AIR QUALITY CONFORMITY ANALYSIS of METROPOLITAN TRANSPOTATION PLAN 2037 TRANSPORATION IMPROVEMENT PROGRAM (2013-2017)

BATON ROUGE OZONE NON-ATTAINMENT AREA



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PREPARED BY



in cooperation with



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EXECUTIVE SUMMARY

The five parishes comprising the Baton Rouge metropolitan study area: Ascension, East Baton Rouge, Iberville, Livingston, and West Baton Rouge, are currently designated by EPA as a "marginal" 8-hour ozone nonattainment area (Figure 1). The federal transportation conformity regulations (40 CFR part 93), *Criteria and Procedures for Determining Conformity to State and Federal Implementation Plans of Transportation Plans, Programs, and Projects Funded Under Title 23 U.S.C. or the Federal Transit Act*, requires Metropolitan Planning Organizations (MPOs) and state Departments of Transportation (DOTs) to make conformity determinations for Metropolitan Transportation Plans (MTPs) and Transportation Improvement Programs (TIPs) before they are adopted, approved, and accepted in nonattainment and air-quality maintenance areas.

In accordance with the federal conformity regulations (as amended through April 2012), the Baton Rouge MPO, the Capital Region Planning Commission (CRPC), and the Louisiana Department of Transportation and Development (LDOTD), in cooperation with the Federal Highway Administration (FHWA) and the Louisiana Department of Environmental Quality (LDEQ), must prepare a conformity determination not less than every four years or as regionally significant projects are added to or removed from the MTP. The updated MTP consists of a "financially constrained plan that demonstrates the availability of funding necessary to implement the transportation improvements."

In order to demonstrate attainment and maintenance of the National Ambient Air Quality Standard (NAAQS) for ozone, the Clean Air Act Amendments of 1990 (CAAA) require that each state submit a State Implementation Plan (SIP) to the U.S. Environmental Protection Agency (EPA). In ozone nonattainment and maintenance areas, the SIP is a legally binding control strategy implementation plan that contains specific controls and strategies through which ozone-precursor emissions will be reduced and the ozone standard attained. For the Baton Rouge ozone nonattainment area, the current applicable air quality SIP that is deemed adequate for transportation conformity purposes is a SIP revision prepared by LDEQ that contains motor vehicle emissions budgets established with EPA's mobile source emission factor model, MOBILE6. The purpose of this report is to demonstrate that the *Baton Rouge MTP for 2037 and TIP FY 2013-2017* conform to the motor vehicle emissions budgets specified in the applicable SIP for the Baton Rouge nonattainment area. The results from this study do in fact demonstrate that the total projected VOC and NOx emissions within the Baton Rouge nonattainment area are less than the established motor vehicle

emissions budgets for these ozone-precursor pollutants; thus the MTP and TIP conform to the State Implementation Plan.

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GLOSSARY

Advanced Transportation Management System – ATMS: Advanced traffic control center with emergency communications.

Clean Air Act Amendments of 1990 - CAAA: Legislation that identifies primary sources of certain criteria pollutants and calls for stringent new requirements regarding the attainment of the national ambient air quality standards (NAAQS).

Capital Region Planning Commission - CRPC: The Metropolitan Planning Organization (MPO) responsible for transportation planning activities within the Baton Rouge metropolitan area.

Environmental Protection Agency - EPA: The federal regulatory agency thath is responsible for administering and enforcing federal environmental laws.

Federal Highway Administration - FHWA: An agency of the U.S. Department of Transportation, with federal jurisdiction pertaining to transportation projects and funding.

Highway Performance Monitoring System - HPMS: A process of statistical sampling and analysis of highway system networks that is used in the estimation of vehicle miles traveled (VMT).

Intelligent Transportation System – ITS: This term is used to refer to computer operated traffic devices with communications, buildings, personnel etc., manage traffic and traffic related emergencies.

Louisiana Department of Environmental Quality - LDEQ: State of Louisiana agency that has jurisdiction over environmental regulations.

Louisiana Department of Transportation and Development - LDOTD: State of Louisiana Agency with state jurisdiction pertaining to transportation projects and funding.

MAP-21 – Moving Ahead for Progress in the 21st Century is the new transportation Federal legislation dictating the procedures for programming federal transportation funds.

Metropolitan Area: An area with a population of at least 50,000 as defined by the U.S. Bureau of the Census.

Metropolitan Planning Organization - MPO: An organization that is established by the Governor and units of local government to carry out the transportation planning process required by Section 134 of Title 23 of the United States Code as amended by TEA-21.

Metropolitan Study Area: The area represented by the existing urbanized area and the contiguous area that is forecasted to be urbanized within 25 years.

Metropolitan Transportation Plan (MTP): A document that specifies transportation projects and programs to be implemented over a long range period. The MTP must be financially constrained, have a 20 year planning horizon, and demonstrate conformity with applicable State Implementation Plans before formal approval and adoption.

Mobile Sources: Mobile sources include motor vehicles, aircraft, ocean-going vessels, and other transportation modes. The principal mobile source pollutants are: carbon monoxide (CO), volatile organic compounds (VOCs), oxides of nitrogen (NOx), and particulate matter (PM).

Motor Vehicle Emissions Budgets - MVEBs: That portion of the total allowable emissions defined in the applicable state implementation plan (SIP), for a certain date, and for the purpose of meeting reasonable further progress milestones or attainment or maintenance of the NAAQS.

National Ambient Air Quality Standards - NAAQS: Federal standards pursuant to section 109 of the Clean Air Act that establish permissible concentrations and exposure limits for criteria pollutants.

Nonattainment Area: A geographic region of the country that has been designated by the EPA as not meeting the NAAQS.

Oxides of Nitrogen – NOx: Compounds that contribute to the formation of ground level ozone.

Ozone: A secondary pollutant formed when volatile organic compounds and oxides of nitrogen combine in sunlight. It is associated with respiratory problems in humans and animals.

Post Processor Modeling Software - PPSUITETM: This model provides a link between travel demand model (TDM) output and the output of EPA's MOBILE6.2 emissions model.

SAFETEA-LU: Prior Federal legislation dictating the procedures for programming federal transportation funds.

State Implementation Plan - SIP: A plan mandated by the CAAA that contains procedures to monitor, control, maintain, and enforce compliance with the national ambient air quality standards.

Statewide Transportation Improvement Program – STIP: Document that contains the statewide transportation improvements showing financial constraint and compliance with all applicable regulations.

Transportation Advisory Committee - TAC: A committee consisting of governmental institutions and providers of transportation in the Baton Rouge metropolitan area. Its purpose is to provide advice and recommendations regarding transportation issues in the area.

Traffic Analysis Zone - TAZ: Smallest analysis area in a travel demand-forecasting model.

Transportation Equity Act for the 21st Century - TEA 21: Prior Federal legislation dictating the procedures for the spending of federal transportation monies.

Transportation Improvement Program - TIP: A document developed pursuant to 23 CFR part 450 that specifies transportation projects programmed for the metropolitan area.

Transportation Management Area - TMA: An urbanized area with a population of at least 200,000.

Transportation Policy Committee - TPC: The committee responsible for formally adopting local plans and programs in the metropolitan area.

TransCAD: A travel-demand forecasting model used for projections of traffic volumes and vehicle speeds.

Volatile Organic Compounds – VOCs: Compounds that contribute to the formation of ground level ozone.

1 INTRODUCTION

The five parishes comprising the Baton Rouge metropolitan area: Ascension, East Baton Rouge, Iberville, Livingston, and West Baton Rouge are currently designated by EPA as a "marginal" 8-hour ozone nonattainment area¹. The marginal classification (effective July 20, 2012) is based primarily on locally monitored air quality data which indicate that the health-based 2008 8-hour ozone standard of 0.75 ppm has been exceeded in the Baton Rouge area to a level sufficient to warrant the marginal nonattainment classification.

Due to the nonattainment classification of the noted five parish area, the Capital Region Planning Commission (CRPC) acting as the technical staff of the Baton Rouge MPO, and the Louisiana Department of Transportation and Development (LDOTD), in cooperation with FHWA, LDEQ, Environmentral Protection Agency (EPA), and the Federal Transit Administration, must prepare a transportation conformity analysis pursuant to state and federal conformity regulations (LAC 33:III.14.B and 40 CFR part 93, respectively). This analysis must be performed no less than every four years, or as significant changes are made to transportation plans, programs, or as required by applicable Federal Regulations.

The regional emissions analysis for the long range Plan includes projects and programs to be implemented in the 5-parish nonattainment area over the next twenty-five years and is a "financially constrained Plan that demonstrates the availability of funding necessary to implement the transportation improvements," as required by the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), the Transportation Equity Act for the 21st Century (TEA-21), the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) and most recently the Moving Ahead for Progress in the 21st Century (MAP-21).

This conformity analysis is prepared in accordance with applicable provisions of the federal transportation conformity rule (40 CFR part 93). Additionally, this analysis is **performed using guidance from:** VMT for Air Quality Purposes, prepared by the Federal Highway Administration (FHWA), and; Section 187: VMT Forecasting and Tracking Guidance, prepared by the Environmental Protection Agency. The analysis includes estimates of VMT by parish and functional class with implementation of the MTP for the attainment year of 2015, the Baton Rouge 8-hour Ozone Maintenance Plan SIP MVEB budget year of 2022

¹ 73 FR15087. Final Rule, July 20, 2012, Determination of Nonattainment and Reclassification of the Baton Rouge 8-hour Ozone Nonattainment Area; State of Louisiana.

and the horizon years of 2017, 2027, and 2037. The corresponding emission factors for ozone precursor emissions (VOC and NOx) are determined for all the analysis years utilizing EPA's MOBILE6.2 mobile source emissions model. These vehicle emission factors are then applied to projected VMT for each analysis year and the resulting total emissions for the nonattainment area are compared to the established motor vehicle emissions budgets. A positive conformity finding can be made if the total calculated emissions are less than or equal to the allowable limits established for VOC and NOx.

2 METHODOLOGY

Pursuant to sections 105 and 110 of 40 CFR part 93, in September of 2012, Planning staff with CRPC, LDOTD, FHWA, the Environmental Protection Agency (EPA) and LDEQ began a series of interagency consultation meetings to discuss 8-hour ozone conformity requirements for the Baton Rouge area. The primary purpose of these consultations was to reach a consensus on general and specific methodologies required to complete the tasks for the forthcoming conformity analysis. Many topics were discussed at these meetings and they included, but were not limited to: the appropriate Motor Vehicles Emissions Budget (MVEB), latest planning assumptions, MOBILE6.2 input data, VMT estimates for urban and rural areas, updating the urbanized area planning boundaries in accordance with the 2010 census data, regionally significant projects to be analyzed for the Plan and TIP stages, fiscal constraint issues, exempt projects, and Plan year staging options.

It was agreed that in order to determine conformity for the Plan and TIP, the following eight (8) tasks were required at a minimum. Methodologies and other pertinent details are discussed in the narrative that follows the task outline below:

Task 1: Study Area Boundaries

Confirm metropolitan and rural-area nonattainment area boundaries; confirm census-based boundaries for the Baton Rouge urbanized area.

Task 2: Applicable Conformity Test Requirements

Determine applicable motor vehicle emissions budgets to be used for the demonstration of Plan and TIP conformity to the SIP.

Task 3: Horizon Year Analysis

Define action networks and scenarios for selected horizon years.

Task 4: Vehicle Miles of Travel (VMT) and Speeds

Develop VMT projections in the nonattainment area for all analysis years by functional class using HPMS data for the non-modeled area, and travel-demand network model VMT and speeds for the modeled area. Determine the average travel speeds for the rural roadway functional classes in the nonattainment area.

Task 5: Enhanced Modeling Methodology

Use the PPSUITE[™] enhanced-modeling emissions analysis software for the Baton Rouge Travel Demand Modeled area.

Task 6: Vehicle Emissions Factors

Determine composite emissions factors for each roadway functional class and each scenario utilizing EPA's MOBILE6.2 model.

Task 7: Conformity Determination

Determine the total on-road mobile source emissions for the Baton Rouge 5-parish nonattainment area and compare with the SIP motor vehicle emissions budgets.

Task 8: Public Participation

Prepare a draft conformity document for review and approval by the MPO Transportation Policy Committee (TPC), and make it available for public inspection and comment.

2.1 STUDY AREA BOUNDARIES

The first step in the development of mobile source emissions estimates for the Baton Rouge nonattainment area is to identify the boundaries to be used. There are two boundaries that are significant with regard to the air quality conformity analysis: the metropolitan study area (hereinafter referred to as the "modeled area") and the 5-parish nonattainment area. The Baton Rouge nonattainment area encompasses the parishes of Ascension, East Baton Rouge, Iberville, Livingston, and West Baton Rouge (Figure 1). The metropolitan study area is totally within the nonattainment area and is completely covered by the MPO network model. The functional classifications of the model network links were updated in 2009 to reflect the officially adopted functional classification map.

2.2 APPLICABLE CONFORMITY TEST REQUIREMENTS

In order 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 established for Baton Rouge's ozone attainment year, 2015. Using the interagency consultation process, VOC and NOx MVEBs for 2005 and 2022 were established by LDEQ in SIP revisions submitted to EPA on January 21, 2003, and August 31,





2010 respectively. These SIP revisions updated previously approved MVEBs with the latest version of EPA's mobile source emissions model (MOBILE6 for 2003 submittal, MOBILE6.2 for 2010 submittal). The emissions budgets contained therein were deemed adequate for transportation conformity purposes by EPA (68 FR 32748, Notice of Adequacy, June 2, 2003/76 FR 28223, Notice of Adequacy, May 16, 2011). Because the above mentioned are the latest approved budgets, they can be used to satisfy the budget test requirements of the transportation conformity rule.

2.3 CONFORMITY ANALYSIS YEARS

The conformity analysis years include the attainment year of 2015, the Baton Rouge 8-hour Ozone Maintenance Plan SIP MVEB budget year of 2022 and the MTP 2027 horizon years of 2017, 2027, and 2037. Horizon year is defined by incremental Plan stages that contain applicable projects that are expected to be operational before the end of each of the three Plan stages.

Analysis Scenarios	Years
Stage 1	2013-2017
Stage 2	2018-2027
Stage 3	2028-2037

These conformity analysis years were selected through interagency consultation and meet the requirements of 40 CFR 93.106(a)(1) and 40 CFR 93.118(b).

2.4 ESTIMATION OF VMT AND VEHICLE SPEEDS

VMT for the non-modeled area was developed using HPMS data for the FHWA's twelve (12) functional classes of roadways. To obtain the HPMS-based VMT for the non-modeled area, GIS software and GIS spatial layers were employed to disaggregate all functionally classified highway links at the border with the modeled area. Using those links and the highway network outside the model area and within the limits of the non-attainment area, the total mileage for each functional class in the non-modeled area was obtained and the associated VMT was calculated from HPMS data for the base year of 2010. By using historically developed adjustment factors the base year VMT of each functional class was seasonally adjusted for the ozone season (July).

VMT was projected for the selected analysis years of 2015, 2017, 2022, 2037 and 2037 by using base year VMT and growth rates developed from historical HPMS data using regression analysis. Horizon years' VMT were calculated using the following relationship:

$$(1+r)^n = \frac{VMT_j}{VMT_i}$$

WHERE: r = annual growth rate;

n = number of years (year j - year i);
 VMT_i = vehicle miles of travel in year i;
 VMT_i = vehicle miles of travel in year j.

The growth rates are stratified by functional class of roadways.

For modeling purposes, vehicle speeds in the non-modeled area are assumed to average 90 percent of LDOTD's design value speeds specified for the roadway functional classes.

For the modeled area, VMT and vehicle speeds are derived by using post-processing modeling software called PPSUITE[™] (Appendix C). Section 2.6 below describes how this model produces VMT and speeds based on travel demand model output. However, TDM/HPMS adjustment factors for all modeled roadway types were developed in accordance with 40 CFR 93.122 using 2010 HPMS-based network VMT. Modeled area VMT was adjusted in order to reconcile HPMS data with the results of the model.

Vehicle speeds used in the modeled area were those produced by the $PPSUITE^{TM}$ model.

2.5 VEHICLE EMISSION FACTORS

Composite vehicle emission factors (grams of emissions per vehicle mile of travel) were determined utilizing the sixth generation of the mobile emissions model software, MOBILE6.2. This is an integrated set of FORTRAN routines for estimating the air pollution impact of gasoline and diesel fueled motor vehicles. Emission factors for VOC and NO_x were determined for attainment year 2015, last year of the maintenance plan (2022), and each horizon year (2017, 2027, and 2037) using area-specific input assumptions for the Baton Rouge ozone nonattainment area.

Using the interagency consultation process, local fleet characteristics, including VMT mix fractions were established. LA DEQ developed new vehicle registration distributions using the latest LA Office of Motor Vehicle data (Appendix E). Area-specific MOBILE6.2 input files were prepared primarily by LDEQ Environmental Planning Division staff and provided to CRPC and DOTD for use in this conformity analysis. The files produced are consistent with those used for preparation of the *MOBILE6 Motor Vehicle Emissions Budgets* SIP. Other non-default local parameters include:

- Baton Rouge minimum/maximum ozone-season temperatures and absolute humidity levels;
- 2. Average vehicle speeds (mph) for all vehicle types;
- 3. Summertime gasoline Reid Vapor Pressure, and;
- 4. A 5-parish vehicle inspection and maintenance (I/M) program that includes on-board diagnostic testing for 1996 and newer vehicle model years, a gas cap check, and an anti-tampering inspection program.

In addition to the VMT mix and registration distribution files, Appendix E contains all MOBILE6.2 input and output files.

2.6 ENHANCED MODELING METHODOLOGY

Section 93.122 of the Federal Transportation Conformity Regulations (**EPA-420-B-12-013, April 2012**) stipulates a number of extra modeling requirements for areas classified as moderate, serious, severe, or extreme ozone non-attainment areas. The Baton Rouge non-attainment area is currently classified as a marginal 2008 8-hour ozone nonattainment area. Previously, the area was classified as a severe 1-hour ozone nonattainment area. Because of the prior severe classification, and the requirements of the anti-backsliding provisions of the Clean Air Act, the urbanized portion of the nonattainment area (the MPO area) must use enhanced modeling techniques for the mobile source emissions analysis. Enhanced modeling techniques improve the accuracy of mobile source emissions estimates primarily by accounting for the temporal variability due to peak and off-peak traffic volumes and the effect of congestion levels on vehicular emissions.

To meet the enhanced modeling requirements, the Baton Rouge MPO uses PPSUITE[™] post-processing modeling software that links the output of the travel demand model (e.g. VMT and speeds) with emission factors produced by MOBILE6.2. In other words, PPSUITE[™] uses the output of the travel demand

forecasting assignments and the associated network data, and performs a number of tasks to analyze network operating conditions, compile VMT and speed estimates, process MOBILE6.2 input, and produce the MOBILE6.2 output over four distinct time periods of the day.

With help from other agencies, CRPC staff prepared the following input files needed for PPSUITE[™] modeling:

Directionality File – To make it possible to take advantage of the flexibility offered by PPSUITE^m in terms of coding the directionality of each link. This allowed for accounting of different flows on the interstate corridors that are particularly significant during the peak periods.

<u>**Highway Network File**</u> – The highway network file used was the TransCAD loaded highway network file that was translated to DBF format and adjusted with the Empirically Based Free-Flow Speeds File and the Directionality File.

<u>Zone Area Equivalence File</u> – Traffic zones are the geographic entities that form the basis for both pattern matching and VMT tabulations. The basic requirement is that each network contains a traffic zone number, so that it can be spatially referenced. Each of the 688 Traffic Analysis Zones (TAZ) was assigned to one of the thirty-five districts.

<u>Speed-Capacity Lookup File</u> – This input file was prepared using empirical free flow speeds, the 1994 Highway Capacity Manual, and a research paper by the Metropolitan Transportation Commission, "Beyond the BPR curve: Speed Capacity Relationships in Traffic Assignment", presented at the 5th Transportation Methods Conference in Seattle, 1995.

MOBILE6.2 Files – The MOBILE6.2 input files were developed primarily by LDEQ staff and reformatted for use with PPSUITETM driver files. The MOBILE6.2 input files contain all localized planning variables as those used for the non-modeled portion of the nonattainment area. However, PPSUITETM automatically adjusts and inserts traffic flow variables (speed and VMT mix) from the network for each scenario (area/facility, type/time period combination).

<u>Vehicle Type Mix File</u> – The vehicle type mix for each hour was prepared by using the DOTD statewide VMT mix for all facility types.

<u>Vehicle Type Capacity Factor File</u> – The model incorporates the factors extracted from the Highway Capacity Manual.

<u>Ambient Temperature File</u> – LDEQ provided the data to CRPC to calculate ambient temperatures for each of the four time periods on a typical ozone exceedence day.

2.7 NET ON-ROAD MOBILE EMISSIONS

The total mobile source emissions for the Baton Rouge nonattainment area are calculated by adding the emissions in the modeled area to those estimated for the non-modeled area (donut area). For the urbanized modeled area, the emission output is summarized by PPSUITETM in three different aggregation choices: facility type, time period, and by parish. For the rural areas surrounding the modeled area, the HPMS-based VMT are estimated for each parish (or part of parish) and multiplied by the emission factors derived from MOBILE6.2.

The total mobile source emissions exceeded the MVEBs for both VOC and NOx in conformity analysis year 2022, and VOC only in years 2027 and 2037. Off-model emission credits are analyzed in detail as shown in Appendix E. These credits were subtracted from the total mobile source emissions in the nonattainment area to calculate the net on-road mobile emissions. The net emissions are lower than the MVEBs resulting in positive conformity finding. Tables 1 and 2 in Section 3.0 show the results of the rural/urban emissions summation.

2.8 PUBLIC PARTICIPATION

The public participation process follows the requirements of 40 CFR 93.105 and 23 CFR 450.316. This process is proactive and provides for public review and comment prior to formal action on this conformity determination for the MTP and TIP update.

The public involvement process provides for complete information, timely notice, full public access to key decisions, and reasonable public access to the technical and policy information with consideration of public input. This public participation process is documented in Appendices H and I.

These appendices include the affidavit of proof of publication of the public notice, the official minutes of the public hearing, the joint meeting of the TPC and the Technical Advisory Committee (TAC), the adopting resolution certifying the conformity analysis and adoption of the MTP and TIP, and conformity determination concurrence letters from participating state and federal agencies.

3 CONFORMITY ANALYSIS RESULTS

Tables 1 summarizes the regional emissions analysis performed for the Baton Rouge nonattainment area.

Analysis	Model Area Emissions		Outside Model Area Emissions		Total Emissions		Off-Model Credits		Net Emissions		MVEB Budgets	
Year	VOC (Tons/Day)	NOx (Tons/Day)	VOC (Tons/Day)	NOx (Tons/Day)	VOC (Tons/Day)	NOx (Tons/Day)	VOC (Tons/Day)	NOx (Tons/Day)	VOC (Tons/Day)	NOx (Tons/Day)	VOC (Tons/Day)	NOx (Tons/Day)
2015	11.85	10.45	1.75	2.76	13.60	13.21	0.00	0.00	13.60	13.21	18.82	30.00
2017	10.66	8.61	1.54	2.18	12.20	10.79	0.00	0.00	12.20	10.79	18.82	30.00
2022	7.37	5.82	1.04	1.28	8.41	7.10	1.07	0.42	7.34	6.69	7.55	6.96
2027	7.08	4.69	0.96	0.91	8.04	5.60	1.27	0.42	6.78	5.19	7.55	6.96
2037	7.93	4.62	0.97	0.76	8.90	5.38	2.11	0.78	6.78	4.60	7.55	6.96

TABLE 1: MTP 2037 Air Quality Conformity Analysis - Emissions Summary

As can be seen in the above table, the total network emissions for all the analysis years 2022, 2027, and 2037 are more than the MVEBs established for the nonattainment area. However, the net network emissions calculated by subtracting the emission credits from off-model projects are less than the established MVEBs. Therefore, it is concluded that the regional emissions analysis performed for the *Baton Rouge Nonattainment Area Transportation Plan for 2037 and the Transportation Improvement Program (FY 2013 - 2017)* demonstrates conformity to applicable provisions of Louisiana's Ozone SIP.

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APPENDIX A

Baton Rouge Metropolitan Transportation Plan 2037

Appendix A includes the three staged highway improvement projects list from the Metropolitan Transportation Plan 2037. Each list includes fields that identifies the air quality conformity analysis year in which a particular project will open to vehicular traffic. The projects with "open to traffic xxxx" field stated as "No" are not modeled for conformity in that particular analysis year but modeled in the subsequent conformity analysis year. For example, if "open to traffic 2015 = No" then the project is modeled for conformity in 2017 if " open to traffic 2017 = Yes". Each stage and project meets the requirements of 40 CFR 93.106 and 93.108.

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Baton Rouge MTP 2037 Upda	te
Stage I (2013-2017) Projects	

Map No.	Open to Traffic 2015 [*]	Open to Traffic 2017 ^{**}	Parish	Route	Location	Improvement	Project Cost (000)	Funding Source
101	No	Yes	ASC	LA 42	US 61 to LA 44	Widening and Improvements		DEMO,STPENH,STP>200K,HSIP
102	No	No	ASC	I-10	LA 73 - LA 22	Capacity Improvements	3,100	LHIP
103	Yes	Yes	ASC	LA 930 (Daigle Rd)	Causey Rd to LA 42	Widen LA 930 & Add Open Ditches	11,060	STBONDS
104	Yes	Yes	ASC	LA 44 (N Burnside Ave)	LA 934 (Black Bayou Rd)	Turn Lanes & Signal Upgrades	1,355	HSIP
105	Yes	Yes	ASC	LA 431	LA 934 (Goldplace Rd)	Turnlanes	1,572	CMAQ
106	No	Yes	ASC	LA 44 (Burnside Ave)	Various	Intersection Improvements	11,369	HSIP
107	No	Yes	ASC	LA 73 (Old Jefferson Hwy)	Nicholson Dr to LA 74	Widen to 3 Lanes	10,060	STPFLEX
108	No	Yes	ASC/EBR	I-10	Highland to LA 73	Widen to 6 Lanes	124,350	STGEN
109	Yes	Yes	EBR	LA 64 (Main St)	LA 19 to McHugh Rd	Center Turn Lane	11,006	STP>200K, HSIP
110	Yes	Yes	EBR	LA 73 (Old Jefferson Hwy)	Antioch Rd	Intersection Improvement	1,333	CMAQ
111	Yes	Yes	EBR	Jones Creek Rd	Tigerbend Rd - Coursey Blvd	Widen to 5 Lanes	15,135	STP>200K
112	No	Yes	EBR	I-10	Highland Rd - LA 73	Capacity Improvements	1,809	LHIP
113	Yes	Yes	EBR	O'Neal Ln	S. Harrell's Ferry Rd - George O'Neal	Widen to 4 Lanes	17,911	LOCAL
114	Yes	Yes	EBR	Sullivan Rd	Central Thruway - Central Woods	Widen to 4 lanes	25,776	LOCAL
115	Yes	Yes	EBR	Fairchild - Badley Road	Scenic Hwy to Veterans Blvd	Base Wideninig, Curb & Gutter W/Sidewalks	5,707	LOCAL
116	No	Yes	EBR	Old Hammond Hwy Seg 2	Millerville Rd - O' Neal Ln	Widen to 4 Lanes	12,179	LOCAL
117	Yes	Yes	EBR	Essen Ln	Essen Ln @ I 10	Intersection Improvements	4,221	LOCAL
118	No	No	EBR	LA 408 (Hooper Rd)	LA 37 - LA 16	Extension of Hooper Rd Feasibility Study	1,003	STBONDS
119	No	No	EBR	N. Sherwood Forest Blvd	Choctaw Dr - Greenwell Springs Rd	Widen to 5 Lanes	19,611	STP>200K
120	Yes	Yes	EBR	LA 30 (Nicholson Dr)	Brightside Ln	Intersection Improvement	10,538	CMAQ
121	Yes	Yes	EBR	LA 408, LA 73	LA 408 & LA 73	Turn Lanes	495	STPFLEX
122	Yes	Yes	EBR	Sullivan Rd	Central Woods - Hooper Rd	Widen to 4 Lanes	33,138	LOCAL
123	No	Yes	EBR	LA 3064 (Essen Ln)	Perkins Rd to I-10	Widen to 7 Lanes	10,350	STPFLEX

Baton Rouge MTP 2037 Update
Stage I (2013-2017) Projects

Map No.	Open to Traffic 2015 [*]	Open to Traffic 2017 ^{**}	Parish	Route	Location	Improvement	Project Cost (000)	Funding Source
124	No	Yes	EBR	Nicholson Drive Seg 1	Brightside Ln - Gourrier Ave	Widen to 4 Lanes	26,036	LOCAL
125	No	Yes	EBR	Hooper Rd	Blackwater Bayou to Joor Rd	Widen to 4 Lanes	17,327	LOCAL
126	No	Yes	EBR	Hooper Rd	Joor Rd to Sullivan Rd	Widen to 4 Lanes	29,363	LOCAL
127	No	Yes	EBR	Old Hammond Hwy Seg 1	Blvd De Province - Millerville Rd	Widen to 4 Lanes	14,000	LOCAL
128	No	Yes	EBR	Perkins Rd	Siegen Ln - Pecue Ln	Widen to 4 Lanes	16,300	LOCAL
129	No	Yes	EBR	Staring Ln/Gardere Ln	Burbank Dr to Nicholson Dr	New 4 Lane/Widen to 4 Lanes	15,795	STPFLEX
130	No	No	EBR	LA 64 Bypass	Main St to LA 19 (Zachary)	New 2 Lane	4,524	STPFLEX
131	No	Yes	EBR	I-110	North St to US 61/190	Reconstruct JCP at grade	29,700	IM
132	No	Yes	EBR	Glen Oaks Dr	Plank Rd to McClelland Dr	Reconstruction	9,904	LOCAL
133	No	No	EBR	Highland-Burbank Connector	Highland Rd to Burbank Dr	New 3 Lane	4,298	LOCAL
134	No	No	EBR	LA 64 (Mt Pleasant -Zachary Rd)	US 61 to LA 964	Widen to 4 Lanes	23,627	LOCAL
135	No	Yes	EBR	McHugh Rd	Wimbush Dr to Lower Zachary Rd	Base Widening W/Shoulders	6,379	LOCAL
136	No	No	EBR	I 10	Pecue Ln	New Interchange W/Road Improvements	55,000	NFI
137	No	Yes	EBR	Picardy Perkins Connector	Picardy Ave - Perkins Rd	New Road	32,192	NFI
138	No	No	EBR	I 12	Millerville Rd	Interchange Reconfiguration	2,300	PRIVATE
139	No	Yes	LIV	US 190 (Florida Ave)	LA 1026 (Roundabout)	Roundabout	1,570	HSIP
140	Yes	Yes	LIV	US 190 (Florida Ave)	Eden Church Rd	Construct 4-Legged Single Lane Roundabout	1,606	HSIP
141	Yes	Yes	LIV	LA 16	LA 22	Install Roundabout	2,711	HSIP
142	Yes	Yes	LIV	LA 1032 (S River Rd)	US 190	Intersection Improvements	825	HSIP
143	Yes	Yes	LIV	US 190 (Florida Ave)	LA 449	Left Turn Ln	385	STPFLEX
144	Yes	Yes	LIV	LA 16	LA 447	Roundabout	1,350	HSIP
145	Yes	Yes	LIV	LA 1026	Access Mgt. & Roundabouts	Roundabout	4,838	STPFLEX
146	No	No	LIV	LA 16 (N Range Ave)	Jackson St	Turn Lanes	1,300	STPFLEX
147	No	Yes	LIV	I-12	Walker to Satsuma	Widen to 6 Lanes	25,500	STBONDS, NHS

Baton Rouge MTP 2037 Upda	ite
Stage I (2013-2017) Projects	5

Map No.	Open to Traffic 2015 [*]	Open to Traffic 2017 ^{**}	Parish	Route	Location	Improvement	Project Cost (000)	Funding Source
148	No	Yes	LIV	Cook Rd	Pete's Hwy to Juban Rd	New 4 Lane	17,550	LOCAL
149	No	Yes	WBR	LA 1	DOW Spur Xing	Grade Separate Existing At-Grade Crossing	46,100	NHS
			LIV	River Rd	Government St to Centerville St	Widening and Overlay	483	STP>200K
			ASC	LA 939 (Worthey Rd)	LA 44 to Purpera St	Overlay	965	STP>200K
			ASC	LA 940 (Orice Roth Rd)	S Darla to LA 44	Overlay	829	STP>200K
			ASC	LA 3038 (Cornerview Rd)	LA 44 to US 61	Overlay	543	STP>200K
			ASC	LA 30	Iberville Parish Line to I-10	Overlay	2,522	STP>200K
			EBR	Acadian Thwy		Pavement Rehab	3,264	STP>200K
			EBR	Various	Parishwide	Signal Modifications	1,672	STP>200K
			EBR	Various	OLOL Medical Complex	Roadway Rehab	1,160	STP>200K
			WBR	LA 986		Sidewalks	879	STP>200K
			WBR	LA 415	I-10 north 0.41 mile	Pavement Rehab	658	STP>200K
			WBR	LA 1	Various	Lighting	549	STP>200K
			WBR	LA 1, LA 76	Various	Turn Lanes	595	STP>200K
			ASC	Various	Parishwide	Pavement Management	150	STP>200K
			Study Area	Line Item	Various	Enhancement	201	Various
			Study Area	Line Item	Various	Safety	17,507	Various
			Study Area	Line Item	Various	Bridge	101,304	Various
			Study Area	Line Item	Various	Overlay	21,535	Various
			Study Area	Line Item	Various	Maintenance	53,026	Various
			Study Area	Line Item	Various	Operations	5,679	Various
						Total Cost Stage I	993,529	

Baton Rouge MTP 2037 Update Stage II (2018-2027) Projects

Map No.	Parish	Open to Traffic 2022 [*]	Open to Traffic 2027 ^{**}	Route	Location	Improvement	Length (Miles)	Project Cost (000)
201	ASC	No	Yes	LA 73 (Old Jefferson Hwy)	I-10 to Airline Hwy	Widen to 4 Lanes	2.30	20,334
202	ASC	No	Yes	LA 73 (Old Jefferson Hwy)	LA 74 to I-10	Widen to 4 Lanes	1.04	9,243
203	ASC	No	Yes	US 61 (Airline Hwy)	Jefferson Hwy to Perkins Rd	Widen to 8 Lanes	2.23	19,742
204	ASC	No	Yes	LA 30 (Nicholson Dr)	Ashland Rd to Burnside Ave	Widen to 4 Lanes	2.51	22,218
205	ASC	Yes	Yes	LA 73 (Old Jefferson Hwy)	Airline Hwy	Intersection Improvement / Realignment	0.20	1,771
206	ASC	No	Yes	LA 940 (Orice Roth Rd)	E Ascension School Rd to Burnside Ave	Widen to 4 Lanes	0.99	8,732
207	ASC	Yes	Yes	I-10	LA 73 to LA 22	Widen to 6 Lanes	9.60	275,576
208	ASC/EBR	No	Yes	US 61 (Airline Hwy)	Perkins Rd to Highland Rd	Widen to 6 Lanes	2.33	20,627
209	EBR	Yes	Yes	S Choctaw Rd	Flannery Rd to Central Thwy	Widen to 4 Lanes	1.44	12,726
210	EBR	No	Yes	Sharp Rd	Florida Blvd to Old Hammond Hwy	Widen to 4 Lanes	1.60	14,191
211	EBR	Yes	Yes	LA 427 (Perkins Rd)	Pecue Ln to Highland Rd	Widen to 5 Lanes	1.76	15,543
212	EBR	No	Yes	Cedarcrest Ave	Airline Hwy to Old Hammond Hwy	Widen to 4 Lanes	1.49	13,207
213	EBR	No	Yes	LA 1068 (Drusilla Ln)	Jefferson Hwy to Old Hammond Hwy	Widen to 4 Lanes	1.04	9,233
214	EBR	No	Yes	US 61 (Airline Hwy) Phase 1-C	Florida Blvd to Florline Blvd	Widen to 6 Lanes	0.24	2,168
215	EBR	No	Yes	US 61 (Airline Hwy) Phase 2-B	Greenwell Springs Rd to I-110	Widen to 6 Lanes	3.66	32,437
216	EBR	No	Yes	US 61 (Airline Hwy) Phase 3	Florline Blvd to Greenwell Springs Rd	Widen to 6 Lanes	1.68	14,891
217	EBR	No	Yes	US 190 (Florida Blvd)	Airline Hwy to Monterey Blvd	Widen to 8 Lanes	0.88	7,749
218	EBR	No	Yes	LA 42 (Burbank Dr)	Nicholson Dr to 0.8 mi east	Widen to 6 Lanes	0.82	7,272
219	EBR	Yes	Yes	LA 67 (Plank Rd)	Airline Hwy to Hooper Rd / Harding Blvd	Widen to 6 Lanes	0.76	6,717
220	EBR	No	Yes	S Sherwood Forest Blvd	Old Hammond Hwy to Florida Blvd	Widen to 4 Lanes	1.48	13,119
221	EBR	Yes	Yes	LA 426 (Old Hammond Hwy)	O'Neal Ln to Florida Blvd	Widen to 4 Lanes	0.85	7,565
222	EBR	No	Yes	S Flannery Rd	Old Hammond Hwy to Florida Blvd	Widen to 4 Lanes / Realign with Millerville Rd	1.18	10,465
223	EBR	Yes	Yes	I-12	Essen Ln	New WB Exit Ramp	0.47	7,082
224	EBR	No	Yes	US 61 (Airline Hwy)	Jefferson Hwy to Cedarcrest Ave	Widen to 6 Lanes	1.55	13,722
225	EBR	No	Yes	LA 408 (Hooper Rd)	Plank Rd to Mickens Rd	Widen to 6 Lanes	1.16	10,294
226	EBR	Yes	Yes	LA 408 (Hooper Rd)	Devall Rd to Greenwell Springs Rd	Widen to 4 Lanes	2.63	23,293

Baton Rouge MTP 2037 Update Stage II (2018-2027) Projects

Map No.	Parish	Open to Traffic 2022 [*]	Open to Traffic 2027 ^{**}	Route	Location	Improvement	Length (Miles)	Project Cost (000)
227	EBR	Yes	Yes	LA 37 (Greenwell Springs Rd)	Sullivan Rd to Magnolia Bridge Rd	Widen to 5 Lanes	2.84	25,166
228	EBR	No	Yes	Groom Rd Ext	Old Scenic Hwy to Samuels Rd	New 2 Lane Roadway	0.88	6,241
229	EBR	Yes	Yes	Tiger Bend Road	Jones Creek Ro to Antioch Rd	Widen to 4 Lanes	0.70	6,197
230	EBR/LIV	No	Yes	LA 408 Ext (Hooper Rd)	Greenwell Springs Rd to LA 16	New 4 Lane Roadway/Bridge	2.30	63,242
231	LIV	Yes	Yes	US 190 (Florida Ave)	Pete's Hwy to Burgess Ave	Widen to 4 Lanes	2.25	19,879
232	LIV	No	Yes	Juban Rd Ext	Florida Ave to Lockhart Rd	New 4 Lane Roadway	1.11	17,670
233	LIV	No	Yes	LA 64 (Magnolia Beach Rd)	Amite River to N Range Ave	Widen to 4 Lanes	1.14	10,103
234	LIV	Yes	Yes	LA 1026 (Juban Rd)	Wax Rd to I-10	Widen to 4 Lanes	1.06	9,384
235	LIV	Yes	Yes	LA 1026 (Juban Rd)	I-10 to Florida Ave	Widen to 4 Lanes	1.42	12,571
236	LIV	No	Yes	LA 3003 (Rushing Rd)	0.5 mi West of S Range Rd to Pete's Hwy	Widen to 4 Lanes	1.22	10,790
237	LIV	Yes	Yes	LA 16 (Pete's Hwy)	Centerville Street to Vincent Rd	Widen to 4 Lanes	3.01	26,679
238	LIV	No	Yes	LA 447 (Walker Rd)	Duff Rd to Burgess Ave	Widen to 4 Lanes	0.76	6,728
239	LIV	No	Yes	New Roadway	Pendarvis Lane to Florida Ave	New 2 Lane Roadway	0.18	1,266
240	LIV	No	Yes	Satsuma Rd Ext	Florida Ave to Cane Market Rd	New 2 Lane Roadway	0.55	3,885
241	LIV	No	Yes	LA 1032 (4-H Club Rd)	Vincent Rd to Florida Ave	Widen to 4 Lanes	1.15	7,395
242	LIV	Yes	Yes	I-12	Pete's Hwy	New Interchange	0.64	45,150
243	WBR	Yes	Yes	LA 1	Lukeville Ln to I-10	Widen to 6 Lanes	4.63	40,968
244	LIV	Yes	Yes	I-12	Satsuma to Study Area Boundary	Widen to 6 Lanes	1.20	26,498
	Study Area			Line Item	Various	Enhancement		7,530
	Study Area			Line Item	Various	Safety		27,355
	Study Area			Line Item	Various	Bridge		47,869
	Study Area			Line Item	Various	Overlay		45,150
	Study Area			Line Item	Various	Maintenance		2,510
	Study Area			Line Item	Various	Operations		5,226
						Total Cost Stage II	72.95	1,075,371

Baton Rouge MTP 2037 Update Stage III (2028-2037) Projects

Map No.	Parish	Open to Traffic 2037	Route	Location	Improvement	Length (Miles)	Project Cost (000)
301	ASC	Yes	LA 44 (N Burnside Ave)	Cante Rd to Oak Grove-Port Vincent Hwy	Widen to 4 Lanes	3.75	42,498
302	ASC	Yes	LA 621	Old Jefferson Hwy to Airline Hwy	Widen to 4 Lanes	2.47	28,024
303	ASC	Yes	US 61 (Airline Hwy)	N Burnside Ave to Jefferson Hwy	Widen to 8 Lanes	5.00	56,680
304	ASC	Yes	LA 73 (Old Jefferson Hwy)	Airline Hwy to LA 42	Widen to 4 Lanes	1.01	11,470
305	ASC/EBR	Yes	Old Perkins Rd	Highland Rd to Airline Hwy	Widen to 4 Lanes	3.45	39,109
306	ASC/EBR/LIV	Yes	LA 929 (Hornsby Rd) Ext	Oak Grove-Port Vincent Hwy to 4-H Club Rd	New 2 Lane Roadway with Bridge	5.86	121,159
307	EBR	Yes	LA 64 (Greenwell Springs-Port Hudson Rd)	Plank Rd to Joor Rd	Widen to 4 Lanes	3.80	43,080
308	EBR	Yes	US 61 (Airline Hwy)	Highland Rd to Jefferson Hwy	Widen to 6 Lanes	4.00	45,344
309	EBR	Yes	LA 67 (Plank Rd)	Groom Rd to Main St	Widen to 4 Lanes	4.97	56,335
310	EBR	Yes	Mickens Rd	Hooper Rd to Joor Rd	Widen to 4 Lanes	3.01	34,085
311	EBR	Yes	Highland Rd	Perkins Rd to Seigen Ln	Widen to 4 Lanes	3.32	37,636
312	EBR	Yes	LA 3246 (Siegen Ln)	Perkins Rd to I-10	Widen to 6 Lanes	1.00	11,283
313	LIV	Yes	LA 447 (Walker Rd)	I-12 to Hood Rd	Widen to 4 Lanes	5.48	62,121
314	WBR	Yes	LA 1/I-10 Connector	Lobdell Hwy to LA 1	New 2 Lane Roadway	2.70	137,886
	Study Area		Line Item	Various	Enhancement		9,638
	Study Area		Line Item	Various	Safety		35,017
	Study Area		Line Item	Various	Bridge		61,277
	Study Area		Line Item	Various	Overlay		57,796
	Study Area		Line Item	Various	Maintenance		3,213
	Study Area		Line Item	Various	Operations		6,690
				•	Total Cost Stage III	49.82	900,341

APPENDIX B

Travel Demand Model Planning Variables

Forecasting future travel demand requires factors such as land use, population size, the number of housing units and jobs, their location, and school enrollment. These factors are used in the trip generation purposes for estimating the future demand. The accuracy necessary for generating trips from planning data requires that the data be aggregated by small geographic areas called Traffic Analysis Zones (TAZs). These TAZs are generally homogeneous areas and were delineated based on factors such as population, land use, census tracts, physical landmarks, and governmental jurisdictions. The Baton Rouge metropolitan study area is divided into 1,300 TAZs; with 240 in Ascension Parish, 763 in East Baton Rouge Parish, 14 in Iberville Parish, 215 in Livingston Parish, and 68 in West Baton Rouge Parish.

As it will be voluminous to display planning variables on a TAZ level for all the analysis years, Appendix B includes only totals summarized to individual parish level for each conformity analysis year within the Baton Rouge MPO study area boundary.

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Analysis Year	Parish	Population	Occupied Dwelling Units	Total Dwelling Units	Retail Employment	Total Employment	School Attendance
2015	ASC	113,218	40,082	43,044	9,303	41,870	24,983
	EBR	440,069	176,415	191,987	55,372	270,852	132,053
	IBR	4,083	1,575	1,696	203	4,367	473
	LIV	115,196	41,374	44,319	9,175	25,654	22,309
	WBR	19,147	7,216	7,742	1,952	11,947	3,852
2015	Total	691,713	266,662	288,788	76,005	354,690	183,670
2017	ASC	120,059	42,504	45,648	9,879	44,736	26,490
	EBR	444,441	178,142	193,839	56,224	274,938	132,465
	IBR	4,132	1,594	1,718	206	4,414	476
	LIV	122,273	43,909	47,007	9,958	28,176	23,692
	WBR	19,386	7,302	7,833	2,003	12,143	3,897
2017	Total	710,291	273,451	296,045	78,270	364,407	187,020
2022	ASC	135,868	48,111	51,668	11,166	51,104	30,094
	EBR	454,361	182,069	198,094	57,915	282,651	133,500
	IBR	4,283	1,654	1,783	211	4,532	485
	LIV	136,616	49,075	52,516	11,958	32,415	26,493
	WBR	19,907	7,494	8,042	2,084	12,584	3,995
2022	Total	751,035	288,403	312,103	83,334	383,286	194,567
2027	ASC	151,334	53,596	57,577	12,445	57,467	33,686
	EBR	463,548	185,706	202,023	59,641	290,440	134,465
	IBR	4,422	1,708	1,843	218	4,646	494
	LIV	150,697	54,140	57,920	12,742	36,705	29,281
	WBR	20,384	7,670	8,234	2,169	13,029	4,090
2027	Total	790,385	302,820	327,597	87,215	402,287	202,016
2037	ASC	186,442	65,993	70,903	15,296	71,298	42,660
	EBR	482,476	193,127	210,091	62,920	306,139	136,764
	IBR	4,776	1,847	1,992	232	4,910	515
	LIV	180,049	64,766	69,356	15,248	45,331	35,447
	WBR	21,252	7,993	8,578	2,315	14,079	4,274
2037	Total	874,995	333,726	360,920	96,011	441,757	219,660

Baton Rouge MTP 2037 Update MPO Modeled Area Planning Variables

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APPENDIX C

Baton Rouge MPO Model Area Emissions Analysis

Appendix C includes a memo explaining the Transportation Model HPMS VMT adjustment methodology and PPSUITE/MOBILE6 emissions analysis input and output files.

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Memorandum

Date:	May 30, 2013
То:	Ravi Ponnapureddy, CRPC
From:	Anna Aleynick
Subject:	2013 Baton Rouge Transportation Model HPMS VMT Adjustment and PPSUITE/MOBILE6 analysis for emission estimate.
Distribution:	Gary Davies

HPMS VMT

Background

The Highway Performance Monitoring System (HPMS) is a standardized procedure by which States determine and report vehicle miles of travel to FHWA. Based on statistical expansion of a system of traffic counts, existing vehicle miles of travel (VMT) are estimated for each current year. The VMT represents Annual Average Daily Traffic (AADT), which is essentially an average day over the entire year including weekends.

USEPA recommends that the emissions estimates used for the conformity determination be based upon VMT quantities which are consistent with the reported HPMS totals for the region. Since the travel model is a simulation and provides only an approximation of actual conditions, it is inevitable that the traffic volumes produced by the model need to be adjusted to be precisely consistent with reported HPMS totals. Further, the issue of temporality must be accounted for: the model represents a typical, presumably average, weekday. HPMS represents Average Annual Daily Traffic (an overall average day of the year including weekend days). But the emissions estimate should be computed for a typical July weekday so adjustments to both the model VMT and reported HPMS VMT totals are needed. Finally, the adjustments should be applied in such a way that computed network speeds are correctly affected by the adjusted traffic volumes.

Recommended Procedure

The following is a recommended procedure for adjusting the traffic volumes output by the travel model:

- Base the adjustment procedure on the latest year for which both observed HPMS VMT totals and a model run are available. The travel model will need to be run for the same year.
- 2. Group the VMT totals produced by the model and reported by HPMS. HPMS is reported by functional class and parish. Travel model link data can be aggregated from traffic analysis zone (TAZ) and functional class. To insure a reasonable degree of stability in the adjustments while still retaining sensitivity to local variations, it is recommended that VMT totals be grouped by five facility groups:

Facility Group	HPMS Functional Class	Model Functional Class
1. Freeways*	1, 11	1, 11
2. Major Arterials	2, 14	2, 14
3. Minor Arterials	6, 16	6, 16
4. Collectors	7, 8, 17	7, 8, 17
5. Locals	9, 19	9, 19, 64**

 Table 1 – Grouping of Functional Classes

* Current model network does not include links classified as Urban Expressway (FC 12).

** In the transportation model a limited number of links are designated as Local Streets in the network. The Centroid Connectors (FC 64) are added as local streets.

3. Using traffic count adjustment factors obtained from LaDOTD, adjust the base year aggregated HPMS VMT totals for each facility group from AADT to a July weekday.
4. For Freeways, Major Arterials, and Minor Arterials (Facility Groups 1-3): For each facility group cell, compare the seasonally-correct HPMS VMT totals calculated in (3) to the base year VMT totals produced by the travel model. Differences between the two can be attributed to a combination of calibration error and seasonal/daily variation, and can be corrected by a factor, which is computed by dividing HPMS VMT by model VMT:

$$F_{1,2,3} = VMT_{HPMS} / VMT_{Model}$$

When the emissions estimate is computed for either the base year or forecast years, this factor is applied by PPSUITE to network traffic volumes for each facility group cell <u>before</u> speeds are computed. Vehicle Miles of Travel (VMT) and Vehicle Hours of Travel (VHT) are then accumulated for each cell and an average speed computed for the cell.

5. For Collectors and Locals (Facility Groups 4-5): Adjust the model VMT for daily and seasonal variation using the LaDOTD count factors. Compare the HPMS and model VMT totals for each facility group cell. For these facility groups the model is likely missing network coverage, since many collector and local streets are not coded because the model is designed to deal with regional traffic effects. Therefore collector and local VMT produced by the model is considerably less than the HPMS reported totals. In this case the missing VMT is <u>added</u>, since serious distortions can occur if factors are applied. For each facility group cell, then, a difference is computed:

$$DELTA_{4,5} = VMT_{HPMS} - VMT_{Model}$$

When the emissions estimate is computed for either the base year or forecast years, first VMTs tabulated from the model are adjusted for daily / seasonal variation. Then the difference computed above is applied to the VMT accumulated for the facility group cell <u>after</u> speeds are computed. The assumption is that speeds are generally correct on those links that appear in the model, and that added VMT represents additional links operating at generally the same speeds. (The alternative – adding large amounts of VMT before speeds are calculated – would produce very high link volumes on the few links in the network and result in excessively low speeds.) The

same differential VMT is added for all years, which allows the model to estimate added collector and local street growth.

These calculations are handled in two steps:

First, a spreadsheet is assembled for the base year, which aggregates HPMS and model VMT from functional class and facility type to facility group, applies daily and seasonal adjustment factors, and computes the adjustment factors and differences. ASCII VMT adjustment files are produced by this spreadsheet, which contain the factors and differences in a format that can be input to PPSUITE.

Second, the VMT adjustments are applied within PPSUITE to each analysis condition, both base and future. PPSUITE appropriately adjusts volumes, speeds, and VMTs depending on whether the adjustment is to be made before or after speed calculations.

Baton Rouge VMT Adjustment

The traffic volume output by the updated Baton Rouge travel forecast model are representative of a typical weekday condition for the designated design year. The travel model has a base year of 2004 for which the model was calibrated, and an additional analysis year of 2010. Year 2010 is the base year for TIP air quality conformity analysis. Forecast years used for conformity analysis purposes are 2015, 2017, 2022, 2027, and 2032.

The 2010 HPMS values used to calculate VMT adjustments represent summer (July) for HC and NOx emissions modeling. 2010 HPMS VMT adjustment factors are applied to all model analysis years – 2010, 2015, 2017, 2022, 2027, and 2032.

There is one Pre-VMT file used to adjust Baton Rouge freeway and arterial VMT to match HPMS seasonally adjusted totals. There is one Post-VMT file used in adjusting Baton Rouge collector and local_street VMT to match the prescribed HPMS seasonally adjusted total.

The attached tables show the VMT from HPMS and Baton Rouge Model Runs, the difference between these two, and the calculated VMT adjustment factors. The VMT adjustment files as used by PPSUITE are also attached. VMT Summary Table shows VMT adjustments and total VMT for each analysis year in each parish.

PPSUITE and MOBILE6

Introduction

PPSUITE reads Baton Rouge Travel Demand Forecast Model TransCAD network files, obtaining the traffic volume and physical link data produced by the travel model. The PPSUITE system assumes that the travel forecast system is in place and is producing acceptable 24-hour traffic volume forecasts on an individual link basis, and for a subject design year. It then reads those traffic volumes and the associated network data, and performs a variety of tasks to analyze network operating conditions, compile VMT and speed estimates, prepare MOBILE inputs, and process the MOBILE output.

The MOBILE program developed by USEPA is being used by transportation agencies to calculate mobile source emission factors, which are in turn a key input to the emissions inventories that are required for the State Implementation Plan (SIP) and for SIP/TIP Conformity Analysis.

Following is the data flow of the emission estimate for Baton Rouge Metropolitan Planning Area TIP Conformity:

- Model produces travel data
 - Highway network descriptive data
 - Traffic Volumes (Typical Weekday)
- PPSUITE Post processor computes performance
 - Adjusted traffic volumes and mixes
 - Speeds
 - VMT
- MOBILE6 computes emissions factors
 - Grams / vehicle mile
- PEQUEST post processing combines VMT and emission factors

- Total emissions (tons/day) by parish, by road and vehicle types



Figure 1 provides a detailed diagram of the PPSUITE process.

Figure 1 – PPSUITE Process and Data Flow.

BRTC2PPAQ – Network Conversion

It is necessary to convert the given TransCAD networks into a format that will be compatible with PPSUITE. Additional information must also be added to these networks in order to communicate with the PPSUITE pattern and lookup files. Baton Rouge TransCAD to Post Processor for Air Quality (BRTC2PPAQ) is the program written specifically for the Baton Rouge Model by AECOM to perform this conversion.

The TransCAD networks received from CRPC contain two-way link data and assigned four time period traffic volume files. BRTC2PPAQ prepares a single network data file from the several TransCAD outputs, producing ready input for PPSUITE. It also transforms data to the one-way format and edits the data for bounds and missing values.

BRM2PPAQ will assign the proper Facility Type and Area Type characteristics to each link based on its Functional Class.

PATTERN AND LOOKUP FILE UPDATES

Baton Rouge Transportation Model update included wider network coverage extended from four parishes to a partial coverage of five parishes. In addition, area definition was changed from two to four area types. To accommodate network and area type changes, it was necessary to update the pattern and lookup files used by PPSUITE with the new groupings:

Equivalency File - *EQUIV4.dbf* Vehicle Mix File - VEHTYPE4.DAT Hourly Pattern File - HOURPATT04.DAT Vehicle Factor File - VEHFAC4.dat Speed Capacity Lookup – SPEEDCAP4.dbf

RESULTS OF PPSUITE ANALYSIS

Emissions Analysis using PPSUITE and MOBILE6.2 has been performed for the Baton Rouge region using networks received March 2013. These networks were for the years 2010, 2015, 2017, 2022, 2027, and 2037.

The VMT, speed, and emissions resulting from running the networks through PPSUITE and MOBILE6 are presented in Table 2.

Modeled Area Emissions										
YEAD				SPEED	HC	NOx				
YEAR	Model VMI	Adjusted VM I	VHI	(mph)	(Tons)	(Tons)				
2010	16,387,346	16,559,506	492,842	33.6	16.94	17.40				
2015	17,623,930	17,862,756	528,953	33.8	11.85	10.46				
2017	18,079,674	18,324,506	547,818	33.5	10.66	8.62				
2022	19,247,046	19,563,902	586,976	33.3	7.37	5.82				
2027	20,283,138	20,600,498	627,490	32.8	7.08	4.69				
2037	22,787,145	23,179,253	730,515	31.7	7.93	4.64				

Table 2 – PPSUITE emissions estimate results

Note: * updated vehicle registration file 5/8/2013.

0.0582
0.0102
0.0389
0.0216
0.0545
0.0221
0.0857
0.0159
0.0176
0.0012
0.0628
0.0087
0.0449
0.0087
0.0613
0.0074

MOBILE6 INPUT FILE REPORT FILE : NX002.PRN REPLACE DATABASE OUTPUT : WITH FIELDNAMES : AGGREGATED OUTPUT : : M6OUTPUT.TB1 : HC NOX EMISSIONS TABLE REPLACE POLLUTANTS : 0001 RUN DATA NO REFUELING : MIN/MAX TEMPERATURE: 72.3 94.8 ABSOLUTE HUMIDITY : 123.44 FUEL RVP : 7.8 REG DISTRIBUTION : LAReg_13.D I/M PROGRAM I/M PROGRAM : 1 2002 2050 I/M MODEL YEARS : 1 1996 2050 : 1 2002 2050 1 TRC OBD I/M : 1 22222 21111111 1 I/M VEHICLES I/M STRINGENCY : 1 20.0 I/M EFFECTIVENESS : 0.75 0.75 0.75 : 1 96.0 : 1 0.0 0.0 I/M COMPLIANCE I/M WAIVER RATES * Baton Rouge I/M Programs (evaporative) * : 2 2000 2001 1 TRC GC I/M PROGRAM I/M MODEL YEARS : 2 1980 2001 : 2 22222 21111111 1 I/M VEHICLES · 2 -: 2 96.0 I/M COMPLIANCE I/M PROGRAM : 3 2002 2006 1 TRC GC I/M MODEL YEARS : 3 1980 2006 T/M VENTOLES : 3 11111 211 : 3 11111 21111111 1 I/M VEHICLES : <u>3 1</u> : 3 96.0 I/M COMPLIANCE I/M PROGRAM : 4 2002 2050 1 TRC EVAP OBD & GC I/M MODEL YEARS : 4 1996 2050 : 4 22222 11111111 1 : 4 20.0 I/M VEHICLES I/M STRINGENCY : 4 96.0 I/M COMPLIANCE I/M PROGRAM : 5 2007 2050 1 TRC EVAP OBD & GC I/M MODEL YEARS : 5 2007 2050 : 5 11111 21111111 1 I/M VEHICLES : 5 20.0 I/M STRINGENCY : 5 96.0 I/M COMPLIANCE ANTI-TAMP PROGRAM : 00 80 95 22222 21111111 1 11 072. 2222222 SCENARIO RECORD :[01 0001] 11 CALENDAR YEAR :2010 EVALUATION MONTH : 7 : 1 ALTITUDE VMT FRACTIONS : 0.630752 0.052028 0.174182 0.034874 0.016412 0.029903 0.002718 0.001812 0.001812 0.006343 0.007249 0.008155 0.029903 0.001812 0.000906 0.001139

(Speed, hourly, and facility distributions prepared by PPSUITE post processor for each Run/Scenario)

VMT BY FACILITY	:V000101F.def
VMT BY HOUR	:V000101H.def
SPEED VMT	:V000101S.def

MOBILE6 INPUT FILE REPORT FILE : NX003.PRN REPLACE DATABASE OUTPUT : WITH FIELDNAMES : AGGREGATED OUTPUT : EMISSIONS TABLE : M6OUTPUT.TB1 POLLUTANTS : HC NOX REPLACE POLLUTANTS : 0001 RUN DATA NO REFUELING : MIN/MAX TEMPERATURE: 72.3 94.8 ABSOLUTE HUMIDITY : 123.44 FUEL RVP : 7.8 REG DISTRIBUTION : LAReg_13.D I/M PROGRAM : 1 2002 2050 1 TRC OBD I/M I/M MODEL YEARS : 1 1996 2050 : 1 22222 21111111 1 I/M VEHICLES I/M VEHICLES I 22222 I/M STRINGENCY : 1 20.0 I/M EFFECTIVENESS : 0.75 0.75 0.75 I/M COMPLIANCE : 1 96.0 I/M WAIVER RATES : 1 0.0 0.0 * Baton Rouge I/M Programs (evaporative) * : 2 2000 2001 1 TRC GC I/M PROGRAM I/M MODEL YEARS : 2 1980 2001 I/M VEHICLES : 2 22222 21111111 1 I/M COMPLIANCE : 2 96.0 : 3 2002 2006 1 TRC GC I/M PROGRAM I/M PROGRAM . 5 2002 2001 I/M MODEL YEARS : 3 1980 2006 I/M VEHICLES : 3 1111 2111111 1 I/M COMPLIANCE : 3 96.0 I/M PROGRAM : 4 2002 2050 1 TRC EVAP OBD & GC

 I/M MODEL YEARS
 : 4 1996 2050

 I/M VEHICLES
 : 4 22222 11111111

 I/M STRINGENCY
 : 4 20.0

 I/M COMPLIANCE
 : 4 96.0

 I/M PROGRAM : 5 2007 2050 1 TRC EVAP OBD & GC I/M MODEL YEARS : 5 2007 2050 : 5 11111 2111111 1 I/M VEHICLES : 5 20.0 I/M STRINGENCY I/M COMPLIANCE : 5 96.0 ANTI-TAMP PROGRAM : 00 80 95 22222 21111111 1 11 072. 22222222 SCENARIO RECORD :[01 0001] 11 CALENDAR YEAR :2015 EVALUATION MONTH : 7 : 1 ALTITUDE VMT FRACTIONS : 0.630754 0.052030 0.174188 0.034873 0.016411 0.029904 0.002719 0.001812 0.001812 0.006343 0.007249 0.008156 0.029904 0.001812 0.000906 0.001127

(Speed, hourly, and facility distributions prepared by PPSUITE post processor for each Run/Scenario)

VMT BY	FACILITY	:V000101F.def
VMT BY	HOUR	:V000101H.def
SPEED	VMT	:V000101S.def

MOBILE6 INPUT FILE REPORT FILE : NX003.PRN REPLACE DATABASE OUTPUT : WITH FIELDNAMES : AGGREGATED OUTPUT : EMISSIONS TABLE : M6OUTPUT.TB1 POLLUTANTS : HC NOX REPLACE POLLUTANTS : 0001 RUN DATA NO REFUELING : MIN/MAX TEMPERATURE: 72.3 94.8 ABSOLUTE HUMIDITY : 123.44 FUEL RVP : 7.8 REG DISTRIBUTION : LAReg_13.D I/M PROGRAM : 1 2002 2050 1 TRC OBD I/M I/M MODEL YEARS : 1 1996 2050 : 1 22222 21111111 1 I/M VEHICLES I/M VEHICLES · I 22222 I/M STRINGENCY : 1 20.0 I/M EFFECTIVENESS : 0.75 0.75 0.75 I/M COMPLIANCE : 1 96.0 I/M WAIVER RATES : 1 0.0 0.0 * Baton Rouge I/M Programs (evaporative) * : 2 2000 2001 1 TRC GC I/M PROGRAM I/M MODEL YEARS : 2 1980 2001 I/M VEHICLES : 2 22222 21111111 1 I/M COMPLIANCE : 2 96.0 I/M PROGRAM : 3 2002 2006 1 TRC GC I/M MODEL YEARS : 3 1980 2006 I/M VEHICLES : 3 11111 2111111 1 I/M COMPLIANCE : 3 96.0 I/M PROGRAM : 4 2002 2050 1 TRC EVAP OBD & GC

 I/M MODEL YEARS
 : 4 1996 2050

 I/M VEHICLES
 : 4 22222 11111111

 I/M STRINGENCY
 : 4 20.0

 I/M COMPLIANCE
 : 4 96.0

 I/M PROGRAM : 5 2007 2050 1 TRC EVAP OBD & GC I/M MODEL YEARS : 5 2007 2050 : 5 11111 2111111 1 I/M VEHICLES : 5 20.0 I/M STRINGENCY I/M COMPLIANCE : 5 96.0 ANTI-TAMP PROGRAM : 00 80 95 22222 21111111 1 11 072. 22222222 SCENARIO RECORD :[01 0001] 11 CALENDAR YEAR :2017 EVALUATION MONTH : 7 : 1 ALTITUDE VMT FRACTIONS : 0.630758 0.052029 0.174184 0.034870 0.016410 0.029905 0.002719 0.001812 0.001812 0.006344 0.007250 0.008156 0.029905 0.001812 0.000906 0.001128

(Speed, hourly, and facility distributions prepared by PPSUITE post processor for each Run/Scenario)

VMT BY FACILITY	:V000101F.def
VMT BY HOUR	:V000101H.def
SPEED VMT	:V000101S.def

MOBILE6 INPUT FILE REPORT FILE : NX002.PRN REPLACE DATABASE OUTPUT : WITH FIELDNAMES : AGGREGATED OUTPUT : EMISSIONS TABLE : M6OUTPUT.TB1 POLLUTANTS : HC NOX REPLACE POLLUTANTS : 0001 RUN DATA NO REFUELING : MIN/MAX TEMPERATURE: 72.3 94.8 ABSOLUTE HUMIDITY : 123.44 FUEL RVP : 7.8 REG DISTRIBUTION : LAReg_13.D I/M PROGRAM : 1 2002 2050 1 TRC OBD I/M I/M MODEL YEARS : 1 1996 2050 : 1 22222 21111111 1 I/M VEHICLES I/M VEHICLES · I 22222 I/M STRINGENCY : 1 20.0 I/M EFFECTIVENESS : 0.75 0.75 0.75 I/M COMPLIANCE : 1 96.0 I/M WAIVER RATES : 1 0.0 0.0 * Baton Rouge I/M Programs (evaporative) * : 2 2000 2001 1 TRC GC I/M PROGRAM I/M MODEL YEARS : 2 1980 2001 I/M VEHICLES : 2 22222 21111111 1 I/M COMPLIANCE : 2 96.0 I/M PROGRAM : 3 2002 2006 1 TRC GC I/M MODEL YEARS : 3 1980 2006 I/M VEHICLES : 3 11111 2111111 1 I/M COMPLIANCE : 3 96.0 I/M PROGRAM : 4 2002 2050 1 TRC EVAP OBD & GC

 I/M MODEL YEARS
 : 4 1996 2050

 I/M VEHICLES
 : 4 22222 11111111

 I/M STRINGENCY
 : 4 20.0

 I/M COMPLIANCE
 : 4 96.0

 I/M PROGRAM : 5 2007 2050 1 TRC EVAP OBD & GC I/M MODEL YEARS : 5 2007 2050 : 5 11111 2111111 1 I/M VEHICLES : 5 20.0 I/M STRINGENCY I/M COMPLIANCE : 5 96.0 ANTI-TAMP PROGRAM : 00 80 95 22222 21111111 1 11 072. 22222222 SCENARIO RECORD : [01 0001] 11 : 2022 CALENDAR YEAR EVALUATION MONTH : 7 : 1 ALTITUDE VMT FRACTIONS : 0.630761 0.052027 0.174178 0.034871 0.016410 0.029908 0.002719 0.001813 0.001813 0.006344 0.007250 0.008157 0.029908 0.001813 0.000906 0.001122

(Speed, hourly, and facility distributions prepared by PPSUITE post processor for each Run/Scenario)

VMT BY I	FACILITY	:V000101F.def
VMT BY 1	HOUR	:V000101H.def
SPEED VI	MT	:V000101S.def

MOBILE6 INPUT FILE REPORT FILE : NX003.PRN REPLACE DATABASE OUTPUT : WITH FIELDNAMES : AGGREGATED OUTPUT : EMISSIONS TABLE : M6OUTPUT.TB1 POLLUTANTS : HC NOX REPLACE POLLUTANTS : 0001 RUN DATA NO REFUELING : MIN/MAX TEMPERATURE: 72.3 94.8 ABSOLUTE HUMIDITY : 123.44 FUEL RVP : 7.8 REG DISTRIBUTION : LAReg_13.D I/M PROGRAM : 1 2002 2050 1 TRC OBD I/M I/M MODEL YEARS : 1 1996 2050 : 1 22222 21111111 1 I/M VEHICLES I/M VEHICLES · I 22222 I/M STRINGENCY : 1 20.0 I/M EFFECTIVENESS : 0.75 0.75 0.75 I/M COMPLIANCE : 1 96.0 I/M WAIVER RATES : 1 0.0 0.0 * Baton Rouge I/M Programs (evaporative) * : 2 2000 2001 1 TRC GC I/M PROGRAM I/M MODEL YEARS : 2 1980 2001 I/M VEHICLES : 2 22222 21111111 1 I/M COMPLIANCE : 2 96.0 I/M PROGRAM : 3 2002 2006 1 TRC GC I/M MODEL YEARS : 3 1980 2006 I/M VEHICLES : 3 11111 2111111 1 I/M COMPLIANCE : 3 96.0 I/M PROGRAM : 4 2002 2050 1 TRC EVAP OBD & GC

 I/M MODEL YEARS
 : 4 1996 2050

 I/M VEHICLES
 : 4 22222 11111111

 I/M STRINGENCY
 : 4 20.0

 I/M COMPLIANCE
 : 4 96.0

 I/M PROGRAM : 5 2007 2050 1 TRC EVAP OBD & GC I/M MODEL YEARS : 5 2007 2050 : 5 11111 2111111 1 I/M VEHICLES : 5 20.0 I/M STRINGENCY I/M COMPLIANCE : 5 96.0 ANTI-TAMP PROGRAM : 00 80 95 22222 21111111 1 11 072. 22222222 SCENARIO RECORD : [01 0001] 11 : 2027 CALENDAR YEAR EVALUATION MONTH : 7 : 1 ALTITUDE VMT FRACTIONS : 0.630766 0.052028 0.174182 0.034867 0.016408 0.029907 0.002719 0.001812 0.001812 0.006344 0.007250 0.008157 0.029907 0.001812 0.000906 0.001123

(Speed, hourly, and facility distributions prepared by PPSUITE post processor for each Run/Scenario)

VMT BY	FACILITY	:V000101F.def
VMT BY	HOUR	:V000101H.def
SPEED '	VMT	:V000101S.def

REPORT FILE : NX002.PRN REPLACE DATABASE OUTPUT : WITH FIELDNAMES : AGGREGATED OUTPUT : EMISSIONS TABLE : M6OUTPUT.TB1 POLLUTANTS : HC NOX REPLACE POLLUTANTS : 0001 RUN DATA NO REFUELING : MIN/MAX TEMPERATURE: 72.3 94.8 ABSOLUTE HUMIDITY : 123.44 FUEL RVP : 7.8 REG DISTRIBUTION : LAReg_13.D I/M PROGRAM : 1 2002 2050 1 TRC OBD I/M I/M MODEL YEARS : 1 1996 2050 : 1 22222 21111111 1 I/M VEHICLES I/M VEHICLES I 22222 I/M STRINGENCY : 1 20.0 I/M EFFECTIVENESS : 0.75 0.75 0.75 I/M COMPLIANCE : 1 96.0 I/M WAIVER RATES : 1 0.0 0.0 * Baton Rouge I/M Programs (evaporative) * : 2 2000 2001 1 TRC GC I/M PROGRAM I/M MODEL YEARS : 2 1980 2001 I/M VEHICLES : 2 22222 21111111 1 I/M COMPLIANCE : 2 96.0 : 3 2002 2006 1 TRC GC I/M PROGRAM I/M PROGRAM . 5 2002 2001 I/M MODEL YEARS : 3 1980 2006 I/M VEHICLES : 3 1111 2111111 1 I/M COMPLIANCE : 3 96.0 I/M PROGRAM : 4 2002 2050 1 TRC EVAP OBD & GC

 I/M MODEL YEARS
 : 4 1996 2050

 I/M VEHICLES
 : 4 22222 11111111

 I/M STRINGENCY
 : 4 20.0

 I/M COMPLIANCE
 : 4 96.0

 I/M PROGRAM : 5 2007 2050 1 TRC EVAP OBD & GC I/M MODEL YEARS : 5 2007 2050 : 5 11111 2111111 1 I/M VEHICLES : 5 20.0 I/M STRINGENCY I/M COMPLIANCE : 5 96.0 ANTI-TAMP PROGRAM : 00 80 95 22222 21111111 1 11 072. 22222222 SCENARIO RECORD : [01 0001] 11 : 2037 CALENDAR YEAR EVALUATION MONTH : 7 : 1 ALTITUDE VMT FRACTIONS : 0.630837 0.052010 0.174121 0.034854 0.016402 0.029919 0.002720 0.001813 0.001813 0.006346 0.007253 0.008160 0.029919 0.001813 0.000907 0.001113

(Speed, hourly, and facility distributions prepared by PPSUITE post processor for each Run/Scenario)

VMT BY FACIL	ITY :V000101F.def
VMT BY HOUR	:V000101H.def
SPEED VMT	:V000101S.def

MOBILE6 INPUT FILE

MILINGNALLY

	E	aily Speed		Emissions (ton	s)
Area Faci	lity	VMT (mph)	HC	CO	NOX
) Fast Baton Rouge 1) Int	erstates 3 25	3 762 49 6	1 79	0 00	2 33
2) Mai	or Arterials 3,23	2 730 34 6	2 35	0.00	2.55
2) Min 3) Min	or Arterial 200	9 600 31 8	1 30	0.00	0.98
4) Col	lectors 73	0 376 24 7	0.69	0.00	0.50
5) Loc	als 59	9,356 20.9	0.56	0.00	0.27
Subt	otal 10,38	5,824 35.0	6.68	0.00	5.95
) Livingston 1) Int	erstates 92	7,588 52.3	0.51	0.00	0.71
2) Maj	or Arterials 40	9,346 34.0	0.25	0.00	0.22
3) Min	or Arterial 55	0,554 26.8	0.37	0.00	0.27
4) Col	lectors 67	0,271 23.9	0.63	0.00	0.38
5) Loc	als 21	6,456 25.6	0.21	0.00	0.10
Subt	otal 2,77	4,215 32.0	1.98	0.00	1.68
West Baton Rouge 1) Int	erstates 39	7,333 32.9	0.24	0.00	0.28
2) Maj	or Arterials 62	3,666 37.0	0.38	0.00	0.36
3) Min	or Arterial 1	4,848 27.9	0.01	0.00	0.01
4) Col	lectors 7	6,808 24.7	0.07	0.00	0.04
5) Loc	als 4	5,188 25.9	0.05	0.00	0.02
Subt	otal 1,15	7,843 33.7	0.75	0.00	0.72
Ascension 1) Int	erstates 1,23	8,371 50.7	0.68	0.00	0.93
2) Maj	or Arterials 62	0,337 32.9	0.39	0.00	0.33
3) Min	or Arterial 64	3,131 28.0	0.43	0.00	0.34
4) Col	lectors 46	9,612 22.7	0.44	0.00	0.24
5) Loc	als 39	5,713 22.8	0.37	0.00	0.18
Subt	otal 3,36	7,164 32.3	2.31	0.00	2.02
) Iberville 3) Min	or Arterial 8	6,045 26.9	0.06	0.00	0.04
4) Col	lectors 5	8,520 23.5	0.06	0.00	0.03
5) Loc	als 3	3,145 27.3	0.03	0.00	0.02
Subt	otal 17	7,710 25.7	0.15	0.00	0.09
	======				

		Time	Daily	Speed		- Emissions	(tons)	
Area	Facility	Period	VMT	(mph)	HC	CO	NOX	
1) East Baton Rouge	1) Interstates	AM	729,419	41.1				
_		Midday	991,468	55.1				
		PM -	698,317	47.6				
		Night	834,558	55.1				
		DAILY	3,253,762	49.6	1.79	0.00	2.33	
	2) Major Arterials	AM	705,072	34.0				
		Midday	1,253,046	34.7				
		PM	734,664	34.1				
		Night	1,099,948	35.3				
		DAILY	3,792,730	34.6	2.35	0.00	2.03	
	3) Minor Arterial	AM	373,569	31.4				
		Midday	663,864	31.8				
		PM	389,281	31.5				
		Night	582,886	32.2				
		DAILY	2,009,600	31.8	1.30	0.00	0.98	
	4) Collectors	AM	162,579	24.0				
		Midday	214,231	25.3				
		PM	174,562	24.0				
		Night	179,004	25.3				
		DAILY	730,376	24.7	0.69	0.00	0.35	
	5) Locals	AM	133,344	20.7				
		Midday	185,582	21.0				
		PM	124,897	20.8				
		Night	155,533	21.0				
		DAILY	599,356	20.9	0.56	0.00	0.27	
	Subtotal	AM	2,103,983	33.1				
		Midday	3,308,191	35.8				
		PM	2,121,721	34.3				
		Night	2,851,929	36.2				
		DAILY	10,385,824	35.0	6.68	0.00	5.95	

		Time	Daily	Speed		- Emissions	(tons)
Area	Facility	Period	VMT	(mph)	HC	CO	NOX
2) Livingston	1) Interstates	AM	207,987	39.5			
_,	_,	Midday	282,621	61.0			
		PM	199,067	50.6			
		Night	237,913	61.0			
		DAILY	927,588	52.3	0.51	0.00	0.71
	2) Major Arterials	AM	76,081	33.5			
		Midday	135,251	34.0			
		PM	79,281	33.6			
		Night	118,733	34.6			
		DAILY	409,346	34.0	0.25	0.00	0.22
	3) Minor Arterial	AM	102,224	25.3			
		Midday	182,003	26.9			
		PM	106,578	25.7			
		Night	159,749	28.4			
		DAILY	550,554	26.8	0.37	0.00	0.27
	4) Collectors	AM	149,180	23.3			
		Midday	196,584	24.6			
		PM	160,181	23.0			
		Night	164,326	24.6			
		DAILY	670,271	23.9	0.63	0.00	0.38
	5) Locals	AM	48,153	25.6			
		Midday	67,028	25.6			
		PM	45,105	25.6			
		Night	56,170	25.6			
		DAILY	216,456	25.6	0.21	0.00	0.10
	Subtotal	AM	583,625	29.4			
		Midday	863,487	33.2			
		PM	590,212	30.8			
		Night	736,891	33.8			
		DAILY	2,774,215	32.0	1.98	0.00	1.68

		Time	Daily	Speed		- Emissions	(tons)
Area	Facility	Period	VMT	(mph)	HC	CO	NOX
3) West Baton Rouge	1) Interstates	AM	86,683	24.6			
		Midday	123,312	39.7			
		PM	84,300	24.8			
		Night	103,038	50.8			
		DAILY	397,333	32.9	0.24	0.00	0.28
	2) Major Arterials	AM	115,943	36.1			
		Midday	206,018	37.0			
		PM	120,812	36.2			
		Night	180,893	38.1			
		DAILY	623,666	37.0	0.38	0.00	0.36
	3) Minor Arterial	AM	2,757	27.8			
		Midday	4,906	27.9			
		PM -	2,875	27.6			
		Night	4,310	28.2			
		DAILY	14,848	27.9	0.01	0.00	0.01
	4) Collectors	AM	17,111	24.5			
		Midday	22,513	24.8			
		PM -	18,355	24.5			
		Night	18,829	24.8			
		DAILY	76,808	24.7	0.07	0.00	0.04
	5) Locals	AM	10,049	25.9			
		Midday	14,001	25.9			
		PM	9,414	25.9			
		Night	11,724	25.9			
		DAILY	45,188	25.9	0.05	0.00	0.02
	Subtotal	AM	232,543	29.4			
		Midday	370,750	36.0			
		PM	235,756	29.6			
		Night	318,794	39.2			
		DAILY	1,157,843	33.7	0.75	0.00	0.72

Area	Facility	Time Period	Daily VMT	Speed		- Emissions	(tons)
			VIII	(
4) Ascension	1) Interstates	AM	275,686	37.1			
,	,	Midday	379,253	63.1			
		PM	265,768	44.7			
		Night	317,664	63.3			
		DAILY	1,238,371	50.7	0.68	0.00	0.93
	2) Major Arterials	AM	115,303	32.2			
		Midday	204,958	32.9			
		PM	120,167	32.3			
		Night	179,909	33.7			
		DAILY	620,337	32.9	0.39	0.00	0.33
	3) Minor Arterial	AM	119,553	26.9			
		Midday	212,434	28.2			
		PM	124,588	26.8			
		Night	186,556	29.6			
		DAILY	643,131	28.0	0.43	0.00	0.34
	4) Collectors	AM	104,508	21.7			
		Midday	137,756	23.6			
		PM	112,236	21.6			
		Night	115,112	23.6			
		DAILY	469,612	22.7	0.44	0.00	0.24
	5) Locals	AM	88,042	22.5			
		Midday	122,536	23.0			
		PM	82,471	22.7			
		Night	102,664	23.0			
		DAILY	395,713	22.8	0.37	0.00	0.18
				0.0 -			
	Subtotal	AM	703,092	29.1			
		Midday	1,056,937	34.2			
		PM	705,230	30.5			
		Night	901,905	34.7			
		DAILY	3,367,164	32.3	2.31	0.00	2.02

		Time	Daily	Speed		Emissior	ns (tons)	
Area	Facility	Period	VMT	(mph)	HC	CO	NOX	
E) Thermille	2) Minor Artorial	ΔM	15 000	26.2				
5) IDELVIILE	5) MINOI AICEITAI	Midday	28 416	20.2				
		DM	16 665	20.9				
		Night	24,974	20.2				
		DAILY	86,045	26.9	0.06	0.00	0.04	
	4) Collectors	AM	13,040	23.4				
		Midday	17,168	23.6				
		PM	13,977	23.4				
		Night	14,335	23.7				
		DAILY	58,520	23.5	0.06	0.00	0.03	
	5) Locals	AM	7,368	27.4				
		Midday	10,269	27.3				
		PM	6,891	27.3				
		Night	8,617	27.4				
		DAILY	33,145	27.3	0.03	0.00	0.02	
	Cubtotol	λM	26 209	0E 0				
	Subtotal	AM Midday	50,390	25.5				
		DM	37 533	25.2				
		Night	47,926	26.3				
		DAILY	177,710	25.7	0.15	0.00	0.09	
			=========	=====	=========	========	=========	
	Region Total	AM	3,659,641	31.3				
	-	Midday	5,655,218	35.0				
		PM	3,690,452	32.5				
		Night	4,857,445	35.5				
		DATLY	17.862.756	33.8	11 85	0 00	10 46	

	Vehicle	Daily	Speed	F	Emissions (tons	5)	_
Area	Туре	VMT	(mph)	HC	CO	NOX	
1) Dest Deter Dever	1) 1001	C 420 412	25 0	2 1 5	0 00	1 07	
1) East Baton Rouge	I) LDGV	6,439,413	35.0	3.15	0.00	1.87	
	Z) LDGTI	625,023		1.13	0.00	0.48	
	3) LDGT2	2,092,459		1.80	0.00	1.15	
	4) LDGT3	351,959		0.24	0.00	0.24	
	5) LDGT4	165,522		0.05	0.00	0.06	
	6) HDGV2B	173,318		0.07	0.00	0.22	
	7) HDGV3	5,750		0.00	0.00	0.01	
	8) HDGV4	1,293		0.00	0.00	0.00	
	9) HDGV5	5,792		0.00	0.00	0.01	
	10) HDGV6	12,061		0.01	0.00	0.02	
	11) HDGV7	4,818		0.00	0.00	0.01	
	12) HDGV8A	12		0.00	0.00	0.00	
	13) HDGV8B	0		0.00	0.00	0.00	
	14) HDGB	672		0.00	0.00	0.00	
	15) LDDV	5,800		0.00	0.00	0.00	
	16) LDDT12	0		0.00	0.00	0.00	
	17) LDDT34	7,793		0.00	0.00	0.00	
	18) HDDV2B	50,610		0.01	0.00	0.07	
	19) HDDV2D	14 607		0 00	0 00	0.02	
	20) HDDV3	12 277		0.00	0.00	0.03	
	20) HDDV1 21) UDV5	7 780		0.00	0.00	0.03	
		35 439		0.00	0.00	0.02	
	22) HDDV0 22) 77000	10 167		0.01	0.00	0.09	
	23) HDDV7 24) UDDV93	49,407		0.01	0.00	0.10	
	24) HDDVOA	01,050		0.02	0.00	0.23	
	25) HDDV8B	223,924		0.07	0.00	1.09	
	26) HDDBT	6,785		0.00	0.00	0.05	
	27) HDDBS	12,896		0.01	0.00	0.09	
	28) MC	19,316		0.08	0.00	0.02	
	Subtotal	10,385,836	35.0	6.68	0.00	5.95	
2) Livingston	1) LDGV	1,698,912	32.0	0.92	0.00	0.51	
2, 11,11,10,000	2) LDGT1	171 165	5210	0 33	0 00	0 13	
	3) LDGT2	573 028		0.53	0 00	0 32	
	4) LDGT2	94 213		0.07	0.00	0.07	
	5) LDGT4	44 307		0.01	0.00	0.02	
	6) HDGV2P	46 655		0.02	0.00	0.02	
	7) UDGV2D	1 5/7		0.02	0.00	0.00	
		1,547		0.00	0.00	0.00	
		34/ 1 EC1		0.00	0.00	0.00	
		1,301 2,245		0.00	0.00	0.00	
	11) HDGVO	3,245		0.00	0.00	0.01	
	10) HDGV/	1,296		0.00	0.00	0.00	
	12) HDGV8A	1		0.00	0.00	0.00	

	7	7ehicle	Daily	Speed	E	Imissions (tons	;)	-
Area		Туре	VMT	(mph)	HC	CO	NOX	
	13)	HDGV8B	0		0.00	0.00	0.00	
	14)	HDGB	178		0.00	0.00	0.00	
	15)	LDDV	1,530		0.00	0.00	0.00	
	16)	LDDT12	0		0.00	0.00	0.00	
	17)	LDDT34	2,084		0.00	0.00	0.00	
	18)	HDDV2B	13,622		0.00	0.00	0.02	
	19)	HDDV3	3,932		0.00	0.00	0.01	
	20)	HDDV4	3,307		0.00	0.00	0.01	
	21)	HDDV5	2,094		0.00	0.00	0.01	
	22)	HDDV6	9,538		0.00	0.00	0.03	
	23)	HDDV7	13,318		0.00	0.00	0.05	
	24)	HDDV8A	16,434		0.01	0.00	0.07	
	25)	HDDV8B	60,278		0.03	0.00	0.33	
	26)	HDDBT	1,826		0.00	0.00	0.02	
	27)	HDDBS	3,475		0.00	0.00	0.03	
	28)	MC	6,310		0.03	0.00	0.01	
		Subtotal	2,774,203	32.0	1.98	0.00	1.68	
3) West Baton Rouge	1)	LDGV	691,207	33.7	0.34	0.00	0.20	
	2)	LDGT1	69,663		0.13	0.00	0.05	
	3)	LDGT2	233,215		0.20	0.00	0.13	
	4)	LDGT3	42,514		0.03	0.00	0.03	
	5)	LDGT4	19,996		0.01	0.00	0.01	
	6)	HDGV2B	24,751		0.01	0.00	0.03	
	7)	HDGV3	821		0.00	0.00	0.00	
	8)	HDGV4	185		0.00	0.00	0.00	
	9)	HDGV5	828		0.00	0.00	0.00	
	10)	HDGV6	1,722		0.00	0.00	0.00	
	11)	HDGV7	688		0.00	0.00	0.00	
	12)	HDGV8A	0		0.00	0.00	0.00	
	13)	HDGV8B	0		0.00	0.00	0.00	
	14)	HDGB	95		0.00	0.00	0.00	
	15)	LDDV	624		0.00	0.00	0.00	
	16)	LDDT12	0		0.00	0.00	0.00	
	17)	LDDT34	941		0.00	0.00	0.00	
	18)	HDDV2B	7,226		0.00	0.00	0.01	
	19)	HDDV3	2,087		0.00	0.00	0.00	
	20)	HDDV4	1,753		0.00	0.00	0.00	
	21)	HDDV5	1,109		0.00	0.00	0.00	
	22)	HDDV6	5,063		0.00	0.00	0.01	
	23)	HDDV7	7,063		0.00	0.00	0.02	
	24)	HDDV8A	8,719		0.00	0.00	0.03	

	Vehicle	Daily	Speed	E	missions (tons	3)
Area	Туре	VMT	(mph)	HC	CO	NOX
	25) HDDV8B	31,981		0.01	0.00	0.15
	26) HDDBT	970		0.00	0.00	0.01
	27) HDDBS	1,843		0.00	0.00	0.01
	28) MC	2,773		0.01	0.00	0.00
	Subtotal	1,157,837	33.7	0.75	0.00	0.72
Ascension	1) LDGV	2 097 041	32 3	1 10	0 00	0.62
	2) LDGT1	201.247	52.5	0.38	0.00	0.16
	3) LDGT2	673 743		0.61	0.00	0.10
	4) LDGT2	110 551		0.08	0.00	0.08
	5) LDGT4	51 993		0.02	0.00	0 02
	6) HDGV2B	56,409		0.02	0.00	0.07
	7) HDGV2B	1 871		0.00	0.00	0.07
	8) HDGV4	421		0.00	0.00	0.00
	9) HDGV5	1 886		0.00	0.00	0.00
	10) HDGV6	3 924		0.00	0.00	0.00
	11) HDGV7	1 568		0.00	0.00	0.01
	12) HDGV8A	1,500		0.00	0.00	0.00
	13) HDGV8B	- 0		0.00	0.00	0.00
	14) HDGB	218		0.00	0.00	0.00
	15) LDDV	1 889		0.00	0.00	0.00
	16) LDDT12	1,005		0.00	0.00	0.00
	17) LDD112	2 447		0.00	0.00	0.00
	18) HDD131	16 472		0.00	0.00	0.00
	19) HDDV2B	4 754		0.00	0.00	0.03
	20) HDDV3	3 997		0.00	0.00	0.01
	21) HDDV1	2 5 3 3		0.00	0.00	0.01
	22) HDDV5	11 535		0.00	0.00	0.01
	23) HDDV0	16 102		0.00	0.00	0.05
	24) HDDV8A	19 871		0 01	0.00	0.00
	25) HDDV0A	70 879		0.01	0.00	0.00
	26) HDD8T	2 208		0.00	0 00	0.39
	27) HDDBS	4 199		0.00	0.00	0.02
	28) MC	7,402		0.03	0.00	0.01
	Subtotal	3,367,164	32.3	2.31	0.00	2.02
5) Iberville	1) LDGV	107,809	25.7	0.07	0.00	0.03
	2) LDGT1	12,093		0.03	0.00	0.01
	3) LDGT2	40,479		0.04	0.00	0.02
	4) LDGT3	5,460		0.00	0.00	0.00

	Vehicle	Daily	Speed	E	missions (tons	5)
rea	Туре	VMT	(mph)	HC	CO	NOX
	5) LDCT4	2 568		0 00	0 00	0 00
	6) HDGV2B	2,500		0.00	0.00	0 00
	7) HDGV3	68		0.00	0.00	0.00
	8) HDGV4	12		0.00	0.00	0.00
	9) HDGV5	68		0.00	0.00	0.00
	10) HDGV6	142		0.00	0.00	0.00
	11) HDGV7			0 00	0 00	0.00
	12) HDGV8A	0		0.00	0.00	0.00
	13) HDGV8B	0		0.00	0.00	0.00
	14) HDGB	8		0.00	0.00	0.00
	15) LDOD	98		0.00	0.00	0.00
	16) LDDV	_0 		0.00	0.00	0.00
	17) LDD112	120		0.00	0.00	0.00
	18) HDDV2B	590		0.00	0.00	0.00
	19) HDDV2B	170		0.00	0.00	0.00
	20) HDDV3	143		0.00	0.00	0.00
	21) HDDV5	92		0.00	0.00	0.00
	22) HDDV5	414		0.00	0.00	0.00
	22) HDDV0	575		0.00	0.00	0.00
	23) HDDV7 24) HDDV83	710		0.00	0.00	0.00
	25) HDDV8R	2 608		0.00	0.00	0.00
	26) HDDV0D	2,000		0.00	0.00	0.01
	27) 10001	150		0.00	0.00	0.00
	28) MC	1,176		0.01	0.00	0.00
	Subtotal	177,710	25.7	0.15	0.00	0.09
Region Total	1) LDGV	11,034,382	33.8	5.58	0.00	3.24
	2) LDGT1	1,079,191		2.00	0.00	0.83
	3) LDGT2	3,612,924		3.18	0.00	2.00
	4) LDGT3	604,697		0.43	0.00	0.42
	5) LDGT4	284,386		0.08	0.00	0.10
	6) HDGV2B	303,153		0.13	0.00	0.37
	7) HDGV3	10,057		0.00	0.00	0.01
	8) HDGV4	2,258		0.00	0.00	0.00
	9) HDGV5	10,135		0.01	0.00	0.02
	10) HDGV6	21,094		0.02	0.00	0.03
	11) HDGV7	8,425		0.01	0.00	0.01
	12) HDGV8A	17		0.00	0.00	0.00

	Vehicle	Daily	Speed	E	missions (tons	з)
rea	Туре	VMT	(mph)	HC	CO	NOX
	13) HDGV8B	0		0.00	0.00	0.00
	14) HDGB	1,171		0.00	0.00	0.01
	15) LDDV	9,941		0.00	0.00	0.00
	16) LDDT12	0		0.00	0.00	0.00
	17) LDDT34	13,385		0.00	0.00	0.01
	18) HDDV2B	88,520		0.01	0.00	0.13
	19) HDDV3	25,550		0.00	0.00	0.03
	20) HDDV4	21,477		0.00	0.00	0.05
	21) HDDV5	13,608		0.00	0.00	0.03
	22) HDDV6	61,989		0.01	0.00	0.17
	23) HDDV7	86,525		0.02	0.00	0.29
	24) HDDV8A	106,786		0.03	0.00	0.41
	25) HDDV8B	391,670		0.14	0.00	1.98
	26) HDDBT	11,869		0.00	0.00	0.10
	27) HDDBS	22,563		0.01	0.00	0.17
	28) MC	36,977		0.16	0.00	0.04
Grand Total		17,862,750	33.8	11.85	0.00	10.45

MILINGNALLY

APPENDIX D

Baton Rouge MPO Outside Model Area Emissions Analysis

Appendix D includes the outside model area daily VMT estimates by functional class and Parish, MOBILE6.2 input and output files, and emissions summary.

MILINGNALLY

OUTSIDE OF BATON ROUGE MODEL AREA

AVERAGE DAILY VEHICLE MILES OF TRAVEL (SUMMER ADJUSTED VALUES)

Total Non-Modeled Area	2010	2015	2017	2022	2027	2037
Rural Interstate	1,377,690	1,392,937	1,399,036	1,414,284	1,429,531	1,460,026
Rural Principal Arterial	308,046	311,455	312,819	316,228	319,637	326,456
Rural Minor Arterial	75,751	76,589	76,925	77,763	78,601	80,278
Rural Major Collector	522,287	528,067	530,379	536,160	541,940	553,501
Rural Minor Collector	115,933	117,216	117,730	119,013	120,296	122,862
Rural Local Road	242,149	244,829	245,901	248,581	251,261	256,621
Urban Interstate	0	0	0	0	0	0
Urban Oth. Fwy. & Expwy.	0	0	0	0	0	0
Urban Principal Arterial	96,000	97,062	97,487	98,550	99,612	101,737
Urban Minor Arterial	95,898	96,959	97,384	98,445	99,506	101,629
Urban Collector	171,173	173,068	173,826	175,720	177,615	181,404
Urban Local City Street	45,405	45,907	46,108	46,611	47,113	48,118
TOTALS	3,050,331	3,084,091	3,097,594	3,131,354	3,165,113	3,232,632

```
* Baton Rouge On Board Diagnostics Program (exhaust)
*
I/M PROGRAM : 1 2002 2050 1 TRC OBD I/M
I/M MODEL YEARS : 1 1996 2050
I/M VEHICLES : 1 22222 21111111 1
I/M STRINGENCY : 1 20.0
I/M EFFECTIVENESS : 0.75 0.75 0.75
I/M COMPLIANCE : 1 96.0
I/M WAIVER RATES : 1 0.0 0.0
*
* Baton Rouge I/M Programs (evaporative)
*
I/M PROGRAM : 2 2000 2001 1 TRC GC
I/M MODEL YEARS : 2 1980 2001
I/M VEHICLES : 2 22222 2111111 1
I/M COMPLIANCE : 2 96.0
*
I/M PROGRAM : 3 2002 2006 1 TRC GC
I/M MODEL YEARS : 3 1980 2006
I/M VEHICLES : 3 1111 2111111 1
I/M COMPLIANCE : 3 96.0
*
I/M PROGRAM : 4 2002 2050 1 TRC EVAP OBD & GC
I/M MODEL YEARS : 4 1996 2050
I/M VEHICLES : 4 22222 1111111 1
I/M STRINGENCY : 4 20.0
I/M COMPLIANCE : 4 96.0
*
I/M PROGRAM : 5 2007 2050 1 TRC EVAP OBD & GC
I/M MODEL YEARS : 5 1111 2111111 1
I/M STRINGENCY : 4 20.0
I/M COMPLIANCE : 4 96.0
*
```

```
* MOBILE 6.2 INPUT --- Vehicle Registration Data
REG DIST
* Received from RAVI 5/9/2013 as 2011 Vehicle Data
* This file contains the default MOBILE6 values for the distribution of
* vehicles by age for July of any calendar year. There are sixteeen (16)
* sets of values representing 16 combined gasoline/diesel vehicle class
* distributions. These distributions are split for gasoline and diesel
* using the separate input (or default) values for diesel sales fractions.
* Each distribution contains 25 values which represent the fraction of
* all vehicles in that class (gasoline and diesel) of that age in July.
* The first number is for age 1 (calendar year minus model year plus one)
\ast and the last number is for age 25. The last age includes all vehicles
* of age 25 or older. The first number in each distribution is an integer
* which indicates which of the 16 vehicle classes are represented by the
* distribution. The sixteen vehicle classes are:
             Light-Duty Vehicles (Passenger Cars)
*
     LDV
*
  2 LDT1
            Light-Duty Trucks 1 (0-6,000 lbs. GVWR, 0-3750 lbs. LVW)
*
  3 LDT2
            Light Duty Trucks 2 (0-6,001 lbs. GVWR, 3751-5750 lbs. LVW)
*
  4 LDT3
            Light Duty Trucks 3 (6,001-8500 lbs. GVWR, 0-3750 lbs. LVW)
  5 LDT4 Light Duty Trucks 4 (6,001-8500 lbs. GVWR, 3751-5750 lbs. LVW)
*
  6 HDV2B Class 2b Heavy Duty Vehicles (8501-10,000 lbs. GVWR)
*
  7 HDV3 Class 3 Heavy Duty Vehicles (10,001-14,000 lbs. GVWR)
* 8 HDV4
            Class 4 Heavy Duty Vehicles (14,001-16,000 lbs. GVWR)
* 9 HDV5 Class 5 Heavy Duty Vehicles (16,001-19,500 lbs. GVWR)
* 10 HDV6 Class 6 Heavy Duty Vehicles (19,501-26,000 lbs. GVWR)
* 11 HDV7 Class 7 Heavy Duty Vehicles (26,001-33,000 lbs. GVWR)
* 12 HDV8A Class 8a Heavy Duty Vehicles (33,001-60,000 lbs. GVWR)
* 13 HDV8B Class 8b Heavy Duty Vehicles (>60,000 lbs. GVWR)
* 14 HDBS
            School Busses
* 15 HDBT
            Transit and Urban Busses
* 16 MC
            Motorcycles (All)
* The 25 age values are arranged in two rows of 10 values followed by a row
* with the last 5 values. Comments (such as this one) are indicated by
* an asterisk in the first column. Empty rows are ignored. Values are
* read "free format," meaning any number may appear in any row with as
* many characters as needed (including a decimal) as long as 25 values
* follow the initial integer value separated by a space.
* If all 28 vehicle classes do not need to be altered from the default
* values, then only the vehicle classes that need to be changed need to
* be included in this file. The order in which the vehicle classes are
* read does not matter, however each vehicle class set must contain 25
* values and be in the proper age order.
* LDV
1 0.0449 0.0602 0.0613 0.0724 0.0812 0.0771 0.0683 0.0590 0.0592 0.0582
   0.0519 0.0539 0.0442 0.0362 0.0316 0.0260 0.0228 0.0165 0.0126 0.0102
   0.0074 0.0057 0.0042 0.0031 0.0319
* LDT1
 2 0.0123 0.0212 0.0177 0.0262 0.0278 0.0400 0.0234 0.0235 0.0357 0.0389
   0.0414 0.0575 0.0524 0.0635 0.0461 0.0411 0.0401 0.0401 0.0378 0.0216
   0.0263 0.0143 0.0169 0.0199 0.2143
 LDT2
3 0.0223 0.0262 0.0284 0.0410 0.0578 0.0874 0.0783 0.0574 0.0541 0.0545
   0.0632 \ 0.0568 \ 0.0426 \ 0.0418 \ 0.0488 \ 0.0220 \ 0.0217 \ 0.0233 \ 0.0193 \ 0.0221
   0.0170 \ 0.0214 \ 0.0182 \ 0.0154 \ 0.0590
* LDT3
 4 0.0146 0.0133 0.0230 0.0405 0.0449 0.0692 0.0606 0.0761 0.0901 0.0857
   0.0826 0.0711 0.0521 0.0458 0.0373 0.0423 0.0396 0.0315 0.0196 0.0159
   0.0059 0.0082 0.0040 0.0020 0.0241
* LDT4
 5 0.0976 0.1207 0.0988 0.1527 0.1555 0.0910 0.0773 0.0575 0.0163 0.0176
   0.0171 0.0056 0.0229 0.0093 0.0119 0.0073 0.0081 0.0081 0.0052 0.0012
   0.0052 0.0010 0.0019 0.0035 0.0067
* HDV2B
6 0.0481 0.0306 0.0423 0.0814 0.0705 0.1017 0.0659 0.0652 0.0687 0.0628
   0.0683 0.0464 0.0537 0.0237 0.0340 0.0235 0.0199 0.0137 0.0113 0.0087
   0.0070 0.0064 0.0062 0.0060 0.0340
* HDV3
```

7 0.0532 0.0280 0.0429 0.1029 0.0799 0.1069 0.0719 0.0600 0.0574 0.0449 0.0629 0.0429 0.0592 0.0246 0.0182 0.0205 0.0199 0.0099 0.0072 0.0087 0.0073 0.0108 0.0064 0.0038 0.0497 * Motorcycles

16 0.0320 0.0344 0.0960 0.0810 0.1025 0.0926 0.0676 0.0559 0.0662 0.0613 0.0517 0.0410 0.0340 0.0267 0.0188 0.0167 0.0124 0.0129 0.0087 0.0074 0.0041 0.0034 0.0051 0.0075 0.0601

Non-Modeled Area MOBILE Input and Output Files

Baton Rouge 2013 Conformity MOBILE6 VMT Fractions by Functional Class (Local + Statewide)

	0 600	0 026	0 110	0 014	0 006	0 070	0 007	0 006
FC 01/ RURAL INTERSTATE	0.004	0.036	0.018	0.014	0.008	0.004	0.007	0.006
FC 02/ RIIRAL PRINCIPAL ARTERIAL	0.653	0.045	0.151	0.017	0.008	0.039	0.004	0.003
	0.002	0.009	0.010	0.011	0.040	0.002	0.001	0.005
	0.672	0.044	0.147	0.017	0.008	0.035	0.003	0.003
FC 06/ RURAL MINOR ARTERIAL	0.002	0.008	0.009	0.010	0.035	0.002	0.001	0.004
	0.667	0.050	0.166	0.019	0.009	0.027	0.003	0.002
FC 07/ RURAL MAJOR COLLECTOR								
	0.002	0.006	0.007	0.008	0.028	0.001	0.001	0.004
	0.639	0.050	0.166	0.019	0.009	0.030	0.003	0.002
FC 08/ RURAL MINOR COLLECTOR	0.002	0.007	0.008	0.009	0.031	0.002	0.001	0.022
	0.654	0.057	0.189	0.003	0.002	0.024	0.002	0.002
FC 097 RURAL LUCAL	0.001	0.005	0.006	0.007	0.025	0.001	0.001	0.021
	0.733	0.036	0.119	0.014	0.006	0.029	0.003	0.002
FC II/ URBAN INTERSTATE	0.002	0.006	0.008	0.008	0.030	0.001	0.001	0.002
	0.707	0.042	0.139	0.016	0.008	0.028	0.003	0.002
FC 12/ URBAN PRINCIPAL ARTERIAL, FRWY.	0.002	0.006	0.007	0.008	0.028	0.001	0.001	0.002
EC 14 / HERAN DETNOTENT ADVERTAL OTHER	0.767	0.034	0.113	0.013	0.006	0.020	0.002	0.002
FC 14/ URBAN PRINCIPAL ARIERIAL, OTHER	0.001	0.004	0.005	0.006	0.020	0.001	0.000	0.006
EC 16 / HERAN MENOR APPEREAT	0.773	0.036	0.120	0.014	0.006	0.016	0.002	0.001
FC 16/ URBAN MINOR ARIERIAL	0.001	0.003	0.004	0.005	0.016	0.001	0.000	0.002
EG 17 / HERAN GOLLEGEOR	0.773	0.034	0.114	0.013	0.006	0.014	0.001	0.001
FC 177 URBAN COLLECTOR	0.001	0.003	0.004	0.004	0.015	0.001	0.000	0.016
EG 10 / HERAN LOGAL FORES	0.796	0.037	0.122	0.003	0.001	0.008	0.001	0.001
FC 19/ URBAN LOCAL ROADS	0.000	0.002	0.002	0.003	0.009	0.000	0.000	0.015

MILINGNALLY

Non-Modeled Area MOBILE Input and Output Files

MOBILE6 INPUT FILE : BTR13p15.in * Louisiana 5-Parish Non-attainment Area (90% design speeds); 2013 Run (05/09/2013) : HC NOX POLLUTANTS RUN DATA NO REFUELING : EXPRESS HC AS VOC MIN/MAX TEMP : 72.3 94.8 ABSOLUTE HUMIDITY : 123.44 ABSOLUTE FUEL RVP : 7.8 : Reg2011.D I/M DESC FILE : BTR_IM.D ANTI-TAMP PROG : 00 80 95 22222 2111111 1 11 072. 22222222 SCENARIO REC : rural interstate, 63.0 CALENDAR YEAR : 2015 EVALUATION MONTH : 7 ALTITUDE : 1 : 63.0 Non-Ramp 100.0 0.0 0.0 0.0 AVERAGE SPEED VMT FRACTIONS 0.600 0.036 0.119 0.014 0.006 0.070 0.007 0.006 0.004 0.016 0.018 0.020 0.072 0.004 0.002 0.006 SCENARIO REC : rural principal arterial, 58.5 CALENDAR YEAR : 2015 EVALUATION MONTH : 7 ; 1 ; 59 ALTITUDE AVERAGE SPEED : 58.5 Arterial 0.0 100.0 0.0 0.0 VMT FRACTIONS : $0.653 \quad 0.045 \quad 0.151 \quad 0.017 \quad 0.008 \quad 0.039 \quad 0.004 \quad 0.003$ 0.002 0.009 0.010 0.011 0.040 0.002 0.001 0.005 SCENARIO REC : rural minor arterial, 49.5 CALENDAR YEAR : 2015 EVALUATION MONTH : 7 ALTITUDE : 1 AVERAGE SPEED : 49.5 Arterial 0.0 100.0 0.0 0.0 VMT FRACTIONS 0.672 0.044 0.147 0.017 0.008 0.035 0.003 0.003 0.002 0.008 0.009 0.010 0.035 0.002 0.001 0.004 : rural major collector, 45.0 SCENARIO REC : 2015 CALENDAR YEAR EVALUATION MONTH : 7 : 1 ALTITUDE AVERAGE SPEED : 45.0 Arterial 0.0 100.0 0.0 0.0 VMT FRACTIONS : 0.667 0.050 0.166 0.019 0.009 0.027 0.003 0.002 0.002 0.006 0.007 0.008 0.028 0.001 0.001 0.004 ****** SCENARIO REC : rural minor collector, 36.0 CALENDAR YEAR : 2015 EVALUATION MONTH : 7 ALTITUDE : 1 AVERAGE SPEED : 36.0 Arterial 0.0 100.0 0.0 0.0 VMT FRACTIONS : 0.639 0.050 0.166 0.019 0.009 0.030 0.003 0.002 0.002 0.007 0.008 0.009 0.031 0.002 0.001 0.022

CALENDAR YEAR	: 2015
EVALUATION MONTH	: 7
ALTITUDE	: 1
VMT BY FACILITY	: localvmt.d
VMT FRACTIONS	
0.654 0.057 0.189	
0.001 0.005 0.008	0.007 0.025 0.001 0.001 0.021
* * * * * * * * * * * * * * * * * * * *	*****
SCENARIO REC	urbanized interstate, 58.5
CALENDAR YEAR	: 2015
EVALUATION MONTH	: 7
ALTITUDE	: 1
AVERAGE SPEED	: 58.5 Non-Ramp 100.0 0.0 0.0 0.0
VMT FRACTIONS	
0.733 0.036 0.119	0.014 0.006 0.029 0.003 0.002
0.002 0.006 0.008	0.008 0.030 0.001 0.001 0.002
*****	***************
SCENARIO REC	urbanized other expressway, 58.5
CALENDAR YEAR	: 2015
EVALUATION MONTH	: 7
ALTITUDE	: 1
AVERAGE SPEED	: 58.5 Non-Ramp 100.0 0.0 0.0 0.0
VMT FRACTIONS	
0.707 0.042 0.139	
0.002 0.008 0.007	0.008 0.028 0.001 0.001 0.002
* * * * * * * * * * * * * * * * * * * *	***************************************
SCENARIO REC	urbanized principal arterial, 49.5
CALENDAR YEAR	: 2015
FVALUATION MONTH	. 7
DVADOATION HONIH	• /
ALTITUDE	: 1
ALTITUDE AVERAGE SPEED	: 1 : 49.5 Arterial 0.0 100.0 0.0 0.0
ALTITUDE AVERAGE SPEED VMT FRACTIONS	: 1 : 49.5 Arterial 0.0 100.0 0.0 0.0 :
ALTITUDE AVERAGE SPEED VMT FRACTIONS 0.767 0.034 0.113	., : 1 : 49.5 Arterial 0.0 100.0 0.0 0.0 : 0.013 0.006 0.020 0.002 0.002 0.005 0.020 0.001 0.000 0.005
ALTITUDE AVERAGE SPEED VMT FRACTIONS 0.767 0.034 0.113 0.001 0.004 0.005	1 49.5 Arterial 0.0 100.0 0.0 0.0 0.013 0.006 0.020 0.002 0.002 0.006 0.020 0.001 0.000 0.006
ALTITUDE AVERAGE SPEED VMT FRACTIONS 0.767 0.034 0.113 0.001 0.004 0.005	1 49.5 Arterial 0.0 100.0 0.0 0.0 0.013 0.006 0.020 0.002 0.002 0.006 0.020 0.001 0.000 0.006
ALTITUDE AVERAGE SPEED VMT FRACTIONS 0.767 0.034 0.113 0.001 0.004 0.005	1 49.5 Arterial 0.0 100.0 0.0 0.0 0.013 0.006 0.020 0.002 0.002 0.006 0.020 0.001 0.000 0.006
ALTITUDE AVERAGE SPEED VMT FRACTIONS 0.767 0.034 0.113 0.001 0.004 0.005	<pre>49.5 Arterial 0.0 100.0 0.0 0.0 0.013 0.006 0.020 0.002 0.002 0.006 0.020 0.001 0.000 0.006 </pre>
ALTITUDE AVERAGE SPEED VMT FRACTIONS 0.767 0.034 0.113 0.001 0.004 0.005 **********************************	<pre> 1 49.5 Arterial 0.0 100.0 0.0 0.0 0.013 0.006 0.020 0.002 0.002 0.006 0.020 0.001 0.000 0.006 urbanized minor arterial, 45.0 2015 </pre>
ALTITUDE AVERAGE SPEED VMT FRACTIONS 0.767 0.034 0.113 0.001 0.004 0.005 **********************************	<pre> 49.5 Arterial 0.0 100.0 0.0 0.0 0.013 0.006 0.020 0.002 0.002 0.006 0.020 0.001 0.000 0.006 urbanized minor arterial, 45.0 2015 7 </pre>
ALTITUDE AVERAGE SPEED VMT FRACTIONS 0.767 0.034 0.113 0.001 0.004 0.005 **********************************	<pre> 49.5 Arterial 0.0 100.0 0.0 0.0 0.013 0.006 0.020 0.002 0.002 0.006 0.020 0.001 0.000 0.006 urbanized minor arterial, 45.0 2015 7 1 45.0 45.0 45.0 45.0 45.0 45.0 45.0 45.0</pre>
ALTITUDE AVERAGE SPEED VMT FRACTIONS 0.767 0.034 0.113 0.001 0.004 0.005 **********************************	<pre>49.5 Arterial 0.0 100.0 0.0 0.0 0.013 0.006 0.020 0.002 0.002 0.006 0.020 0.001 0.000 0.006 urbanized minor arterial, 45.0 2015 7 1 45.0 Arterial 0.0 100.0 0.0 0.0</pre>
ALTITUDE ALTITUDE AVERAGE SPEED VMT FRACTIONS 0.767 0.034 0.113 0.001 0.004 0.005 **********************************	<pre> 49.5 Arterial 0.0 100.0 0.0 0.0 0.013 0.006 0.020 0.002 0.002 0.006 0.020 0.001 0.000 0.006 urbanized minor arterial, 45.0 2015 7 1 45.0 Arterial 0.0 100.0 0.0 0.0 0.014 0.005 0.015 0.002 0.001 </pre>
ALTITUDE ALTITUDE AVERAGE SPEED VMT FRACTIONS 0.767 0.034 0.113 0.001 0.004 0.005 **********************************	<pre> 49.5 Arterial 0.0 100.0 0.0 0.0 0.013 0.006 0.020 0.002 0.002 0.006 0.020 0.001 0.000 0.006 urbanized minor arterial, 45.0 2015 7 1 45.0 Arterial 0.0 100.0 0.0 0.0 0.014 0.006 0.016 0.002 0.001 0.005 0.016 0.001 0.000 0.022 </pre>
ALTITUDE AVERAGE SPEED VMT FRACTIONS 0.767 0.034 0.113 0.001 0.004 0.005 **********************************	<pre> 49.5 Arterial 0.0 100.0 0.0 0.0 0.013 0.006 0.020 0.002 0.002 0.006 0.020 0.001 0.000 0.006 urbanized minor arterial, 45.0 2015 7 1 45.0 Arterial 0.0 100.0 0.0 0.0 0.014 0.006 0.016 0.002 0.001 0.005 0.016 0.001 0.000 0.002 </pre>
ALTITUDE ALTITUDE AVERAGE SPEED VMT FRACTIONS 0.767 0.034 0.113 0.001 0.004 0.005 **********************************	<pre>49.5 Arterial 0.0 100.0 0.0 0.0 0.013 0.006 0.020 0.002 0.002 0.006 0.020 0.001 0.000 0.006 ***********************************</pre>
ALTITUDE ALTITUDE AVERAGE SPEED VMT FRACTIONS 0.767 0.034 0.113 0.001 0.004 0.005 **********************************	<pre>49.5 Arterial 0.0 100.0 0.0 0.0 0.013 0.006 0.020 0.002 0.002 0.006 0.020 0.001 0.000 0.006 ***********************************</pre>
ALTITUDE ALTITUDE AVERAGE SPEED VMT FRACTIONS 0.767 0.034 0.113 0.001 0.004 0.005 **********************************	<pre>49.5 Arterial 0.0 100.0 0.0 0.0 0.013 0.006 0.020 0.002 0.002 0.006 0.020 0.001 0.000 0.006 ***********************************</pre>
ALTITUDE ALTITUDE AVERAGE SPEED VMT FRACTIONS 0.767 0.034 0.113 0.001 0.004 0.005 **********************************	<pre>49.5 Arterial 0.0 100.0 0.0 0.0 0.013 0.006 0.020 0.002 0.002 0.006 0.020 0.001 0.000 0.006 ***********************************</pre>
ALTITUDE ALTITUDE AVERAGE SPEED VMT FRACTIONS 0.767 0.034 0.113 0.001 0.004 0.005 **********************************	<pre>49.5 Arterial 0.0 100.0 0.0 0.0 0.013 0.006 0.020 0.002 0.002 0.006 0.020 0.001 0.000 0.006 urbanized minor arterial, 45.0 2015 7 1 45.0 Arterial 0.0 100.0 0.0 0.0 0.014 0.006 0.016 0.002 0.001 0.005 0.016 0.001 0.000 0.002 urbanized collector, 36.0 2015 </pre>
ALTITUDE ALTITUDE AVERAGE SPEED VMT FRACTIONS 0.767 0.034 0.113 0.001 0.004 0.005 **********************************	<pre>49.5 Arterial 0.0 100.0 0.0 0.0 0.013 0.006 0.020 0.002 0.002 0.006 0.020 0.001 0.000 0.006 ***********************************</pre>
ALTITUDE ALTITUDE AVERAGE SPEED VMT FRACTIONS 0.767 0.034 0.113 0.001 0.004 0.005 **********************************	<pre>49.5 Arterial 0.0 100.0 0.0 0.0 0.013 0.006 0.020 0.002 0.002 0.006 0.020 0.001 0.000 0.006 urbanized minor arterial, 45.0 2015 7 1 45.0 Arterial 0.0 100.0 0.0 0.0 0.014 0.006 0.016 0.002 0.001 0.005 0.016 0.001 0.000 0.002 urbanized collector, 36.0 2015 7 1 26.0 Arterial 0.0 100.0 0.0 0.0 0.0 2015 7 1 26.0 Arterial 0.0 100.0 0.0 0.0 0.0 2015 7 1 26.0 Arterial 0.0 100.0 0.0 0.0 0.0 2015 2</pre>
ALTITUDE ALTITUDE AVERAGE SPEED VMT FRACTIONS 0.767 0.034 0.113 0.001 0.004 0.005 **********************************	<pre>49.5 Arterial 0.0 100.0 0.0 0.0 49.5 Arterial 0.0 100.0 0.0 0.0 0.013 0.006 0.020 0.002 0.002 0.006 0.020 0.001 0.000 0.006 ***********************************</pre>
ALTITUDE ALTITUDE AVERAGE SPEED VMT FRACTIONS 0.767 0.034 0.113 0.001 0.004 0.005 **********************************	<pre>49.5 Arterial 0.0 100.0 0.0 0.0 0.013 0.006 0.020 0.002 0.002 0.006 0.020 0.001 0.000 0.006 ***********************************</pre>
ALTITUDE ALTITUDE AVERAGE SPEED VMT FRACTIONS 0.767 0.034 0.113 0.001 0.004 0.005 **********************************	<pre>49.5 Arterial 0.0 100.0 0.0 0.0 49.5 Arterial 0.0 100.0 0.0 0.0 0.013 0.006 0.020 0.002 0.002 0.006 0.020 0.001 0.000 0.006 ***********************************</pre>
ALTITUDE AVERAGE SPEED VMT FRACTIONS 0.767 0.034 0.113 0.001 0.004 0.005 **********************************	<pre>49.5 Arterial 0.0 100.0 0.0 0.0 0.013 0.006 0.020 0.002 0.002 0.006 0.020 0.001 0.000 0.006 urbanized minor arterial, 45.0 2015 7 1 45.0 Arterial 0.0 100.0 0.0 0.0 0.014 0.006 0.016 0.002 0.001 0.005 0.016 0.001 0.000 0.002 urbanized collector, 36.0 2015 7 1 36.0 Arterial 0.0 100.0 0.0 0.0 0.013 0.006 0.014 0.001 0.001 0.004 0.015 0.001 0.000 0.016</pre>
ALTITUDE ALTITUDE AVERAGE SPEED VMT FRACTIONS 0.767 0.034 0.113 0.001 0.004 0.005 **********************************	<pre>49.5 Arterial 0.0 100.0 0.0 0.0 0.013 0.006 0.020 0.002 0.002 0.006 0.020 0.001 0.000 0.006 urbanized minor arterial, 45.0 2015 7 1 45.0 Arterial 0.0 100.0 0.0 0.0 0.014 0.006 0.016 0.002 0.001 0.005 0.016 0.001 0.000 0.002 urbanized collector, 36.0 2015 7 1 36.0 Arterial 0.0 100.0 0.0 0.0 0.013 0.006 0.014 0.001 0.001 0.004 0.015 0.001 0.000 0.016</pre>
ALTITUDE ALTITUDE AVERAGE SPEED VMT FRACTIONS 0.767 0.034 0.113 0.001 0.004 0.005 **********************************	<pre>49.5 Arterial 0.0 100.0 0.0 0.0 0.013 0.006 0.020 0.002 0.002 0.006 0.020 0.001 0.000 0.006 urbanized minor arterial, 45.0 2015 7 1 45.0 Arterial 0.0 100.0 0.0 0.0 0.014 0.006 0.016 0.002 0.001 0.005 0.016 0.001 0.000 0.002 urbanized collector, 36.0 2015 7 1 36.0 Arterial 0.0 100.0 0.0 0.0 0.013 0.006 0.014 0.001 0.001 0.004 0.015 0.001 0.000 0.016</pre>
ALTITUDE ALTITUDE AVERAGE SPEED VMT FRACTIONS 0.767 0.034 0.113 0.001 0.004 0.005 **********************************	<pre>49.5 Arterial 0.0 100.0 0.0 0.0 0.013 0.006 0.020 0.002 0.002 0.006 0.020 0.001 0.000 0.006 urbanized minor arterial, 45.0 2015 7 1 45.0 Arterial 0.0 100.0 0.0 0.0 0.014 0.006 0.016 0.002 0.001 0.005 0.016 0.001 0.000 0.002 urbanized collector, 36.0 2015 7 1 36.0 Arterial 0.0 100.0 0.0 0.0 0.013 0.006 0.014 0.001 0.001 0.004 0.015 0.001 0.000 0.016</pre>
ALTITUDE ALTITUDE AVERAGE SPEED VMT FRACTIONS 0.767 0.034 0.113 0.001 0.004 0.005 **********************************	<pre>49.5 Arterial 0.0 100.0 0.0 0.0 0.013 0.006 0.020 0.002 0.002 0.006 0.020 0.001 0.000 0.006 urbanized minor arterial, 45.0 2015 7 1 45.0 Arterial 0.0 100.0 0.0 0.0 0.014 0.006 0.016 0.002 0.001 0.005 0.016 0.001 0.000 0.002 urbanized collector, 36.0 2015 7 1 36.0 Arterial 0.0 100.0 0.0 0.0 0.013 0.006 0.014 0.001 0.001 0.004 0.015 0.001 0.000 0.016 urbanized local, 27.0 2015</pre>
EVALUATION MONTH : 7 ALTITUDE : 1 VMT BY FACILITY : localvmt.d VMT FRACTIONS : 0.796 0.037 0.122 0.003 0.001 0.008 0.001 0.001 0.000 0.002 0.002 0.003 0.009 0.000 0.000 0.015

END OF RUN

MILINGNALLY

* MOBILE6.2.03 (24-Sep-2003) * Input file: BTR13P15.IN (file 1, run 1). M603 Comment: User has disabled the calculation of REFUELING emissions. * Reading Registration Distributions from the following external * data file: REG2011.D * Reading I/M program description records from the following external * data file: BTR_IM.D * rural interstate, 63.0 * File 1, Run 1, Scenario 1. M581 Warning: The user supplied freeway average speed of 63.0 will be used for all hours of the day. 100% of VMT has been assigned to the freeway roadway type for all hours of the day and all vehicle types. M615 Comment: User supplied VMT mix. *** I/M credits for Tech1&2 vehicles were read from the following external data file: TECH12.D M 48 Warning: there are no sales for vehicle class HDGV8b M 48 Warning: there are no sales for vehicle class LDDT12 Calendar Year: 2015 Month: July Altitude: Low Minimum Temperature: 72.3 (F) Maximum Temperature: 94.8 (F) Absolute Humidity: 123. grains/lb Nominal Fuel RVP: 7.8 psi Weathered RVP: 7.4 psi Fuel Sulfur Content: 30. ppm Exhaust I/M Program: Yes Evap I/M Program: Yes ATP Program: Yes Reformulated Gas: No Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All Veh >6000 (All) GVWR: <6000 _ _ _ _ _ _ ____ _____ ____ _____ _____ ____ _____ _____ ____ 0.5995 0.1550 0.0197 0.0005 0.0003 VMT Distribution: 0.0643 0.1547 0.0060 1.0000 _____ _____ Composite Emission Factors (g/mi): 3.72 Composite VOC: 0.376 0.877 0.459 0.830 0.321 0.090 0.191 0.191 0.443 Composite NOX : 0.271 0.577 0.564 0.576 1.343 0.282 0.552 5.153 1.35 1.155

* rural principal arterial, 58.5 * File 1, Run 1, Scenario 2. M583 Warning: The user supplied arterial average speed of 58.5 will be used for all hours of the day. 100% of VMT has been assigned to the arterial/collector roadway type for all hours of the day and all vehicle types. M615 Comment: User supplied VMT mix. M 48 Warning: there are no sales for vehicle class HDGV8b M 48 Warning: there are no sales for vehicle class LDDT12 Calendar Year: 2015 Month: July Altitude: Low Minimum Temperature: 72.3 (F) Maximum Temperature: 94.8 (F) Absolute Humidity: 123. grains/lb Nominal Fuel RVP: 7.8 psi Weathered RVP: 7.4 psi Fuel Sulfur Content: 30. ppm Exhaust I/M Program: Yes Evap I/M Program: Yes ATP Program: Yes Reformulated Gas: No MC All Veh Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV GVWR: <6000 >6000 (All) _____ ____ ____ ____ _ _ _ _ _ _ _ ____ ____ VMT Distribution: 0.6524 0.1960 0.0246 0.0357 0.0006 0.0004 0.0853 0.0050 1.0000 Composite Emission Factors (q/mi): Composite VOC : 0.380 0.883 0.458 0.836 0.323 0.090 0.191 0.193 3.36 0.477 Composite NOX : 0.268 0.568 0.549 0.566 1.302 0.238 0.466 4.077 1.26 0.700 _____ * rural minor arterial, 49.5 * File 1, Run 1, Scenario 3. M583 Warning: The user supplied arterial average speed of 49.5 will be used for all hours of the day. 100% of VMT has been assigned to the arterial/collector roadway type for all hours of the day and all vehicle types. M615 Comment: User supplied VMT mix. M 48 Warning:

there are no sales for vehicle class HDGV8b M 48 Warning: there are no sales for vehicle class LDDT12 Calendar Year: 2015 Month: July Altitude: Low Minimum Temperature: 72.3 (F) Maximum Temperature: 94.8 (F) Absolute Humidity: 123. grains/lb Nominal Fuel RVP: 7.8 psi Weathered RVP: 7.4 psi Fuel Sulfur Content: 30. ppm Exhaust I/M Program: Yes Evap I/M Program: Yes ATP Program: Yes Reformulated Gas: No Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All Veh GVWR: <6000 >6000 (All) _____ _____ ____ ____ ____ _ _ _ _ _ _ _ _____ ____ _____ ____ VMT Distribution: 0.6714 0.1910 0.0246 0.0320 0.0006 0.0004 0.0760 0.0040 1.0000 _____ Composite Emission Factors (g/mi): Composite VOC : 0.392 0.906 0.471 0.856 0.343 0.093 0.199 0.206 3.07 0.487 Composite NOX : 0.261 0.551 0.532 0.549 0.361 1.227 0.185 3.174 1.07 0.579 _____ * rural major collector, 45.0 * File 1, Run 1, Scenario 4. M583 Warning: The user supplied arterial average speed of 45.0 will be used for all hours of the day. 100% of VMT has been assigned to the arterial/collector roadway type for all hours of the day and all vehicle types. M615 Comment: User supplied VMT mix. M 48 Warning: there are no sales for vehicle class HDGV8b M 48 Warning: there are no sales for vehicle class LDDT12 Calendar Year: 2015 Month: July Altitude: Low Minimum Temperature: 72.3 (F) Maximum Temperature: 94.8 (F) Absolute Humidity: 123. grains/lb Nominal Fuel RVP: 7.8 psi Weathered RVP: 7.4 psi Fuel Sulfur Content: 30. ppm

Exhaust Evap Refor	I/M Program I/M Program ATP Program mulated Gas	a: Yes a: Yes a: Yes a: No								
Vehicle Type: GVWR:	LDGV	LDGT12 <6000	LDGT34 >6000	LDGT (All)	HDGV	LDDV	LDDT	HDDV	MC	All Veh
VMT Distribution:	0.6664	0.2160	0.0276		0.0250	0.0006	0.0004	0.0600	0.0040	1.0000
Composite Emission Fa Composite VOC : Composite NOX :	ctors (g/mi 0.401 0.258): 0.919 0.543	0.479 0.523	0.870 0.541	0.359 1.186	0.097 0.170	0.206 0.331	0.217 2.905	3.09 1.02	0.513 0.512
rural minor collecto File 1, Run 1, Scena # # # # # # # # # # M583 Warning: The user so will be us has been a type for a M615 Comment: User so M 48 Warning: there ar M 48 Warning: there ar	r, 36.0 rio 5. # # # # # # # ed for all ssigned to ll hours of pplied VMT e no sales e no sales	erial ave hours of the arter the day mix. for vehic for vehic	# # # # # rage speed the day. 1 ial/collect and all veh le class HE le class LE	of 36.0 00% of VM or roadway icle types GV8b DDT12	Г У 5.					
Ca Minimum Maximum Absolu Nomin We Fuel Sul Exhaust Evap Refor	lendar Year Month Altitude Temperature te Humidity al Fuel RVF athered RVF fur Content I/M Program ATP Program mulated Gas	: 2015 : July : Low : 72.3 (1 : 94.8 (1 : 123. g : 7.8 p : 7.8 p : 7.4 p : 30. p : 30. p : Yes : Yes : Yes : Yes : No	F) F) rains/lb si si om							
Vehicle Type: GVWR:	LDGV	LDGT12 <6000	LDGT34 >6000	LDGT (All)	HDGV	LDDV	LDDT	HDDV	MC	All Veh
VMT Distribution:	0.6384	0.2160	0.0276		0.0277	0.0006	0.0004	0.0673	0.0220	1.0000
Composite Emission Fa Composite VOC : Composite NOX :	ctors (g/mi 0.423 0.253): 0.947 0.530	0.497 0.509	0.896 0.527	0.410 1.115	0.107 0.157	0.230	0.261 2.719	3.25 0.98	0.589 0.526

* rural local, 27.0 * File 1, Run 1, Scenario 6. * Reading Hourly Roadway VMT distribution from the following external * data file: LOCALVMT.D Reading User Supplied ROADWAY VMT Factors M615 Comment: User supplied VMT mix. M 48 Warning: there are no sales for vehicle class HDGV8b M 48 Warning: there are no sales for vehicle class LDDT12 Calendar Year: 2015 Month: July Altitude: Low Minimum Temperature: 72.3 (F) Maximum Temperature: 94.8 (F) Absolute Humidity: 123. grains/lb Nominal Fuel RVP: 7.8 psi Weathered RVP: 7.4 psi Fuel Sulfur Content: 30. ppm Exhaust I/M Program: Yes Evap I/M Program: Yes ATP Program: Yes Reformulated Gas: No Vehicle Type: LDGT34 HDGV LDDV LDDT LDGV LDGT12 LDGT HDDV MC All Veh >6000 (All) GVWR: <6000 ____ ____ _____ _____ _____ _____ _____ _____ _____ ____ VMT Distribution: 0.6534 0.2460 0.0049 0.0216 0.0006 0.0001 0.0524 0.0210 1.0000 _____ Composite Emission Factors (g/mi): Composite VOC : 0.657 1.280 0.704 1.268 0.869 0.182 0.401 0.565 4.71 0.895 0.282 Composite NOX : 0.540 0.492 0.539 0.908 0.210 0.410 3.403 0.80 0.534 * urbanized interstate, 58.5 * File 1, Run 1, Scenario 7. M581 Warning: The user supplied freeway average speed of 58.5 will be used for all hours of the day. 100% of VMT has been assigned to the freeway roadway type for all hours of the day and all vehicle types. M615 Comment: User supplied VMT mix. M 48 Warning: there are no sales for vehicle class HDGV8b

M 48 Warning:

there are no sales for vehicle class LDDT12

Exhaust I/M Program: Yes

Calendar Year: 2015 Month: July Altitude: Low Minimum Temperature: 72.3 (F) Maximum Temperature: 94.8 (F) Absolute Humidity: 123. grains/lb Nominal Fuel RVP: 7.8 psi Weathered RVP: 7.4 psi Fuel Sulfur Content: 30. ppm Exhaust I/M Program: Yes Evap I/M Program: Yes ATP Program: Yes Reformulated Gas: No LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All Veh Vehicle Type: GVWR: <6000 >6000 (All) _____ ____ _____ ____ _____ _____ _____ _____ _____ VMT Distribution: 0.7323 0.1550 0.0197 0.0266 0.0007 0.0003 0.0634 0.0020 1.0000 _____ Composite Emission Factors (g/mi): Composite VOC : 0.380 0.885 0.464 0.838 0.323 0.090 0.191 0.192 3.36 0.452 Composite NOX : 0.268 0.569 0.555 4.388 1.26 0.611 0.567 1.301 0.238 0.466 * urbanized other expressway, 58.5 * File 1, Run 1, Scenario 8. M581 Warning: The user supplied freeway average speed of 58.5 will be used for all hours of the day. 100% of VMT has been assigned to the freeway roadway type for all hours of the day and all vehicle types. M615 Comment: User supplied VMT mix. M 48 Warning: there are no sales for vehicle class HDGV8b M 48 Warning: there are no sales for vehicle class LDDT12 Calendar Year: 2015 Month: July Altitude: Low Minimum Temperature: 72.3 (F) Maximum Temperature: 94.8 (F) Absolute Humidity: 123. grains/lb Nominal Fuel RVP: 7.8 psi Weathered RVP: 7.4 psi Fuel Sulfur Content: 30. ppm

Evap	I/M Program ATP Program	n: Yes n: Yes								
Refor	mulated Gas	s: No								
Vehicle Type: GVWR:	LDGV	LDGT12 <6000	LDGT34 >6000	LDGT (All)	HDGV	LDDV	LDDT	HDDV	MC	All Veh
VMT Distribution:	0.7064	0.1810	0.0237		0.0258	0.0006	0.0004	0.0602	0.0020	1.0000
Composite Emission Fa	ictors (g/m	:):								
Composite VOC : Composite NOX :	0.380 0.268	0.885 0.569	0.453 0.545	0.835 0.566	0.324 1.301	0.090 0.238	0.191 0.466	0.191 4.371	3.36 1.26	0.466 0.605
<pre>* # # # # # # # # # # # # * urbanized principal * File 1, Run 1, Scena * # # # # # # # # # M583 Warning: The user s will be us has been a type for a M615 Comment: User su M 48 Warning: there an M 48 Warning: there an</pre>	# # # # # # # arterial, urio 9. # # # # # # # ed for all ussigned to ull hours of upplied VMT re no sales re no sales	# # # # # # A9.5 # # # # # # # cerial ave: hours of the arter the arter the day of mix. for vehic for vehic	# # # # # # # # # # rage speed the day. 1 ial/collect and all veh le class HD le class LD	of 49.5 00% of VM or roadway icle types GV8b DT12	С 7 5.					
Ca Minimum Maximum Absolu Nomir We Fuel Sul Exhaust Evap Refor	Monta Monta Altituda Temperatura Temperatura te Humidity al Fuel RVD athered RVD fur Content I/M Program ATP Program mulated Gam	c: 2015 h: July c: Low c: 94.8 (12) g: 94.8 (2) g: 123. gr g: 7.8 pr g: 7.4 pr g: 30. pr n: Yes n: Yes n: Yes n: Yes n: Yes n: Yes n: Yes	F) F) si si pm							
Vehicle Type: GVWR:	LDGV	LDGT12 <6000	LDGT34 >6000	LDGT (All)	HDGV	LDDV	LDDT	HDDV	MC	All Veh
VMT Distribution:	0.7663	0.1470	0.0187		0.0182	0.0007	0.0003	0.0428	0.0060	1.0000
Composite Emission Fa Composite VOC : Composite NOX :	octors (g/m: 0.392 0.261	i): 0.907 0.552	0.472 0.533	0.858 0.549	0.339 1.222	0.093 0.185	0.199 0.361	0.205 3.113	3.07 1.07	0.476 0.453

```
* urbanized minor arterial, 45.0
* File 1, Run 1, Scenario 10.
M583 Warning:
        The user supplied arterial average speed of 45.0
        will be used for all hours of the day. 100% of VMT
        has been assigned to the arterial/collector roadway
        type for all hours of the day and all vehicle types.
 M615 Comment:
          User supplied VMT mix.
 M 48 Warning:
          there are no sales for vehicle class HDGV8b
 M 48 Warning:
          there are no sales for vehicle class LDDT12
              Calendar Year: 2015
                    Month: July
                  Altitude: Low
          Minimum Temperature: 72.3 (F)
          Maximum Temperature: 94.8 (F)
           Absolute Humidity: 123. grains/lb
            Nominal Fuel RVP: 7.8 psi
              Weathered RVP: 7.4 psi
          Fuel Sulfur Content: 30. ppm
          Exhaust I/M Program: Yes
            Evap I/M Program: Yes
               ATP Program: Yes
            Reformulated Gas: No
                                                    LDDV LDDT HDDV MC All Veh
     Vehicle Type:
                 LDGV LDGT12 LDGT34 LDGT
                                              HDGV
          GVWR:
                 <6000 >6000 (All)
                 _____ ____
                              _____ ____
                                                                                   ____
                                              _____
                                                      _____
                                                             _____
                                                                    _____
                                                                           _____
  VMT Distribution: 0.7723 0.1560
                               0.0197
                                              0.0146
                                                     0.0007
                                                             0.0003
                                                                    0.0344
                                                                           0.0020
                                                                                 1.0000
 _____
                                        _____
Composite Emission Factors (g/mi):
   Composite VOC : 0.401 0.919 0.486
                                        0.870 0.355
                                                      0.097
                                                             0.206
                                                                     0.219
                                                                             3.09
                                                                                  0.482
   Composite NOX : 0.258 0.543 0.530 0.542 1.185 0.170
                                                                     2.879 1.02
                                                                                 0.413
                                                             0.331
 _____
* urbanized collector, 36.0
* File 1, Run 1, Scenario 11.
M583 Warning:
        The user supplied arterial average speed of 36.0
        will be used for all hours of the day. 100% of VMT
        has been assigned to the arterial/collector roadway
        type for all hours of the day and all vehicle types.
 M615 Comment:
          User supplied VMT mix.
 M 48 Warning:
          there are no sales for vehicle class HDGV8b
 M 48 Warning:
```

there are no sales for vehicle class LDDT12 Calendar Year: 2015 Month: July Altitude: Low Minimum Temperature: 72.3 (F) Maximum Temperature: 94.8 (F) Absolute Humidity: 123. grains/lb Nominal Fuel RVP: 7.8 psi Weathered RVP: 7.4 psi Fuel Sulfur Content: 30. ppm Exhaust I/M Program: Yes Evap I/M Program: Yes ATP Program: Yes Reformulated Gas: No Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC All Veh >6000 GVWR: <6000 (All) _____ _____ ____ ____ ____ ____ _____ ____ _____ ____ 0.7723 0.1480 0.0187 0.0128 0.0007 0.0003 0.0312 0.0160 VMT Distribution: 1.0000 _____ Composite Emission Factors (g/mi): 0.895 0.411 0.107 0.230 3.25 0.542 Composite VOC : 0.423 0.945 0.499 0.264 Composite NOX : 0.253 0.529 0.511 0.527 1.117 0.157 0.306 2.709 0.98 0.398 _____ * urbanized local, 27.0 * File 1, Run 1, Scenario 12. * Reading Hourly Roadway VMT distribution from the following external * data file: LOCALVMT.D Reading User Supplied ROADWAY VMT Factors M615 Comment: User supplied VMT mix. M 48 Warning: there are no sales for vehicle class HDGV8b M 48 Warning: there are no sales for vehicle class LDDT12 Calendar Year: 2015 Month: July Altitude: Low Minimum Temperature: 72.3 (F) Maximum Temperature: 94.8 (F) Absolute Humidity: 123. grains/lb Nominal Fuel RVP: 7.8 psi Weathered RVP: 7.4 psi Fuel Sulfur Content: 30. ppm Exhaust I/M Program: Yes Evap I/M Program: Yes

ATP Program mulated Gas	m: Yes s: No								
LDGV	LDGT12 <6000	LDGT34 >6000	LDGT (All)	HDGV	LDDV	LDDT	HDDV	MC	All Veh
0.7953	0.1590	0.0039		0.0073	0.0007	0.0001	0.0187	0.0150	1.0000
ctors (g/m	i):								
0.657 0.282	1.281 0.540	0.782 0.539	1.269 0.540	0.861 0.900	0.182 0.210	0.401 0.410	0.560 3.234	4.71 0.80	0.817 0.391
	ATP Program mulated Ga LDGV 0.7953 ctors (g/m 0.657 0.282	ATP Program: Yes mulated Gas: No LDGV LDGT12 <6000 0.7953 0.1590 ctors (g/mi): 0.657 1.281 0.282 0.540	ATP Program: Yes mulated Gas: No LDGV LDGT12 LDGT34 <6000 >6000 0.7953 0.1590 0.0039 ctors (g/mi): 0.657 1.281 0.782 0.282 0.540 0.539	ATP Program: Yes mulated Gas: No LDGV LDGT12 LDGT34 LDGT <6000 >6000 (All) 0.7953 0.1590 0.0039 ctors (g/mi): 0.657 1.281 0.782 1.269 0.282 0.540 0.539 0.540	ATP Program: Yes mulated Gas: No LDGV LDGT12 LDGT34 LDGT HDGV <6000 >6000 (All) 0.7953 0.1590 0.0039 0.0073 ctors (g/mi): 0.657 1.281 0.782 1.269 0.861 0.282 0.540 0.539 0.540 0.900	ATP Program: Yes mulated Gas: No LDGV LDGT12 LDGT34 LDGT HDGV LDDV <6000 >6000 (All) 0.7953 0.1590 0.0039 0.0073 0.0007 ctors (g/mi): 0.657 1.281 0.782 1.269 0.861 0.182 0.282 0.540 0.539 0.540 0.900 0.210	ATP Program: Yes mulated Gas: No LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT <6000 >6000 (All) 0.7953 0.1590 0.0039 0.0073 0.0007 0.0001 ctors (g/mi): 0.657 1.281 0.782 1.269 0.861 0.182 0.401 0.282 0.540 0.539 0.540 0.900 0.210 0.410	ATP Program: Yes mulated Gas: No LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV <6000 >6000 (All) 0.7953 0.1590 0.0039 0.0073 0.0007 0.0001 0.0187 ctors (g/mi): 0.657 1.281 0.782 1.269 0.861 0.182 0.401 0.560 0.282 0.540 0.539 0.540 0.900 0.210 0.410 3.234	ATP Program: Yes mulated Gas: No LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT HDDV MC <6000 >6000 (All) 0.7953 0.1590 0.0039 0.0073 0.0007 0.0001 0.0187 0.0150 ctors (g/mi): 0.657 1.281 0.782 1.269 0.861 0.182 0.401 0.560 4.71 0.282 0.540 0.539 0.540 0.900 0.210 0.410 3.234 0.80

Baton Rouge Non-Attainment Area

Total Emissions Outside of Modeled Area

FUNCTIONAL CLASS	DVMT	VOC (gr.) VMT	NOX (gr.) VMT	VOC gms	NOX gms
01/ Rural interstate	1,392,937	0.443	1.155	617,071	1,608,843
02/ Rural Princ. Arterial	311,455	0.477	0.700	148,564	218,019
06/ Rural Minor Arterial	76,589	0.487	0.579	37,299	44,345
07/ Rural Major Collectors	528,067	0.513	0.512	270,898	270,370
08 / Rural Minor Collectors	117,216	0.589	0.526	69,040	61,656
09 / Rural Local	244,829	0.895	0.534	219,122	130,739
11 / Urban Interstate	0	0.452	0.611	0	0
12 / Urban Other Expressways	0	0.466	0.605	0	0
14/ Urban Other Principal Arterials	97,062	0.476	0.453	46,202	43,969
16/ Urban Minor Arterials	96,959	0.482	0.413	46,734	40,044
17/ Urban Collectors	173,068	0.542	0.398	93,803	68,881
19/ Urban Local	45,907	0.817	0.391	37,506	17,950

Tot. <u>3,084,091</u>

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TOTAL (tons) <u>1.748</u> <u>2.760</u>

05/10/2013

Baton Rouge Non-Attainment Area

Total Emissions Outside of Modeled Area

FUNCTIONAL CLASS	DVMT	VOC (gr.) VMT	NOX (gr.) VMT	VOC gms	NOX gms
01/ Rural interstate	1,399,036	0.389	0.897	544,225	1,254,936
02/ Rural Princ. Arterial	312,819	0.418	0.551	130,758	172,363
06/ Rural Minor Arterial	76,925	0.425	0.458	32,693	35,231
07/ Rural Major Collectors	530,379	0.448	0.409	237,610	216,925
08 / Rural Minor Collectors	117,730	0.522	0.423	61,455	49,800
09 / Rural Local	245,901	0.800	0.433	196,721	106,475
11 / Urban Interstate	0	0.394	0.483	0	0
12 / Urban Other Expressways	0	0.406	0.480	0	0
14/ Urban Other Principal Arterials	97,487	0.415	0.364	40,457	35,485
16/ Urban Minor Arterials	97,384	0.419	0.333	40,804	32,429
17/ Urban Collectors	173,826	0.478	0.325	83,089	56,493
19/ Urban Local	46,108	0.727	0.323	33,521	14,893

Tot. <u>3,097,594</u>

TOTAL (gr.)	1,401,332.24	1,975,030.48
	1,701,002.27	1,373,030.40

TOTAL (tons) <u>1.544</u> <u>2.176</u>

05/10/2013

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Baton Rouge Non-Attainment Area

Total Emissions Outside of Modeled Area

FUNCTIONAL CLASS	DVMT	VOC (gr.) VMT	NOX (gr.) VMT	VOC gms	NOX gms
01/ Rural interstate	1,414,284	0.258	0.498	364,885	704,313
02/ Rural Princ. Arterial	316,228	0.269	0.330	85,065	104,355
06/ Rural Minor Arterial	77,763	0.272	0.280	21,152	21,774
07/ Rural Major Collectors	536,160	0.286	0.256	153,342	137,257
08 / Rural Minor Collectors	119,013	0.356	0.270	42,368	32,133
09 / Rural Local	248,581	0.577	0.283	143,431	70,348
11 / Urban Interstate	0	0.252	0.289	0	0
12 / Urban Other Expressways	0	0.258	0.289	0	0
14/ Urban Other Principal Arterials	98,550	0.270	0.232	26,608	22,864
16/ Urban Minor Arterials	98,445	0.269	0.214	26,482	21,067
17/ Urban Collectors	175,720	0.325	0.216	57,109	37,956
19/ Urban Local	46,611	0.526	0.222	24,517	10,348

Tot. <u>3,131,354</u>

TOTAL (gr.)	944,959.96	1,162,414.85
TOTAL (tons)	<u>1.041</u>	<u>1.281</u>

5/9/2013

Baton Rouge Non-Attainment Area

Total Emissions Outside of Modeled Area

FUNCTIONAL CLASS	DVMT	VOC (gr.) VMT	NOX (gr.) VMT	VOC gms	NOX gms
01/ Rural interstate	1,429,531	0.235	0.332	335,940	474,604
02/ Rural Princ. Arterial	319,637	0.243	0.242	77,672	77,352
06/ Rural Minor Arterial	78,601	0.247	0.209	19,415	16,428
07/ Rural Major Collectors	541,940	0.259	0.195	140,362	105,678
08 / Rural Minor Collectors	120,296	0.328	0.208	39,457	25,022
09 / Rural Local	251,261	0.540	0.224	135,681	56,283
11 / Urban Interstate	0	0.228	0.211	0	0
12 / Urban Other Expressways	0	0.233	0.213	0	0
14/ Urban Other Principal Arterials	99,612	0.245	0.181	24,405	18,030
16/ Urban Minor Arterials	99,506	0.244	0.169	24,280	16,817
17/ Urban Collectors	177,615	0.300	0.173	53,284	30,727
19/ Urban Local	47,113	0.494	0.185	23,274	8,716

Tot. <u>3,165,113</u>

TOTAL (gr.) 873,769.56 829,656.26 TOTAL (tons)

<u>0.963</u> <u>0.914</u>

05/10/2013

Baton Rouge Non-Attainment Area

Total Emissions Outside of Modeled Area

FUNCTIONAL CLASS	DVMT	VOC (gr.) VMT	NOX (gr.) VMT	VOC gms	NOX gms
01/ Rural interstate	1,460,026	0.230	0.253	335,806	369,387
02/ Rural Princ. Arterial	326,456	0.238	0.200	77,697	65,291
06/ Rural Minor Arterial	80,278	0.242	0.178	19,427	14,289
07/ Rural Major Collectors	553,501	0.254	0.171	140,589	94,649
08 / Rural Minor Collectors	122,862	0.324	0.184	39,807	22,607
09 / Rural Local	256,621	0.534	0.198	137,036	50,811
11 / Urban Interstate	0	0.223	0.179	0	0
12 / Urban Other Expressways	0	0.228	0.181	0	0
14/ Urban Other Principal Arterials	101,737	0.241	0.160	24,519	16,278
16/ Urban Minor Arterials	101,629	0.239	0.152	24,289	15,448
17/ Urban Collectors	181,404	0.295	0.158	53,514	28,662
19/ Urban Local	48,118	0.489	0.171	23,530	8,228

Tot. <u>3,232,632</u>

TOTAL (gr.) 876,213.80 685,649.07

TOTAL (tons) <u>0.966</u> <u>0.756</u>

05/10/2013

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APPENDIX E

Off-Model Projects Emissions Analysis

Appendix E includes emissions analysis for the off-model projects such as growth in Electric Vehicle usage, Advanced Traffic Management Center (ATMC) operations, Travel Demand Management (TDM) strategies, and Capital Area Transit System (CATS) short and long range implementation strategies. This appendix also includes a list of emission credits from projects that were previously approved for Congestion Mitigation for Air Quality (CMAQ) funding and other future projects that could potentially attribute to emission reduction in the Baton Rouge MPO area. MILINGNALLY

MTP 2037 Air Quality Conformity Analysis

Off-Model Emission Analysis



Date: 06/10/13 Prepared by: Capital Region Planning Commission



MILINGNALLY

INTRODUCTION

Air Quality analysis methodologies have become more refined over the years to fill the need in the transportation community to satisfy various requirements including Transportation Conformity and Congestion Mitigation for Air Quality Program project justification. The most typical analysis is associated with Vehicle Miles of Travel (VMT) reductions obtained from the Highway Performance Monitoring System (HPMS) and/or by running the Regional Travel Demand Models, but reductions in emissions can also occur due to decreases in vehicular delay.

Off-Model methodologies are analyses performed without the specific use of a Travel Demand Model which can be used for either of two primary purposes. These two purposes are Transportation Conformity Analyses and Congestion Mitigation for Air Quality (CMAQ) Improvement Program project justifications.

PURPOSE AND NEED

As mentioned in the previous section, Off-Model Emission Analysis is generally performed for Transportation Conformity Analyses and CMAQ Program project justification purposes. The later of these two is the most crucial with the increasing difficulties in showing an offset of VMT growth in Baton Rouge Urbanized Area, and any reduction in emissions will provide a great benefit to the Conformity Process.

METHODOLOGIES

This methodologies utilized in this analyses are obtained from the Federal Highway Administration's (FHWA's) Southern Resource Center and more specifically from "*Off-Model Air Quality Analysis, A Compendium of Practice*". These methodologies are well practiced in other parts of the nation and were approved by FHWA for valuable insight into Off-Model practice.

The following sections briefly elaborate the methodologies and the results for various types of Off-Model practices and projects that were implemented or will be implemented for the future years.

MILINGNALLY

EMISSIONS ANALYSIS FOR ELECTRIC VEHICLES (EV)

Project Description

Sponsored by the US Department of Energy (DOE), the Greater Baton Rouge Clean Cities Coalition (GBRCCC) supports public and private partnerships that work to achieve petroleum displacement through a portfolio of technologies that include alternative fuel vehicles (AFVs), fuel blends, fuel economy, hybrid vehicles, **electric vehicles (EV)** and idle reduction in the five parish Baton Rouge non-attainment area. The Clean Cities Program helps all parties identify mutual interests while meeting their individual objectives such as the need to improve air quality, comply with federal fleet regulations, or identify and create markets for alternate vehicles or fuel. Hybrid and plug-in electric vehicles can help increase energy security, improve fuel economy, lower fuel costs, and reduce emissions.

GBRCCC is required to annually report the outreach efforts and the increase in the use of alternative fuels in the Baton Rouge non-attainment area. The following charts were extracted from GBRCCC's 2012 annual report to DOE. The emission reductions from electric & plug-in vehicles accounted for 14% of the 2012 greenhouse gas emissions reduced in the Baton Rouge area.



It is evident from the historical trends shown below that the emission benefits from the use of electric and plug-in vehicles have been increasing in the Baton Rouge area. As the reporting requirements for DOE and Environmental Protection Agency (EPA) are different, the emission benefits were recalculated using EPA's MOBILE6.2 model based on the information in GBRCCC's 2012 annual report and using the methodology described below.



Methodology

The steps involved in the emission analysis for electric vehicles include the following:

1. Based on GBRCCC's 2012 annual report, the number of EVs in the Baton Rouge nonattainment area added up to 535 in 2012.

The U.S. Energy Information Administration (EIA) published the current and potential market outlook for Alternative-Fuel Vehicles sales. The 2011 annual outlook indicated 8.37 percent average annual growth rate in sales from 2012 through 2035 for passenger and light-duty EVs sales in the West South Central region (WSCR) which includes the states of Arkansas, Louisiana, Oklahoma and Texas. As the projections in the outlook are for increase in sales but not for the actual total number of EVs, CRPC has utilized the annual sales growth rate and applied it to the base year number of vehicles (535) reported by GBRCCC. Thus, the cumulative projections for the total number of EVs for the analysis years were obtained by applying the growth rate for all the intermediate years between 2012 and 2037. In addition, a five percent attrition rate has been accounted in estimating the net EVs projections.

The raw data used in the estimation of the average annual growth rate is shown in the table below.

- 3. Average annual VMT per EV is assumed to be 11,788 miles based on GBRCCC's 2012 annual report. The total VMT in each analysis year is estimated by multiplying the VMT per EV with the total number of EVs in that particular analysis year.
- 4. After calculating the VMT, the Volatile Organic Compound (VOC) and Nitrogen Oxide (NOx) emission factors are obtained in grams/mile by running the EPA's Mobile Source Emission Factor Model (MOBILE6.2).
- 5. The total reduction in emissions is calculated by multiplying the EV VMT with the corresponding emission factor and converted to tons per day by using the formula shown below. The yearly VMT is assumed to be mostly generated during the 260 (52 *5) week days. The emissions from electric vehicles are assumed to be zero tons per day (tpd).

VOC (tpd) = EV VMT * VOC emission factor / (1000*907.2*260)

NOx (tpd) = EV VMT * NOx emission factor / (1000*907.2*260)

Emission Calculations

Analysis Year	Light Duty EV Cars (000)	Light Duty EV Trucks (000)	Total Evs	Yearly Growth	BR EV Car Sales	BR EV Cars Cumulative
2012	2.973341	0.067978	3041		535	535
2013	3.861227	0.153757	4015	32.01	580	1,115
2014	3.898355	0.237412	4136	3.01	629	1,744
2015	4.183642	0.291823	4475	8.21	681	2,425
2016	3.721579	0.356151	4078	-8.89	739	3,164
2017	4.303954	0.462842	4767	16.90	801	3,965
2018	4.678858	0.497511	5176	8.59	868	4,833
2019	4.50368	0.538481	5042	-2.59	941	5,773
2020	5.608974	0.557736	6167	22.30	1,020	6,793
2021	6.842002	0.649208	7491	21.48	1,106	7,899
2022	8.081228	0.774615	8856	18.22	1,199	9,098
2023	8.260612	0.876641	9137	3.18	1,299	10,397
2024	8.413153	1.01979	9433	3.24	1,408	11,805
2025	9.373203	1.197458	10571	12.06	1,527	13,332
2026	9.96138	1.398848	11360	7.47	1,655	14,987
2027	10.636851	1.627987	12265	7.96	1,794	16,781
2028	11.10292	1.877404	12980	5.83	1,945	18,725
2029	11.44638	2.161441	13608	4.83	2,108	20,833
2030	11.28861	2.44891	13738	0.95	2,285	23,118
2031	11.301327	2.758148	14059	2.34	2,477	25,595
2032	11.511223	3.40584	14917	6.10	2,685	28,280
2033	11.967035	4.048267	16015	7.36	2,911	31,190
2034	12.58621	4.577055	17163	7.17	3,155	34,345
2035	12.909849	5.088861	17999	4.87	3,420	37,765
2036					3,707	41,473
2037					4,019	45,491

EVs Growth Calculations

Average Yearly Growth 8.37

Reference:

http://www.eia.gov/oiaf/aeo/tablebrowser/#release=AEO2013&subject=0-AEO2013&table=48-AEO2013®ion=1-7&cases=ref2013-d102312a

Net EVs in 2022 = 9,098 - 535 * 0.05 = 9,071

Net EVs in 2027 = 16,781 - 3,965 * 0.05 = 16,582 Net EVs in 2037 = 45,491 - 16,781 * 0.05 = 44,652

		EV VMT					
Analysis Year	EV #	(mi)	EF (g/mi)		Emission Reductions (tpd		
			VOC	NOx	VOC	NOx	
2022	9,071	106,927,352	0.572	0.384	0.259	0.174	
2027	16,582	195,472,163	0.509	0.256	0.422	0.212	
2037	44,652	526,361,579	0.491	0.232	1.096	0.518	

EMISSIONS ANALYSIS FOR ATMC OPERATIONS

Project Description

The Advance Transportation Management Center (ATMC) facilities were constructed during the period of 2000 through 2001. The center was completed and operating since October 2002. Subsequently, over the period of time various Intelligent Transportation System (ITS) devices were also deployed. Freeway Management System (FMS) represents a critical component of the ATMC. The FMS includes Incident Management, Surveillance, and Motor Assistance Patrol (MAP) as major components.

The main goal of an Incident Management Program is to reduce congestion by removing vehicles which are debilitated, injured or just broke. Non-recurring congestion is the effect these vehicles have on the main line flow.



Intelligent Transportation Systems

TMC Monthly Operational Report December 2012

Baton Rouge TMC	Month	Monthly Avg/YTD
Total Incidents	1029	1196
Reported by TMC Operator	326	386
Incidents with DMS Activations	78	77
Incidents with 511 Notifications	91	93
Total # Lane Blocking Incidents	165	158
Total Closure (Hrs.)(Directional)	3	N/A
Total Blocked Lane Duration (Hrs.)	54	82
Incidents Exceeding 3 Hours	3	3
Average Clearance Time (Mins)	20	22

The adjacent image is a screenshot from the monthly ATMC operational report for December 2012 produced by the Louisiana Department of Transportation and Development (LADOTD) Intelligent Transportation System (ITS) division. In general the Baton Rouge and New Orleans TMCs report the maximum number incidents in the state. These incidents are the primary cause of the non-recurring congestion on the freeway system.

FMS in Baton Rouge is very robust and effective. It is a combination of surveillance, incident detection, Dynamic Message Sign (DMS) activations, Advance Traffic Information System (ATIS) alerts, and timely dispatches of MAP and EMS personnel.

As per the information obtained from the ATMC operators, the average clearance time before the implementation of ATMC and ITS was approximately 40 to 45 minutes. Excess freewav emissions are caused by this type of congestion. FMS has significantly reduced the average clearance time in the Baton Rouge area to about 22 minutes.

This decrease in clearance times translates to significant reduction in emissions that is caused by non-recurring congestion on freeways. This analysis provides the basis for calculation of reduction of VOCs and NOx due to these ATMC operations.

Methodology

The steps involved in the emission analysis for ATMC operations include the following:

- The methodology used for estimating the emission benefits is based on the offmodel air quality analysis compendium available on Federal Highway Administration resource center website at http://www.fhwa.dot.gov/resourcecenter/teams/airguality/pubs2.cfm.
- 2. The freeway VMT is calculated by adding the parish level HPMS adjusted VMT reported in the model area emissions analysis output provided by the consultant.
- 3. After calculating VMT, the Volatile Organic Compound (VOC) and Nitrogen Oxide (NOx) emission factors are obtained in grams/mile by running the EPA's Mobile Source Emission Factor Model (MOBILE6.2).
- 4. The emissions are calculated using the formulae shown below.
 - E_c = (Freeway VMT) * (Emission Factor from MOBILE6.2 in g/mi) (convert the grams to U.S. tons/day.)

 E_c = Emissions of freeway volatile organic compounds (VOC) or oxides of nitrogen (NOx) in US tons/day.

 $E_{CNON} = (E_c (tons/day)) * (0.049^a)$

E_{CNON} = Freeway emissions in tons per day due to non-recurring congestion

a = 4.9 percent of freeway emissions in tons are caused by nonrecurring congestion. (*Ref: Urban Freeway Congestion: Quantification of the Problem and Effectiveness of Potential Solutions, by Jeffery A. Lindley,* 1987.)

 $E_{RD} = (E_{CNON}) * (Project Effectiveness^b)$

 E_{RD} = Emission reductions caused by Freeway emissions.

b = Project Effectiveness (50% for the incident detection and response, 25% for motor assistance, and 15% for surveillance).

Emission Calculations

Analysis Year	Daily VMT (mi)	EF (g	/mi)	Emission R (tp	Reductions od)
	Freeways	VOC	NOx	VOC	NOx
2022	6,370,488	0.68	0.48	0.212	0.147
2027	6,524,796	0.62	0.30	0.198	0.095
2037	7,135,651	0.61	0.26	0.212	0.090

EMISSIONS ANALYSIS FOR TRAVEL DEMAND MANAGEMENT (TDM)

Project Description

Travel demand management (TDM) is a way of influencing individual travel behavior and providing expanded options to reduce the actual demand, or number of vehicles, placed on transportation facilities and incorporates a set of strategies and practices that focuses on managing the demand side of the transportation equation rather than increasing supply by widening or building new roads.

Due to many individuals commuting to Baton Rouge from outlying suburban areas traffic congestion in the Baton Rouge MPO's urbanized area is now a significant problem. As adequate funding does not exist for the needed capacity improvements for our roadways to accommodate increased travel demand from population growth, changing land use patterns, and other demographic shifts, demand management will begin to play a more vital role to lessen congestion and to maintain a functional transportation system. Each MPO in the state will be allocated \$100,000 annually starting in state fiscal year 2014 to implement TDM strategies suitable for their particular region.

The travel reduction strategies implemented by PIMA Association of Governments for the greater Tucson, Arizona area is one of the successful TDM case studies made available as resource by EPA. The use of alternative modes increased by 64.3% between 1989 and 1995. This program established quantitative goals for participating employers to increase Alternative Mode Use (AMU) and reduce the annual vehicle miles travelled (VMT). Employers' first year of participation was considered as baseline year, so no goal was set. However, in each of the subsequent year a progressively higher goal must be attained as shown in the table below.

Baseline Year	No Goal - Baseline Measurement	
1st Compliance Year	15% AMU or 15% Decrease in VMT	
2nd Compliance Year	20% AMU or 20% Decrease in VMT	
3rd Compliance Year	25% SMU or 25% Decrease in VMT	

(Source: Travel Reduction Program Regional Results Publication 1990 - 1995 Chronology, Page 7)

As a first step, CRPC intends to focus on the "Commuter Travel" side of TDM especially targeting larger employers in the region. To achieve this, CRPC will utilize the ideas in practice by other agencies in the country and state, the past experience and input from the local stakeholders, and implement a four phase strategic plan.

- Phase I: Data Collection
- Phase II: TDM Implementation Strategies
- Phase III: Outreach Strategies (Marketing Plan)
- Phase IV: Monitoring/Reporting

The TDM proposal for FY 2013-2014 approved by LADOTD is available for download at http://crpc-la.org/crpc_new/Documents/NMP/CRPC%20TDM%20Proposal%20Final%20032513_Approved.pdf

Methodology

The steps involved in the emission analysis for TDM process include the following:

- The methodology used for estimating the emission benefits is based on the offmodel air quality analysis compendium available on Federal Highway Administration resource center website at http://www.fhwa.dot.gov/resourcecenter/teams/airguality/pubs2.cfm.
- 2. InfoUSA employer database was used to identify larger employers with greater than 100 employees in the Baton Rouge MPO area. There are 488 employers in the region with total employees adding up to 119,974 in 2012. CRPCs' goal is to have 2%, 5% and 10% of employees participate in the van pool or other alternative modes by 2022, 2027 and 2037 respectively.
- 3. The number of employees participating in the van pool program in each analysis year is divided by 1.2 (average auto occupancy) to estimate the number of autos that will be removed from the road. The number of autos is then multiplied by the average trip length (11.2 miles) and the number of daily commute trips (2) to calculate the net reduction in VMT.
- 4. After calculating VMT, the Volatile Organic Compound (VOC) and Nitrogen Oxide (NOx) emission factors are obtained in grams/mile by running the EPA's Mobile Source Emission Factor Model (MOBILE6.2).
- 5. Emission calculation methodology is shown below

VOC (tpd) = Net Reduced VMT * VOC emission factor / (1000*907.2) NOx (tpd) = Net Reduced VMT * NOx emission factor / (1000*907.2)

	2022	2027	2027
Number of employers with $EMD > 100$	100	100	100
	400	400	400
Total number of Employees	119,974	119,974	119,974
Average number of employees	246	246	246
% Employee rideshare participation	2	5	10
Total number of employees participating in the program	2399	5999	11997
Average Vechile occupancy in the Baton Rouge Area	1.2	1.2	1.2
Average trip length (mi)	11.2	11.2	11.2
Number of autos removed because of vanpool	2000	4999	9998
Peak period VOC emission factor (g/mi)	0.741	0.672	0.653
Peak period NOx emission factor (g/mi)	0.448	0.304	0.278
VOC emission reductions (tpd)	0.037	0.083	0.161
Nox emission reductions (tpd)	0.022	0.038	0.069

Emission Calculations

EMISSIONS ANALYSIS FOR CATS SERVICE EXPANSION

Project Description

Capital Area Transit System (CATS) currently is operating 20 routes (including 2 seasonal routes) with CATS terminal as central hub. Due to the inefficiency of the existing route system and barebones frequency, the wait times and travel times are exceeding 90 minutes with 30% of the trips requiring at least one route transfer.

Capital Area Transit System (CATS) conducted a Comprehensive Operations Analysis (COA) as part of MyCATS Project with a primary objective to develop transit service plans for three time horizons: Near-Term (1-3 years), Short-Range (4-7 years) and Long-Range (8-15 years). The objective of this process was to analyze and recommend strategies to reduce the wait time to 15-20 minutes during the peak hours and to ensure that the total travel time would not exceed more than 60 minutes. Many opportunities for input from various stakeholders into the development of these plans have been provided as part of the study.

The consultant team solicited input on routes, schedules and service types from a broad constituency within the community. This ensured that the community was involved, given ample opportunity to provide input, and made aware that their issues have been heard and understood. To accomplish this goal, input to the COA Study was conducted through 1) Public input through community meetings, 2) Rider input through on-board surveys and one-on-one discussions with riders aboard CATS buses, 3) Interviews with key stakeholders in the community, and 4) Meetings with CATS staff members.

CATS		Existing - Weekday Trips									
Service	AM	Base	PM	Evening	Daily						
Туре	Peak	Trips	Peak	Trips	Trips						
Fixed Route	163	259	138	63	623						
Limited Stop	0	0	0	0	0						
Express	0	0	0	0	0						
Total	163	259	138	63	623						

CATS	Short Ra	inge Optior	n 1 - Weekd	ay Calculat	ted Trips	Long Range - Weekday Calculated Trips					
Service	AM	AM Base PM E		Evening	Daily	AM	Base	PM	Evening	Daily	
Туре	Peak	Trips	Peak	Trips	Trips	Peak	Trips	Peak	Trips	Trips	
Fixed Route	222	474	222	242	1160	357	690	357	668	2072	
Limited Stop	20	40	20	13	93	44	88	44	44	220	
Express	44	34	44	8	130	72	68	72	27	239	
Total	286	548	286	263	1383	473	846	473	739	2531	

The above tables show the profile of existing and proposed trips by time period for a weekday that were documented in the MyCATS COA study. It is evident from the above tables that both the short range option 1 and long range recommended trips are significantly higher than the existing trips on a weekday. The recommended trips are also higher than existing for all the time periods. The objective of the service expansion is to attract the choice riders and increase the ridership. The short range recommendations are assumed to be in place by 2022 and the long range recommendations are assumed to be completed by 2037. The following analysis quantifies the emission benefits from the increased ridership for both the short range and long range recommendations.

Methodology

The steps involved in the emission analysis process include the following:

- 1. VMT Calculation
 - a. The total number of daily trips on a particular route is multiplied by the length of the router to calculate the daily VMT of the transit buses on that particular route. The daily VMT for all the routes is calculated in a similar fashion. The VMT for all fixed routes is aggregated to calculate the total daily VMT for fixed routes. Similarly the VMT for all the limited stop and express routes is also aggregated.
 - b. The total 2011 CATS vehicle miles and passenger miles based on the National Transit Database (NTD) report are 1,638,869 and 15,372,136 respectively. The same ratio was used to calculate the probable reduced passenger car VMT equivalent to the added bus VMT on the new system. In order to accommodate for the increase in system efficiency and also the increase in choice riders, a factor of 1.5 was used on fixed routes and 2 was used on limited and express routes.
 - c. The bus VMT calculated in step 1.a is multiplied by the ratio of the passenger miles and vehicle miles documented in the 2011 NTD report and the corresponding factor from step 1.b for estimating the equivalent car VMT equivalent.
 - d. The existing CATS system is already coded in the new BRMPO TransCAD based Travel Demand Model. The following table show the passenger trips that the model assigned to Transit.

Analysis Year	Peak Trips	Off Peak Trips
2010	2,274	3,945
2017	2,283	3,979
2027	2,325	4,051
2037	2,367	4,144

- e. The bus and car VMT equivalent to the above assigned model trips needs to be subtracted from the VMT calculated in step 1.b to calculate the net VMT that is reduced on highways because of the short and long range initiatives.
- 2. After calculating VMT, the Volatile Organic Compound (VOC) and Nitrogen Oxide (NOx) emission factors are obtained in grams/mile by running the EPA's Mobile Source Emission Factor Model (MOBILE6.2).
- 3. Emission calculation methodology is shown below

Increased Bus VOC (tpd) = Net Bus VMT * VOC EF / (1000*907.2) Increased Bus NOx (tpd) = Net Bus VMT * NOx EF / (1000*907.2)

Decreased Car VOC (tpd) = Net Car VMT * VOC EF / (1000*907.2) Decreased Car NOx (tpd) = Net Car VMT * NOx EF / (1000*907.2)

Net Reduced VOC (tpd) = Decreased Car VOC - Increased Bus VOC Net Reduced NOx (tpd) = Decreased Car NOx - Increased Bus NOx

Emission Calculations

Short Range	BUS VMT	Model BUS VMT	Net BUS VMT	CAR VMT	Model CAR VMT	Net CAR VMT	BUS Emissions (tpd)		CAR Emiss	sions (tpd)	NET Emissions (tpd)		
	Miles	Miles	Miles	Miles	Miles	Miles	VOC	NOx	VOC	NOx	VOC	NOx	
Regular	8236.0	6235.0	2001.0	96564.2	58482.7	38081.6	0.0007	0.0010	0.0233	0.0101	0.0226	0.0091	
Limited/Express	2829.0	0.0	2829.0	44225.4	0.0	44225.4	0.0008	0.0013	0.0239	0.0113	0.0232	0.0100	
Total	11065.0	6235.0	4830.0	140789.6	58482.7	82307.0	0.0015	0.0023	0.0473	0.0214	0.0458	0.0191	

Long Range	BUS VMT	Model BUS VMT	Net BUS VMT	CAR VMT	Model CAR VMT	Net CAR VMT	BUS Emissions (tpd)		CAR Emissions (tpd)		pd) NET Emissions (tpo	
	Miles	Miles	Miles	Miles	Miles	Miles	VOC	NOx	VOC	NOx	VOC	NOx
Regular	16110.0	6478.8	9631.2	188884.2	60769.3	128114.8	0.0036	0.0048	0.0785	0.0339	0.0750	0.0291
Limited/Express	6005.0	0.0	6005.0	93875.4	0.0	93875.4	0.0016	0.0027	0.0508	0.0240	0.0492	0.0213
Total	22115.0	6478.8	15636.2	282759.5	60769.3	221990.2	0.0052	0.0075	0.1293	0.0579	0.1242	0.0504

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PREVIOUSLY APPROVED OFF-MODEL PROJECTS

Project Details

The table below lists the projects for which air quality analyses were performed either recently or in the past using MOBILE6.2 and were approved for use of CMAQ funds. Some of the listed projects were also used in the previous conformity determinations as off-model credits. The increase in emissions from the VMT growth will be offset by decrease in the emissions due to the anticipated lower emission factors from advancement of technology in the automobile industry in the future. For the same reason, the similar emission benefits were utilized for all the analysis years as shown in the table below.

Off-Model Project	2022		2027		2037	
	VOC NOx		VOC	NOx (treat)	VOC (treat)	NOx (treat)
	(tpa)	(tpa)	(τρα)	(tpa)	(tpa)	(tpa)
WBR Trails	0.024	0.014	0.024	0.014	0.024	0.014
Signal Synchronization VI	0.023	0.003	0.023	0.003	0.023	0.003
B.R Com Signal Sync. (Phase III)	0.155		0.155		0.155	
B.R Com Signal Sync. (Phase IV/V)	0.166		0.166		0.166	
CATS CNG Vans	0.097	0.025	0.097	0.025	0.097	0.025
Continuous Flow Intersection (CFI)	0.042	0.011	0.042	0.011	0.042	0.011
LA 621 / LA 73 @ I-10	0.007		0.007		0.007	
Perkins Road @ Bluebonnet	0.005		0.005		0.005	
Brightside Dr @ Nicholson Dr	0.002		0.002		0.002	
Total	0.519	0.053	0.519	0.053	0.519	0.053

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OTHER FUTURE OFF-MODEL PROJECTS

Project Details

CRPC staff plans to proactively perform air quality analysis as part of the "Clean Air" UPWP task and keep track of emission benefits from non-CMAQ off model projects that were either implemented or planned for implementation in future in the Baton Rouge MPO area. The table below lists off-model projects that were either implemented recently or will be in future in the Baton Rouge MPO area for which the emission benefits could be quantified if needed.

S.No	Other Possible Off-Model Projects
1	Roundabouts
2	Ramp Metering
3	Baton Rouge - New Orleans Passenger Rail
4	Fleet Conversion and Other Projects
5	Route Optimization Initiatives
6	LA Swift and similar initiatives
7	New Bike Paths
8	Access Management Initiatives
9	Truck Auto Inflation Technology Implementation
10	Truck and Other Idling Reduction Technologies

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OFF-MODEL PROJECTS EMISSIONS SUMMARY

Emissions Summary Table

The table below summarizes the off-model emissions from all the quantified projects described in this report.

Off-Model Project	2022		20	27	2037		
	VOC (tpd)	NOx (tpd)	VOC (tpd)	NOx (tpd)	VOC (tpd)	NOx (tpd)	
Electric Vehicles	0.259	0.174	0.422	0.212	1.096	0.518	
ATMC Operations	0.212	0.147	0.198	0.095	0.212	0.090	
Travel Demand Management (TDM)	0.037	0.022	0.083	0.038	0.161	0.069	
CATS LONG Range Implementation	0.046	0.019	0.046	0.019	0.124	0.050	
WBR Trails	0.024	0.014	0.024	0.014	0.024	0.014	
Signal Synchronization VI	0.023	0.003	0.023	0.003	0.023	0.003	
B.R Com Signal Sync. (Phase III)	0.155		0.155		0.155		
B.R Com Signal Sync. (Phase IV/V)	0.166		0.166		0.166		
CATS CNG Vans	0.097	0.025	0.097	0.025	0.097	0.025	
CFI	0.042	0.011	0.042	0.011	0.042	0.011	
LA 621 / LA 73 @ I-10	0.007		0.007		0.007		
Perkins Road @ Bluebonnet	0.005		0.005		0.005		
Brightside Dr @ Nicholson Dr	0.002		0.002		0.002		
Total	1.073	0.416	1.268	0.417	2.112	0.780	

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APPENDIX F

Air Quality Conformity Interagency Meetings

Appendix F includes the record of all the interagency meetings that were conducted as part of the MTP 2037 air quality conformity analysis process. This appendix includes the agenda, sign in sheet, and minutes for all the meetings.

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Interagency Consultation Meeting

Wednesday, August 22 2012, 9:00 A.M. Capital Region Planning Commission

Agenda

- 1. Status of BR Area Conformity
- 2. Official kick off date for Conformity 2013
- 3. New BRMPO MTP and TIP
- 4. Major projects and possible stage MTP 2037
- 5. Other Issues
 - a. MVEB Budgets
 - b. MOBILE6 Software
 - c. HPMS VMT
 - d. Timelines



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Conformity 2013 Interagency Meeting

Wednesday, August 22, 2012, 09:00 A.M. Capital Region Planning Commission

Attendees:

Name	Agency	Phone No.
RAY Miller, Jr.	CRPC	225-383-5203
Dawn R. Sholmio	DOTD	225-242-4570
KOBIN KOMEZ	LADOTD	225-379-1208
PAN BROUSSAPD	LA POTD	225-379-1924
V Jamie Setze	FAWA	(225)-757-7623
V Yasoob Zia	LDEQ	225-219-3719
V Huey Dugas	C.R.P.C	275-383-5203
RAJU PORONOLA	CRPC	225-383-5203
L' Ravi Ponnapuredby	CRPC	225-383-5203
V Vivay Kunada	NSI	337-232-6111
V LP Ledet	NSI	٠ ،
V JEFF RILEY		
V Laura wallace & dot	t.gov.	
V JOHN FU - JO	Shn. FU CLA.GO	\checkmark

Interagency Consultation Meeting August 22, 2012 at 9:00am Capital Region Planning Commission Offices

Meeting Attendees

Robin Romeo - DOTD Dawn Sholmire - DOTD Dan Broussard - DOTD Jamie Setze - FHWA Yasoob Zia-DEQ Huey Dugas-CRPC Raju Porandla – CRPC Ravi Ponnapureddy – CRPC Ray Miller – CRPC Vijay Kunada – NSI LP Ledet – NSI

- Purpose of the meeting was to discuss setting up the "Declaration Meeting" for the next Conformity;
- First comment was about the current EPA air quality (ozone) designation status of the Baton Rouge Area. As of July 20, 2012, the Baton Rouge Area is "Non-Attainment" for the 2008 8-hour standard of 75 ppb;
- A "Declaration Meeting" is a formal Interagency Consultation Meeting to declare the beginning of the conformity analysis for the 2037 MTP (currently being updated). Meeting has to be called by the MPO.
- The week of September 18-20, 2012 with September 19, 2012 to be the target date for the "Declaration Meeting"!
- NSI will complete finalizing the forecast data by end of this month (August 2012). They hope to
 finish the deficiency analysis by mid September and also prepare a draft list of projects to be
 included in the test runs. The draft list needs to be emailed/sent to the TAC and TPC members
 before the October meetings. An interagency meeting will need to be setup in late October or
 early November to go over all regionally significant projects that DOTD, MPO and all
 stakeholders are aware and to ensure they are all included in the test runs by NSI.
- Years to be analyzed for conformity will be 2017, **2022**, 2027 and 2037
- Emission Budgets

Analysis Year	VOC (tpd)	NOx (tpd)
2017	18.82	30.00
2022	7.55	6.96
2027	7.55	6.96
2037	7.55	6.96

- The MTP will be broken down into the following stages:
 - o 2013 2017 Stage I
 - o 2018 2027 Stage II
 - o 2028 2037 Stage III

(Moblie6 will be utilized instead of using MOVES for conformity analysis)

• 2010 HPMS VMT and 2011 Vehicle Registration data will be used for the conformity analysis. The data has been sent to DEQ, Tom Richardson and John Fu.

Other Comments made at the Meeting:

- DOTD and FHWA stated that MAP for Hammond MPO Urban Boundary needs to be done.
- Freight Corridors will be a 95%-5% split in regards to funding and match requirement.
- DOTD intends to spend \$45 Mil/Yr during the next 3-5 years possible on three I-10 and I-12 widening projects.



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MTP2037 Conformity Analysis Interagency Consultation Meeting

Wednesday, September 19 2012, 9:00 A.M. Capital Region Planning Commission

<u>Agenda</u>

- 1. Introductions
- 2. Establish Meeting as Declaratory to Kickoff MTP2037 Conformity Analysis
- 3. Conformity Analysis Years
- 4. MVEB Budgets
- 5. MTP 2037 Update Timeline
- 6. Conformity Analysis Timeline
- 7. EPA Model for Conformity Analysis (MOBILE6.2)
- 8. Input Data
 - a. Vehicle Registration
 - b. Inspection and Maintenance
 - c. HPMS VMT
 - d. VMT Fractions by Functional Class
- 9. Other Business
- 10.Next Meeting



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MTP 2037 Update - Conformity Analysis Interagency Meeting

Wednesday, September 19, 2012, 09:00 A.M. Capital Region Planning Commission

Attendees:

Agency	Email/Phone No.
CRPC	remillerebraou.com
DOTD	john-fu@la.gov
DOTD	dawn.sholmire @ 19.90v
DOTD	Dan. Broussarde Lagor
CRPC	rporandla@ brgov.com
DEQ	Yasoob. Zia@la.gov
CRPC	hdugas@ brass.com
F4WA	igmie. setze @ dot.gov
FHWA	brandon. buc Knu & dot.gov
NSA	Vijar. (cunade @ nert-schaftere
NSI	louis. ledet @ Neel-schaffer. com
CRPC	NRonnapureddy @ Srgev. Com
BRA	Riley. Jeffrey @cpamail. epa. gov
	1 . 1
	Agency CRPC DOTD DOTD DOTD DOTD DOTD CRPC FHWA FHWA FHWA NSF NSF NSF CRPC BRA

MTP 2037 - Conformity Analysis Interagency Consultation Meeting Minutes September 19, 2012 at 9:00am Capital Region Planning Commission Offices

Meeting Attendees

Dawn Sholmire - DOTD Dan Broussard - DOTD John Fu - DOTD Jamie Setze - FHWA Brandon Buckner - FHWA Yasoob Zia - DEQ Huey Dugas - CRPC Raju Porandla – CRPC Ravi Ponnapureddy – CRPC Ray Miller – CRPC Vijay Kunada – NSI LP Ledet – NSI Jeff Riley - EPA (By Phone)

- It was unanimously agreed by all the attendees that this meeting will be the declaratory meeting for the MTP 2037 Conformity Analysis.
- Analysis Years will be 2015, 2017, 2022, 2027, 2037
 - \circ **2015**: The five parish area was designated non-attainment for the new 2008 8hr ozone standard on 07/20/2012. The attainment year will be three years from the day of designation which will be 07/20/2015.
 - **2022**: It is a milestone year as this is the MVEB budget year in the Baton Rouge 8-hour Ozone Maintenance Plan SIP.
 - **2017, 2027, 2037**: These are the horizon years that will be modeled in the MTP 2037 Update.
- MVEB Budgets
 - **For any analysis years prior to 2022**: MVEB will be same as the old approved 1hr standard budgets (VOC 18.82 tpd, NOx 30.00 tpd)
 - For analysis years 2022 and later: MVEB will be same as the ones that were in the Baton Rouge 8-hour Ozone Maintenance Plan SIP (VOC 7.55 tpd, NOx 6.96 tpd)
- MTP 2037 Update Timeline
 - o **10/16/2012**: Test projects list
 - 10/16/12 Early November: Draft Staged projects

- **11/13/12 or 11/15/12**: Meeting with DOTD, MPO, FHWA and DEQ officials at DOTD to review the draft staged projects
- End of November or Early December: Final Staged Projects
- Conformity Analysis Timeline
 - Jan Mar 2013: Conformity Analysis Modeling. Could extend into April 2013.
 - Try to send the final conformity document to FHWA latest by July 1 2013. This will satisfy the two deadlines
 - 07/20/2013: One year analysis from the non-attainment designation
 - 10/04/2013: Expiration of the current conformity
 - Possibly have a TPC meeting in the last week of June 2013 and advertise one month prior to the meeting.
- It was unanimously agreed by all the attendees that EPA model MOBILE6.2 will used for the MTP 2037 Conformity Analysis.
- Input Data
 - Vehicle Registration: 2011 data
 - **Inspection and Maintenance**: Program is same as the one used in the previous conformity analysis
 - **HPMS VMT**: Tom Richardson with DOTD will develop the HPMS VMT for all the analysis years
 - **VMT Fractions by Functional Class**: Same process that was used in the previous conformity will be used to develop these inputs
- Other Business
 - **Travel Patterns for DEQ Photochemical Modeling**: It was agreed by all the interagency members that the travel patterns that were used in the development of the previous SIP can be used in the current DEQ Photochemical modeling. It was also concluded that using same travel patterns on both weekdays and weekends will be a conservative approach.
- Next Meeting
 - Probably in January 2013 after the staged projects are finalized



Phone: 225.383.5203 Fax: 225.383.3804 E-Mail: CRPC@brgov.com

MTP 2037 Conformity Analysis Interagency Consultation Meeting

Tuesday, February 5 2013, 9:00 A.M. Capital Region Planning Commission

<u>Agenda</u>

- 1. Introductions
- 2. MTP 2037 Update
- 3. Conformity Timeline
 - □ Critical Analysis Year (2022)
 - □ Other Analysis Years
- 4. Input Data
- 5. Other Issues / Business
- 6. Next Meeting

MTP 2037 - Conformity Analysis Interagency Consultation Meeting Minutes Tuesday, February 5, 2013 at 9:00am Capital Region Planning Commission Offices

Meeting Attendees

Dawn Sholmire - DOTD Dan Broussard - DOTD John Fu - DOTD Jamie Setze - FHWA Yasoob Zia - DEQ Ravi Ponnapureddy – CRPC Vijay Kunada – NSI (By Phone) LP Ledet – NSI (By Phone) Jeff Riley - EPA (By Phone) Anna Aleynick - AECOM (By Phone) Gary Davies - AECOM (By Phone)

- MTP 2037 Update:
 - Ravi Ponnapureddy mentioned that the new staged transportation improvement plan was adopted at the Transportation Policy Committee on January 29th 2013 and the Inter Agency team can now begin the air quality conformity analysis on the new MTP 2037.
- Conformity Timeline:
 - All the IA members were satisfied with the proposed timeline (attached). As per the schedule the final AQ conformity report will be transmitted to FHWA and EPA by July 5th 2013.

• Critical Analysis Year (2022):

- Based on the review of the emission budgets, IA team agreed that 2022 will be the critical year which could determine whether the new MTP will pass the air quality conformity analysis or not.
- IA team unanimously agreed to perform the air quality analysis for 2022 analysis year first and have it completed possibly by end of February or early March.

Action Items:

- Vijay Kunada with Neel-Schaffer Inc. to provide the loaded network data for the base year 2010 and critical analysis year 2022 by February 15, 2013.
- AECOM to perform the 2022 air quality analysis and estimate the VOC and NOx emissions for the modeled area by end of February or early March.

- DOTD to perform the 2022 air quality analysis and estimate the VOC and NOx emissions for the non-modeled (Donut) area by end of February or early March.
- Input Data
 - Ravi will coordinate with John Fu regarding the MOBILE6.2 input files and transmit them to DOTD.
 - Gary Davies with AECOM explained the methodology they will be using to adjust the model VMT to HPMS VMT while performing the air quality conformity analysis. He mentioned that they will need the 2010 base year loaded network and HPMS VMT data to get the factors that could be applied to adjust the model VMT to HMPS VMT. Gary mentioned that he needs the HPMS data inside the MPO study area broken down by Parish and functional class.
 - o There was a significant discussion regarding the HPMS VMT data. CRPC has two different HPMS VMT data files. The first file consists of 2010 HPMS data by Parish for all the 64 Louisiana Parishes by Functional Class. The second HPMS file has a base year of 2011 and the VMT provided for the five BRMPO parishes was aggregated and was broken down by functional class and also inside and outside the MPO boundary. The following were the options/action items that resulted from the discussion.

Options/Action Items:

- **Option 1:** DOTD to contact Tom Richardson and discuss the possibility of him providing the 2010 HPMS VMT for the modeled and donut area broken down by Parish and Functional Class.
- **Option 2:** If the above option is not feasible the second option is to check with Tom Richardson if it is ok to use the following methodology.

Step 1: Extract the Parish level HPMS VMT for the five MPO parishes from the 2010 HPMS data that was estimated for all the 64 Parishes.

Step 2: Estimate the ratio of the Inside and Outside VMT by functional class using the 2011 HPMS data.

Step 3: Apply the ratios calculated in Step 2 to the 2010 Parish level VMT extracted in Step 1 to get the desired output.

• **Option 3:** If both options are not feasible schedule an emergency interagency meeting for 9:00 AM on February 15, 2013.

- Next Meeting
 - Probably in early March 2013 after the critical year (**2022**) analysis is completed.



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Interagency Consultation Meeting

Monday, April 8 2013, 12:30 P.M. Capital Region Planning Commission

<u>Agenda</u>

- 1. Air Quality Conformity Analysis Status
- 2. Preliminary Results Overview
- 3. Air Quality Conformity Input Data Issues
- 4. Air Quality Off-Model Credits
- 5. Timeline and Path Forward



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Conformity 2013 Interagency Meeting

Monday, April 8 2013, 12:30 P.M. Capital Region Planning Commission

Attendees:

Name	Agency	Email/Phone No.
Dawn R. Sholmire	LaDOTD	dawn.sholmire @ 19. 90 / \$ 242-45-70
Yasoob Zia	LDEQ	Yasoob, Zia @ la.gov
John Fu	LaDOTI)	john. fu@la.gov
DANBROUSSARD	LA DOTD	Dan. Broossavd e LA. Sov
Manystringfellow	FHWA	Many, string fellowe dot.gov
Brandon Buckner	FHUA	Branden buckner Edot.gu/
Lavi Ponnapunday	CLPC	NPONNAPURIONY Brgov. Com
Raju Porandla	CRPC	rporandla e brgov.com
Anna Aleynick (Phone	5 BALOM	Anna. Aleynick @ accom. com
Visay kunnada (phon	cont weel-schaffer	Vijay, Kunada & Neel-Schaffer.com
L. p. Ledett Cweb con	f) Neel-Schaffer	louis. ledet @weel-schaffer. com
Jebr Riley Loveb 6	mf) EPA	Riley. Jeffrey & epa. gov

MTP 2037 - Conformity Analysis Interagency Consultation Meeting Minutes Monday, April 8, 2013 at 12:30 PM Capital Region Planning Commission Offices

Meeting Attendees

Dawn Sholmire - DOTD Dan Broussard - DOTD John Fu - DOTD Brandon Buckner - FHWA Mary Stringfellow - FHWA Yasoob Zia - DEQ Ravi Ponnapureddy – CRPC Raju Porandla - CRPC Vijay Kunada – NSI (By Phone) LP Ledet – NSI (By Phone) Jeff Riley - EPA (By Phone) Anna Aleynick - AECOM (By Phone)

- Air Quality Conformity Analysis Status:
 - Ravi Ponnapureddy explained to the IA team about the issues that were identified and the actions that were taken as part of performing the 2022 critical year conformity analysis.
 - Ravi Ponnapureddy explained how the problem was narrowed down to the vehicle registration data. CRPC, DOTD and DEQ felt that the vehicle population for the years 2010 and 2011 were very low, looked incomplete and did not make sense. So the three agencies agreed on a methodology to recalculate the vehicle registration file using 2009 as the youngest vehicle population and use it for the preliminary conformity analysis before presenting the options and preliminary results to the full IA committee.
- Preliminary Results Overview:
 - The following emission summary table was presented to the committee. The 2009 vehicle registration data was used in the analysis to generate the emissions for all the analysis years. All the analysis year are conforming to the MVEB except 2037 where the VOC emissions are about 0.5 tpd more than the MVEB.

	Mode Emis	l Area sions	Outside Model Area Emissions		Total Emissions		MVEB Budgets		Difference	
YEAR	VOC (Tons/Day)	NOx (Tons/Day)	VOC (Tons/Day)	NOx (Tons/Day)	VOC (Tons/Day)	NOx (Tons/Day)	VOC (Tons/Day)	NOx (Tons/Day)	VOC (Tons/Day)	NOx (Tons/Day)
2015	9.72	9.71	1.45	2.62	11.17	12.33	18.82	30.00	7.7	17.7
2017	8.43	7.93	1.24	2.06	9.67	9.99	18.82	30.00	9.2	20.0
2022	6.42	5.32	0.91	1.21	7.33	6.53	7.55	6.96	0.2	0.4
2027	6.37	4.35	0.87	0.87	7.24	5.22	7.55	6.96	0.3	1.7
2037	7.19	4.38	0.88	0.73	8.07	5.11	7.55	6.96	-0.5	1.9

MTP 2037 Emission Summary Table 03/26/13

• Air Quality Conformity Input Data Issues

- There was a significant discussion regarding the vehicle registration data. Ravi Ponnapureddy showed the data and the various analysis charts. The conclusion was that the vehicle population data for 2010 and 2011 were significantly low. When normalized to 1 the older vehicle fractions were higher for all vehicle types. As the older vehicles emits more emissions when compared to the newer ones, the overall emissions output will be higher than usual.
- Yasoob Zia, LDEQ explained to the committee that the process of acquiring and process the vehicle registration data took them at least 6 months to a year. CRPC, LADOTD and LDEQ thus tried to justify of using the 2009 vehicle population as the youngest and explained the methodology that was used to create the 2009 registration input data.
- Mary Stringfellow, FHWA suggested that we should make an attempt to contact OMV and try to request updated 2010 and 2011 vehicle registration data, process it and generate an updated registration file. CRPC staff expressed concerns about requesting only two years of data and suggested it might be better to request all the data. But because of the fact that processing the entire data set might take longer and make it difficult to meet the deadline, the conclusion was to request only 2010 and 2011 data.
- Ravi Ponnapureddy informed the IA team of a minor change request that was received from LADOTD District 62 Administrator about limits for a project on 4H-Club Road in Stage II of the MTP. The limits of the project in the adopted MTP were only from US 190 to I-12. The dotted line in the figure shown below is the 0.2 mile extension that was requested. As the change was very insignificant, IA team unanimously agreed that is fine with them as long as the new limits are included in the air quality analysis. CRPC and the consultants (Neel-Schaffer, Inc.) confirmed that the new limits were used in the air quality analysis.



• CRPC staff asked the IA committee if there is a possibility of extending the August 3, 2013 expiration of the existing conformity while we continue to analyze and finalize the new conformity. FHWA staff were not aware of such extension been granted in the past and wanted to confirm it with the head quarters. Jeff Riley, EPA reminded to the IA team that the deadline for the new conformity is actually July 20, 2013 as discussed at the conformity kickoff meeting because of the new 2008 standard that was finalized on July 20, 2012 and the goal was to satisfy two different requirements. In conclusion extending the expiration of the existing conformity was not a viable option.

- Air Quality Off-Model Credits
 - CRPC staff presented a draft list of off-model credits, 2012 annual report of Greater Baton Rouge Clean Cities Coalition (GBRCCC) which showed the tons of greenhouse gases that were reduced through use of alternative fuels and Statewide ATMC 2012 report which showed the average incident clearance time in the Baton Rouge area. FHWA and EPA suggested that CRPC finalize the offmodel emission credits list and email the list and any questions to them.
- Timeline and Path Forward
 - LDEQ to request the vehicle registration data for the years 2010 and 2011 from OMV, process the data and update the MOBILE6.2 registration data. If the process of acquiring and processing the data is taking too long then LDEQ will document the efforts taken to get the correct registration data and timeline. In that scenario, FHWA and the IA team agreed on including the LDEQ documentation of the efforts in the conformity document and completing the analysis using the 2009 registration data.
 - CRPC staff to finalize the list of the off-model credits and email it to the IA committee. FHWA and EPA requested CRPC staff to email them GBRCCC's annual report to DOE and information about other MPO's that used emission credits from their Clean Cities activities.



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MTP 3037 - Air Quality Conformity Analysis Interagency Consultation Meeting

Friday, May 31 2013, 9:00 A.M. Capital Region Planning Commission

<u>Agenda</u>

- 1. Status Update
- 2. Analysis Results Overview
- 3. Air Quality Off-Model Credits
- 4. Timeline
- 5. Next Steps



Attendees:

Phone: 225.383.5203 Fax: 225.383.3804 E-Mail: CRPC@brgov.com

Conformity 2013 Interagency Meeting

Friday, May 31 2013, 9:00 A.M. Capital Region Planning Commission

Email/Phone No. Name Agency DAN BROUSSARD 225,379 1924 Dan. John) ohn DOTD Abdel Khalik 383-5703 Ahmed RF akhale OV.CO 33 brgov CRPC KAJU PORANDL rporand 0 385-203 nng 219-3719 YASOOB EI a 71 19 ra 1 RPA Jeff ey GN Anna Anna. Alei ARCOM Con Relom Con vi Nee L.P. Ledet (webcon after DI

MTP 2037 - Conformity Analysis Interagency Consultation Meeting Minutes Friday, May 31, 2013 at 9:00 AM Capital Region Planning Commission Offices

Meeting Attendees

Dan Broussard - DOTD John Fu - DOTD Mary Stringfellow - FHWA Yasoob Zia - DEQ Ravi Ponnapureddy – CRPC Raju Porandla - CRPC Ahmed Khalek - CRPC Vijay Kunada – NSI (web conference) LP Ledet – NSI (web conference) Jeff Riley - EPA (web conference) Anna Aleynick - AECOM (web conference)

- Status Update:
 - Ravi Ponnapureddy, CRPC provided status update on the conformity analysis process. He explained in detail about the methodology used by Revecorp to process the fresh data set received from the Louisiana Office of Motor Vehicles to generate the new 2011 vehicle registration in MOBILE6.2 format.
 - Mary Stringfellow, FHWA suggested that the document explaining the methodology that was used to process the OMV data needs to be carefully filed and should be used as a reference when process the same data in future.
- Analysis Results Overview:
 - Ravi Ponnapureddy, CRPC presented the conformity analysis emissions summary. He explained that the total emissions for the analysis years 2022, 2027 and 2037 were higher than the MVEB budget. He showed that net emissions which were calculated by subtracting the off-model credits were lower than the MVEB budgets.
- Air Quality Off-Model Credits
 - CRPC staff presented in detail about the list of projects and the methodology used to estimate the off-model project emissions.
- Timeline
 - CRPC staff mentioned that the draft document needs to be finalized by June 10 and advertised by June 11, 2013 in order to meet the 30 day public review and comment period.

- Next Steps
 - Mary Stringfellow, FHWA mentioned she will forward the off-model credits documentation to Mike Roberts with FHWA resource center in Atlanta and get back to CRPC staff with any comments in 2 to 3 business days.

APPENDIX G

Public Involvement/Participation

Appendix G includes the public notice that was sent for publication in the news paper informing public about availability of the draft conformity document for public review and also about the public meeting that will be held on Tuesday, July 9, 2013 at BREC headquarters on Florida Boulevard. The meeting notice and the document is emailed to all the members of Technical Advisory Committee (TAC) and Transportation Policy Committee (TPC), and also to all the individuals on CRPC's subscription list. Further, the meeting notice and support documents are also published on CRPC's website at <u>http://crpc-la.org/</u> one month before the public meeting.

MTP 2037 | 7/9/2013

MILINGNALLY

PUBLIC NOTICE

Baton Rouge Area Metropolitan Planning Organization (MPO)

06/11/2013

To Whom It May Concern:

The Baton Rouge, LA. Urbanized Area Metropolitan Planning Organization's Technical Advisory and Transportation Policy Committees are scheduled to meet jointly on Tuesday, July 9, 2013 at 1:30 p.m. at the BREC Commission Chambers, Room 1800, 6201 Florida Blvd., Baton Rouge, LA. At this time the MPO is soliciting public input from interested persons concerning the action items in the agenda shown below. Copies of the support documents are available for public review at the office of the Capital Region Planning Commission (CRPC) located at 333 North 19th, Baton Rouge, LA. between 9:00 A.M. and 12:00 P.M. and 1:00 P.M. and 4:00 P.M. from Monday through Friday. The agenda and support documents are also available for public review at the following libraries:

- MAIN LIBRARY 7711 Goodwood Boulevard, Baton Rouge, LA 70806
- BLUEBONNET REGIONAL BRANCH LIBRARY 9200 Bluebonnet Blvd., Baton Rouge, LA 70810
- ASCENSION PARISH LIBRARY 708 S. Irma Blvd., Gonzales, LA 70737
- LIVINGSTON PARISH LIBRARY PO Box 397 / 13986 Florida Blvd., Livingston, LA 70754
- WEST BATON ROUGE PARISH LIBRARY 830 North Alexander Avenue, Port Allen, LA 70767
- IBERVILLE PARISH LIBRARY 24605 J. Gerald Berret Blvd., Plaquemine, LA 70764

In addition, these documents are also available on CRPC's website at <u>http://crpc-la.org/</u>. Written comments may be made electronically using the subscription form on the website or via postal mail to CRPC, P.O. Box 3355, Baton Rouge, La. 70821.

Should you have any questions, please contact CRPC staff at (225) 383 5203 or <u>crpc@brgov.com</u>.

Yours truly,

R. J. Goebel Interim Executive Director



Agenda

1. INTRODUCTION

Hon. Melvin "Kip" Holden – TPC Chairman

2. APPROVAL OF MINUTES OF LAST MEETING Hon. Melvin "Kip" Holden – TPC Chairman

3. ACTION ITEMS

Ravi Ponnapureddy, CRPC

- A. Transportation Improvement Program (2013-2016) Amendments
- B. Air Quality Conformity Analysis for Metropolitan Transportation Plan 2037
- C. Baton Rouge Metropolitan Transportation Planning Organization Census 2010 Urbanized and Study Area Boundaries

4. NON-ACTION ITEMS

- A. MPO Activity Update Raj Porandla, CRPC
- B. Local Comprehensive Planning Update *TBD*
- C. Construction Projects Update *TBD*

5. OTHER BUSINESS

Hon. Melvin "Kip" Holden – TPC Chairman

6. ADJOURNMENT

Additional support documents may be viewed on the Capital Region Planning Commission's web site: <u>WWW.CRPC-LA.ORG</u>.

ADA Notice: CRPC meetings are conducted in accessible locations and provision can be made for those persons of limited English proficiency. For special accommodations for this meeting, contact Title VI/ADA/LEP Coordinator via phone 225-383-5203 at least one week in advance.

Action Item A Transportation Improvement Program (2013-2016) Amendments

See Attached Document

Action Item B Air Quality Conformity Analysis for the Metropolitan Transportation Plan 2037

See Attached Document

Action Item C Baton Rouge Metropolitan Planning Organization Census 2010 Urbanized and Study Area Boundaries

See Attached Maps

Joint TAC & TPC Meeting 07/09/2013

From:	Mary Breau					
To:	Allison Schilling (Allison.schilling@la.gov); Anthony Marino; Ben Laurie, P. E. (blaurie@apgov.us); Bryan Harmon; Carol Cranshaw; Cathy					
	Gautreaux (Cathy.Gautreaux@louisianatrucking.com); Connie Standige; Dan Broussard (Dan.Broussard@la.gov); David Guillory; Don					
	Redman (dredman@AAAmissouri.com); Donna Lavigne (Lavigne@LA.gov); Dr. Olin K. Dart Jr., P. E. (okdjrpe@cox.net); Dr. Patrick					
	Carriere (carriere@engr.subr.edu); Harold "Skip" Paul (harold.paul@la.gov); Hon. "Mac" Watts (mwatts@centralgov.com); Hon. David					
	Amrhein (david.amrhein@cityofzachary.org); Hon. Demetric "Deedy" Slaughter (mayor@portallen.org); Hon. Harold Rideau					
	(Hrideau@cityofbakerla.com); Hon. J. Mitchell Ourso Jr. (jburleigh@ibervilleparish.com); Hon. James E. "Jimmy" Durbin					
	(JimmyDurbin@bellsouth.net); Hon. Joey Normand (Jnormand@bruslyla.com); Hon. Rick Ramsey (rick.ramsey@walker-la.gov); Hon.					
	Wilson Longanecker (sorrentotn@eatel.net); Jackie Baumann, P. E. (Jackie@gonzalesla.com); Jamie Setze (Jamie.setze@fhwa.dot.gov);					
	Jay Hardman, P. E. (hardmanj@portgbr.com); Jerome Lohmann (jlohmann@pecla.com); Julie McCulloch (jmcculloch@cityofbakerla.com);					
	Kevin Durbin (Kevin.durbin@wbrcouncil.org); Layton Ricks (Iricks@lpgov.com); Meg Mahoney (meg@brac.org); R.J. Goebel; Robert Miller					
	(millerr@mmoinc.com); Ronnie Robinson (Ronnie.L.Robinson@LA.GOV); Roy Schmidt (Roy.Schmidt@la.gov); Troy Bunch; Yasoob Zia					
	(Yasoob.zia@la.gov); Brian Marshall; Hon. Barney Arceneaux (mayora@gonzalesla.com); Melvin "Kip" Holden; Hon. Riley Berthelot					
	(r.berthelot@wbrcouncil.org); Hon. Tommy Martinez (tmartinez@apgov.us); Tom Landry (Tom.Landry@la.gov)					
Cc:	R.J. Goebel; Nath Ponnapureddy					
Subject:	Joint TAC-TPC Meeting, July 9, 2013					
Date:	Tuesday, June 11, 2013 2:21:16 PM					
Attachments:	Agenda Joint TAC-TPC 070913.pdf					
	CRPC Public Notice TIP Amendments.pdf					
	MPO 2010 urbanized area letter size 060913.pdf					
	MPO 2010 study area letter size 060913.pdf					
	TPC Draft Minutes May 2013.docx					
	TAC Draft Minutes May 2013.docx					

A joint meeting of The Technical Advisory Committee and The Transportation Policy Committee will be held on July 9, 2013 from 1:30 until 3:00 at the BREC Commission Chambers, Room 1800, on Florida Blvd. Agenda and supporting documents are attached.

For additional supporting documents for Air Quality Conformity click the links below:

Short Version : <u>http://crpc-</u> la.org/crpc_new/Documents/Mtg_Docs/2013/AIR%20QUALITY%20CONFORMITY%20ANALYSIS%20DRAFT_SHORT.pdf

Detailed Version: <u>http://crpc-</u> la.org/crpc_new/Documents/Mtg_Docs/2013/AIR%20QUALITY%20CONFORMITY%20ANALYSIS%20DRAFT_DETAILED.pdf

To view MPO boundaries on google maps click the links below:

http://goo.gl/maps/JNebV (BRMPO Urbanized Area)

http://goo.gl/maps/tYkzl (BRMPO Study Area)

Mary Breau

Capital Region Planning Commission 333 N. 19th Street P. O. Box 3355 Baton Rouge, LA 70821-3355 Phone: (225) 383-5203, ext. 200 Fax: (225) 383-3804 *mbreau@brgov.com* www.crpc-la.org
From:	Mary Breau
To:	Anita L. Jones; Ann Wills; Ara Arman; Atri Sen; Barney Arceneaux; Bernadette Settoon; "blwickert@cox.net"; Brian McNabb; Bruce L.
	Badon; Bryan Harmon; Butch Babineaux; Carl Capone; Charlotte Fergeron (charlotte.fergerson@central-la.gov); Charlynn White; Clarice
	Eichelberger; Clifton R. Richardson.; Crystal Moran; Curt Boniol; Cyndi Bohrer; Dale M. Erdey; David Lindenfeld.; Dawn Sholmire; Derral
	Jones; Don Powers; Donald Burgess (dgburgess@cox.net); E. I. Bryan Costello; Eddie Lambert; Eric Kalivoda, Dr.; Erich E. Ponti; Ervie
	Ellender; Fred Raiford; Genevieve E. Smith; Ginger Vann; Glen Graham (ggraham@abmb.com); Gordon E. Nelson
	(gordon@tenstermaker.com); Gregory Irahan; Harold Rideau; Henry Picard; Hunter V. Green; Ingolf Partenheimer; J. Brandon Brewer; J.
	Michael Heards J. Rogers Pope, Jerry Trumps, Jim Brewer; Joog Amedoes Jonn Fu; Juda Diez, Justin Crossle, Karen St. German; Ken
	Perfet (kapebpercox, neu): Kgroseriorieandiabidat.com); klim Braudy, kiran Vernuri); L. P. Ledel; Lance Lanace; Laura Ruggs; Laura Savoy;
	Lauter Fricov, Lauter Stuart, Lea Anne Batsuri, Leruy Sunivar St., Lorier Johnson JL, Isa Babin, Lisa D. Sinitt, Maurice Dicuvit, Mike
	Funce Net Define (Industrial Internet), while Falamone, while Stilling, Southard State Set, F. L. Adam Workster, F. L. San L.
	Willer: Peter Breaux: B. J. Loupe: "Rallen@theadyocate.com": Ranga Kandalam: Regina Barrow: (katherine.copeland@la.gov):
	(quette432004@yahoo.com); Barry Duplessis; Becky Bergeron; Brad Ponder; Craig Gardner; Darla Steagall; David Doss (Vitter); Dr.
	Ravindra Gudishala; Jim Delaune (jdelaune@bkiusa.com); Keith Wyckoff; Kristen Sylvester (sylvesterk@mmoinc.com); Luis Interiano
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	Mr. Mike Vosburg; Mr. Randall Johnson; Mr. Wendell Pepper; Ralph Hennessy; Ricky Goff; Ricky Goff; Ricky Simon; Riley "Pee Wee"
	Berthelot; Risa Mueller; Ron Crum; Ronnie Robinson (DOTD); Ross Liner; rschiffer@camsys.com; Ryan Gremillion
	(ryan.gremillion@brac.org): Ryan Simpson; Sandy Davis; Sarah Golz (Sarah Golz@la.gov); Sharon Broome; Stephen F. Carter; Susan
	Boudreaux; Ierri Dupre; Ierri Parnell; Ihomas. Sharon; Iommy Eschete; Iommy Hebert; Iommy Martinez; Ioni Guitrau; Iony Ogboli;
	Yasoob Zia; Yvonne Dorsey
Cc:	R.J. Goebel: Nath Ponnapureddy
Subject:	Joint TAC-TPC Meeting, July 9, 2013
Date:	Tuesday, June 11, 2013 2:25:48 PM
Attachments:	CRPC Public Notice TIP Amendments.pdf
	MPO 2010 urbanized area letter size 060913.pdf
	MPO 2010 study area letter size 060913.pdf
	Agenda_Joint_TAC-TPC_070913.pdf

A joint meeting of The Technical Advisory Committee and The Transportation Policy Committee will be held on July 9, 2013 from 1:30 until 3:00 at the BREC Commission Chambers, Room 1800, on Florida Blvd. Agenda and supporting documents are attached.

For additional supporting documents for Air Quality Conformity, click the links below:

Short Version : <u>http://crpc-</u>

la.org/crpc_new/Documents/Mtg_Docs/2013/AIR%20QUALITY%20CONFORMITY%20ANALYSIS%20DRAFT_SHORT.pdf

Detailed Version: http://crpc-

la.org/crpc_new/Documents/Mtg_Docs/2013/AIR%20QUALITY%20CONFORMITY%20ANALYSIS%20DRAFT_DETAILED.pdf

To view MPO boundaries on google maps, click the links below:

http://goo.gl/maps/JNebV (BRMPO Urbanized Area)

http://goo.gl/maps/tYkzl (BRMPO Study Area)

Mary Breau

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DRAFT MINUTES OF THE TRANSPORTATION POLICY COMMITTEE/TECHNICAL ADVISORY COMMITTEE BATON ROUGE URBANIZED AREA METROPOLITAN PLANNING ORGANIZATION Tuesday, July 9, 2013 ~ 1:30 p.m. to 3:00 p.m. BREC Commission Chambers ~ 6201 Florida Blvd, Baton Rouge, LA

Transportation Policy and Technical Advisory Committee Members present:

Hon. Melvin "Kip" Holden (Mayor-President – East Baton Rouge Parish), Hon. Riley "Pee-Wee" Berthelot (Parish President – West Baton Rouge Parish), Hon. Harold Rideau (Mayor – City of Baker), Dr. Olin Dart (Chair of TAC) Hon. Jimmy Durbin (Mayor – City of Denham Springs), Hon. Demetric Slaughter (Mayor – City of Port Allen), Hon. Layton Ricks (Parish President – Livingston Parish), Hon. Joey Normand (Mayor – Town of Brusly), Hon. Rick Ramsey (Mayor – Town of Walker), Hon. Barney Arceneaux (Mayor – City of Gonzales), Ronnie Robinson, P.E. (LADOTD), Yasoob Zia (LDEQ), Jason Taylor (Ascension Parish), Jackie Baumann (City of Gonzales), Ken Dawson (Ascension Parish), Carol Cranshaw (CATS), Bryan Harmon (East Baton Rouge Parish), Kevin Durbin (WBR Parish), Cathy Gautreau (LMTA),

The meeting was also attended by:

Ken Perret (LGRTA/CATS), Don Redman (AAA), Gordon Nelson (Fenstermaker), Ryan Simpson (BRAC), Ben Laurie (Ascension Parish), Matt Johns (LADOTD), Darnell Waites (City of Baker), Lynn Maloney (Arcadis), Louise Lyons (CPPC), Stephen Mensah (Stantec), John Fu (DOTD), Mike Bruce (Stantec), Ara Armaz (GEC), Darla Steagall (CHILP NIA), Brandon Buckne (FHWA), Ravi Ponnapureddy (CRPC), Mary Breau (CRPC), R. J. Goebel (CRPC) and Raj Porandla (CRPC),

1. INTRODUCTIONS

- ➢ Hon. Melvin "Kip" Holden
 - The meeting was called to order and everyone was asked to identify themselves.

2. APPROVAL OF MINUTES OF LAST MEETING

- ➢ Hon. Melvin "Kip" Holden
 - Hon. Melvin "Kip" Holden asked the committee if there were any corrections or additions that needed to be made to the minutes of the previous TAC and TPC meetings, which were held on 05/07/13 and 05/14/13 respectively. There was no opposition.

Motion was made by Hon. Riley "Pee-Wee" Berthelot and seconded by Hon. Rick Ramsey to approve the minutes of the previous TAC and TPC meetings, which were held on 05/07/13 and 05/14/13 respectively. (Unanimous in favor).

3. ACTION ITEMS

A. TRANSPORTATION IMPROVEMENT PROGRAM (2013-2016) AMENDMENTS → Ravi Ponnapureddy Ravi Ponnapureddy and Carol Cranshaw (CATS) gave an update of amendments under the Transportation Improvement Program.

Hon. Riley "Pee-Wee" Berthelot made a motion to approve TIP amendments, which was seconded by Hon. Harold Rideau. (Unanimous in favor).

B. AIR QUALITY CONFORMITY ANALYSIS FOR METROPOLITAN TRANSPORTATION PLAN 2037

> Ravi Ponnapureddy

The Air Quality Conformity Analysis for the Metropolitan Transportation Plan 2037 was presented by Ravi Ponnapureddy. Ravi gave a recap of the MTP 2037, discussed minor modifications, reviewed conformity analysis timeline and presented the conformity analysis results.

Hon. Layton Ricks made a motion to approve the Air Quality Conformity Analysis, which was seconded by Hon. Barney Arceneaux. (Unanimous in favor).

C. BATON ROUGE METROPOLITAN TRANSPORTATION PLANNING ORGANIZATION CENSUS 2010 URBANIZED AND STUDY AREA BOUNDARIES

Ravi Ponnapureddy

Ravi explained the process that was used to create the new Baton Rouge MPO census 2010 urbanized and study area boundaries and also compared the new boundaries with the existing census 2000 boundaries.

Hon. Demetric Slaughter made a motion to approve the boundaries, which was seconded by Hon. Jimmy Durbin. (Unanimous in favor).

4. NON ACTION ITEMS

A. MPO Activity Update Ravi Ponnapureddy, CRPC

Ravi Ponnapureddy reported the following information:

• Worked/Working on the following Technical Projects and Documents:

- Air Quality Conformity Analysis with Consultants for the MTP 2037 Update;
- Off-Model Air Conformity Analysis for the MTP 2037 Update;
- Model User Agreement Document for the BRMPO Travel Demand Model;
- Regional Transportation Safety Plan;
- In the process of establishing a Regional Pavement and Asset Management

Program;

- New Urbanized Area/Metropolitan Planning Area Boundaries
- Modeled the Picardy Rd Connector.
- Modeled Nicholson Rd widening project
- Attended the following Public Meetings for the major transportation projects in our region:
 - Hooper Rd Extension Second Public Officials Briefing on Initial Environmental Assessment of proposed Alternatives;
 - Organized/Attended the meeting for the Highland-Burbank Connector at CRPC
- Other Planning Activities:
 - Attended the Monthly Clean Air Coalition at Baton Rouge Area Chamber
 - Attended the Strategic Highway Safety Plan/Transportation Safety Plan Peer Exchange
 - Attended Ozone Advance Participants Workshop.
 - Co-Sponsored and Attended the MAP-21 Advocacy workshop
 - Organized various TAC working group meetings on Pavement and Asset Management Program
 - Met with all the MPO member agencies for reviewing the new Urbanized and Metropolitan Planning Area Boundaries.
 - Conducted Monthly Bike and Pedestrian meeting
 - Prepared income distribution, enterprise zone, zoning and land use maps for various entities
 - Assisted CATS in preparing GIS maps such as Route Schedule Posters, New Routes Studies, and Bayou country fest routes and directions
- Our Staff is currently working on the following Grants:
 - Bike and Pedestrian Safety Grant

B. Livingston Parish Comprehensive Plan Update Lynn Maloney-Mujica, AICP, ARCADIS

Lynn Maloney-Mujica of Arcadis gave a brief overview of the Livingston Parish Comprehensive Plan development process, presented growth areas, challenges, and strategies to overcome those challenges in Livingston Parish.

C. Construction Projects Update Ronnie Robinson, LADOTD District 61

Ronnie Robinson, LADOTD presented an update on the following construction projects.

- LA 73 widening in Ascension Parish from I 10 US 61
- US 61 overlay in Ascension Parish from LA 22 LA 74
- US 190 overlay in E. Baton Rouge Parish from Foster Blvd Airline Highway
- US 190 Miss. River Bridge painting and structural repair in East and West Baton Rouge Parishes

• I-10 Miss. River Bridge cleaning and painting in East and West Baton Rouge Parishes

He explained to the committee about LADOTD's access management initiatives and also recommended that members encourage such principles within their constituencies.

5. Other Business

> Hon. Melvin "Kip" Holden – TPC Chairman

Hon. Riley "Pee-Wee" Berthelot recognized and thanked the Executive Director Selection Committee.

6. Adjournment

A motion was placed by Hon. Jimmy Durbin to adjourn the meeting and seconded by Hon. Riley "Pee-Wee" Berthelot. (Motion carried with no opposition).

APPENDIX H

Conformity Determination Concurrence Letters

Appendix H includes all the conformity determination concurrence letters as they are available upon approval.



FHWA Louisiana Division Office

5304 Flanders Drive, Suite A Baton Rouge, Louisiana 70808 (225) 757-7600 (225) 757-7601 Fax

July 17, 2013

Sherri H. LeBas, P.E. Secretary Louisiana Department of Transportation and Development Baton Rouge, LA

Subject: Baton Rouge Conformity

Dear Ms. LeBas:

We have determined that the Baton Rouge Metropolitan Area 2037 Transportation Plan and the FY 2013-2016 Transportation Improvement Program (TIP) meets all of the requirements for making a joint conformity determination under the Clean Air Act Amendments of 1990. The Plan and TIP conformity determination and the procedures used to make this determination are in accord with the provisions of the transportation conformity rule (40 CFR Parts 51 and 93).

This determination has been made after consultation with the Region 6 Office of the Environmental Protection Agency. The conformity documentation was developed cooperatively by the Capital Region Planning Commission and the Louisiana Department of Transportation and Development in consultation with the Louisiana Department of Environmental Quality.

The Federal Highway Administration (FHWA) is acting as executive agent for the Federal Transit Administration (FTA) on Plan and TIP air quality conformity determinations. Accordingly, this letter will serve as the joint FHWA/FTA conformity determination. Please provide copies of this joint conformity determination to the Capital Region Planning Commission and the Louisiana Department of Environmental Quality.

Sincerely yours,

Digitally signed by Joe Bloise Joe Bloise DN: cn=Joe Bloise, o, ou, email=joe.bloise@dot.gov, c=US Date: 2013.07.17 11:22:01 -05'00'

Joe Bloise Acting Division Administrator

Enclosure (1)

cc: R.J. Goebel - CRPC Ravi Ponapureddy – CRPC Yasoob Zia - LDOTD Dan Broussard - LDOTD



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 6 1445 ROSS AVENUE, SUITE 1200 DALLAS TX 75202-2733

JUL 1 2 2013

Mr. Charles W. Bolinger Division Administrator - Louisiana Federal Highway Administration 5304 Flanders Drive, Suite A Baton Rouge, LA 70808

Dear Mr. Bolinger:

In July 2013, the United States Environmental Protection Agency (EPA) received conformity determination documents for the Baton Rouge 2037 Metropolitan Transportation Plan (MTP) 2013 Update and the FY 2013-2017 Transportation Improvement Program (TIP), submitted by the Capital Region Planning Commission (CRPC) for interagency consultation and review. A new conformity determination is necessary for the Baton Rouge Louisiana 8-hour ozone nonattainment area due to an update of the Metropolitan Transportation Plan, the EPA's designation of the Baton Rouge area as nonattainment of the 2008 8-hour ozone standard (77 FR 30088), and the need to comply with the Moving Ahead for Progress in the 21st Century Act signed into law on July 6, 2012.

Any issues associated with the demonstration of conformity were addressed in conference calls and emails with the CRPC, the Federal Highway Administration (FHWA), the Louisiana Department of Environmental Quality, the Louisiana Department of Transportation and Development, and the EPA. The criteria for our review and the interagency consultation process can be found at 40 CFR Part 93, Subpart A and guidance memoranda issued by the FHWA and the EPA for transportation conformity determinations.

Based on the documentation submitted to the EPA and discussed during the interagency consultation process, the estimated emissions of nitrogen oxides (NOx) and volatile organic compounds (VOCs) for the Baton Rouge 2037 MTP 2013 Update and the FY 2013-2017 TIP will be below the Motor Vehicle Emissions Budgets (MVEB) established for these pollutants in the State Implementation Plan (SIP): The most recent NOx and VOC MVEBs were approved by the EPA on November 30, 2011 (76 FR 74000). We have no further comments and are supportive of a positive conformity finding by the Federal Highway Administration for the Baton Rouge area.

I appreciate your cooperation in consulting with us and ensuring all provisions of the transportation conformity rules have been properly addressed. If you have any questions, please feel free to contact me or Jeff Riley of my staff at (214) 665-8542.

Sincerely yours,

Guy Donaldson

C Chief Air Planning Section Internet Address (URL) o http://www.epa.gov/region6 Recycled/Recyclable o Printed with Vegetable On Based Inks on 100% Recycled Paper, Process Chiorine Free cc: Mr. Jamie Setze Capital Region Planning Commission

> Mr. Ravi Ponapureddy Capital Region Planning Commission

Ms. Mary Stringfellow Federal Highway Administration

Mr. Yasoob Zia Louisiana Department of Environmental Quality

Mr. Dan Broussard Louisiana Department of Transportation and Development