrate transportation conformity under the Clean Air Act Amendments of 1990. This process is required to adopt a new Metropolitan Transportation Plan (MTP) and Transportation Improvement Program (TIP) since the five parishes are designated Attainment with a Maintenance Plan for the 2008 Ozone National Ambient Air Quality Standards.

The conformity analysis uses the latest emissions model, MOVES5, the most recent planning assumptions from LADOTD and the MPO's Travel Demand Model (TDM), and the incorporation of the projects listed in the MTP that have the capability of affecting the inputs that are used by the MOVES model (shown in Appendix A). The Motor Vehicle Emissions Budgets (MVEBs)[1], as approved by EPA, were reaffirmed by the Interagency Consultation (IAC) group and are used to determine the region's air quality conformity.

Table 1.1 displays a summary of the MVEB results for the planning region. The MTP complies with the Clean Air Act Amendments of 1990, the Transportation Conformity Regulation, the Statewide and Metropolitan Planning Regulation, and other applicable federal and state requirements.

[1] https://www.federalregister.gov/documents/2016/12/27/2016-30776/approval-and-promulgation-of-implementation-plans-and-designation-of-areas-for-air-quality-planning

Based on the conformity analysis conducted for MOVE 2050, it can be concluded that:

- The MPO finds no factors in the TIP or MTP that would cause or contribute to a new air quality violation or exacerbate an existing violation.
- The MPO finds that no goals, directives, recommendations, or projects within the TIP or MTP contradict any specific requirements or commitments of the Louisiana SIP.
- The MOVE 2050 staged program projects do not interfere with any Transportation Control Measures (TCM) or their timely implementation.
    - The current State Implementation Plan in Louisiana does not contain any TCMs.
    - However, the region does employ TCMs, including travel demand management strategies, public transit improvements (green buses, route optimization etc.), expanding bicycle and pedestrian access (through Regional Bicycle and Pedestrian Plan and City specific Bike/Pedestrian Plan), ridesharing programs (Commuter Krewe), traffic signal coordination programs, ramp meters on Interstates, bridge/roadway pavement preservation (Pavement and Asset Data Collection), expansion of the existing Intelligent Transportation Systems, expanding existing incident management efforts, weigh-in-motion, and laying the foundation for TSMO efforts in the immediate future.
- The VOC and NOx, emissions in the planning area do not exceed the established MVEBs.

Table 1.1: Summary of On-Road Mobile Source Emissions by Year in Tons/Day

Parish	Ascension	East Baton Rouge	Iberville	Livingston	West Baton Rouge	Regionwide Total
Nitrogen Oxides (NOx)						
2027 MVEB*						**10.95**
2027 Tons/Day	0.86	2.71	0.75	1.27	0.58	**6.16**
2030 Tons/Day	0.60	1.94	0.53	0.86	0.40	**4.33**
2040 Tons/Day	0.29	0.84	0.24	0.40	0.18	**1.95**
2050 Tons/Day	0.24	0.66	0.20	0.33	0.16	**1.59**
Volatile Organic Compounds (VOC)						
2027 MVEB*						**11.55**
2027 Tons/Day	1.24	3.18	0.30	1.67	0.30	**6.69**
2030 Tons/Day	1.13	2.76	0.25	1.51	0.25	**5.90**
2040 Tons/Day	0.95	1.92	0.17	1.20	0.18	**4.41**
2050 Tons/Day	0.95	1.70	0.15	1.16	0.16	**4.12**

*2027 MVEB also applies to Years 2030, 2040, and 2050.
Source: NSI, 2026; CRPC, 2026

2.0 Background and Interagency Consultation and Process

The first step in the development of mobile source emissions estimates for the Baton Rouge maintenance area was to identify the boundaries being used in the analysis. MOVES modeling for the purposes of an MTP requires inputs and provides outputs that are at the county (parish for Louisiana) level. Since the CRPC TDM encompasses the entirety of the five parishes that are under Maintenance for air quality, there is no need for separate Metropolitan Planning Area and donut sub-analyses.
The Baton Rouge maintenance area is comprised of the following parishes:

- Ascension
- East Baton Rouge
- Iberville
- Livingston
- West Baton Rouge

To make a positive conformity finding for the MTP and TIP, projected mobile source emissions (VOC and NOx) for each analysis year must be lower than the MVEBs, shown in Table 1.1, agreed upon during the air quality interagency process and approved by the EPA.

Effective March 21, 2017, the Environmental Protection Agency (EPA) approved the Louisiana Department of Environmental Quality (LDEQ) request for re-designation of the 5-Parish Baton Rouge nonattainment area to attainment for the 2008 8-hour ozone standard, and a maintenance plan. The approved Motor Vehicle Emissions Budgets (MVEBs) are displayed within the Federal Register. For the Baton Rouge planning area, these values correspond to 10.95 tons per day of NOx and 11.55 tons per day of VOCs.

2.1 Interagency Consultation and Process

As required by 40 CFR 93.105, the MPO formed an Interagency Consultation (IAC) to guide the conformity analysis. This group includes representatives from:

- EPA Region 6
- Federal Highway Administration (FHWA)
- Federal Transit Administration (FTA)
- LADOTD
- LDEQ
- CRPC

Another purpose of the IAC was to approve the planning assumptions (40 CFR 93.110) used to develop the conformity analysis. This was conducted through a series of phone conferences. The meeting minutes from the phone conferences are included in **Appendix B**. In addition to the IAC, as required by 40 CFR 93.105, the conformity analysis must be made available to the general public during the public commenting period as part of the consultation process.

3.0 Analysis Years, Planning Data, and Assumptions

3.1 Analysis Years

The IAC selected 2027, the established MVEB year, and the TDM scenario years of 2030, 2040, and 2050, excluding the base year, as the conformity analysis years. This complies with 40 CFR 93.118 by including the MVEB, interim, and horizon years while keeping fewer than 10 years between analysis years. Emissions for each year were compared to the established MVEB to determine whether the area meets the conformity test.

3.2 Planning Data and Assumptions

All regionally significant projects, regardless of funding source, are included in the regional emissions analysis for their analysis year. These projects, listed in **Appendix A**, come from the MTP's Staged Improvement Program, State Transportation Improvement Program, or other LADOTD-provided regionally significant projects. The IAC agreed upon these planning assumptions.

MTP and TIP projects must be classified as exempt, non-exempt, or regionally significant. Exempt projects are not subject to transportation conformity, while non-exempt and regionally significant projects must be included in the regional conformity analysis.

Regionally significant projects are those on roadways serving regional needs, including access to areas outside the region, major activity centers, planned developments, or transportation terminals.

4.0 Emissions Projections

Emission estimates were calculated using EPA's MOVES5 software, with model runs covering the entirety of each parish for all analysis years. **Appendix C** includes model input screenshots, and **Appendix D** includes summary outputs. Due to file size, input data are available from CRPC upon request. The following sections describe the MOVES5 inputs used to calculate parish-level NOx and VOC emissions.

4.1 RunSpec Settings

MOVES model run parameters are contained within the RunSpec. These inputs define the geographic and temporal scale of the model run, and the specific emissions calculated. The settings used in the conformity analysis were:

- **Scale**
  - Onroad (for Model)
  - County (for Domain/Scale)
  - Inventory (for Calculation Type)
- **Time Spans**
  - Analysis years of 2027, 2030, 2040, and 2050
  - Weekdays (for Days)
  - Month of August
  - All hours
- **Geographic Bounds**
  - Selected Parish (County)
- **Vehicles/Equipment**
  - All on-road vehicle and fuel combinations selected
- **Road Type**
  - All road types selected
- **Pollutants and Processes**
  - NOx
  - VOC and necessary pre-requisites

4.2 Data Sources

MOVES provides many inputs through internal databases or defaults, but some must be supplied by the MPO and consultant team. **Table 4.1** displays the initial data sources used for the MOVES input data. The development of the model inputs is discussed in **Appendix E**.

Table 4.1: Data Sources for MOVES Input Files

Input	Description	Source
roadTypeDistribution	Distribution of VMT within the modeled area based on MOVES roadway types	Local vehicle classification counts
sourceTypeYear	Total number of vehicles in MOVES vehicle classes	MOVE 2046 inputs and MOVE 2050 housing growth rates
HPMSVTypeDay	Daily VMT of the modeled area by HPMS vehicle classes	LADOTD, TDM
hourVMTFraction	Hourly adjustment factors	MOVE 2046 inputs
avgSpeedFraction	Speed distribution by MOVES speed bins, hour, and roadway type	NPMRDS probe data, MOVE 2046 inputs
ageDistribution	Vehicle age breakdown by source type	MOVE2046 inputs, MOVES5 conversion
ZoneMonthHour	Area meteorology data	MOVES5 defaults
FuelSupply	Fuels used in the modeled area	MOVES5 defaults
FuelFormulation	Fuel formulation data within the modeled area	MOVES5 defaults
FuelUsageFraction	Market share of fuels within the modeled area	MOVES5 defaults
AVFT	Alternative Vehicle and Fuels Technologies	MOVES5 defaults

Source: NSI, 2026; CRPC, 2026

4.3 Input Data

ageDistribution

Emission factors vary by the age and type of vehicle (shown in Table 4.2) on the roadway network. The MOVES model requires a vehicle distribution as the fraction of vehicles by age and source type. The age distributions were developed based on the MOVE 2046 age distributions for using interpolation to obtain Years 2030 and 2040, and using prior Year 2046 data converted through MOVES for Year 2050 since extrapolation to Year 2050 produced anomalous results.

Table 4.2: MOVES Source Types and HPMS Vehicle Types

TSource Type ID	Source Type Description	HPMS Vehicle Type ID	HPMS Vehicle Type Description
11	Motorcycle	10	Motorcycles
21	Passenger Car	25	Light Duty Vehicles- Short and Long Wheelbase
31	Passenger Truck		
32	Light Commercial Truck		
41	Intercity Bus	40	Buses
42	Transit Bus		
43	School Bus		
51	Refuse Truck	50	Single Unit Trucks
52	Single Unit Short-haul Truck		
53	Single Unit Long-haul Truck		
54	Motor Home		
61	Combination Short-haul Truck	60	Combination Trucks
62	Combination Long-haul Truck		

Source: EPA

roadTypeDistribution

The MOVES model requires a distribution of VMT as the fraction of vehicles on each road type (shown in **Table 4.3**) by source type.

$$VMT\ fraction = \frac{VMT_i\ on\ road\ type}{\Sigma\ VMT_i\ of\ source\ type}$$

Where i = source type

This data was developed using local vehicle classification summaries of the daily VMT data by the functional classification and adjusted using the travel demand model in forecast years. A road type fraction was not assigned to the non-road classification.

Table 4.3: MOVES Road Type

Road Type ID	Road Type Description
1	Off-Network
2	Rural Restricted Access
3	Rural Unrestricted Access
4	Urban Restricted Access
5	Urban Unrestricted Access

Source: EPA

sourceTypeYear

Since each vehicle type has different emission rates, the MOVES model requires the total number of vehicles in each source type. The 2027 vehicle data is the same as the one used in the MOVE 2046 analysis. This data was then grown and forecasted based on each parish's housing growth rate from the TDM.

HPMSVTypeDay

A key MOVES input is daily roadway VMT, since increased travel raises emissions. LADOTD provided Year 2023 and Year 2024 parish-level VMT data. Using the 2024 VMT data and the base year (2025) TDM VMT totals, growth factors for analysis-year VMTs were developed.

monthVMTFraction

Since the plan air quality model runs use daily VMT, this model input is not required.

dayVMTFraction

Since the plan air quality model runs use daily VMT, this model input is not required.

hourVMTFraction

Vehicle emissions are dependent upon the temperature, humidity, and other meteorological factors which can worsen pollutants from travel. The MOVES model applies a fraction distribution of VMT travelled by a given source type by time of day. This determines the total number of vehicles on the road during that hour, as well as the emission rates to be applied.

averageSpeedFraction

The MOVES emission factors also vary by vehicle speed. The MOVES model requires the speeds to be input as a fraction of the VHT on the network based on speed bins; which are displayed in **Table 4.4**; road type; and hour. The initial speed data was determined using NPMRDS probe analytics.

ZoneMonthHour

The MOVES model requires inputs of minimum and maximum ambient temperature and humidity for the day per hour. This input was provided using the default MOVES5 values for each Parish.

Fuels

Fuel data for each Parish was developed using the MOVES5 default data. These input files include:

- FuelSupply,
- FuelFormulation,
- FuelUsageFraction, and
- AVFT.

Table 4.4: MOVES Speed Bins

Speed Bin ID	Speed Bin Range
1	speed < 2.5 MPH
2	2.5 MPH <= speed < 7.5 MPH
3	7.5 MPH <= speed < 12.5 MPH
4	12.5 MPH <= speed < 17.5 MPH
5	17.5 MPH <= speed <22.5 MPH
6	22.5 MPH <= speed < 27.5 MPH
7	27.5 MPH <= speed < 32.5 MPH
8	32.5 MPH <= speed < 37.5 MPH
9	37.5 MPH <= speed < 42.5 MPH
10	42.5 MPH <= speed < 47.5 MPH
11	47.5 MPH <= speed < 52.5 MPH
12	52.5 MPH <= speed < 57.5 MPH
13	57.5 MPH <= speed < 62.5 MPH
14	62.5 MPH <= speed < 67.5 MPH
15	67.5 MPH <= speed < 72.5 MPH
16	speed >=72.5 MPH

Source: EPA

5.0 Results and Conclusions

Table 5.1 summarizes MOVES on-road mobile source emissions by year. Despite regional growth, emissions are expected to remain below the established MVEB for each parish, largely due to stricter vehicle standards, increased alternative-fuel vehicle use, and improved travel performance from the MOVE 2050 Staged Improvement Program. As cleaner vehicles replace older, higher-emitting ones, air quality is expected to improve.

These reductions show that the is in conformity with the US EPA's "Budget Emissions Test" for all analysis years. Since the total emissions are within attainment for the NAAQS, and future year emissions are estimated to be less than the MVEB, transportation improvements contained in the MTP should not interfere with future attainment or maintenance of the NAAQS for ozone.

Table 5.1: Summary of On-Road Mobile Source Emissions by Year in Tons/Day

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2027 MVEB*						**10.95**
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2040 Tons/Day	0.29	0.84	0.24	0.40	0.18	**1.95**
2050 Tons/Day	0.24	0.66	0.20	0.33	0.16	**1.59**
Volatile Organic Compounds (VOC)						
2027 MVEB*						**11.55**
2027 Tons/Day	1.24	3.18	0.30	1.67	0.30	**6.69**
2030 Tons/Day	1.13	2.76	0.25	1.51	0.25	**5.90**
2040 Tons/Day	0.95	1.92	0.17	1.20	0.18	**4.41**
2050 Tons/Day	0.95	1.70	0.15	1.16	0.16	**4.12**

*2027 MVEB also applies to Years 2030, 2040, and 2050.
Source: NSI, 2026; CRPC, 2026

Appendices

Appendix A: Roadway Projects in MOVES Analysis

Table A-1: Roadway Projects in MOVES Analysis

MTP ID	Stage	Roadway	Limits	Improvement	AQ Analysis Year	Conformity Status
5	1	Sullivan Rd	Wax Rd to Hooper Rd	4-lanes Divided Conc Hwy Raised Median	2027	N-E
32	1	Midway	Picardy Ave to Constantin Blvd	New 2-lane roadway	2022	N-E
42	1	Pecue Ln	Perkins Rd to Airline Hwy	Widen to 4-laness	2027	N-E
46	1	Nicholson Dr	Dean Lee Dr to W Lee Dr	Widen from 2-lanes to 4-lanes	2027	N-E
2011	1	I-10	@ Pecue Ln	New interchange	2027	N-E
1	1	Germany Rd	US 61 to LA 44	Widening	2030	N-E
6	1	LA 30	Brightside Dr to Gourrier ave	Widening to 4-lanes w/ median and pedestrian improvements	2030	N-E
9	1	Dijon Rd / Constantin Blvd	LA 3064 to Bluebonnet Blvd	New alignment 2-lane roadway	2030	N-E
12	1	Duplessis Rd	US 61 to LA 73	Widen from 2-lanes to 3-lanes	2030	N-E
25	1	Sherwood Forest Rd	Greenwell Springs Rd to Joor Rd	Extension / New 2-lanes roadway	2030	N-E
27	1	Mickens Rd	Hooper Rd to Lanier Rd	Center turn lane	2030	N-E
28	1	Ardenwood/Lobdell Connector	Ardenwood Dr to Lobdell Blvd	New 2-lane roadway	2030	N-E
29	1	Jones Creek Rd	Tiger Bend Rd to Airline Hwy	New 4-lane roadway	2030	N-E
31	1	Bluebonnet Rd	Perkins Rd to Picardy Ave	Widen to 6 lanes	2030	N-E
33	1	Old Hammond Hwy	Millerville Rd to O'Neal Ln	Widen to 4-lanes divided	2030	N-E
35	1	College Dr	LA 427 to Bennington	Roadway Enhancements	2030	N-E

MTP ID	Stage	Roadway	Limits	Improvement	AQ Analysis Year	Conformity Status
40	1	LA 447	Pendarvis Ln to US 190	Remove Center Turn Lane	2030	N-E
44	1	LA 964	Comite River Diversion Canal to Church St	3-Lane CLT	2030	N-E
45	1	Juban Rd	Orchard Dr to US 190	Widen from 2-lanes to 4-lanes	2030	N-E
48	1	LA 1	LA 405 to 0.9 miles east of Church St	Widen from 2-lanes to 4-lanes	2030	N-E
2002	1	LA 1/LA 415 Connector	LA 1 to LA 415	New Road and Bridge	2030	N-E
2024	1	Cook Rd Extension	LA 16 to LA 1026	New 4-lane roadway (divided)	2030	N-E
2026	1	LA 3127	LA 943 to LA 1	New 2-lane Roadway	2030	R-S
1012	1	Perkins Rd	Siegen Ln to Highland Rd	Widen to 4 Lanes	2030	N-E
1015	1	LA 73 to Bluff Rd Connector	LA 73 to Bluff Rd	New 2-lane Roadway	2030	N-E
8	2	LA 327 SPUR	Burbank Dr to Nicholson Dr	Extension of 4-lane divided roadway	2040	N-E
18	2	N Robert Wilson Rd	LA 30 to Buzzard Roost	New 2-lane Roadway	2040	N-E
23	2	LA 30	Bluebonnet to Ben Hur Rd	Widening to 4-lanes section	2040	R-S
24	2	Flannery Rd	Old Hammond Hwy to Florida Blvd	Convert to 2-lanes divided	2040	N-E
30	2	Tiger Bend Rd	Jones Creek to Antioch	Widen to 4-lanes divided	2040	N-E
39	2	US 61 South	ASC Parish Line to Bluebonnet Blvd	Widen from 4-lanes to 6-lanes	2040	R-S

MTP ID	Stage	Roadway	Limits	Improvement	AQ Analysis Year	Conformity Status
49	2	I-10 CMAR Phase 1	I-10/I-110 split to New Dalrymaple Dr WB off-ramp	Widening, new ramps, remove access	2040	N-E
50	2	I-10 CMAR Phase 1	New Dalrymaple Dr WB off-ramp to College Dr	Widening, new ramps, remove access	2040	N-E
51	2	I-10 CMAR Phase 1	Tyrone Dr to Aldrich	Replace bridge on Nairn Dr - shoulder reduction for sidewalk	2040	N-E
52	2	I-10 CMAR Phase 1	College Dr to just east of I-10/I-12 split	Widen from 8-lanes to 10-lanes	2040	N-E
2001	2	Hooper Rd	Blackwater Bayou to LA 3034 (Sullivan Rd)	Widening and sewer improvements	2040	N-E
2003	2	MRB South GBR	LA 1 to LA 30	New Road and Bridge	2040	R-S
2004	2	I-10	@ LA 429	New interchange	2040	N-E
2014	2	LA 447	I-12 to Buddy Ellis	Roadway widening and roundabouts @ I-12	2040	N-E
2017	2	Hooper Rd	LA 37 to either LA 1019 or LA 16	New 4-lane roadway (divided)	2040	R-S
2018	2	LA 44	I-10 to LA 22	Widening	2040	N-E
2025	2	Juban Rd North Extension	US 190 to LA 1026 (Lockhart Rd)	New 4-lane roadway (divided)	2040	N-E
2027	2	New Roadway	Veterans Ave to Commerce Ave	New connector road	2040	N-E
2028	2	LA 3034 (Wax Rd)	Sullivan Rd to LA 37	Widen to 4-lanes	2040	N-E
2029	2	New Roadway	St. Elizabeth Blvd to St. Francis Pkwy	New 2-lane roadway	2040	N-E

MTP ID	Stage	Roadway	Limits	Improvement	AQ Analysis Year	Conformity Status
2030	2	LA 426 (Old Hammond Hwy)	Blvd. de Province to Millerville Rd	Widen to 4-lanes divided	2040	N-E
2031	2	Home Depot Rd	LA 3002 to LA 3003	Widen from 2-lanes to 3-lanes (CTL)	2040	N-E
2032	2	New Roadway	Pete's Hwy to S Range Ave	New 4-lane roadway (divided)	2040	N-E
2033	2	New ETP Roadway	LA 405 to Riverplex MegaPark	New 2-lane roadway	2040	N-E
1001	2	Perkins Rd	Acadian Hwy to Staring Ln	Widen to 6 Lanes	2040	N-E
1005	2	4-H Club Rd	Vincent Rd to Hillon Hood Rd	Widen to 4 Lanes	2040	N-E
1006	2	La 1	I-10 to LA 989-1	Widen to 6 Lanes	2040	N-E
1013	2	Old Hammond Hwy	O'Neal Rd to Florida Blvd	Widen to 4 Lanes Divided	2040	N-E
1014	2	Wax Rd Extension	Hooper Rd to Wax Rd Existing Terminus	New 2 Lane Roadway	2040	N-E
3001	2	Sherwood Forest Blvd	Airline Hwy to Old Hammond Hwy	Widen to 6 Lanes	2040	N-E
3002	2	Florida Blvd/Florida Ave	O'Neal Ln to Pete's Hwy	Widen to 6 Lanes	2040	R-S
3003	2	Florida Ave	Pete's Hwy to Juban Rd	Widen to 4 Lanes	2040	N-E
3004	2	Florida Ave	Juban Rd to Walker South Rd	Widen to 4 Lanes	2040	N-E
3006	2	La 73	LA 30 to LA 74	Widen to 4 Lanes	2040	N-E
3007	2	La 30	La 3251 to La 44	Widen to 4 Lanes	2040	N-E
3008	2	Airline Hwy	EBR Parish Line to Perkins Rd	Widen to 6 Lanes	2040	N-E

MTP ID	Stage	Roadway	Limits	Improvement	AQ Analysis Year	Conformity Status
3010	2	Bluebonnet Blvd	Highland Rd to Perkins Rd and Picardy Ave to Airline Hwy	Widen to 6 Lanes	2040	N-E
3011	2	Florida Blvd	Airline Hwy to Monterey Blvd	Widen to 6 Lanes	2040	N-E
3013	2	Gardere Ln	Burbank Dr to Nicholson Dr	Center Turn Lane / Ped Impvts	2040	N-E
3014	2	LA 44	LA 942 to LA 22	Widen to 4 Lanes	2040	N-E
3015	2	I-10	LA 73 to LA 22	Widen to 6 lanes	2040	R-S
3017	2	Magnolia Beach Rd	LA 1019 to LA 16	Widen to 4 Lanes	2040	N-E
3018	2	Ford St Ext	Plank Rd to Howell Blvd	New 2 Lane Divided Roadway	2040	N-E
4005	2	Perkins Rd	Highland Rd to Airline Hwy	Widen to 4 Lanes	2040	R-S
5025	2	Siegen Ln	Highland Rd to I-10	Widen to 6 Lanes	2040	N-E
5065	2	Corporate Blvd	Airline Hwy to O'Neal Ln	Widen to 6 Lanes	2040	N-E
5066	2	Florida Blvd	Monterey Blvd to Sherwood Forest Blvd	Widen to 6 Lanes	2040	N-E
5067	2	Sherwood Forest Blvd	Old Hammond Hwy to Florida Blvd	Widen to 4 Lanes	2040	N-E
5070	2	Cedarcest Ave	Old Hammond Hwy to Airline Hwy	Widen to 4 Lanes	2040	N-E
1002	3	Highland Rd	Lee Dr to Chimes St	Widen to 4 Lanes	2050	N-E
1003	3	River Rd	Brightside Dr to South Blvd	Widen to 4 Lanes	2050	N-E
3012	3	College Dr	Corporate Blvd to Jefferson Hwy	Widen to 6 Lanes	2050	N-E
4002	3	La 73	I-10 to LA 74	Widen to 4 Lanes	2050	N-E
4003	3	La 30	LA 3115 to LA 3251	Widen to 4 Lanes	2050	R-S

MTP ID	Stage	Roadway	Limits	Improvement	AQ Analysis Year	Conformity Status
4004	3	La 429 Connector	LA 30/LA73 to US61	New 4 Lane Roadways, New Interchange, Widen to 4 Lane	2050	R-S
4006	3	I-10	at LA 74	New Interchange	2050	N-E
4007	3	4-H Club Rd	Florida Ave to Vincent Rd	Widen to 4 Lanes	2050	N-E
4008	3	Airline Hwy	Florida Ave to I-110	Widen to 6 Lanes	2050	R-S
5026	3	Airline Hwy	Perkins Rd to LA 73	Widen to 6 Lanes	2050	N-E
5028	3	Antioch Rd/Tiger Bend Rd	Airline Hwy to Babin Rd	Widen to 4 Lanes	2050	N-E
5064	3	Florida Blvd	Sherwood Forest Blvd to O'Neal Ln	Widen to 6 Lanes	2050	N-E
5075	3	Florida Ave	Walker South Rd to Satsuma Rd	Widen to 4 Lanes	2050	N-E

N-E – Non-Exempt
R-S – Regionally Significant

Appendix B: IAC Meeting Minutes

Appendix C: Examples of MOVES Model Inputs

Road Type Distribution

sourceTyp	roadTypeI	roadTypeVMTFraction
11	1	0
11	2	0.178386
11	3	0.030828
11	4	0.093932
11	5	0.696853
21	1	0
21	2	0.316612
21	3	0.020407
21	4	0.267301
21	5	0.395681
31	1	0
31	2	0.3124
31	3	0.025212
31	4	0.258776
31	5	0.403613
32	1	0
32	2	0.351017
32	3	0.023034
32	4	0.268626
32	5	0.357323
41	1	0
41	2	0.390277
41	3	0.014193
41	4	0.303094
41	5	0.292436
42	1	0
42	2	0.390277

Source Type Population

yearID	sourceTyp	sourceTypePopulation
2027	11	51482.5
2027	21	97429.65
2027	31	89319.73
2027	32	27990.38
2027	41	5.507285
2027	42	29.98872
2027	43	316.3655
2027	51	63.76167
2027	52	2216.951
2027	53	153.6325
2027	54	475.5706
2027	61	1402.781
2027	62	686.8177

Daily VMT

HPMSVtyp	yearID	monthID	dayID	VMT
10	2027	8	5	53172.76
25	2027	8	5	4847683
40	2027	8	5	15061.17
50	2027	8	5	91459.13
60	2027	8	5	267692.3

Vehicle Age Distribution

	A	B	C	D
1	sourceTyp	yearID	ageID	ageFraction
2	11	2027	0	0.072172
3	11	2027	1	0.070986
4	11	2027	2	0.068612
5	11	2027	3	0.062546
6	11	2027	4	0.057894
7	11	2027	5	0.053475
8	11	2027	6	0.049344
9	11	2027	7	0.045654
10	11	2027	8	0.04218
11	11	2027	9	0.039125
12	11	2027	10	0.020173
13	11	2027	11	0.017419
14	11	2027	12	0.015263
15	11	2027	13	0.01463
16	11	2027	14	0.013276
17	11	2027	15	0.012598
18	11	2027	16	0.008625
19	11	2027	17	0.004651
20	11	2027	18	0.043846
21	11	2027	19	0.022578
22	11	2027	20	0.037208
23	11	2027	21	0.036531
24	11	2027	22	0.031202
25	11	2027	23	0.018604
26	11	2027	24	0.030525

Humidity and Temperature

monthID	zoneID	hourID	temperatu	relHumidity
8	220630	1	75.7	87.2
8	220630	2	75	88.3
8	220630	3	74.5	89
8	220630	4	74	89.7
8	220630	5	73.6	90.3
8	220630	6	73.3	90.5
8	220630	7	73.3	90.6
8	220630	8	76.8	86.9
8	220630	9	81.3	79.4
8	220630	10	85.1	72.1
8	220630	11	87.9	66.4

Fuel Supply

fuelRegionID	fuelYearID	monthGro	fuelFormu	marketSha	marketShareCV
100000000	2027	8	90	1	0.5
100000000	2027	8	9198	1	0.5
100000000	2027	8	25024	1	0.5
100000000	2027	8	27002	1	0.5
100000000	2027	8	28001	1	0.5

Fuel Formulation

fuelFormu	fuelSubtyp	RVP	sulfurLeve	ETOHVolu	MTBEVolu	ETBEVolur	TAMEVolu	aromaticC	olefinCont	benzeneCo	e200	e300	BioDieselE	CetaneInd	PAHConte	T50	T90
10	10	6.9	30	0	0	0	0	26.1	5.6	1	41.09	83.09	0	0	0	218	329
20	20	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	30	0	7.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	51	7.7	11	85	0	0	0	0	0	0	999	999	0	0	0	999	999
90	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	10	8.7	338	0	0	0	0	26.4	11.9	1.64	50	83	0	0	0	199.82	329.41
97	10	6.6	150	0	0	0	0	24	11	0.8	52	84	0	0	0	195.74	324.86
98	12	8.8	30	10	0	0	0	25.77	8.44	0.65	47.61	84.89	0	0	0	212.28	321.72
99	12	8.8	30	10	0	0	0	25.77	8.44	0.65	47.61	84.89	0	0	0	212.28	321.72
9198	12	9.617	13.02	9.83	0	0	0	20.6	8.18	0.69	56.43	86.58	0	0	0	163.81	315.98
9498	10	8.604	13.02	0	0	0	0	22.8	6.58	0.69	49.43	86.78	0	0	0	178.1	315.3
9798	15	9.467	12.37	15	0	0	0	19.57	7.77	0.656	57.59	86.89	0	0	0	158.18	313.14
25024	21	0	6	0	0	0	0	0	0	0	0	0	2.96	0	0	0	0
27002	51	7.7	8	74	0	0	0	0	0	0.16	999	999	0	0	0	999	999
28001	30	0	7.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Fuel Usage

	A	B	C	D	E	F
1	countyID	fuelYearID	modelYear	sourceBinF	fuelSupply	usageFraction
2	22063	2027	0	1	1	1
3	22063	2027	0	2	2	1
4	22063	2027	0	3	3	1
5	22063	2027	0	5	1	0.969
6	22063	2027	0	5	5	0.031
7	22063	2027	0	9	9	1
8						

I/M Program

	polProcess	stateID	countyID	yearID	sourceTyp	fuelTypeID	IMProgran	inspectFre	testStanda	begModel	endModel	useIMyn	complianceFactor
2	101	22	22063	2027	21	1	2	1	12	1968	1995	Y	93.12
3	101	22	22063	2027	21	1	10	1	51	1996	2025	Y	93.12
4	101	22	22063	2027	21	5	202	1	12	1968	1995	Y	93.12
5	101	22	22063	2027	21	5	210	1	51	1996	2025	Y	93.12
6	101	22	22063	2027	31	1	2	1	12	1968	1995	Y	93.12
7	101	22	22063	2027	31	1	10	1	51	1996	2025	Y	93.12
8	101	22	22063	2027	31	5	202	1	12	1968	1995	Y	93.12
9	101	22	22063	2027	31	5	210	1	51	1996	2025	Y	93.12
10	101	22	22063	2027	32	1	2	1	12	1968	1995	Y	93.12
11	101	22	22063	2027	32	1	10	1	51	1996	2025	Y	93.12
12	101	22	22063	2027	32	5	202	1	12	1968	1995	Y	93.12
13	101	22	22063	2027	32	5	210	1	51	1996	2025	Y	93.12
14	102	22	22063	2027	21	1	2	1	12	1968	1995	Y	93.12
15	102	22	22063	2027	21	1	10	1	51	1996	2025	Y	93.12
16	102	22	22063	2027	21	5	202	1	12	1968	1995	Y	93.12

Appendix D: MOVES Summary Outputs

Parish	Year	Month	Day	State	County	Run	NMHC	NOx	TotalHC	VOC
Ascension	2027	8	5	22	22005	4	2,331	1,714	2,493	2,479
	2030	8	5	22	22005	3	2,118	1,199	2,278	2,253
	2040	8	5	22	22005	3	1,780	579	1,933	1,894
	2050	8	5	22	22005	2	1,783	487	1,989	1,897
East Baton Rouge	2027	8	5	22	22033	2	5,995	5,412	6,587	6,353
	2030	8	5	22	22033	2	5,199	3,881	5,788	5,510
	2040	8	5	22	22033	2	3,621	1,688	4,154	3,836
	2050	8	5	22	22033	2	3,210	1,318	3,875	3,400
Iberville	2027	8	5	22	22047	1	567	1,501	712	597
	2030	8	5	22	22047	2	476	1,059	628	500
	2040	8	5	22	22047	2	329	477	487	344
	2050	8	5	22	22047	2	289	390	508	302
Livingston	2027	8	5	22	22063	1	3,150	2,530	3,389	3,349
	2030	8	5	22	22063	2	2,840	1,723	3,080	3,020
	2040	8	5	22	22063	2	2,253	800	2,477	2,397
	2050	8	5	22	22063	2	2,188	666	2,488	2,327
West Baton Rouge	2027	8	5	22	22121	1	564	1,168	675	595
	2030	8	5	22	22121	2	483	799	596	508
	2040	8	5	22	22121	2	337	358	451	355
	2050	8	5	22	22121	2	305	312	475	320

Appendix E: MOVES Model Input Development

This section includes a description of the data and procedures used to develop the inputs for the MOVES5 model to determine air quality conformity for the MOVE 2050 Metropolitan Transportation Plan. It does not include how to operate the model.

Required Model Inputs

The model requires the user to provide the following inputs for the RunSpec:

- Scale
- Time Spans
- Geographic Bounds
- Vehicles/Equipment
- Road Type
- Pollutants and Processes

The model requires the user to provide the following inputs for the County Data Manager:

- Age Distribution
- Average Speed Distribution
- Fuel Data
- Meteorology Data
- Road Type Distribution
- Source Type Population
- Vehicle Type VMT
- I/M Programs

Input Development Methodology

This section describes the methodology used to develop the necessary inputs for each model year.

roadTypeDistribution

The MOVES model requires a distribution of VMT as the fraction of vehicles on each road type by source type.

This data was developed using local vehicle classification summaries of the daily VMT data by the functional classification. A road type fraction was not assigned to the non-road classification. This data was adjusted in future years by analyzing the change in VMT among the road classifications in the travel demand model and proportionately changing the base year road type distribution to match this shift in traffic.

HPMSVTypeDay

A key MOVES input is daily roadway VMT, since increased travel raises emissions. LADOTD provided Year 2023 and Year 2024 parish-level VMT data. Using the 2024 VMT data and the base year (2025) TDM VMT totals, growth factors for analysis-year VMTs were developed.

monthVMTFraction

Since the MOVE 2050 air quality model runs use daily VMT, this model input is not required. However, it is in the input files and uses data from prior air quality modeling efforts.

dayVMTFraction

Since the MOVE 2050 air quality model runs use daily VMT, this model input is not required. However, it is in the input files and uses data from prior air quality modeling efforts.

hourVMTFraction

This input remains the same from the prior air quality modeling efforts.

averageSpeedFraction

For the purposes of this air quality modeling the previous speed distributions were used and compared to the newest speed data. NPMRDS probe analytics data was used to develop distributions for classes 21 and 61, representing autos and trucks. Data for source types 11, 31, 32, 41, 42, and 43 use the same distribution as source type 21 since they are the closest equivalent (cars), while data for source types 51, 52, 53, 54, and 62 use the same distribution as source type 61 (trucks).

ageDistribution

The MOVES model requires a vehicle distribution as the fraction of vehicles by age and source type. The age distributions were developed based on the MOVE 2046 age distributions interpolating for Years 2030 and 2040, and extrapolating for Year 2050.

ZoneMonthHour

This model input used the default MOVES data.

FuelSupply

This model input used the default MOVES data.

FuelFormulation

This model input used the default MOVES data.

FuelUsageFraction

This model input used the default MOVES data.

AVFT

This model input used the default MOVES data.

I/M Program

For each Parish, I/M data was created using the County Data Manager for IAC review. This model input used the default MOVES data obtained for each Parish.

DOTD					
Parish	ASC	EBR	IBR	LIV	WBR
Total VMT	3,926,305	11,964,671	1,576,443	4,911,460	2,052,171
VMT_10	46,235	132,502	13,344	49,508	13,429
VMT_25	3,651,964	11,302,724	1,385,073	4,513,534	1,850,481
VMT_40	9,377	21,815	7,125	14,023	7,849
VMT_50	55,803	129,998	43,359	85,155	45,831
VMT_60	162,926	377,632	127,541	249,240	134,581

2027					
Parish	ASC	EBR	IBR	LIV	WBR
Total VMT	4,083,685	12,431,653	2,088,289	5,275,069	2,181,299
VMT_10	48,089	137,674	17,676	53,173	14,274
VMT_25	3,798,347	11,743,870	1,834,784	4,847,683	1,966,919
VMT_40	9,753	22,666	9,438	15,061	8,343
VMT_50	58,039	135,072	57,438	91,459	48,715
VMT_60	169,456	392,371	168,952	267,692	143,049

2030					
Parish	ASC	EBR	IBR	LIV	WBR
Total VMT	4,271,002	12,734,563	2,161,910	5,478,789	2,274,987
VMT_10	50,294	141,028	18,299	55,226	14,887
VMT_25	3,972,576	12,030,021	1,899,469	5,034,897	2,051,399
VMT_40	10,200	23,218	9,771	15,643	8,701
VMT_50	60,702	138,363	59,463	94,991	50,807
VMT_60	177,229	401,932	174,908	278,030	149,193

Model VMT					
Parish	ASC	EBR	IBR	LIV	WBR
DOTD	4,202,185	11,766,388	1,924,566	5,153,280	1,979,528
Base	4,194,145	11,538,421	1,506,457	4,961,940	1,919,088
2027	4,353,913	11,756,491	1,562,044	5,131,411	1,977,561
2030	4,553,625	12,042,949	1,617,113	5,329,582	2,062,498
2040	5,298,364	13,195,756	1,931,061	6,025,512	2,308,243
2050	6,010,904	14,154,222	2,138,659	6,685,824	2,548,408

2040					
Parish	ASC	EBR	IBR	LIV	WBR
Total VMT	4,969,518	13,953,574	2,581,626	6,194,202	2,546,050
VMT_10	58,520	154,528	21,852	62,438	16,661
VMT_25	4,622,285	13,181,591	2,268,234	5,692,348	2,295,822
VMT_40	11,869	25,441	11,668	17,685	9,738
VMT_50	70,629	151,608	71,007	107,395	56,861
VMT_60	206,215	440,407	208,865	314,335	166,969

2050					
Parish	ASC	EBR	IBR	LIV	WBR
Total VMT	5,637,834	14,967,084	2,859,163	6,873,000	2,810,958
VMT_10	66,390	165,752	24,201	69,280	18,394
VMT_25	5,243,904	14,139,028	2,512,079	6,316,149	2,534,694
VMT_40	13,465	27,289	12,922	19,624	10,751
VMT_50	80,128	162,619	78,640	119,164	62,777
VMT_60	233,947	472,395	231,319	348,782	184,342

VMT		
Parish	ASC	EBR
Base	1.0019	1.0198
2027	1.0401	1.0390
2030	1.0878	1.0643
2040	1.2657	1.1662
2050	1.4359	1.2509